



The Future of Work Is What We Make It

Submission to:

Senate Select Committee on the Future of Work and Workers

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Contents

About the Centre for Future Work.....	3
Introduction.....	3
Work is Here to Stay.....	4
Problems of Quantity and Quality	7
Defining Quality Work	10
Determinants of Quality Work.....	11
i. Sectors with Relatively Higher Job Quality.....	11
ii. Skills in Context.....	12
iii. High-Quality, Modern Labour Standards.....	13
Thinking Twice About Technology.....	15
“Gigs” Are Old, Not New	22
Macroeconomic Conditions and Work	27
Getting to Full Employment: A Multi-Dimensional Jobs Strategy	29
Conclusion and Summary of Top Recommendations	34

About the Centre for Future Work

The **Centre for Future Work** is a research institute based in Sydney and associated with the Australia Institute (Australia's leading progressive think tank), conducting and publishing research into a range of labour market, employment, and related issues. We are independent and non-partisan. This submission synthesizes much of our previous research on wages, job quality, the effects of automation, precarious work and the "gig" economy, and other dimensions of the future of work. Please see our website at <http://www.futurework.org.au/> to read our full reports.

Introduction

Australians have expressed growing concern about their future ability, and that of their children and grandchildren, to support themselves and their families through paid work. After all, for the vast majority of society, paid work is the dominant method to earn income to pay for the necessities of life. A few are able to live off the proceeds of their financial wealth, business investments, or other capital assets; but most of us have to work for a living. So the availability, stability, and earning potential of paid work is a crucial determinant of individual and collective well-being. There is no more important factor in the economic and social success of any society, than being able to provide its members with decent, secure employment.

The world of work is being transformed by a set of varied, interacting forces, and this has sparked a legitimate concern among many Australians about the future of work. In the realm of technology, we hear often about the transformative nature of new technology and computers, which can perform an increasingly diverse set of tasks (including those involving judgment and discretion). This has reignited a long-standing but understandable concern that many workers will be replaced by machines, with negative consequences for them and their families. Of course, these concerns have been expressed repeatedly in history, dating back to the early years of the Industrial Revolution. In general, technological change has not produced long-lasting mass unemployment: mass unemployment *does* exist, but usually because of other reasons, not technology. But technological change certainly can cause dislocation and hardship for large numbers of affected workers, and that hardship (if not actively addressed with assistance and support) can damage families, communities and regions.

Technology is not the only force transforming work. Work is an inherently social undertaking: we always work, directly or indirectly, with other people, and the nature of those relationships is a crucial determinant of the quantity and the quality of work. Changes in work organisation and employment relations are already having an impact on the working lives of Australians that is likely more important than the much-hyped development of robots and artificial intelligence. The traditional ideal of a stable, permanent, full-time, paid job with normal entitlements (like sick and holiday leave, and superannuation entitlements) is

increasingly out of the reach of many Australians – especially young workers. Indeed, as documented below, less than half of Australian workers now fill one of those “standard” positions. Temporary, part-time, casual, irregular, and nominally independent or self-employed positions are now the norm for more than half of workers (and the overwhelming reality for most young workers). In the extreme, jobs are being replaced by “gigs”: digitally mediated, on-demand, piece-work tasks allocated and compensated through faceless digital platforms.

These daunting forces of “disruption” – changing technology and changing working relationships – have led some observers to conclude that work, broadly defined, will no longer serve its traditional function as the financial and social anchor of households and society. People will need to find other ways to support themselves, and/or fall back on income supports delivered by the state (perhaps through a guaranteed annual income or some other innovative policy). This vision of a workless future can be described positively (as a world in which humans have ample leisure time to pursue a range of interests) or negatively (as a dystopia in which wealth becomes concentrated amongst a narrow property-owning elite, while the masses of society huddle at the margins seeking a way to survive). But in either case, the conclusion is that paid work is diminishing in importance.

This conclusion is misplaced. Amidst all the public concern about the disappearance of work (whether replaced by robots, or replaced by “gigs”), there are actually several enduring features of work that ensure it will remain the cornerstone of the macro-economy, and the major pillar of financial well-being for most households. So work certainly has a future. But whether that future is hopeful, or bleak, depends entirely on the deliberate choices we make as a society about how to value work and workers, and how to manage the change that confronts the world of work.

We argue that a positive future for work is possible, but only if we elevate that goal to the top of the national economic policy agenda. This submission will survey several of the challenges facing the world of work. And it will identify numerous pragmatic policy responses that could help to address those challenges, and secure a future in which every Australian who wants to work can make their fullest possible contribution to our economic, fiscal and environmental well-being. We suggest that by aligning policy interventions in a consistent, multi-dimensional strategy to produce more jobs, and lift the quality of jobs, government can make an enormous contribution to securing a better future of work.

Work is Here to Stay

For most Australians, being able to find and keep a good job is an essential to well-being, security, and happiness. The income, protection, and meaning that come from well-paid and fulfilling work is essential for building successful lives, happy families, and strong communities.

And it's not just for individuals or families that quality, secure employment is so vital. It's equally true for the national economy. In terms of real output, labour (broadly defined to include both physical and mental effort, and also including the unpaid labour that is performed in our homes and communities) is the crucial driver of value-added: it produces the goods and services that are essential to our survival, and our capacity to live full, rich, more comfortable lives.¹ In terms of money and finance, labour incomes are the most important source of consumer incomes, taxes paid, and retirement savings. Hence, if Australia is to make the most of its potential, sustain living standards, pay for essential public services, and protect the environment, then we know we have to work for it.

In short, there's no more vital indicator of economic progress than the state of the labour market. When employment opportunities are abundant, conditions of work appealing, wages healthy and rising, and unemployment low, then it is certain that family incomes will be growing, businesses will be expanding, and government deficits will be shrinking. This is more important now than ever, as we adapt and respond to the challenges brought about by structural shifts in the economy, climate change, global competition, and technological change. We must identify, nurture, and prepare for the jobs of the future.

Australian official unemployment numbers are too high – but that's just the tip of the iceberg. Counting underemployed workers, those who have given up looking, and those who would gladly join the labour market if work was available, over 3 million Australian workers are underutilised. Full-time permanent paid work continues to shrink as a share of total work. More and more Australians (especially young people) are juggling multiple jobs: freelance, contract work, casual, labour hire, and temporary jobs. Unfortunately our legal and regulatory systems have not kept up with these changes. We must do more to ensure that the framework of basic protections and rights is afforded to all, irrespective of how or where we work.

Work is not going to disappear. But whether the world of work is positive and uplifting, or desperate and exploitive, depends entirely on the economic, regulatory, and social context we create. This depends on our collective choices and priorities. Labour market outcomes are not predetermined by the supposedly relentless march of technology, nor by the supposedly automatic mechanisms of supply and demand. Those outcomes depend primarily on our choices, decisions, and priorities.

Therefore, committing to the creation and maintenance of high-quality, secure work should be at the top of Australia's national economic policy agenda. We need a focused strategy for jobs: Creating more of them. Lifting the quality of jobs. Ensuring secure and fair conditions. Providing access to jobs for those who need them most. And aligning our education, skills and vocational training system to better support workers to do the jobs that are required in a modern economy.

¹ Of course, no-one works solely with their bare hands: we use tools, technology, and other capital assets to assist and supplement our work. But those tools, broadly defined, were produced thanks to productive human effort; labour and natural resources are the only "primary factors" of production that ultimately limit the productive capacity of the economy.

In real-world practice, there is nothing “magic” about how jobs are created. There is no automatic force that matches labour demand with labour supply. The reality is that since there are so many moving parts in a high performing labour market, government must create, coordinate and align job creation policies and programs so that all those moving parts are pulling in the same direction, toward the same goal: creating well-paid, productive, decent jobs. An effective jobs strategy would engage all of government’s major policy levers, in a comprehensive and consistent strategy to create more jobs, and better jobs.

Today, most parents fear their children will never enjoy the same economic opportunities they did – and with good reason. After all, young workers have borne the brunt of the harsh new reality of double digit unemployment rates; temporary, part-time, low-wage, and precarious work; massive higher education fees and debt; and a housing market they can’t hope to enter. Young people deserve to know that their abundant knowledge and talents (they are, after all, the most knowledgeable and well-trained cohort of workers in our history) can be fully utilised in quality, secure jobs fit for a modern economy – not exploitive low-wage (or no-wage) “internships.”

A policy emphasis on creating more jobs, and better jobs, would also generate enormous benefits for the national economy. Instead of tolerating unemployment and underemployment as somehow “normal,” we would give every will worker a real chance to do good work. Just imagine what millions more employed Australians could accomplish, working in decent, secure jobs, to help address our many national problems. More national output, more household incomes, more tax revenues, more capacity to address environmental and social challenges. Even more important would be the benefits of reducing the personal, social, and fiscal costs of long-term unemployment and exclusion.

Achieving great labour market outcomes (measured by strong employment growth, rising participation, low unemployment or better yet full employment, and improving job quality) is not a utopian dream. Australia has achieved full employment and strong wage growth in the past. And real-world experience in other countries today show these goals are still possible. But it doesn’t happen by accident. And it doesn’t happen through the “magic” of market forces or private business decisions or “trickle-down” tax cuts. It can only happen when society makes a conscious, collective decision that quality, secure employment is the most important economic goal. And then when government policy in every dimension is effectively aligned, pulling together toward that goal. In other words, it can only happen when we make it happen.

In short, the future of work is what we collectively decide as a society to make it.

Australians can make different choices about the future shape of our labour market, and our society. We can build a labour market in which quality, secure jobs are the norm – and every Australian who wants to work, has a chance to do so, in a productive, decent job.

Problems of Quantity and Quality

Australia faces a twin challenge in the world of work: The need for *more* jobs. And the need for *better* jobs. The quantitative problem is evident in the persistence of mass unemployment, widespread underemployment (hundreds of thousands of Australians who want and need more hours of work), sub-optimal labour force participation, and discouraged workers who've given up looking for jobs that don't exist. These problems are especially acute in more remote regions, and for groups who don't have an equal chance in the labour market (like young people, Aboriginal and Torres Strait Islanders, workers with disabilities, and others).

