

## **Australia's future demographic and workforce challenges – the role of tertiary education.**

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### *The challenges*

Over the next decade – and beyond – Australia faces several closely related challenges arising from significant demographic changes and future workforce requirements.

- The Australian population is growing as a consequence of both natural growth and net migration. The Australian Bureau of Statistics (ABS) medium population projections would see Australia's working age population (15-64) growing from 15.2 million in 2012 to 25 million by 2061, with significant growth over the next decade<sup>1</sup>.
- However, the working age as a proportion of the Australian population will decline from 67 percent in 2012 to 61 percent by 2061. The proportion of the workforce aged over 50 will increase from 27 percent to 30 percent.
- If net migration slows the working age population and the overall Australian population will age more quickly (as migrants typically come from younger age cohorts).
- As a consequence of both population aging and projected increases in the number of children and young people, dependency ratios in Australia will increase – that is the proportion of people in the workforce relative to those not in the workforce <sup>2</sup>.

Increasing workforce participation is therefore a central policy challenge for Australia and Australian Governments. Workforce participation levels have strengthened in Australia in recent years, but in the long term are likely to decline as a proportion of the total population as a consequence of population aging. Workforce participation by the working age population will have to increase significantly offset this overall decline in workforce participation.

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<sup>1</sup> Australian Bureau of Statistics 3222.0 - Population Projections, Australia, 2012 (base) to 2101

<sup>2</sup> <sup>iii</sup> Australian Institute of Health and Welfare (2015) *Australia's Welfare 2015*  
<http://www.aihw.gov.au/australias-welfare/2015/working-age/>

## *The importance of tertiary education to workforce*

Across advanced economies, workforce participation levels are strongly correlated with levels of educational attainment. In considering labour market participation rates across different age cohorts, the 2015 Intergeneration Report prepared by the Commonwealth Treasury noted that:

*Factors affecting each age group's participation in the labour force, such as educational attainment, also play an important role in changes to overall participation rates<sup>3</sup>.*

The OECD has found that through a comprehensive analysis across its member countries:

*On average, over 80% of tertiary-educated adults are employed, compared with over 70% of people with upper secondary or post-secondary non-tertiary education, and less than 60% of adults without upper secondary education.*

*Tertiary-educated adults also earn about 60% more, on average, than adults with upper secondary as their highest level of educational attainment.*

*In general, employment rates and earnings increase as an adult's level of education and skills increases; but the labour market still regards a diploma or degree as the primary indication of a worker's skills<sup>4</sup>.*

Employment growth in Australia will be largely concentrated in occupations requiring a post school qualification. Of the 950,000 new jobs projected by the Department of Jobs and Small Business to be created by 2022, only 4 percent will be at the level requiring only a secondary education. The remainder will be created at skill levels equivalent to tertiary qualifications, and evenly split between VET and higher education<sup>5</sup>.

This does not suggest that a relevant tertiary qualification is essential for each of these jobs but that those with tertiary qualifications will be far better positioned in the labour market than those with only secondary school educational attainment levels.

However, job openings are not just a consequence of employment growth. Replacement of people leaving jobs due to turn over and retirement also affect demand for labour and consequently demand for skills. In a recent study, Shah and Dixon found that there are a range of skilled occupations with older age profiles where retirement will create job

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<sup>3</sup> 2015 Intergenerational Report *Australia in 2055* Commonwealth of Australia. P.16  
[https://static.treasury.gov.au/uploads/sites/1/2017/06/2015\\_IGR.pdf](https://static.treasury.gov.au/uploads/sites/1/2017/06/2015_IGR.pdf)

<sup>4</sup> OECD (2015), *Education at a Glance 2015: OECD Indicators*, OECD Publishing.  
<http://dx.doi.org/10.1787/eag-2015-en>

<sup>5</sup> Commonwealth Department of Jobs and Small Business *2017 Skill Level Projections*  
<http://lmip.gov.au/default.aspx?LMIP/GainInsights/EmploymentProjections>

vacancies and potentially skills shortages, particularly amongst technicians and trade workers. Replacement demand is projected to account for 40 percent of job openings for professionals.<sup>6</sup>

Meeting replacement demand will in many cases require the retraining or upskilling of older and experienced people currently in the workforce rather than new entrants to the workforce.

