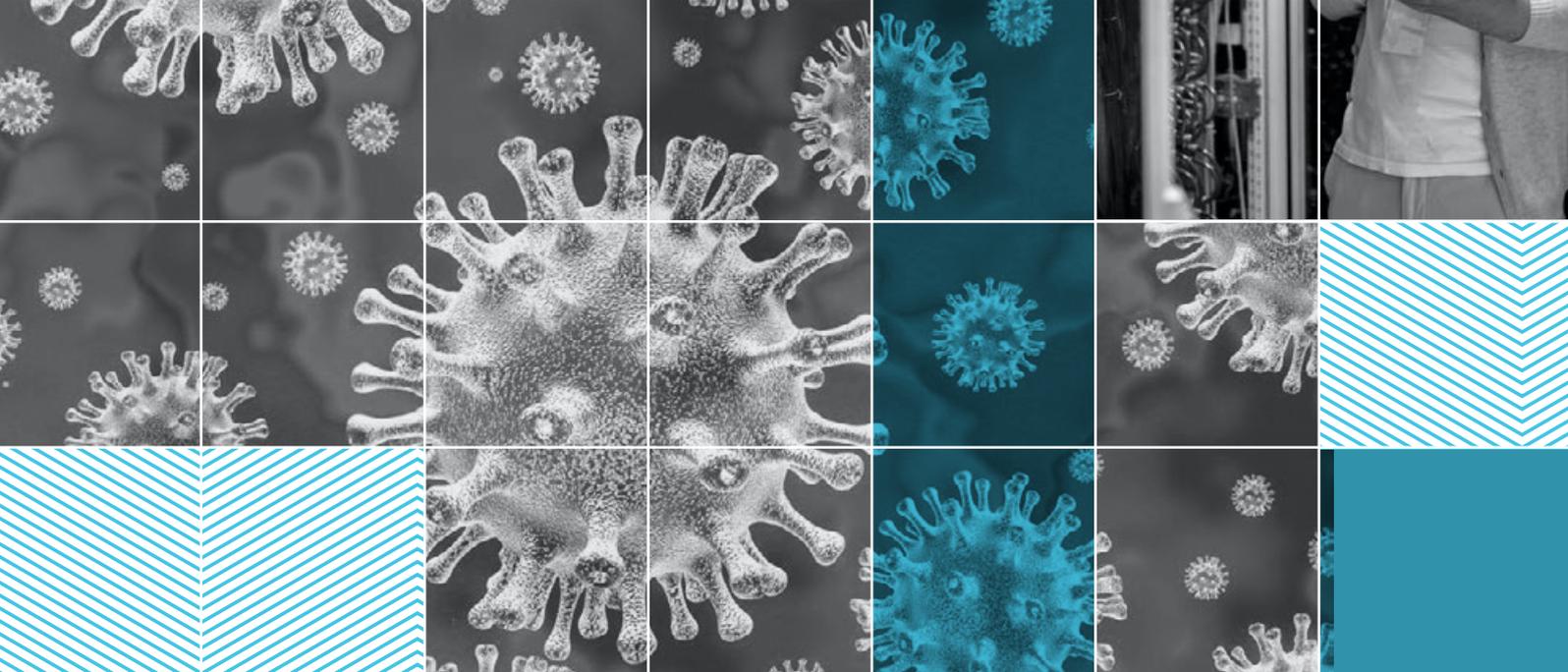




**Professionals
Australia**

INVESTING IN ENGINEERING, SCIENCE AND ICT TO REBUILD AUSTRALIA'S ECONOMY POST-COVID-19

2020-21 PRE-BUDGET SUBMISSION
AUGUST 2020





Professionals Australia

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PREAMBLE

We thank you for the opportunity to contribute to the Budget process and to identify what Professionals Australia considers 2020-21 Budget priorities.

We see a need for a strong framework for long-term investment. We need strategically-directed stimulus measures in areas of national priority where the investment will have the greatest impact - and targeted job-creation programs.

This submission proposes that we do this by:

- looking at Australian historical precedents including post-WWII economic recovery and the post-global financial crisis (GFC) experiences;
- strategically investing in the STEM (science, technology, engineering and mathematics) workforce;
- investing in the Australian people in the form of a strong healthcare system and safety net; and
- investing in our productive capacity including skills development, research, fair industrial regulation, the university education system, gender equity and diversity and facilitating workforce participation.