Some claim that Australia's labour market has done well at creating new jobs. Despite relatively strong job-creation numbers recorded in 2017, we beg to differ. The quantity of work available in the economy is still far below what is required to offer decent opportunity for all Australians who want to work. And the official unemployment rate (of slightly over 5 percent² is just the tip of the iceberg. Table 1 catalogues the various forms of open and hidden unemployment and underutilisation in Australia's labour market today, based on 2017 averages.

To be included as officially unemployed, a worker must be available for work, making several active applications per week, and not have worked a single hour in the reference week they were surveyed. Nearly three-quarters of a million Australians meet that severe and arbitrary threshold.

Table 1
True Underutilisation in Australia's Labour Market
"Official" unemployment: 725,000
Underemployment: Over 1.1 million
Lost participation since GFC: 400,000
"Marginally attached": Over 1 million
TOTAL: Over 3 million (<i>15% of adjusted labour force</i>).
Source: Centre for Future Work calculations from ABS Catalogues 6202.0 and 6226.0, 2017. Lost participation estimated on basis of decline in male participation, and slower growth of female participation, since 2008.

² Incredibly, Treasury and Reserve Bank analysts continue to view 5 percent as equivalent to full employment, according to their theory of the Non-Accelerating Inflation Rate of Unemployment (see, for example, Tim Cusbert, "Estimating the NAIRU and the Unemployment Gap," *Reserve Bank of Australia Bulletin*, June 2017, pp. 13-22). By this measure, employment could not grow any further relative to the labour force without sparking accelerating inflation and other negative effects. This theory has been widely discredited among most economists, but continues to hold sway among Australian policy-makers.

Part-time work has become ubiquitous in the labour market, mostly because employers prefer the flexibility and reduced risk associated with employing workers on a part-time, generally irregular basis. Almost one in three jobs in Australia is part-time, which is one of the highest part-time rates in the industrial world.³ And almost one in three part-time workers (or over 1 million workers) would rather work more hours, but are constrained by labour market conditions from getting more work.

Many Australians would like to work, but are discouraged by poor job prospects from undertaking the sort of active search that would be necessary for them to be counted within the official unemployment statistics. Since the GFC and the consequent slowdown in job-creation, labour force participation for men has dropped significantly (indicating many have given up on hope of finding work); participation for women has continued to grow, albeit at a much slower rate than before the GFC (and women's labour force participation, especially for women in prime parenting years, is still well below the norms in other industrial countries). This negative shift in participation rates corresponds to the disappearance of some 400,000 Australians from the labour force.⁴ Another perspective on this problem is provided by the ABS's annual survey of labour force "non-participants." It finds that over 1 million Australians would like to work but are not officially in the labour force, in many cases because they do not believe work is available (a group which the ABS terms the "marginally attached"). Put these various pools of un- and underutilised Australians together, and there is a pool of over 3 million Australians who want work but can't find it; that is equivalent to over 15 percent of the total labour force (with the labour force adjusted to include these potential workers).

The qualitative problem in the world of work is equally obvious. Past research⁵ has confirmed that a large proportion of Australians work in jobs that are insecure in at least one dimension: with unpredictable, fluctuating hours and pay, inferior rights and entitlements (including limited or no access to paid leave), lack of employment security, and a lack of voice at work.

Current labour market data provides more insight into the profound insecurity which presently characterizes the world of work in Australia. Figure 1 disaggregates Australia's working age population, based on average data for the year ending in August 2017. There were close to 20 million working-age Australians. An average of over 12 million were employed. That included 2.1 million self-employed individuals: most of whom work in small, often unincorporated businesses with no other employees. These positions are characterised by low and insecure incomes, and do not provide normal entitlements and protections (such as sick and holiday leave or superannuation benefits). On average, 10

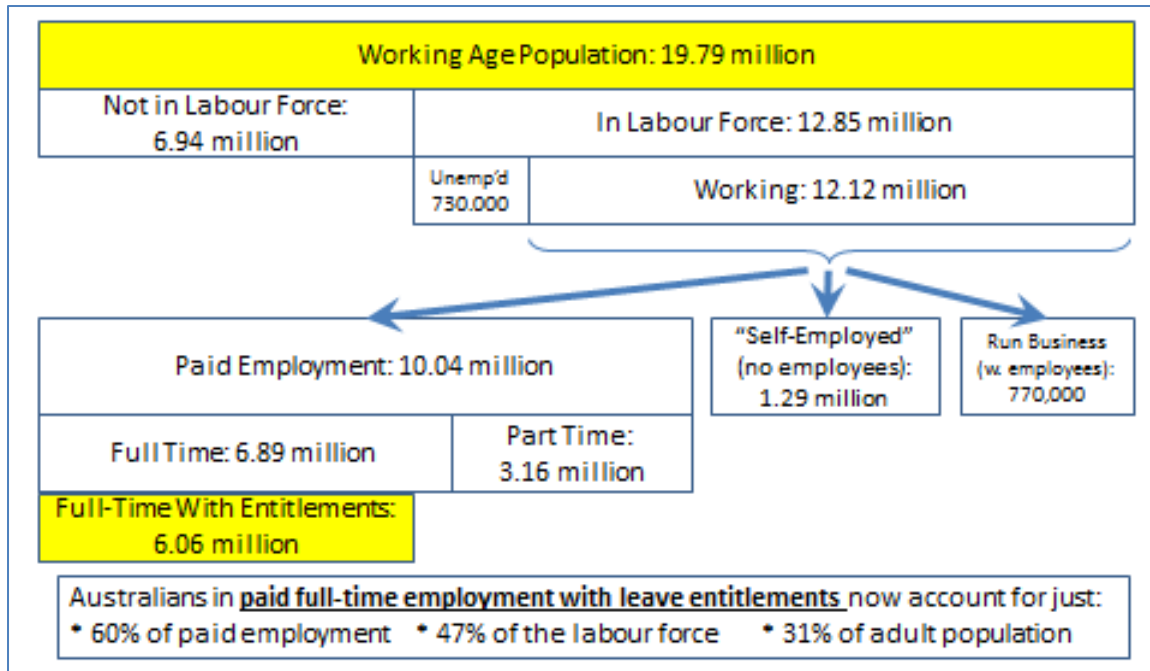
³ Only the Netherlands and Switzerland, both of which actively support part-time workers with a rich range of benefits and protections, have a higher reliance on part-time work.

⁴ If men's participation had not declined, and women's had continued growing at its average pace in the decade prior to the GFC, the labour force would be larger by 400,000.

⁵ See, for example, Independent Inquiry Into Insecure Work in Australia, *Lives on Hold: Unlocking the Potential of Australia's Workforce* (Melbourne: Australian Council of Trade Unions, 2012), 96 pp.

million Australians held *paying* jobs in 2015. But close to one-third of those (3.16 million) were part-time. And of the remaining full-time jobs, over 800,000 had no leave entitlements (for illness, vacation, or family reasons); absence of entitlements generally indicates that a job is casual or temporary.

Figure 1. The Prevalence of Insecure Work.



Source: Centre for Future Work from ABS Catalogue 6291.0.55.003 Tables 24a & EQ04. Twelve-month average data ending August 2017. Some totals do not add due to rounding. Self-employed incl. unpaid family workers.

Therefore, by the time we reach the bottom of Figure 1, we see that barely 6 million Australians held a paying full-time job with basic entitlements. That represents less than half of the labour force, and less than one-third of the working-age population. So the widespread view that stable, decent work is hard to find in Australia today, is fully verified by labour market statistics.

Job quality has clearly declined in Australia in recent years, a lasting legacy of the economic slowdown associated with the GFC, and the failure of our economy to regain momentum in the decade since. Indeed, any initial shortfall in the quantity of work, can have fall-out repercussions on the quality of work. Employers are able to take advantage of the desperation of workers by offering inferior terms and conditions; they soon find they can run their businesses with few if any full-time permanent employees at all. In this manner, an initial shortage of jobs, and a resulting deterioration in job quality, sets off a downward spiral of even fewer full-time, permanent jobs, and increasingly insecure, low-quality work.⁶

⁶ This contribution of weak labour demand conditions to the expansion of non-standard, precarious forms of employment is considered further in our discussion of “gig” jobs below.

What is needed is a decisive “shock” to break out of this downward spiral: a big push to set the economy back on a track of good job-creation, whereby employers are compelled (both by tighter labour market conditions, and by stronger regulations and standards) to offer better jobs. By putting job-creation at the top of the policy agenda, and implementing a multi-dimensional, consistent program to improve both the quantity and quality of jobs, we could replace that vicious cycle with a virtuous one: marked by more abundant jobs, growing incomes, and improving job quality.

Defining Quality Work

Workers come in all types, sizes, and shapes, and embody an infinite variety of skills, preferences, and life circumstances. So when we speak of a “good job,” there is no single template. Some key features of decent, secure work are universal, however:⁷

- Stable and secure employment;
- Adequate hours;
- Fair, living wages;
- Regular, predictable schedules;
- Leave for vacation, illness;
- Flexibility for family, personal needs;
- Safe, pleasant conditions;
- Opportunity to learn and train;
- Meaningful, fulfilling, sustainable work;
- Respect and dignity at work;
- A chance for voice and representation; and
- A path to decent retirement.

One crucial dimension of a good job is the stability and security of the job itself, and its hours of work. Being able to count on their job continuing is essential for workers and their families to make life plans, invest in homes and households, and provide children with stability and security. For many workers with irregular hours, knowing *when* they will next work – and whether they will get enough hours to earn adequate income – is a parallel dimension of security. Predictability as well as adequacy is crucial here: workers need regular hours so they can organize the rest of their lives, rather than being perpetually “on call.” Flexibility in working times to meet personal or family emergencies is also essential for a healthy and sustainable work-life balance, as is paid leave for illness, vacation, and other needs.

