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**Productivity Commission**

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*From the Chairman's Office*

22 January 2018

Mr Stephen Palethorpe  
Secretary  
Senate Select Committee on the Future of Work and Workers  
PO Box 6100  
Parliament House  
Canberra ACT 2600

By email: [futureofwork.sen@aph.gov.au](mailto:futureofwork.sen@aph.gov.au)

Dear Mr Palethorpe

In response to your letter of 22 November 2017, please find attached a short submission to the Inquiry into the Future of Work and Workers. The submission is to make the Committee aware of some recent Productivity Commission work that touches on the future of work in the context of technological change.

Yours sincerely

Peter Harris AO  
Chairman

## Productivity Commission Submission to the Senate Select Committee on the Future of Work and Workers

Flux in the Australian economy has been the norm. Several factors have been critical. Technological transformation has always been the decisive factor in long-run multifactor productivity growth, underpinned by, and causing, shifts in resources (including labour) around the economy. As is typical of all advanced economies, higher incomes have also stimulated Australian demand and production for services. That shift has been reinforced by the capabilities of developing economies to competitively produce goods. Australia has been the beneficiary of these global developments by removing barriers to trade — which has given Australians access to low cost imports of manufactured goods, while further opening the door to exports of (non-labour intensive) goods as in mining and agriculture, and more labour intensive complex services.

Examining the future of work can profitably look back at how and to what extent the Australian economy adapted to these fundamental forces, but with an awareness that ‘this time may be different’. The Commission has examined these forces in many of its inquiries and research reports, but wishes to make the Committee aware of some of our most recent work that touches on this area. We do not repeat the analysis and findings of this material in this submission, but alert Committee members to the relevant material and to the key messages that emerge from them. The key reports are:

- Digital Disruption: what do governments need to do (Digital Disruption, released 15 June 2016) — (<https://www.pc.gov.au/research/completed/digital-disruption>) See chapter 3 in particular.
- Shifting the Dial: 5 year productivity review (5 Year, released 24 October 2017) — (<https://www.pc.gov.au/inquiries/completed/productivity-review/report>) See chapter 3 and Supporting paper 8 particularly
- Australia’s Workplace Relations Framework (released 21 December 2015) — (<https://www.pc.gov.au/inquiries/completed/workplace-relations#report>) See chapter 2.
- Data Availability and Use (released 8 May 2017) — (<https://www.pc.gov.au/inquiries/completed/data-access#report>)

Some of the key observations that emerge from this analysis are:

- *Resilient labour markets.* Labour markets have — in aggregate — been reasonably resistant to the large shocks posed by new technologies. Perhaps the simplest indicator of this is that unemployment rates have fluctuated over the long run, but have not trended up, as would be expected if new jobs and occupations did not emerge (Digital Disruption). Labour participation rates have steadily risen. However, the aggregate story can hide job loss and wage suppression amongst particular affected groups. This suggests a policy framework that focuses on at-risk workers, which will be mainly those who are in isolated labour markets or have lower skill and education levels that frustrate their capacity to take up new jobs.
- *Slow change.* The changes in technology that have occurred in the past decade or so have often been characterised as ‘dramatic’ or it has been asserted that change is ever accelerating. The evidence for this is mixed. Other periods show profound changes — such as the post second world war period, where mass production, computers, modern telecommunications and commercial aviation boomed. Moreover, notwithstanding popular impressions, the job market itself has not

changed dramatically in the last decade or so. Casual work and self-employment has not increased in relative importance, nor has job tenure declined, even though industries and technologies have changed significantly (Australian Workplace Relations Framework). It is much easier for people and governments to adapt when change is slow. So a key role for government is to assess future risks of rapid change and dislocation.

- *The 'Gig' economy is still in its infancy in Australia* — and the inflated numbers sometimes cited do not reflect the amount of hours people work in traditional jobs (Digital Disruption and 5 Year). However, that may change. A challenge for policy is, on the one hand to ensure protections for workers while, on the other, not destroying the opportunities for economic growth that rely on new forms of employment. The Commission has not reached a conclusion about the desirability of a 'third way' between the traditional demarcation between an 'employee' (many protections) and a 'contractor' (very few protections), but a question is whether the current demarcation will be apt in the future.
- *Technological forecasting.* As the Commission noted in its Digital Disruption report, the US Postmaster-General forecast delivery of mail by rocket, while Keynes saw a future with prosperous citizens working very short hours — forecasts that look amusing in a modern context. Others have more recently painted bleak pictures of job opportunities for many people (the non-prosperous version of Keynes). We do not know yet whether this is true, but many factors suggest the picture is too glum (5 Year). Notably, occupations with high risks of automation in the past have not always fared badly. So far, most occupational risk has been experienced by people in 'moderate skill' jobs.
- *Automation and artificial intelligence* are likely to have major effects in the economy, including the creation of new occupations and jobs, and the destruction of others (Digital Disruption and 5 Year). The growing importance of 'data' as a resource will be one driver of new products, new skills and new jobs, and so getting a good policy framework in place for this resource is an imperative (Data Availability and Use). While the history of technological change suggests that the *net* effect on employment of these current and pending developments will be small, it is possible that digital disruption (and especially artificial intelligence) *may* have more fundamental effects on occupations, since many tasks are vulnerable to automation. However, just because a job can be automated does not mean it will, and occupations that require creativity and human empathy are less likely to be automatable. Job growth in areas like aged and disability care will be strong (and indeed, in its recent review of the fledgling National Disability Insurance Scheme, the Commission found that one of the main inhibitors for the rollout of the scheme was a shortage of workers in the disability care sector). Regardless, digital disruption may increase wage inequality. In the longer run, changes to income support measures may be needed to the extent that wage growth is slow (or negative), or if under/unemployment rises. The concept of a universal basic income has been given increasing prominence in debates about the effects of disruption on inequality and labour income, though it is premature to embrace the measure at the moment.
- *Governments can do a lot already to protect widespread prosperity*, not least by ensuring a high quality education system geared to the needs of students. The Commission's most recent prognosis is that the school, VET and university system is not delivering the best student outcomes (5YR). Quite separate from the required rehabilitation of the system, some suggest that there is a much greater need for the encouragement of students to undertake courses in science, technology, engineering and mathematics. There seems little question that (some) STEM skills will play a

clear role in developing and diffusing digital technologies, and in creating new job opportunities. However, the current labour market is not strongly receptive to STEM skills, as demonstrated by graduate outcomes for those that have studied STEM subjects. Understanding why the demand side for STEM skills is not strong in an economy increasing reliant on those skills is a paradox worth investigating (Digital Disruption).

We hope these brief observations, supplemented by the detailed analysis that lies behind them in the above-cited reports, are useful to the Committee.