INTRODUCTION

Australia is experiencing a significant downturn in economic activity with high levels of unemployment, underemployment (working fewer hours than wanted) and a long-term decline in GDP growth expectations as the waves of the COVID-19 pandemic unfold. Australian GDP growth slowed to 2.3 per cent in the 2019 financial year and is likely to fall well short of the 2.75 per cent predicted for the 2020 financial year.¹

It is clear that the pandemic will have a major impact on the STEM labour market in the coming 12 months and beyond but the magnitude of the changes, the long-term impact on employment levels in particular industries and labour market segments, the extended outlook for particular skill sets and industries, when business activity and confidence are likely to stabilise and the speed of the recovery are obviously all difficult to forecast.

Professionals Australia will prioritise safeguarding livelihoods and protecting pay and conditions amid the dramatic collapse in revenue across industries. We will aim to advocate for policy measures in areas that will positively impact both the economy and the operating environment for our members which is, of course, our key purpose.

COVID-19 has changed the way we approach policy reform. We need an integrated, fair approach that prioritises addressing the impact of record job losses – an approach that protects and creates jobs for those who have lost their livelihoods and safeguards the pay and conditions of those still employed.

Governments must make informed decisions about what to do in the face of larger debt and a depressed economy, how to approach wage growth in the face of what was already record low wage growth before the pandemic, how to prioritise economic growth whilst maintaining a commitment to protective health measures and how to restore business and consumer confidence over the longer-term. We need an approach that balances debt reduction with targeted stimulus measures and accepts that government intervention and strategically-directed public investment is needed. We need to support striving for what's possible and attainable in the short-term with a longer-term vision. We need an approach that acknowledges that austerity measures - reducing government expenditure, lowering wages, cutting taxes, selling assets and lowering service standards - are not the answer. They would be counter-productive to Australia's economic recovery.

As we move into the reconstruction phase, while some professionals will maintain their previous working lives or take up opportunities in emerging areas, there is a risk that others will face an employment landscape characterised by cuts to entitlements and conditions, reduced hours of work, cuts to staffing levels, temporary or permanent wage freezes and the increased use of contract arrangements that provide little income security in the name of flexibility, IR reform and reducing 'rigidities'.

STEM professionals will play a crucial role in meeting the vast challenges posed by this pandemic and will be central to our national economic recovery.

A strong investment in the science, engineering and technology workforce as part of our reconstruction efforts will help to set our economy up for growth and job creation.

This should be the focus of the 2020-21 Federal Budget.



Gordon Brock
CEO, Professionals Australia

TOP 10 BUDGET PRIORITIES



1. FAIR INDUSTRIAL REGULATION

It is clear that we need a vision for Australia's future that is not just an excuse to wind back hard-won workers' rights and entitlements in the name of IR 'reform', flexibility or undoing 'rigidities'. We need workforce development that prioritises economic recovery, skills development, job creation and safeguarding livelihoods.



2. STRATEGIC INVESTMENT IN EMERGING AREAS

Strategic investment in emerging knowledge-based industries like biotechnology, communications technologies and advanced manufacturing is vital as well as providing competitive advantages to established industries like agriculture, resources and health care.



3. 3% R&D INVESTMENT BY 2030

We need to Increase R&D investment to 3% of GDP by 2030.



4. INVESTMENT IN RESIDENTIAL AND CIVIL INFRASTRUCTURE

Investment in residential construction and civil infrastructure including road and rail projects, fast-tracking projects will be crucial but ensuring reduction of red tape is not at the expense of community safety or building standards with sign-off by registered engineers as required.



5. CHIEF ENGINEERS

Support for a Chief Engineer in each state is needed.



6. A SHIFT IN EMPHASIS IN GOVERNMENT PROCUREMENT

Government procurement policies that do not put too much emphasis on the cheapest tenders and too little attention on local jobs, local supply chains, capital investment in Australia and the manufacturing value-add are needed. This emphasis needs to change as part of our response to the pandemic.



9. EDUCATION AND RESEARCH TO LIFT PRODUCTIVITY AND CREATE JOBS

It is essential that we recognise our universities and research institutions as vital ways of lifting productivity and creating jobs, new companies and new industries - ensure that the tertiary education system is positioned to respond to industry needs and continues to effectively build the nation's STEM skills base – and invest in research capacity – in particular for Early to Mid-Career Researchers - to ensure that Australia strengthens its research base rather than allowing it to contract as a result of the pandemic.



7. INVESTMENT IN SKILLS

Skills is a priority area – we need investment in keeping engineers and scientists' technical and enterprise skills up-to-date by committing to career-long learning and more modular forms of training and re-skilling to ensure an agile and well-trained workforce to lead us through economic recovery - and support for development, re-skilling and upskilling of IT professionals as key enablers of productivity gains, innovation and maximising the opportunities afforded by the pandemic.