Of course, compensation is another core determinant of the quality of work. Earnings must fairly reflect the effort, productivity, and hardship of the job, and provide workers with the

⁷ The definition of decent work, and how to measure it, is explored by the International Labour Organization in “Measuring Decent Work with Statistical Indicators,” Working Paper #2, 2002, http://www.ilo.org/integration/resources/papers/WCMS_079089/lang--en/index.htm.

opportunity to support themselves and their dependents at a healthy, enjoyable standard of living. Non-wage benefits (such as superannuation contributions, leave entitlements, and access to insurance and other protections) help to secure workers' security throughout their lifecycles.

Conditions in the workplace are another core determinant of good work. Obviously, work must be safe and healthy. Conditions must be tolerable and pleasant. A good workplace is one where all employees are treated with dignity, respect, and fairness. Workers must be free from harassment, have the right to challenge unfair or unacceptable circumstances, have the ability to express their opinions and suggestions, and have access to representation through their union.

Enriching work through access to ongoing education, training, and lifelong learning adds to the meaning and enjoyment of work. So does doing a job that is consistent with environmental sustainability. Finally, most workers (even in good jobs) dream of the day they can begin a decent, secure retirement: it is the "light at the end of the tunnel" that keeps them going through the bad days experienced in any job. So enhancing the pension and superannuation system, so that retirement incomes are adequate and reliable, is another dimension of good work.

Determinants of Quality Work

Understanding what determines job quality can guide policy efforts to create more jobs – and improve the quality of jobs. Three crucial factors are most important:

- i. **Sectors:** Job quality tends to be stronger in high-productivity strategic industries (including public services), marked by greater reliance on skills, technology, and export sales.
- ii. **Skills:** Enhancing the skills and capacities of both workers and employers is associated with better quality work.
- iii. **Regulation:** Stronger labour market protections can lift job quality in all industries, and for all categories of workers.

We now consider each of these factors in more detail.

i. Sectors with Relatively Higher Job Quality

Some sectors of the economy are more likely to generate higher-quality jobs, by virtue of their utilisation of highly-skilled workers, technology, and sales to export markets. Economic research confirms that all of those features tend to be associated with higher-wage, more stable employment. Therefore, one obvious strategy for creating good jobs is to focus on expanding strategic, higher-wage industries: advanced sectors which use more capital, technology, and skill, and sell more of their output to export markets. Growing these

advanced industries generates obvious benefits for those working directly in those sectors. But it also generates broader dividends for the national economy: lifting productivity growth, improving export, and boosting research and innovation activity (which perversely has diminished in Australia in recent years).

Identifying and nurturing these key high-technology, export-oriented sectors (including both goods and services industries) will strengthen labour markets, both quantitatively and qualitatively. Numerous measures could support high-productivity export industries, stimulate more capital investment, and improve Australia's innovation performance. At the same time as supporting these strategic sectors, economic policy should also strive to maximize the size and quality of the domestic supply chains that feed into these strategic industries – by ensuring the use of Australian-made products and services (including, for example, in major public investment projects).

Public services are also strategic, high-value industries: like other “anchor” industries, they too provide a solid, lasting foundation for broader employment and income in a community or region, and indeed across the whole nation. Some public services (like health care and education) can even generate significant export revenues. Stabilizing and nurturing good job creation in the public sector, therefore, through expanded fiscal support for public services and major investments in public infrastructure, is a crucial part of achieving a better future of work. These actions have a double benefit: they create decent jobs (including spin-off jobs in the private sector), and they also enhance the standard of living of Australians through the provision of essential public services that supplement the consumption of private goods and services.

Unfortunately, in recent years too many governments have been part of the problem in deteriorating job quality, rather than part of the solution. More government departments and agencies are expanding the use of temporary, contractor, and part-time positions. And budget austerity and public sector wage restraint has enhanced the downward pressure on job quality in the public service.

ii. Skills in Context

In some cases, job quality can be improved by investing in the skills and capacities of both workers and their employers. Of course, acquiring new skills is never an automatic ticket to a better job: millions of Australians have learned that the hard way. They worked hard to attain training and credentials, yet are still filling jobs that do not remotely utilize their skills and capacities to the fullest. Worst of all, a supposed shortage of skills is often invoked to “blame the victims” of unemployment or underemployment for their own plight. By blaming workers' supposed failure to attain enough education, or the right kind of education, for their failure to find and keep good work, responsibility is shifted away from employers and government. But in fact Australians, especially young workers, are better educated than any previous generation, and better educated than workers in almost any other country. According to OECD Education Statistics, some 44 percent of Australia's core labour force

(ages 25-64) possesses tertiary education: 5th highest among all industrial countries, and 8 percentage points higher than the OECD average. Yet those superior skills have not prevented the continuing deterioration in job conditions so evident in today's labour market.

Investing in high-quality skills and training must certainly play a role in any broad strategy to create decent work. It's not a "magic bullet," but it can make a positive difference. Australia's overall labour market is not held back by a general lack of skills; but there are certainly some specialized occupations where the supply of qualified labour is inadequate to meet expected demands in coming years. Furthermore, upgrading workers' general capacities with language, STEM skills, and other transferable skills enhances the overall flexibility and productivity of the workforce. And workers with especially challenging job search prospects (such as workers with disabilities, those who haven't finished school, migrants, and others) can benefit hugely from targeted job-relevant training.

It is not just workers who can learn to do their jobs better. So can employers. This is especially true in light of the dramatic expansion in self-employment in recent years, discussed above. Many small business owners need training and coaching in everything from basic management skills, to applying innovation in their businesses, to selling their products to export markets. Helping their businesses become more successful on these fronts, can enhance the possibility that the jobs they offer will be more secure and better-paying. Government should consider measures to support Australian companies, especially small-to-medium firms, to become more effective, productive, innovative, and export-oriented – and become better employers in the process.

iii. High-Quality, Modern Labour Standards

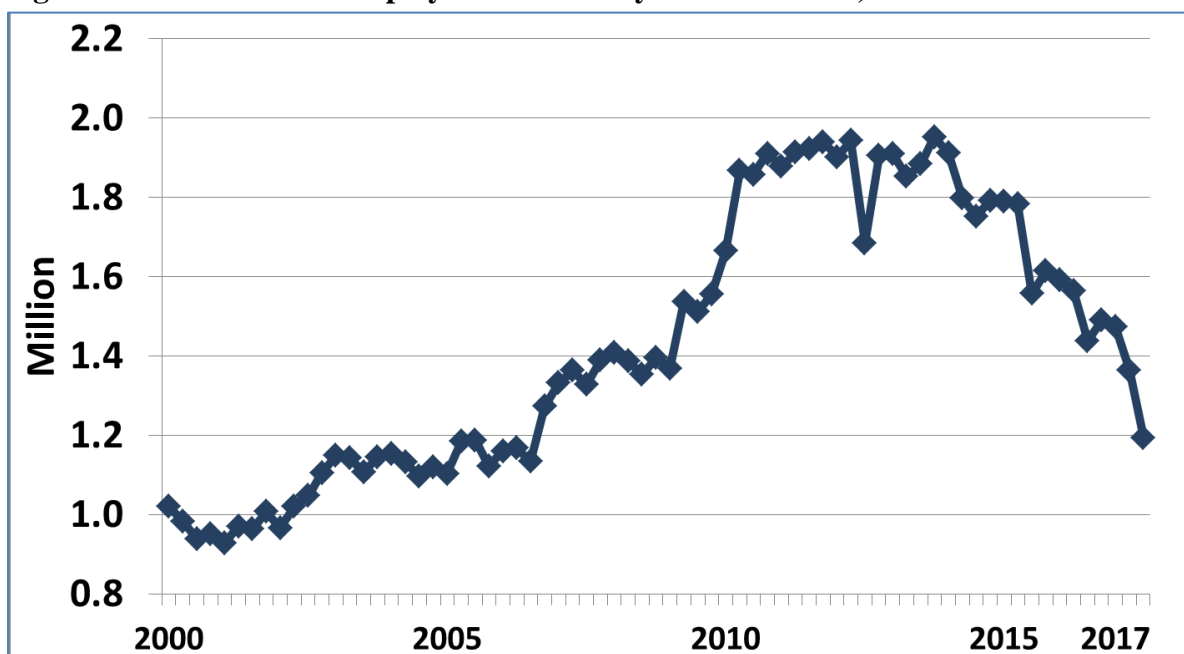
Perhaps the most important factor influencing the quality of work is the regulatory environment governing the labour market. Even in high-productivity sectors, and even for workers with top-notch skills, job quality still depends fundamentally on the rules, expectations and standards established by the regulatory system. Society as a whole sets and enforces certain expectations regarding fair treatment in employment, across the whole labour market. These expectations are achieved through various regulatory and institutional levers, which push employers to improve wages, standards, and conditions, and provide workers with some minimum threshold of security and fairness.

Chief among these regulatory levers in Australia are the minimum wage, the National Employment Standards, the award system and the collective bargaining system. Together they exert a crucial influence on job quality across all industries, occupations, and regions of the country. But Australia's system of labour market regulation is under stress, and showing worrisome cracks. Nominally self-employed workers and independent contractors may be excluded from certain protections. New digital business models (including platform firms like Uber) increase the scope for businesses to hire labour without the normal obligations or responsibilities of being an "employer." Changes in firm structure, the intensity of

competition, and union avoidance efforts by employers are all undermining collective bargaining coverage in many sectors.

Recent data indicate that the stresses on the collective bargaining system in particular are reaching the breaking point, especially in the private sector. The number of workers in the private sector covered by an active enterprise agreement has plunged by almost 40 percent since 2013, in the face of union avoidance by employers, harsh restrictions on union activity (including right of entry and right to take industrial action⁸), and a lack of resources among unions (see Figure 2). Active EBAs now cover just 11 percent of private sector workers (down from over 20 percent a decade ago). The decline in EBA coverage has also been reflected in an increase in the number of workers whose wages and conditions are determined by the minimum standards of the modern awards. This erosion of traditional regulatory supports for good work has clearly been a major factor in the deceleration of wage growth in Australia’s labour market, which by various indicators has fallen to postwar lows of 2 percent per year or less.

Figure 2. Private Sector Employees Covered by Current EBAs, 1990-2017.



Source: Dept. of Jobs and Small Business, “Trends in Enterprise Bargaining,” September 2017.