10. GENDER DIVERSITY AS A VITAL PART OF STEM WORKFORCE DEVELOPMENT

Gender diversity is crucial to the continued expansion and success of STEM and in turn, the capacity of STEM to drive productivity growth as we emerge from the pandemic. The optimal approach to the Federal Budget initiatives would be to invest in projects that have the potential to contribute to business and economic growth while advancing women's progress – and support for affordable and geographically accessible childcare for working parents and those looking to return to paid employment to facilitate increased workforce participation should be a priority.



8. JOBKEEPER

It is vital that JobKeeper is extended ensuring anomalies are fixed.



REBUILDING OUR ECONOMY – HOW DO WE DO IT?

In times of recession, governments look to bridge the gap and stimulate the economy in response to the collapse of the private economy. In the years following the WWII, Australia rebuilt its economy by investing in its productive capacity creating higher levels of productivity and economic growth and a stronger tax base. Over the post-war decade – a period often referred to as the golden years of Australian capitalism - Australia built large amounts of infrastructure, invested in the skills of our people and along the way created a strengthened middle class. Investment in STEM played a very significant role in Australia's post-war reconstruction.

Arguably we face similar challenges today and a similar response is required of Australian governments. We urgently need strategic investment driven by national interest rather than ideological or political interests.

Research by public think tank Per Capita confirms that this is a sound approach:

In previous episodes of high public debt, Australian governments used expansionary full employment policies to rapidly reduce debt after high levels of borrowing for investment. During WWII, large parts of the economy were commandeered toward the war effort and government, unions and the private sector all looked for ways to expand our economic capacity through innovation and large government investments. This led to a tripling of public debt in just six years to over 120 per cent of GDP by 1946 – its highest ever level.

Yet Australians were not 'paying off this debt for generations'. Rather, the debt was returned to pre-war levels in around a decade. This happened because, rather than focus on paying off the debt by cutting spending and raising taxes, the Australian government concentrated on creating a full employment economy. It adopted policies that created the virtuous circle of public investment.

The government harnessed many of the investments made during the war, putting into place a far more robust manufacturing sector, creating the Commonwealth Employment Service to help returned servicemen find work and making significant public investments in productive infrastructure, with the explicit goal of creating full employment. Expanding the employment base and creating productive jobs was vital to the recovery.

These policies contributed to a huge increase in wages and household income, with average weekly earnings increasing by an average of 11.2 per cent per year over the 1948-58 decade. The post-war years in Australia are remembered as a 'boom' time that created a .. prosperous middle-class .. with rising standards of living and falling inequality. It was the strongest and most stable period of economic growth in our history averaging 4.2 per cent of GDP in the 1950s and rising to 5.3 per cent in the 1960s. As a consequence, it took just 10 years to reduce public debt as a proportion of GDP to the pre-war level, with incomes, welfare programs and investment in economic capacity increasing simultaneously.²

This approach can inform governments' responses to the massive challenges posed by the COVID-19 pandemic.



STRATEGIC INVESTMENT IN THE STEM WORKFORCE

The value of STEM to the economy is well-established. When flow-on effects are considered, the impact of STEM fields amounts to over 26 per cent of Australian economic activity, or about \$330 billion per year. In advanced economies, advanced science directly underpins between 10 per cent and 15 per cent of economic activity and in Australia, 65 per cent of economic growth per capita from 1964 to 2005 can be ascribed to improvements in our use of capital, labour and technological innovation – made possible in large part by STEM.

A vibrant and sustainable STEM workforce is essential to virtually every goal we have as a nation – including rebuilding the Australian economy as we move through the stages of the pandemic. We need policies and a strategy that ensure science and innovation play the central role they should in the nation's economic growth – we should increase productivity through strategic investment in engineering, science, research and development (R&D) and technology. We need a national strategy that values STEM professionals' work and defines their place in shaping the nation's future. Australia must strengthen its STEM skills base and increase engagement between the science and technology sectors, government, industry and academia. The level of ongoing investment in STEM will determine the size and impact of future dividends paid back into the economy.

Engineering, science, R&D and technology will be crucial to creating new jobs, boosting productivity and growing smart new technology-enabled industries here in Australia.

SCIENCE

A stronger investment in the science workforce as part of our economic reconstruction efforts would help to set our economy up for growth and job creation. Scientists are part of the solution and the key to rebuilding the economy - not a cost to be cut.

Budget priorities

1. A commitment to increasing Australia's R&D investment to 3% of GDP by 2030 and to reversing the decline of government R&D funding.
2. Strategic investment in emerging knowledge-based industries like biotechnology, comms technologies and advanced manufacturing and provide competitive advantages to established industries like agriculture, resources and of course health care.
3. Drive private research investment as well as strategic government investment in areas of competitive strength and national priority. Confidence needs to be rebuilt to encourage private sector investment in research and development (R&D) – which was already falling relative to the size of our economy before the pandemic.
4. Provide stability of funding (policy and funding certainty) because it generates a focus on finding solutions to long-term issues rather than short-term outcomes.
5. Invest in keeping scientists' skills up-to-date by committing to career-long learning and more modular forms of learning and re-skilling to ensure an agile and well-trained workforce to lead us through economic recovery.
6. Invest in public health capacity and capability across the public sector at both federal and state levels as an imperative in the longer-term as well as the short-term.
7. Support the effective translation of research discoveries into clinical trials.

ENGINEERING

Engineering today is about the practical application of technology, science and research-based solutions to the major challenges and opportunities presented by the 21st century. The traditional model of innovation has engineers taking scientific discoveries through a process of applied research, design, manufacture or construction and commercialisation with a view to larger-scale production – moving ideas from theory to practice. The contemporary reality is vastly more complex and is characterised by interdependent science and engineering research and development processes. These processes combine with new technologies to drive collaboration and innovation in areas as varied as construction and manufacturing, renewable energies, the prevention, diagnosis and treatment of human disease, effective counter-terrorism technologies, cyber-security, food security, communications technologies, biodiversity, transport infrastructure planning, forest management and water resources policy.

Infrastructure building and maintenance will be crucial to economic growth in the post-COVID-19 era. There is widespread disruption - to government funding priorities, to policy at the state and federal levels, to technology and to stakeholder expectations as a result of the pandemic. For Australia to emerge from the crisis, engineering capability must be placed at the heart of making the most of these disruptions. Engineers are the lifeblood of new industries and a prime source of competitive advantage for established industries like agriculture and high-value manufacturing. These are among the areas that will generate jobs and increase productivity.

The ongoing design and delivery of critical infrastructure and major nation-building projects will be fundamental to driving economic recovery as we emerge from the Coronavirus health emergency as well as the drought and bushfire emergencies. Infrastructure investment means less congestion and improved safety on our roads, better connections between agricultural and mining regions to ports, airports and other transport hubs, improved flood immunity and the construction of tunnels and bypasses and bridge upgrades. Infrastructure investment means an enhanced national rail freight network, more efficient national freight movement and upgrades to passenger networks.

Keeping engineering skills up-to-date will help ensure a well-trained and agile engineering workforce as the crisis unfolds.

In the immediate term, the Federal Budget should prioritise supporting/bringing forward funding for transport infrastructure projects that are "shovel ready", supporting suspended or delayed infrastructure and construction projects and ensuring that manufacturing, mining and agriculture projects are able to ramp back up.

In addition, given that there are no quick fixes for the complex and serious issues in engineering across industries, we restate our priorities for investment at the workforce and workplace levels that are vital to building and maintaining engineering capability and driving economic growth over the medium to longer-term.

Budget priorities

On areas of investment

Construction and infrastructure projects will be a critical driver of productivity. A comprehensive outline of specific construction and infrastructure priorities for the Federal Budget is beyond the scope of this submission but the following should be considered:

1. Invest in our civil infrastructure including road and rail projects.
2. Ensure fast-tracking and reduction of red tape in building residential, commercial and civil infrastructure is not at the expense of community safety or compromised building standards with sign-off by registered engineers as required.
3. Ensure optimal use of taxpayer dollars and minimisation of waste in engineering and construction projects.
4. Support partnerships between the private and public sectors to invest in specific infrastructure projects – rebuilding after bushfires and floods.
5. Support a transition to producing value-added products via an advanced manufacturing industry.
6. Invest in residential construction.

On investment priorities for workforce development

1. Chief Engineers - support a Chief Engineer in each state.
2. Ensure only professional engineers do engineering work - engineering is complex yet too many non-engineers are working in jobs that should be performed by qualified engineers. Only qualified, professional engineers should undertake engineering services.
3. Best practice graduate programs and ongoing professional development - to build professional capacity and maintain currency in a fast moving world, workplace graduate programs must be world's-best and engineers should be supported and reimbursed for all costs associated with registration and ongoing continuing professional development.
4. Close the gender pay gap and improve diversity - to close the gender pay gap, we must provide real gender equality. This means recognising that there is a strong business case for embracing diversity in all its forms. Women still comprise only 12% of the engineering workforce.
5. An Engineering workforce plan to meet future needs - an Engineering workforce plan should identify and predict project needs into the future and match this to engineering skills needs. By developing an Engineering workforce plan and taking steps to enact the plan, businesses and governments will be in a better position to forecast and manage their engineering capability as we emerge from the pandemic. A comprehensive Engineering workforce plan within every organisation would ensure that each has:
 - a plan to develop and maintain a skilled workforce of engineers;
 - a minimum level of internal engineering capacity;
 - salaries and conditions which attract and retain quality engineers;
 - processes and funding to support professional development; and
 - a best-practice graduate program to train future engineers.
6. Build in-house engineering capacity and assess the cost- benefit of outsourcing - before engineering work is outsourced, employers should consult with their engineering workforce to ensure internal capacity is maintained and the outcome is truly best value.
7. Ensure a shift in procurement policy - Government procurement policies put too much emphasis on the cheapest tenders and too little attention on local jobs, local supply chains, capital investment in Australia and the manufacturing value-add. This emphasis needs to change as part of our response to the pandemic.