Without ongoing action to modernize and strengthen employment regulations and protections, more and more Australians will be on their own – trying to individually negotiate decent wages, security, and conditions from employers who hold the upper hand.

⁸ Measured by the number of disputes, 2017 likely set a postwar record low for work stoppages – with just 106 recorded across the country in the first 9 months of the year (compared to annual averages of 2000 or more per year recorded from the 1950s through the 1980s). Measured by days lost in disputes relative to the size of employment, the frequency of disputes has declined by 97 percent from the 1970s to the 2010s, and there is a clear correlation between the near-disappearance of industrial action and the deceleration of wage growth. See Jim Stanford, “Historical Data on the Decline in Australian Industrial Disputes,” Centre for Future Work, January 2018, for details.

Government must undertake a thorough revitalization of the whole framework of minimum standards and collective bargaining, in order to protect the quality of work in light of the far-reaching changes in technology and businesses models that are remaking so many jobs. The most important priorities in this regard include:

- Legislative and procedural changes to ensure that existing benchmarks (including minimum wages, national employment standards, and collective bargaining rights) are applied and available equally across all forms of employment – including new digital business models. This will require broadening the definition of “employer,” and more ambitious efforts at enforcing existing standards.
- Reorienting the awards system to establish and regularly adjust high-quality benchmarks for wages and work practices across entire industries, rather than seeing awards solely as a lower-level “safety net.”
- A thorough revitalization of the industrial relations regime, to ensure that workers have effective opportunities for collective representation and bargaining in light of the profound changes in economic structure that are undermining the industrial relations system. This must include measures to enhance union entry and organising opportunities; the elimination of undue limitations on rights to take collective industrial action; facilitating collective bargaining on a sector-wide and region-wide basis, to overcome the fragmentation of workplaces associated with new business models; and provisions allowing workers (by democratic majority choice) to collectively fund representation and bargaining structures through union membership or agency fee provisions in workplaces (hence establishing a sustainable financial basis for the collective bargaining system).
- Modernisation and expansion of national employment standards to address challenges facing workers in the modern world of work, including a right to adjust hours of work to address caring responsibilities at home, a right to paid leave for workers dealing with the effects of domestic violence, protection from unduly intrusive or arbitrary electronic surveillance and discipline, and more.

Without a far-reaching effort to restore the integrity and effect of these labour market institutions throughout the economy, the chances for Australian workers to attain decent compensation, security, and fair treatment in their jobs will continue to erode.

Thinking Twice About Technology

The media breathlessly report on the amazing capacities of the latest technologies and their potential to transform work: from new generations of robots to driverless vehicles to the use of artificial intelligence to perform even complex professional tasks (such as financial, legal and medical services). Some economists estimate that close to half of existing jobs could be

replaced within a few years by computers and machines, on the basis of technology that already exists.⁹

It is certainly true that processing and programming capacities are allowing the application of algorithms and automation to a broader range of tasks. Traditionally, only functions that were predictable and precisely describable by programming code could be automated. These could be manual tasks (involving the movement of objects) or cognitive (involving the manipulation of data), but in either case automation was only possible for routine and replicable functions. The current wave of automation, in contrast, allows the automation of *non-routine* tasks – including those that require judgment, flexibility, and decision-making capacity, in the face of non-controllable or unpredictable environments and stimuli. These new applications include machine learning (ML), data mining, machine vision, computational statistics, artificial intelligence (AI), and mobile robotics. In every case, computers rely on large databases of past experience to make best judgments in the face of unpredictable circumstances. This allows them to undertake non-routine functions – again, both manual and cognitive.

Since machine learning and other new computing strategies allow for a wider range of tasks to be computerized, more people could see their jobs affected by the application of labour-saving and labour-replacing technology. However, while recent breakthroughs in technology are certainly dramatic, the general process of applying tools and technology to enhance the productivity of work is hardly new: it has been occurring steadily for hundreds of years. Moreover, while some jobs and occupations have been dramatically changed in recent years by new technology, the aggregate evidence does not support the contention that automation is accelerating in a general sense, nor that aggregate labour market outcomes are being negatively affected.

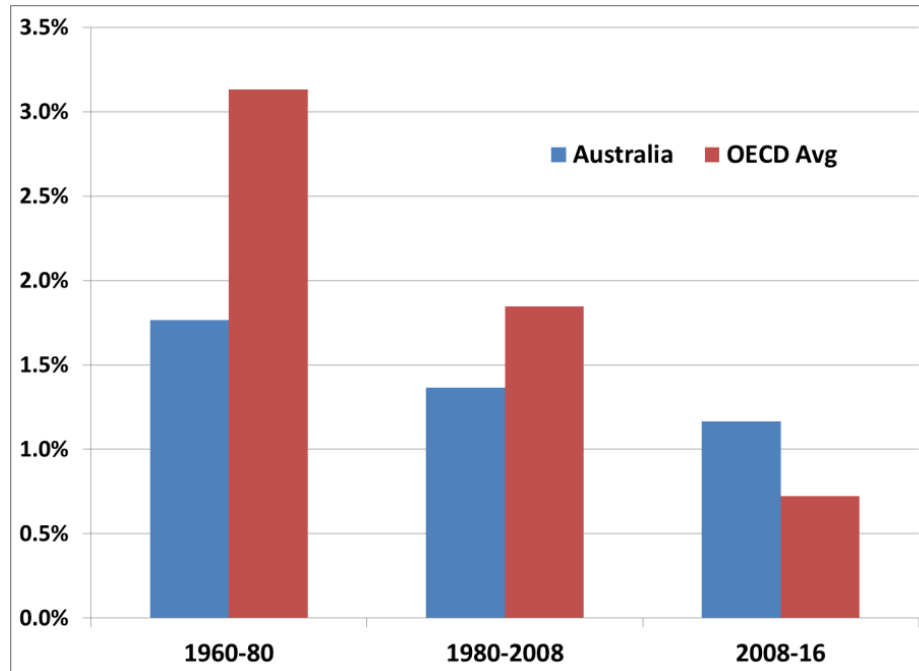
If technology was leading to the faster replacement of labour input by machines, this would be reflected in accelerating labour productivity growth (measured in real terms). But in Australia, and across the industrialised world more generally, the growth of aggregate labour productivity has actually slowed in recent years – especially since the Global Financial Crisis. This suggests that the current generation of technical change, while capable of performing amazing tasks in laboratories (and potentially disrupting specific jobs and industries), is not yet leading to substantial changes in labour across the national economy.

Figure 3 reports long-run average labour productivity growth rates for Australia, and for the OECD as a whole, in recent decades. Productivity growth was rapid and sustained during the postwar expansion (up to the late 1970s). During this time unemployment rates were relatively low (in large part because of the emphasis of policy at that time on maintaining full employment), so there was no obvious connection between rapid technological change and job loss. Productivity growth then slowed down in the 1980s and 1990s, in the wake of the

⁹ Most cited in this regard is the work of Carl Benedikt Frey, and Michael A. Osborne, *The Future of Employment: How Susceptible are Jobs to Computerisation?* (Oxford: Oxford Martin School, 2013).

market-oriented restructuring undertaken in most countries (including Australia). It is ironic that while these policies (including monetary and fiscal restraint, international liberalisation, labour market deregulation, and others) were always described as avenues for improving efficiency, in fact productivity (and overall economic growth) decelerated notably. Since the GFC, meanwhile, productivity growth has been even slower (though only incrementally so, in Australia's case).

Figure 3. Average Annual Growth in Labour Productivity, 1960-2016.



Source: Author's calculations from OECD Economic Outlook database. Australian data begin in 1964.

There are concrete reasons why the on-the-ground implementation of new technologies, and their impact on jobs, may prove to be slower than expected (or feared) given the impressive capacities of the new machines in laboratory settings. To be widely implemented in the real economy, new innovations must typically overcome numerous pre-requisites, including:

- Safety and quality testing.
- Regulatory approval.
- Major capital investments by producers, suppliers, and other firms.
- Infrastructure improvements.
- Training and workforce development.
- Public acceptance.
- Security and insurance considerations.

These barriers explain why many specific transformative innovations – like driverless vehicles, for example – will not be widely implemented (outside of limited controlled environments) for many years. These natural lags in the implementation of technology mean

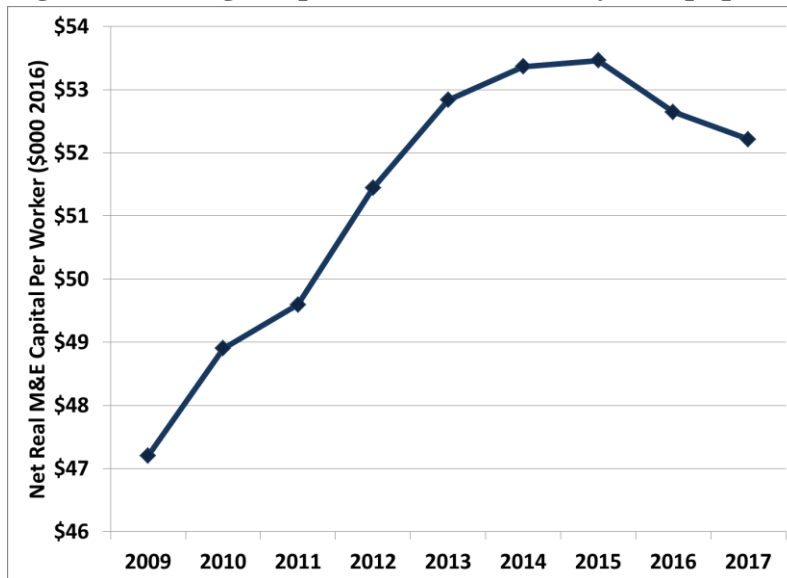
that in most cases, stakeholders have time to pro-actively prepare for change, and take measures to facilitate adjustment – so long as they are willing to do so, rather than waiting for change to overtake them.

Another indicator that the real-world implementation of labour-saving and labour-replacing technology is in fact proceeding slower than expected, is the weak pace of new investment in machinery, equipment, software, and other technology by private businesses. Most new technology must be physically embodied in new machinery, equipment, and software. The process of renewing and expanding a business's capital stock is the path through which new technologies are applied in real production.