INFORMATION AND COMMUNICATIONS TECHNOLOGY

The ICT industry is one of Australia's most critical sources of employment and employment growth potential over the next decade. It is a significant enabler of innovation and productivity and a consistent driver of economic growth. OECD, Productivity Commission and ABS studies estimate that 50 per cent of all Australian business productivity can be attributed to the application of ICT. To 2019, Australia's ICT workforce has continued its long-term pattern of growth, with the number of ICT positions rising to 723,334 in 2018³, up from 663,100 in 2017, 640,846 in 2016 and 628,000 in 2015. This figure is forecast to grow to 792,000 professionals by 2024. The ICT industry contributes around 8 per cent of Australia's GDP - equivalent to that of the mining industry.

While the cautious business environment and hiring restraint arising from the pandemic could affect the future pipeline of skilled ICT workers, there is evidence that tech skills are in high demand and hiring intentions still strong in many areas. Specialists across areas such as AI, machine learning, mobile app development, web development, advanced data analytics, cybersecurity and transitioning to the Cloud continue to be in high demand across Australia. As companies respond to an acceleration in remote working, the demand for IT talent in related areas is also likely to grow. The shift to online education and the impacts of the need for social distancing will also see increasing demand for products and services delivered by the tech industry.

Budget priorities

On investment priorities for workforce development

Again, while a comprehensive outline is beyond the scope of this submission, these are some areas worth considering for priority investment out of the upcoming Federal Budget.

1. Support development, re-skilling and upskilling of IT professionals as key enablers of productivity gains, innovation and maximising the disruption opportunities afforded by the pandemic.
2. Ensure the pandemic does not impact the mobility of IT Professionals wanting to move into the Australian market in areas of shortage because workers with qualifications from overseas make up around 30 per cent of employed IT professionals.
3. Ensure the industry maintains its levels of permanent ongoing employment – while monthly job vacancies are consistently significantly higher for IT than for other STEM fields, they are often for specific projects rather than ongoing positions.
4. Support for IT enrolments and completions in graduate and post-graduate courses.
5. Support for onshoring and rebuilding/maintenance of in-house of IT functions where appropriate.





INVEST IN THE AUSTRALIAN PEOPLE

SAFETY NET - SUPPORT HEALTHCARE AND SOCIAL SECURITY SYSTEM

In 2014, Jenny Macklin said:

Investing in the Australian people – including in the safety net – is the key to economic prosperity. Poverty, inequality and social exclusion are not just bad for the individual but also for the economy. To fail to invest in the welfare and health sectors short-sells Australia's potential by downgrading its human capital investment.

This message is even more critical now as we deal with the impacts of COVID-19 on the Australian community.

Budget priorities

A comprehensive outline of Budget priorities in this area is beyond the scope of this submission, but as a minimum should:

1. Provide for JobKeeper to be extended ensuring anomalies are fixed.
2. Invest in aged care, disability services and mental health services in response to issues arising as a result of the pandemic.
3. Provide for paid pandemic leave across the community to assist with the containment of community transmission.
4. Provide further support for Fair Work Ombudsman's office to enforce sham contracting provisions to contain the growth of insecure work arrangements with contingent work arrangements showing a strong correlation with high levels of community transmission.
5. Ensure a strong public health system.
6. Re-consider the level of JobSeeker.

INVEST IN SKILLS DEVELOPMENT

It has been estimated that 75 per cent of the fastest growing occupations require STEM skills and knowledge.⁴ Investing in our skills base and STEM capability will be a critical driver of job creation, innovation and economic growth.

The importance of specialised STEM skills in the workforce for sustaining economic growth cannot be overstated. The lack of up-to-date skills such as commercialisation and translation skills in science and R&D is as much a threat to economic growth and meeting the challenges emerging from the COVID-19 crisis as ineffective regulation or lack of access to financial resources. Equipping STEM professionals with the right mix of technical and enterprise skills to make them effective leaders, people-managers, communicators, entrepreneurs and decision-makers is vital.

We need to position our training system to provide continuing professional development as new fields of specialist expertise emerge and the skills STEM professionals were originally trained in when qualifying become outdated.

POSITION THE EDUCATION SYSTEM TO BUILD THE NATION'S STEM SKILLS BASE

We need to keep STEM professionals' skills up-to-date by committing to career-long learning and investing in more modular forms of learning and re-skilling to ensure an agile and well-trained workforce.

Universities are bracing for a fall in international student income over the next two years. There have been large-scale redundancies with the casualised teaching workforce particularly hard-hit. Field work has been impacted by social distancing and laboratory closures and many universities have introduced reduced working hours for academic staff while at the same time moving all teaching across to online platforms.

Education and our universities and research should be recognised as vital ways of lifting productivity and creating jobs, new companies and new industries. While a comprehensive outline of appropriate supports for universities is beyond the scope of this submission, essentially we need to ensure that the tertiary education system responds to industry needs and continues to effectively build the nation's STEM skills base.

INVEST IN RESEARCH CAPACITY

Estimates suggest that the return on investment of funding basic research is between 20-60 per cent per year. In Australia, every \$1 invested into our National Health and Medical Research Council returns \$3.20 in health and economic benefits. For every dollar invested, Australian medical research returns \$3.90 in benefits to the population. Again, it is beyond the scope of this submission to outline the range of investment initiatives that could support research, but it is critical that Australia strengthens its research base rather than allowing it to contract as a result of the pandemic.

EARLY TO MID-CAREER RESEARCHERS (EMCRS)

A new survey looking at the impact of COVID-19 on Australia's early- and mid-career researcher (EMCR) workforce has found significant effects on the mental health and productivity of EMCRs. There is a risk that without support, Australia will lose this talent overseas or they will drop out of the research field altogether. While a comprehensive outline of specific initiatives to support EMCRs is beyond the scope of this submission, we need to ensure retention of research talent and an ongoing pipeline of researchers as a priority. We suggest that action should be taken to secure the future of Australia's next generation of researchers by funding additional Investigator Grants for EMCRCs in the Federal Budget.



ENSURE FAIR INDUSTRIAL REGULATION

It is clear that we need a vision for Australia's future that is not just an excuse to wind back hard-won workers' rights and entitlements in the name of IR 'reform', flexibility or undoing 'rigidities'. We need workforce development that prioritises economic recovery, skills development, job creation and safeguarding livelihoods.

In 2011, Leo D'Angelo Fisher said:

With the Global Financial Crisis many people who took pay cuts, had their pay frozen, cut their hours, took on heavier workloads, and endured stalled careers to suit the employer and keep their jobs ended up being very disillusioned as their organisations moved out of the crisis. People who made those sacrifices as a trade-off for keeping their jobs were promised better times but instead they ended up resentful and angry when the upturn just didn't happen - they just got more of the same. Down the track these employers found it hard to retain their best talent or to attract new talent and they wondered why.⁵

With this experience in mind, it is critical that:

- organisations understand that (as Fisher also says) those who "revitalise their workforces for the challenges and opportunities ahead will emerge strongest from the COVID-19 crisis";
- that people are part of the solution and the key to future prosperity - not a cost to be cut; and
- that the imperative is even more critical with the scale of the COVID-19 crisis compared to the GFC.

Award safety net

Some employer groups and employers are pushing for the award safety net to be reduced and for expanded prerogative powers. In our view this would be an entirely retrograde step.

Insecure work

One of the major debates arising from the pandemic is around the contingent labour market. The pandemic has made the link between insecure work and workplace transmission of COVID-19 very clear with those in casual roles lacking access to paid sick leave. While the most hard hit areas were the aged care and meat processing industries, Victoria's second wave demonstrated the consequences of the systemic "race to the bottom" in a range of industries where employers try to minimise labour costs in the name of flexibility.

Reconsider offshoring and outsourcing in Australian government procurement

The impact of globalisation is another area that is likely to be another major area of public debate as we emerge from the COVID-19 crisis. There are legitimate questions on whether there is a role for reduced offshoring or mandating Australian contribution in Government procurement arrangements (see also item 7 under Engineering - On investment priorities for workforce development).

Ensure regulation around working from home

There is a clear need for rights and protections to be established in this area.

Proper consultation around change

Our research suggests that in response to the COVID-19 pandemic, pay cuts, pay freezes and reduced hours were in some cases imposed on members without proper consultation. Some employers have pushed for reduced periods for consultation with their workforce on change. We will strongly defend proper consultation on change for workers.