Past waves of technical innovation (including railways in the 1870s, assembly lines in the 1920s, new techniques of mass production and transportation after the Second World War, and personal computers in the 1990s) sparked lasting upsurges in business capital spending. In addition to directly facilitating the application of new technologies, that increased investment spending also facilitated the absorption of workers who might have been displaced by new technology – by strengthening overall spending power and job-creation throughout the economy. Strong business investment (backed up by expansionary fiscal policy from government) is a major reason why the strong postwar productivity growth pictured in Figure 3 was accompanied by very *low* unemployment – not mass displacement and joblessness.

The current macroeconomic juncture, however, is typified by very weak business capital spending. In Australia's case, business investment spending has declined markedly in absolute and relative terms since the peak of the mining boom in 2013 – despite favourable regulatory and tax measures implemented to supposedly enhance business confidence and spur more investment. Business after-tax profits have remained strong across most industrial countries (including Australia), but business investment has been chronically disappointing. The net effect is excess corporate saving (or cash hoarding), as firms accumulate cash flow that is not reinvested. This damages macroeconomic performance (by undermining aggregate demand); it also means that the implementation of new technology in real workplaces is slower than would otherwise be the case.

In Australia's case, the decline in business capital spending has been so severe that the average capital-intensity of production has actually fallen since 2013 (as indicated in Figure 4). New investment spending has been insufficient to keep up with the depreciation of the existing capital stock and the growth of the workforce, so the amount of capital invested per worker (representing, in essence, the “tools” which workers use in their work) has perversely started to decline. Other indicators of weak innovation and capital investment further attest to weak business leadership in the innovation process: including a significant decline in R&D spending by Australian business over the past decade.

Figure 4. Average Capital Stock (Machinery & Equipment) Per Worker

Source: Author's calculations from ABS catalogues 5204.0 Table 63 and 6202.0.

This weakness of business capital spending has been a factor in recent high unemployment. After all, business investment is critical to economic growth and job-creation, so when investment is weak overall macroeconomic performance suffers. Causes of the decline in business capital spending include a proclivity to invest in financial or speculative assets (including property) instead of real capital assets; competitive pressures arising from globalisation; and pressure from financial markets to focus on short-term cash generation rather than longer-term growth. In this context, the bigger concern may be that private businesses are investing too little (including in new technology), not that they are investing too rapidly in technology; a range of policy responses should be considered to stimulate more capital spending (both private and public).

Another crucial dimension of adapting to new technology is to consider the potential for reduction of working hours over time, as a way of capturing the benefits of productivity growth in increased leisure time (rather than higher output). Reduced lifetime working hours can be achieved in many ways, including shorter regular working days and working weeks; more time off during careers for parental, family, and educational leave; and the opportunity to retire earlier. Reduced working hours enhance the quality of life for workers and their families; it is also a way of responding to environmental constraints on economic growth. Australian working hours are polarized at present: with many full-time workers indicating a preference for less hours of work, and a large portion of part-time and casual workers wanting and needing more hours (and more reliable schedules) in order to meet their financial needs.¹⁰ Therefore, redistributing work time, and gradually reducing average working hours in a fair and balanced way, would help to secure jobs and improving living standards. This goal would be supported through regulatory limits on excess overtime, the restoration of

¹⁰ Data on this polarization of working hours is provided in Tom Swann and Jim Stanford, "Excessive Hours and Unpaid Overtime: An Update," Centre for Future Work, November 2016, http://gohomeontimeday.org.au/img/materials/GHOTD_7_Excessive_Hours.pdf.

stronger collective bargaining systems (so that workers have more opportunity to negotiate working hours), and establishing stronger minimum benchmarks regarding call-in periods and stability in scheduling.

In sum, the impacts of technology on labour demand are complex and contradictory (as summarised in Table 2). Labour-replacing and labour-saving technologies will reduce the level of direct labour demand associated with any given volume of real output, other factors being equal. On the other hand, the level of output itself may grow (for example, if consumer demand is stimulated by quality improvements and/or cost reductions made possible by the new technology, or by higher real incomes among consumers – so long as higher labour productivity is reflected in higher wages). There may be growth in indirect labour, including new work associated with the conception, design, engineering, production, operation, and maintenance of the new technology. Shorter and more stable working hours helps to translate a given amount of work into a larger number of more secure jobs. Finally, once it is in use, new technology tends to open new production opportunities for goods and services that were not possible or imaginable until the new technology permitted it. (A good example is the new work involved in programming apps for smart phones – a career path that did not exist until smart phones came into common use.) So the final net impact of labour-saving and labour-replacing technology on labour demand (and hence employment) will depend on the balance of these contrasting forces. Crucially, there is no guarantee that the number of jobs created will match the number of jobs displaced, and no guarantee that automatic market mechanisms can facilitate the necessary rebalancing of supply and demand. Active policy and economic management are essential for achieving these positive possible outcomes.

Table 1	
Offsetting Effects of Technology on the Quantity of Work	
Less Labour Demand	More Labour Demand
Less direct labour is required for a given quantity of output (labour-replacing or labour-reducing).	Quantity of output may increase due to lower cost or higher quality.
	More labour required as indirect input to production, for the design / production / operation / maintenance of the new technology.
	New labour required to produce new goods and services made possible by the new technology.
	Shorter and more regular working hours produces a larger number of jobs from a given number of hours.
Net Effect: Uncertain.	

Other factors affecting the quantity of work in future years must also be considered. First, there are many occupations that will be relatively unaffected by labour-saving technology, because of the inability (so far, at any rate) to mechanise the work they perform. These

include many service functions for which a human connection is still vital to production: including both private services (like hospitality and personal services) and public and caring services (such as education, health care, and child care). Counter-intuitively, some jobs that are typically considered “low-skill” (a misleading and offensive term) are in fact relatively insulated from the impacts of technology, including many lower-wage jobs in private and public services. So the common assumption that “high-skill” workers will benefit from automation, while “low-skill” workers will be displaced by it, is quite wrong. Moreover, in the event that technology and subsequent productivity growth did indeed significantly undermine aggregate employment outcomes, macroeconomic policy responses (including adjustments in monetary and fiscal policy) would presumably kick into gear to offset job losses and achieve stronger labour market outcomes.¹¹

New technology can affect the quality of work, not just the quantity of labour demanded. And technology interacts with changes in work organisation and employment practices in ways that can substantially undermine working conditions. There are positive opportunities to use technology to make work safer, easier, and less monotonous. Indeed, many boring, repetitive, and physically challenging tasks are among the functions that are highly amenable to automation. So long as safety and ergonomic factors are taken into account in designing and implementing new technology, these benefits can be optimised.

At the same time, some employers will put technology to work in more nefarious ways, to intensify the pace of work through faster and more demanding production cycles, electronic monitoring of work and workers, and using technology (like digital work scheduling platforms) to undermine or evade traditional employment responsibilities. The ubiquitous use of electronic surveillance, monitoring, and evaluation technologies is an especially damaging mis-use of technology – and not just because it offends the dignity and privacy of workers. It also tends to suppress wages, by altering the trade-off between positive incentives and negative punishments in employers’ management models. Since electronic monitoring is less expensive than human supervisors, it encourages employers to rely more on the “stick” (of punishment up to and including discharge) and less on the “carrot” to elicit high performance from workers. Using digital data to evaluate and discipline employees on the basis of unverifiable customer feedback is another abusive application of technology. Some companies (including digital platform firms like Uber) may discharge employees on the basis of these on-line evaluation systems (which have been shown to reflect biased judgments and prejudices on the part of participating customers¹²). In sum, the use of electronic monitoring and supervision systems is a dark underbelly of new workplace technology; workers need more protection for their privacy, and the integrity of normal review and discipline procedures must be reaffirmed and protected by labour law.

¹¹ Again, there is no guarantee that conventional macroeconomic policy responses would be sufficient to restore labour markets to normal conditions – as evidenced by the failure of global macroeconomic policy since the GFC to restore pre-crisis growth, inflation, and employment outcomes. More direct and powerful interventions (such as direct job-creation in public services, and mobilizing public capital in infrastructure and other job-creating projects) may be required.

¹² See Naomi Leong, “The Sharing Economy has a Race Problem,” *Salon*, November 2 2014, http://www.salon.com/2014/11/02/the_sharing_economy_has_a_race_problem/.

To enhance the positive effects of new technology on job opportunities and working conditions, and to prevent demeaning and exploitive applications, several sensible best practices should be followed by employers and other labour market participants. These include:

- Providing ample notice to affected workers of coming technology changes.
- Providing workers and their unions with the clear right to collectively bargain issues related to technological change.¹³
- Providing affected workers with meaningful opportunities to retrain for new positions that are opened up by new technologies.
- Providing transition supports for workers who may choose to exit from existing positions in the event of technological change (moving to alternative careers or into retirement).

In most cases, the changes in jobs that will be experienced as a result of new technology can be managed in order to reduce negative effects on workers, and maximise the benefits and opportunities that can be created. But this requires a meaningful commitment to dialogue and negotiation among stakeholders, rather than allowing the process of innovation and change to be led solely by employers and investors aiming to maximise their profits.

“Gigs” Are Old, Not New

The complex interaction between technology and the organisation of work is also apparent in the expansion of digitally-mediated temporary and contract work – or what has come to be known as the “gig economy.” Indeed, for some observers, the growing importance of irregular and independent work casts doubt over the future relevance of employment. The economy of tomorrow, it is breathlessly suggested, will not consist of “jobs,” but rather “gigs:” whereby workers perform a series of one-off tasks, coordinated through on-line digital platforms, and compensated for each task through digital transfers. Via the internet, buyers and sellers meet more easily, and a global digital marketplace facilitates exchange in everything, including work – but also sparks a more unforgiving race to the bottom, as individuals compete in a larger, more unified market to support themselves. How will the traditional benefits and protections of paid employment survive in this digital world?

To be sure, the growth of digitally-mediated contractor positions, typified by isolated independent workers recruited and managed through on-line platforms, poses fundamental challenges to the traditional model of employment, and to traditional methods for regulating work and ensuring minimum standards. It is not clear that existing labour regulations apply to

¹³ Under Australia’s restrictive industrial relations laws, in many cases these are not considered permissible matters for collective bargaining (which is supposed to focus solely on matters directly connected to the employment relationship).

independent or gig workers (and in some cases it is explicitly clear that they do not¹⁴) – let alone that those rules can be effectively enforced in a free-wheeling, digital economy. In some cases, evading traditional regulations and employment responsibilities is an important part of the rationale for the growth of independent-contractor-style practices in the first place.

Some perspective is needed to better understand what is actually new about digital platform business models, and to distinguish between the technical innovations which they utilise and the changes in work organisation which those models also introduce. In fact, as we will discuss, the major organisational features of digital platform work are not new at all. These practices have been used regularly in labour markets for hundreds of years; the only truly novel aspect is the use of digital technologies for organising, supervising, and compensating work. Nor should the growth of insecure or precarious work practices (or “gigs”) be seen as solely or mostly driven by technology. Instead, the growing precarity of jobs, including those associated with digital platforms, reflects the evolution of *social relationships and power balances*, as much as technological innovation in its own right. Appreciating the social and regulatory dimensions of technology and work organisation contributes to a more holistic and balanced understanding of the rise of platform work, its consequences, and its potential remedies.

Digital platform businesses aim to connect market participants who subsequently engage in exchange (directly or indirectly). Once a particular platform reaches a critical mass, strong economics of scale and scope (since larger networks have a great advantage over smaller ones) reinforce its growth. Matching platforms come in two broad categories: those facilitating the exchange of assets, and those facilitating actual work and production.¹⁵ The clients of asset-trading platforms (such as eBay) undertake to buy or sell items which have already been produced. Other than the (modest) incremental value-added associated with intermediation and shipping, there is no production involved in this exchange; eBay constitutes, in essence, a centralised, digitised flea market. In contrast, digital platforms which facilitate actual work and production will exert a bigger influence on working conditions. Several sectors are already seeing a significant presence of gig work, including transportation and delivery, odd jobs and miscellaneous tasks, and technology and coding work (such as programming, writing, translating, or design).

¹⁴ Australia’s Fair Work Commission recently decided that Uber is not an employer in its relationship with its drivers – going against the grain of international precedent (including important recent cases in the U.K. and the E.U.) and the seemingly obvious facts of the situation (see “Uber Not an Employer, says FWC,” *Workplace Express*, January 15, 2018). After all, Uber hires and fires drivers (the latter in part on the basis of consumer “star” ratings rather than normal supervision and discipline procedures), allocates work to them, dictates the conditions and methods of work, and controls payment; the company’s control over the work of its drivers is comprehensive and immediate. Yet the Commission concluded the relationship does not meet the traditional “wages-work” test of whether an enterprise is employing someone. Continuing legal debate on this point is certain to continue; many legal experts have advocated expanding the definition of employer to eliminate the ambiguity of work relationships in digital platforms (see, for example, Andrew Stewart and Jim Stanford, “Regulating Work in the Gig Economy: What are the Options?,” *Economic and Labour Relations Review* 28(3), 2017, pp. 420-437).

¹⁵ See Diana Farrell and Fiona Greig, *Paychecks, Paydays, and the Online Platform Economy: Big Data on Income Volatility* (New York: JP Morgan & Chase Co. Institute, 2016).

The organisation of gig jobs generally incorporates the following broad characteristics:

- Work is performed on an on-demand or as-needed basis. Producers only work when their services are immediately required, and there is no guarantee of ongoing engagement.
- Work is compensated on a piece-work basis. Producers are paid for each discrete task or unit of output, not for their time.
- Producers are required to supply their own capital equipment. This typically includes providing the place where work occurs (their home, their car, etc.), as well as any tools and equipment utilised directly in production. Because individual workers' financial capacity to invest in capital is limited, the capital requirements of platform work (at least the capital used directly by workers) are usually small.
- The entity organising the work is distinct from the end-user or final consumer of the output, implying a triangular relationship between the producer, the end-user, and the intermediary.
- Some form of digital intermediation is utilised to commission the work, supervise it, deliver it to the final customer, and facilitate payment.

As summarised in Table 3, most of the characteristics associated with gig work are long-standing. The practice of on-call or contingent labour – with workers employed only when directly needed – has been common for hundreds of years. In an Australian context, a famous example is the former practice of dockworkers lining up each morning (for example, along Sydney's "Hungry Mile") in hopes of attaining employment that day, but other examples are common in many sectors. Home-based work, and other systems in which workers supply their own capital equipment, have been common in many applications and contexts – from the "putting out" system for manufacturing textile products and simple housewares in the early years of the industrial revolution, to the important role played by owner-operators in many modern industries (including transportation, resources, fisheries, and personal services). Piece-work compensation systems also have a long if uneven history. Employers have often tried to tie compensation directly to output in this manner (thus shifting responsibility for managing work effort and productivity onto the workers themselves). Yet at the same time, the use of piece-work is constrained by numerous well-known difficulties, including difficulties in applying them in situations which require an emphasis on quality, not just quantity of output (including most service sector activities), and where work is performed jointly by teams or larger groups of workers, not individuals.

Finally, the triangular relationship created in a platform business between the worker, the ultimate end-user of their labour services, and a separate platform enterprise (which functions as the intermediary), is also very familiar from economic history. Past examples include labour hire services, "gang-masters," and other intermediaries. The core problem associated with this triangulated model of employment – namely, that it is unclear who is the actual "employer," an ambiguity which opens the possibility to various negative practices and outcomes – is also well-known, and has been addressed by regulatory initiatives in many jurisdictions (such as Australia's existing rules regarding "sham contracting," and more recent initiatives to regulate labour hire businesses).

Table 3	
Historical Antecedents for “Gig” Work	
Work Practice	Historical Antecedent
On-Call Scheduling	Stable weekly schedules were unusual prior to mid-20 th century; contingent hiring was common (eg. Sydney’s “Hungry Mile “).
Piece Work Compensation	Common in many applications in manufacturing, agriculture, resources, services; but not effective in many jobs (requiring team work, emphasis on quality, etc.).
Home Work / Own-Provision of Tools	Workers in many jobs have been required to provide place of work and/or tools: “putting out” system; cottage industry; forestry, fishing, resources; transportation; personal services.
Intermediary / Labor Hire Triangulated Responsibility	Gangmasters and labour hire services have operated for hundreds of years as middlemen between producers and end-users.
Method of Coordination	<i>NEW!</i> Digital platforms allow easier, inexpensive coordination of on-call labour and collection of payments.
Source: Adapted from Jim Stanford, “The Resurgence of Gig Work: Historical and Theoretical Perspectives,” <i>Economic and Labour Relations Review</i> 28(3), 2017, pp. 382-401.	

Several factors are facilitating the growth of platform-based businesses – and the expansion of precarious employment (including independent contracting, self-employment, and casual jobs) more generally. To be sure, technology plays a role: more in facilitating new models of management, rather than in altering the fundamental process of production itself. Broader economic conditions also play a role. In particular, the chronic existence of a large pool of underutilised labour (as discussed above, reflected in high levels of unemployment, underemployment, and marginally attached non-employed) facilitates insecure staffing strategies on the part of employers. If they were not confident that incremental labour resources could be quickly and confidently recruited whenever needed, then employers would face greater compulsion to offer more secure and permanent jobs. The flip side of the same coin is the pressure that workers feel in a chronically weak labour market to accept any work available, no matter how insecure or irregular. If they had access to more permanent, predictable, and better-paying work opportunities, there is little doubt that many or most workers currently offering their services through digital platforms would choose a more stable form of employment.

Another factor facilitating the expansion of precarious work practices in general (and gig work in particular) has been the generally passive, inconsistent application of traditional labour regulations and standards. In some cases (such as independent contractors in the Australian context¹⁶), existing regulations (like minimum wage laws, collective bargaining rights, and other minimum standards) explicitly exclude non-standard workers. Regulators have been slow to recognise the risks posed to the quality of work by the expansion of

¹⁶ See Richard Johnstone and Andrew Stewart, “Swimming Against the Tide? Australian Labour Regulation and the Fissured Workplace,” *Comparative Labor Law and Policy Journal* 37(1), 2015, pp. 55-90.

precarious work and the resulting avoidance of traditional labour regulations; they have failed to adapt regulatory models to encompass workers in these growing categories of nominally independent labour. In other cases, the applicability of existing regulations is uncertain; but regulators have still been slow to test the robustness or applicability of existing laws. In still other cases, it is clear that existing regulations should protect contingent or “gig” workers, yet the widespread non-enforcement of those rules undermines their real-world effect. The epidemic of wage theft documented in numerous Australian franchise-based businesses in recent years, which have avoided paying even minimum wages to thousands of employees, is a good example of this regulatory failure.¹⁷

These facilitating conditions – chronic excess supply in labour markets, and a passive stance on the part of regulators – have not always prevailed. Hence, the trend toward precarious work has not been uniform through history. For example, in earlier decades, labour markets were tighter, and employers could not so reliably recruit on-call labour while offering inferior security or compensation. Similarly, in past periods policy-makers and regulators were more pro-active and ambitious in their efforts to establish (and enforce) minimum standards to lift job quality, support wage growth, and achieve a more equitable, inclusive distribution of income. Those factors explain why earlier (pre-digital) forms of precarious work (such as labour hire and home work) became much less common in the decades following the Second World War. In those years, strong labour demand conditions and a more active regulatory stance underpinned the emergence of the “standard employment relationship” (marked by permanent, year-round paid employment with basic benefits and entitlements) as the dominant norm of work. The fact that insecure forms of work and employment have resurged in recent years, reflects those evolving economic and political dimensions of the labour market and labour regulation – not just the advent of digital technologies.