SUPPORT GENDER EQUITY AND DIVERSITY IN STEM

The COVID-19 pandemic has renewed the ongoing discussion of diversity in STEM with concerns that the health crisis will further entrench or widen the under-representation of women and other groups in STEM fields. Diversity is crucial to the continued expansion and success of STEM and in turn, the capacity of STEM to drive productivity growth. The optimal approach to the Federal Budget would be to invest in initiatives which have the potential to contribute to business and economic growth while advancing women's progress.⁶

Job losses

ABS figures show that initially job losses impacted men and women differently. Overall employment was down by 7.5 per cent between 14 March and 18 April - while female employment dropped by 8.1 per cent, male employment dropped by 6.2 per cent.⁷ According to a recent report on the impact of COVID-19 on women in STEM, Australia's scientific and technical services industry recorded job losses of 5.6% from mid-March to mid-April 2020, with jobs down 6.3 per cent for women compared to 4.8 per cent for men.⁸ More recent data is suggesting that the differential in impact on job losses has narrowed and is now very similar with resilience shown in female-dominated fields such as healthcare and education.

Underemployment/loss of hours

Statistics also show that to date women have been impacted more than men in terms of working hours, losing 11.5 per cent of the hours worked in March, compared to men who lost 7.5 per cent.

Overrepresentation of women in industries most affected

Women are overrepresented in the industries most affected by the COVID-19 pandemic including food and accommodation services, the arts and recreation fields and health services. 75 per cent of health professionals many of which were deemed to be essential services are women including pharmacists and medical scientists. Women are also over-represented in casual and short-term contract employment and because more women are more likely to have been working in short-term roles for less than 12 months, they are also more likely to be over-represented in those ineligible to receive JobKeeper.

In the university sector, women are more likely be part of the increasingly casualised academic workforce where job losses have been high as well as over-represented in job losses in non-academic areas. The impact is two-fold in the sector because university workers are not eligible for the JobKeeper subsidy.

Gender pay gap

According to Economic Security 4 Women, the deterioration in paid employment in the workforce for women, relative to men will work against narrowing the gender pay gap. The gender pay gap in the Professional, Scientific and Technical Services sector sat at 24.3 per cent and at 17.1 per cent in the IT sector in 2019⁹. The unequal burden of job losses, rising underemployment and the surge in people dropping out of the labour force as a result of the recession triggered by COVID-19 will mean a continuing focus on measures to reduce the pay gap for women in STEM is needed.

Gender superannuation gap

As part of its economic policy response to the COVID-19 pandemic, the federal government allowed workers to withdraw up to \$10,000 from their superannuation accounts during the June quarter 2020 and to withdraw a further \$10,000 during the September quarter 2020. According to preliminary data, women have eroded their superannuation balances more than men, a factor that will seriously undermine their retirement nest egg in the years and decades ahead. Initial research shows that women were withdrawing 21 per cent of their starting superannuation balances compared to 17 per cent of men. 14 per cent of women had emptied their total super savings compared with 12 per cent of men. Initiatives to address the gender superannuation gap are urgently needed.

Impact on single parents

The Workplace Gender Equality Agency's study of the impact of COVID-19 also suggests that the impact of the pandemic on single parents – the majority of whom are women – was impacting women's capacity to undertake paid work.¹⁰

Impact on young women

Another aspect of the COVID-19 pandemic has been the disproportionate decline in employment for young women. According to payroll data compiled by the ABS, employment fell by a concerning 18 per cent for women under the age of 20 years, which compared with 13 per cent of men under 20 years and 6 per cent in total.

FACILITATE WORKFORCE PARTICIPATION

In the past month the labour force participation rate fell by 2.5 percentage points and the impact has been greater on women with an extra 2.9 per cent of women out of the labour force compared to an extra 2.1 per cent of men¹¹. Time will tell whether this is a temporary disruption that will reverse when the pandemic recedes or whether it involves longer-term structural change.

Access to affordable quality childcare

Childcare remains a critical issue in determining workforce participation of women and with that, their lifelong financial security. The extreme conditions of the COVID-19 crisis saw the government offer free childcare for a period of around three months, with this scheme ending on 12 July 2020. This support was mainly aimed at underpinning the viability of the childcare centres as many parents withdrew their children for reasons linked to the pandemic and the broader lock down, unemployment and affordability. Access to childcare remains a crucial issue.

Paid and unpaid care

There is evidence that the lock downs and the move to home schooling saw female caring time increase in absolute terms and also relative to that of males and that is a factor in reducing their ability to participate in paid work.

Budget priorities for gender diversity and workforce participation

1. Utilisation of the industrial relations system to progress gender equity

The federal industrial relations system has historically provided a fair and effective mechanism for progressing gender equity at the workplace and workforce levels that balances the needs of workers and industry. Enterprise bargaining and the National Employment Standards have provided access to core working conditions such as flexible work arrangements, carer's leave, paid parental leave, access to employer-provided child care and a range of other conditions that support progress towards equal opportunity and balancing work and life responsibilities.

Test cases run by the Australian Council of Trade Union (ACTU) on behalf of affiliate unions have resulted in significant progress for female workers in the Australian workforce including STEM professionals.