In sum, we should be skeptical about the supposed “novelty” of gig-style employment practices. To be sure, modern technologies have allowed the application of these tried-and-true insecure employment strategies to a new set of functions and circumstances. But the actual nature of the production process undertaken as part of modern digital platforms is not typically different from the production process used in previous business models;¹⁸ and the use of modern technology is largely limited to facilitating work organisation, management, and compensation (as opposed to changing the way actual work is performed). These changes in work organisation should be analysed and understood in the context of the often-conflicting economic and social interests which motivate the various participants in the employment relationship. They are neither inevitable nor technologically determined; these practices are expanding because macroeconomic, labour market, and regulatory conditions have allowed them to expand.

¹⁷ See Louise Thornthwaite, “The Government Needs to Better Enforce the Laws it Creates, to Protect Franchise Workers,” *The Conversation*, March 3, for a summary.

¹⁸ For example, the productive process of picking up a passenger in a vehicle and driving them to another destination is no different in Uber than in a traditional taxi; the only difference is the method for hiring, managing, and compensating the people who perform that labour.

Macroeconomic Conditions and Work

The role of macroeconomic conditions, and macroeconomic policy, in explaining the deterioration of labour market outcomes in recent years should be considered further. The mass unemployment and other dimensions of labour underutilisation so visible in the labour market today are clearly more the result of negative macroeconomic performance – and failed macroeconomic policy – than the result of either robots or gigs. In particular, the slowdown in economic growth (in Australia, and globally) since the GFC, the failure to regain normal trajectories of investment, growth, and job-creation, and the misplaced emphasis of macroeconomic policy on fiscal austerity rather than job-creation, have all been central to the sub-optimal labour market conditions that have prevailed for a decade.

To hear some free-market adherents talk about it, the only thing needed to achieve “jobs and growth” is to get government out of the way, and let private business flourish. That’s the thinking behind so many recent policy initiatives in Australia: slashing funding for public services, cutting “red tape” and so-called “bureaucracy,” cutting business taxes, and attacking pesky unions and cumbersome rules like penalty rates. Their theory is that freeing and enriching private business will unleash the magic of private market forces. Australians then just have to stand back and wait for the jobs and incomes to trickle down.

In real-world practice, however, there is nothing “magic” about how jobs are created. There is no automatic force that matches labour demand with labour supply. The reality of job-creation is much more tangible, incremental, and pragmatic. In the private sector, a job will be created if an employer believes they can sell the output produced by a hired worker, at least covering their costs in the process (preferably generating a profit). In the public sector, a job is created when a public agency is mandated (with sufficient funding) to provide a desired service. In either case, what’s essential is that some organisation is *willing and able to pay* for the output that workers produce. And for this reason, the overall level of purchasing power in the economy is the crucial constraint on job-creation. If overall spending in the economy (aggregate demand) falls short of what’s required to pay for the goods and services workers are producing, then new jobs cannot be sustained. Job-creation must be ratified with strong spending from the various sectors that make up the economy.

Very broadly, those spending decisions come in four basic types. The biggest is consumer spending by households: including on housing, consumer goods, and services. It accounts for around half of all spending in the economy. Families need decent incomes, and confidence that their incomes are secure, in order to make major purchases (like housing and consumer durables). When jobs are being created and incomes growing, strong consumer spending reinforces the positive dynamic. But when unemployment is high and wages are suppressed, consumer spending declines – making job conditions all the worse.

A second key component of spending power, as discussed above, comes from private business investment decisions. When companies invest in new facilities, equipment, or

technology, they not only create new jobs in those expanding operations – they also pump new spending power throughout the whole economy (including through “upstream” supply chain purchases).

Government spending – on both current services (like education, health care, and culture), and on long-lasting assets like roads, schools, and utilities – is a third critical category of purchasing power. Government spending is especially important in stabilizing overall purchasing power through the economic cycle, because it is not usually subject to the same roller-coaster pattern as private investment. On the other hand, austerity and spending cuts can contribute to macroeconomic weakness.

Finally, the fourth major form of purchasing power comes from foreign customers, who purchase Australian-made exports. Global demand for the things Australia produces (including food, resources, manufactured goods, services, and tourism) injects new purchasing power into the domestic economy. Foreign demand underpins job creation in exporting industries, as well as indirect upstream and downstream jobs in other sectors. However, the benefit of exports must be weighed against the loss of purchasing power that results from too much spending on imports. When spending power (from any part of the economy) is diverted to purchase imported products and services, then less stimulus is delivered to Australian jobs. Ultimately, it is the *net* effect of changes in exports, compared to offsetting changes in imports, that determines whether foreign markets are helping, or hurting, Australian jobs. Unfortunately in recent years, both the quantity of exports and their composition (focused unduly on exports of raw resource products, which are vulnerable to both price fluctuations and environmental constraints) have been inadequate to ensure our successful, sustainable success in global commerce.

An effective jobs strategy needs every one of those four economic “cylinders” firing and pulling the economy forward; overall purchasing power needs to be growing steadily and strongly, to support not just a greater quantity of jobs, but also the ability of workers to demand better quality in that new work. Consumer spending would be strengthened through better jobs and incomes, protecting and lifting minimum standards, and higher wage growth (achieved, in part, through a restoration of effective collective bargaining). Exports and business investment spending would benefit from efforts to nurture globally successful “anchor” industries in Australia, foster more innovative businesses, and support capital spending with new funding mechanisms. Government spending (on both services and infrastructure) must grow significantly, through an expansion of essential public services and major investments in infrastructure. By ensuring that all cylinders of the economy are firing, and pulling in the same positive direction, government can create an expansionary macroeconomic climate that itself does much of the “heavy lifting” of job-creation.

Getting to Full Employment: A Multi-Dimensional Jobs Strategy

Individual workers need jobs, better jobs, to support their families, pay their bills, and build strong communities. And the national economy needs more jobs, better jobs, to generate incomes and tax revenues, enhance living standards, provide public services, and repair the environment. There are millions of underutilized Australians who want and need to make their full possible contribution. The solution is obvious. We should connect underutilized workers with jobs that need to be done. And make the most of Australians' capacity to work for the things that we need.

But it will require a powerful, all-encompassing change in policy direction to put Australia back on a path toward an economy that offers quality work, to everyone who wants it. It will require a concrete plan of action from government, building on the engagement and participation of other labour market stakeholders (employers, education institutions, and unions). Moreover, since there are so many moving parts in a high-performing labour market, the plan must invoke all the policy areas that could contribute to a brighter jobs future. Ambitious policy efforts in each area must be coordinated and aligned – so that all levers of government are pulling in the same direction, toward the same goal.

The old claim that “there is no alternative” to the present state of affairs, is false and ideological: it tries to undermine Australians' hope for something better. In fact, there are abundant creative, pragmatic policy ideas that would help to fix our labour market (and ample fiscal resources to pay for them). The only challenge is one of priority and leadership. Will government accept that creating good jobs is the top economic and social priority? If so, it absolutely can be done.

By aligning all of the policy levers of government in a consistent, comprehensive effort to achieve high-quality, inclusive employment outcomes, the current pessimism and inequality which characterises the world of work in Australia today could be thoroughly transformed. To that end, we identify ten crucial policy themes that together would constitute a consistent, multi-dimensional strategy to create more jobs, and lift the quality of jobs.

1. Grow strategic high-technology, high-productivity, export-oriented sectors (both goods and services) that succeed in global markets

The discussion above highlighted the strategic importance of high-technology, high-productivity, export-oriented industries to overall national jobs performance. Nurturing a broader portfolio of these industries, and expanding their investments and exports, is especially important given the downturn in minerals exports and recent damage to our national manufacturing capacity. Government allowed Australia to become overly dependent on exports of raw resources, and tolerated the corresponding contraction in value-added industry. Ambitious efforts are required to identify advanced sectors with desirable characteristics (technology-intensive, high-productivity, export-orientated, and with strong domestic supply chains), and then concretely support their growth with focused sector

strategies, capital and co-investments, procurement opportunities, and a better-resourced approach to export promotion.

International research has shown that successful modern industrial development depends on the emergence of networks, clusters, and industrial “ecosystems” that support the spread of new ideas, stimulate supply chains, and attract capital and talent.¹⁹ Integrated sector strategies could support the growth of advanced sectors, including through ambitious procurement strategies and more realistic and effective efforts to promote exports. Expensive company tax cuts should be replaced with targeted incentives (such as accelerated depreciation allowances) tied to actual investment commitments. A new public investment agency could make long-run co-investments in key advanced industries, while generating positive returns on invested capital.

2. A real innovation strategy: moving beyond jargon

The gap between jargon about the “innovation economy” and the reality of Australia’s relatively poor innovation effort gets wider every year. Australian R&D spending is declining, funding for CSIRO and other public innovation bodies has been cut, and our businesses lag further behind global leaders. Australia needs a national agency to coordinate and align government actions across departments, in conjunction with other institutions and business. Targeted public investments in the growth of promising innovation-intensive firms, helping them scale-up for commercial and export success, are also important – learning from successful precedents in Finland, Ireland, and Israel. The expensive R&D tax concession must be better targeted, with more public support delivered for direct, “mission-oriented” innovation programmes – including expanding Australia’s successful Cooperative Research Centres to better link scientists and firms.

3. Creating good jobs in a sustainable economy

Any modern economic and labour market strategy must be centred on a recognition of the need for environmental sustainability and reduction of carbon pollution. And if it is well-planned and regulated, this commitment to sustainability can be associated with enormous opportunities for good jobs. The first precondition, of course, is to ensure unequivocally that Australia will play a full role in global efforts to reduce greenhouse gas emissions and meet other environmental targets; this sends an essential signal to investors, firms, and trading partners that green industries are here to stay (in contrast to the mixed signals sent in recent years by Australia’s confused and contradictory environment policies).