With increasing the workforce participation of currently under-represented groups critical to increasing productivity in the short-term, we would see utilising the industrial relations framework to implement the following as a key priority not only for the upcoming Budget year but as a means of providing for effective workforce development over the medium to longer-term:

- review the historical under-valuation of work in a range of female-dominated industries;
- support mechanisms that allow for more equitable sharing of caregiving responsibilities;
- support measures to enhance women's access to superannuation provisions to improve retirement savings over the longer term;
- enhance paid parental leave provisions ensuring men can take time off work to care for a newborn child as well as women;
- provide a right to family-friendly working hours;
- provide for superannuation for periods of parental leave; and
- provide for paid domestic violence leave.

2. Childcare

Affordable and geographically accessible childcare remains the key determinant of workforce participation for women, and it is our view that the Federal Budget should prioritise increased subsidies to ensure childcare is affordable for working parents and those looking to return to paid employment.

3. Coordinating the response to dealing with setbacks to gender equity arising from the pandemic

We support the ongoing funding and policy support for the implementation of the 2020 Women in STEM Action Plan arising from the Women in STEM Decadal Plan by the Academy of Science as a means of checking not only progress but also the critical task of the monitoring and addressing setbacks in gender diversity arising from the pandemic.

ABOUT US

Professionals Australia is comprised of a number of Divisions including Professional Scientists Australia, the Association of Professional Engineers Australia and IT Professionals Australia.



**Professional
Scientists
Australia**

Professional Scientists Australia represents several thousand professional scientists from a broad range of specialisations including health science, biomedical science, ecology, veterinary science, neuroscience, mental health, genetics and genomics, astronomy, biochemistry, mineral processing, environmental science, fertility science, defence research, synchrotron science, environmental science, immunology, water science and automotive design.



The Association of
**Professional
Engineers
Australia**

The Association of Professional Engineers Australia's members are employed across all sectors of the Australian economy. Engineering-based industries are worth \$479 billion or 32 per cent of national gross value added and exports from engineering-based industries excluding mining totalled \$92 billion or 29 per cent of total exports. This figure swells to \$249 billion or 78 per cent of exports if mining is included. Engineers perform design, scoping and project management roles in a diverse range of industries throughout the private and public sectors including roads, rail, water, electricity, information technology, telecommunications, construction, mining, oil and gas exploration, defence, shipbuilding and manufacturing. Engineers are largely responsible for designing, building and maintaining Australia's infrastructure. The contribution of our engineers and their ability to derive new ideas and develop solutions to our challenges as a nation will be fundamental to a transition to a competitive high-skill, knowledge-based economy and successfully emerging from the pandemic.

We are approved as an assessment entity for the only mandatory engineering registration scheme in Australia – the Registered Professional Engineers of Queensland (RPEQ). We offer assessment in the areas of Civil, Electrical, Information Technology and Telecommunications, Management, Mechanical, Geotechnical, Chemical and Environmental and Structural Engineering.



IT
**Professionals
Australia**

IT Professionals Australia represents ICT professionals across the full spectrum of industries and specialisations. Our members work in a wide variety of roles including ICT trainers, ICT sales, business and systems analysts, multimedia specialists, web developers, software and applications programmers, database and systems administration, ICT security, ICT support, test engineers, telecommunications and ICT management as employees, via labour hire agencies and as contractors and consultants.

The Engineering, Science and IT Divisions of Professionals Australia have four key objectives:

- to ensure members' interests are well-represented and protected when government policies, outsourcing and offshoring, management decisions, new technologies or large-scale social or health crises lead to workplace change;
- to provide a strong voice for STEM professionals. This involves considering the kind of support, policies and practices at the enterprise and structural levels needed to create a sustainable and diverse STEM workforce capable of realising optimal levels of innovation and productivity;
- to play a leading role in encouraging dialogue between industry, government and the higher education sector. This means advocating for investment and structural reforms, building the platforms for cooperation and change and initiating and leading projects to foster collaboration that will have a positive impact on our members' operating environments; and
- to promote public understanding of STEM and the key role STEM professionals play in ensuring Australia's future. This involves influencing public policy and resource allocation decisions and promoting the value of science to decision-makers and the wider community. We seek to highlight the critical role STEM plays in enabling productivity and innovation, promoting economic prosperity, protecting the environment, building and maintaining the nation's transport and IT infrastructure, improving human welfare and quality of life, preventing, diagnosing and treating human disease, enabling digital innovation and protecting national security. In doing so, we raise the status of the STEM professions and the professionals who work in STEM fields.

Professionals Australia is a not-for profit organisation and is owned by its members.

Submission preparation

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**2020-21 Pre-Budget Submission
August 2020**

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