Then policy must prioritise building up the sustainable industries that have so much potential to add to the strength of labour markets. Specific measures would enhance sustainable job-

¹⁹ See, for example, Mariana Mazzucato, *The Entrepreneurial State: Debunking Public vs. Private Sector Myths* (London: Anthem, 2011); Joseph Stiglitz and Justin Yifu Lin (eds.), *The Industrial Policy Revolution: The Role of Government Beyond Ideology* (New York: Palgrave Macmillan, 2013); Ha-Joon Chang, “Institutions and economic development: theory, policy and history,” *Journal of Institutional Economics* 7(04), 2011, pp. 473-498; and John Weiss, *Industrial Policy in High-Income Economies* (Geneva: International Centre for Trade and Sustainable Development, 2015).

creation in renewable electricity (both large-scale and small-scale), energy conservation and building retrofits, urban transit, alternative energy vehicles, and more. An “anchor” industry strategy should include focused support (including public equity co-investments) for promising environmental industries like water technology, electric vehicles, and smart electric grid technology. The strategy must also include a multi-dimensional “Just Transition” initiative to identify and plan for labour market impacts arising from environmental measures – supporting affected workers with training and employment opportunities, and improving the environmental performance of existing industries.

4. Creating good jobs in the public sector

Instead of seeing the public sector as a “drain” on the economy, we see it is a source of growth and opportunity in its own right. Reversing previous cutbacks to health care, education, environment, Indigenous, and other public programs, and ramping up support for public services would contribute to hundreds of thousands of direct and indirect jobs through public service delivery. Australians’ need for human and caring services continues to expand. It is no accident that public sector activities have accounted for half of all new job creation in recent years – and is expected to account for a similar share in the future.

A historic, sustained uplift in investments in public infrastructure (including transportation, utilities, health care and education facilities, affordable housing, environmental projects, cultural spaces and facilities, and more) would provide another powerful stimulus to both immediate job-creation and long-run productivity and quality of life. Maximizing the spin-off benefits of this historic investment programme for the Australian supply chain (through specific and enforceable procurement policies, including Indigenous procurement targets) will reinforce the ultimate job-creation effects of public investments.

5. Strong purchasing power to fuel strong job-creation

As explained above, new jobs are not created spontaneously by “market forces” and the magical interaction of supply and demand. New jobs must be motivated and ratified by a concrete expansion in purchasing power in the economy. Demand arising from all the major end-sectors (consumers, business investment, government, and exports) is essential to justify new hiring by employers (private or public). So an important dimension of rebuilding labour market strength is boosting purchasing power from all these segments. Consumer finances would be enhanced by an emphasis on protecting minimum incomes and job quality – including improvements in the minimum wage, and the protection of penalty rates. International research confirms that reversing wage stagnation, and distributing incomes more fairly, provides a powerful and equitable stimulus for growth.²⁰ Business investment and exports would be strengthened through success in building a portfolio of high-

²⁰ Important research on this issue includes Marc Lavoie and Engelbert Stockhammer, *Wage-led Growth: An Equitable Strategy for Economic Recovery* (New York, Palgrave Macmillan, 2015); and Özlem Onaran and Engelbert Stockhammer, “Wage-Led Growth: Theory, Evidence, Policy,” Political Economy Research Institute, Working Paper, 2012, <https://www.peri.umass.edu/publication/item/499-wage-led-growth-theory-evidence-policy>.

performance anchor industries, expanded innovation, and more effective investment policies. The government sector, of course, needs to shift from austerity to expansion, with a commitment to expand public services and infrastructure. The Reserve Bank of Australia must also play a key role in sustaining the movement toward full employment, through compatible interest rate and exchange rate policies – and abandoning its failed NAIRU model which has deliberately sustained unemployment and resulted in unprecedented wage stagnation.

6. Equipping Australian workers to do the job

We reject the oft-repeated thesis that Australia’s labour market problems are somehow due to a generalized “lack of skill” on the part of Australian workers. Evidence suggests, to the contrary, that Australian workers are more skilled than ever. But a genuine commitment to training can address skills challenges in particular industries, and among particular groups of workers. Government must deliver necessary resources for early childhood, primary, secondary, and tertiary education (including a national STEM skills strategy), stop the privatization of the TAFE system and restore funding for quality public VET programs, restore the integrity of the national apprenticeship system, and more. Workers need more than the right skills to perform their jobs to the fullest: they also need support to balance their jobs and their lives in a healthy and sustainable manner, including with affordable child care, adequate paid parental leave, and rights to leave for family-related reasons.

7. Helping small-to-medium enterprises lift their game

There are over 2.1 million registered businesses in Australia. And over 2 million Australians report being “self-employed.” But most of those businesses have no employees. Most operate with very little capital. And very few are able to invest in research and training, or sell their products to export markets. Improving the quality and capacity of Australian companies (especially small-to-medium enterprises, and especially in industries with potential for innovation and export) constitutes an important dimension of improving job quality. A national network of entrepreneurship centres could help enhance the potential of small companies with good ideas but a dearth of management training, experience, and capital. Measures to enhance the supply of venture and second-stage capital for small and growing businesses – including micro investments in innovation commercialization, and more engagement by Australian super funds in venture capital financing – would help. Various forms of non-profit enterprises (including cooperatives, community development initiatives, and benefit corporations) can also make a contribution to our economic and social potential.

8. Improving job quality in all sectors

Quality is as important as quantity in restoring prosperity and security to Australia’s labour market. In addition to creating new jobs, the average quality of employment can be improved with comprehensive measures to lift the quality of jobs that already exist: converting unfair, insecure jobs into better ones. This can be achieved by invoking the full range of institutional and regulatory supports that underpin job quality. Incomes can be sustained through strong

minimum wage and penalty rate policies. National Employment Standards must be strengthened and modernised, including to address worrisome trends like the spread of casual work and unfair management practices in new web-based businesses. The exploitive practices of labour hire agencies deserve special attention, through compulsory licensing, prohibitions on especially egregious practices, and imposition of joint liability (on both the agency and the ultimate employer) for employment and safety standards. Rules governing collective bargaining need to be modernized to provide for multi-employer or industry bargaining to address trends in business organization and technology, and preserve the crucial economic role of collective bargaining in regulating the distribution of income and improving job quality. In concert with a broader acceleration of job-creation (which would reduce the desperation of workers currently compelling them to accept inadequate or exploitive jobs), these regulatory efforts will support improved job quality across the labour market.

9. Ensuring fair access to decent work

Contrary to the old slogan, a rising tide does *not* lift all boats. Years of systematic discrimination, inequality, and marginalisation mean that millions of Australians are not positioned to automatically share in the prosperity of an expansionary labour market strategy. To the contrary, pro-active measures must be taken to help systematically disadvantaged communities overcome economic and social barriers, and gain full access to their fair share of the decent work resulting from this plan. Specific, targeted measures are needed to support all of these communities with training, job search, recruitment and retention, and lifelong learning: including workers with disabilities, Aboriginal and Torres Strait Islander communities, new immigrants, young workers, long-term unemployed, and women. Attaining more equality in employment outcomes for these groups and others, with consequent benefits for individual, family, and community well-being, is an essential part of building a future of decent work for all Australians.

10. Facilitating mobility and opportunity

Behind any well-functioning labour market, a great amount of transition, change, and mobility is constantly occurring. Facilitating effective mobility and adjustment, and lubricating that ongoing change (by more quickly matching willing and capable workers with available opportunities), can help the labour market attain more efficient and sustainable outcomes. This effort would become even more important as the labour market tightens thanks to a consistent emphasis on job-creation: at low unemployment rates, it is all the more crucial for both workers and employers to have fast access to high-quality labour market information, and for the institutions of the labour market to facilitate fast transitions and matching. Anticipating this growing requirement for high-quality information and matching, investments are needed in a stronger and more timely national labour market information system (engaging the ABS, educational and VET institutions, and employers and business associations) to inform students and employers about future needs. Rejuvenated and well-funded non-profit employment services would focus on cataloguing vacancies, coaching new and prospective labour force entrants, and connecting them with hiring industries. Further structural measures to combine flexibility with security (including efforts to improve the

portability of current entitlements, like long service leave) could further lubricate the transitions that are essential in a healthy, highly-utilized labour market.

Conclusion and Summary of Top Recommendations

We have the collective power to choose a different direction for our labour market, and our society. The right of every Australian to decent, secure work can be fulfilled. And every Australian can make their full contribution to our future prosperity. Advances in labour-saving technology should be a benefit to Australians, rather than sparking fears of job loss – so long as we ensure those innovations are applied in ways that enhance incomes, working conditions, and leisure time. That is possible, but won't happen automatically, unless we support that process with a thorough-going, consistent policy framework: to make sure we are creating enough jobs, lifting the quality of jobs in all sectors, and empowering workers to demand a fair say in change, and to receive a fair share of the benefits.

We have identified a number of policy levers which should be aligned in this overarching effort to create more jobs, and better jobs, including measures in the following areas:

- Industrial and sector development policies.
- More effective innovation strategies.
- Creating good jobs in public services and infrastructure.
- Creating good jobs in sustainable industries.
- Boosting purchasing power and aggregate demand.
- Investing in better skills and training systems.
- Developing skills among employers (especially SMEs)
- Improving job quality through stronger regulations and standards.
- Focused measures to improve opportunities in marginalised communities.
- Facilitating labour mobility and better labour market information.

We have also highlighted several recommendations which relate directly to the recent trends in technology and employment, including the following:

- The need to broaden the definition of “employer” in labour law and employment regulations, so that digital intermediaries and other new business models cannot escape their normal responsibilities.
- The need for limits on electronic systems for employee surveillance and discipline, to protect workers' privacy, and ensure that normal due processes are followed in discipline and discharge.
- Extending rights to collectively negotiate the terms, timing, and effects of technological change in workplaces, including right for unions to negotiate over training, adjustment, and transition measures.

- Emphasis on facilitating a reduction in lifetime working hours (including shorter regular hours, greater opportunity for family, education and long-service leaves, and early retirement options), and measures to provide greater stability in working hours for part-time and irregular jobs.
- Revitalisation of sector-wide labour regulation and negotiation institutions, including strengthening the awards system to play a leading role in wage trends, and permitting sector-wide and pattern bargaining

In sum, the common, defeatist conclusion that the quantity and quality of work is out of our collective control, driven instead by inexorable forces of technology and competition, is quite wrong. Society absolutely retains the power to set clear rules, benchmarks, and expectations regarding how technology is applied, and how work is organised. We can attain a future of great work, great living conditions, and strong families and communities, if we are willing to exercise this power to build an effective, inclusive labour market.