### *Participation levels in tertiary education projected to fall*

An effective tertiary education system with high levels of participation is essential to help address the challenges outlined above to ensure:

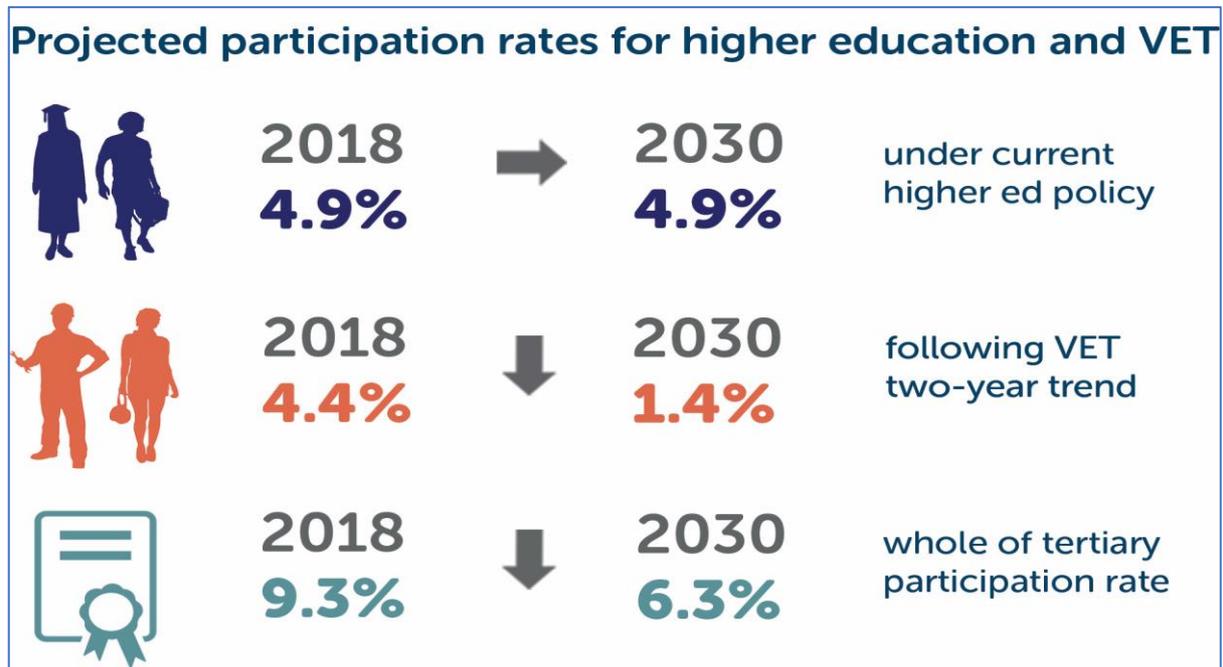
- that all young people are able to acquire an initial post school qualification and then undertake further studies, and
- that people already in the workforce and wishing to return to the workforce can retain the currency of their skills, upgrade their skills or retrain in areas where job opportunities exist.

However, modeling undertaken for the Mitchell Institute at Victoria university suggests that just as Australia is entering an era where sustained increases in participation in tertiary education are required, participation levels in tertiary education in Australia (defined as Certificate III to Degrees) are likely to fall over the next decade and under some scenarios to fall sharply as highlighted in figure one below.

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<sup>6</sup> Shah, C & Dixon, J 2018, Future job openings for new entrants by industry and occupation, NCVET, Adelaide.  
<https://www.ncver.edu.au/research-and-statistics/publications/all-publications/future-job-openings-for-new-entrants-by-industry-and-occupation>

Figure one<sup>7</sup> (we can supply this graphic for formatting)



Participation levels in publicly tertiary education in Australia are projected to fall under current higher education funding policies and trends in VET because:

- Higher education enrolments will only increase in line with population growth and as a consequence participation levels (enrolments as a proportion of the population) will remain constant.
- VET enrolments have been in sharp decline since 2012. Even if the decline evident over only the past two years continues, VET would become essentially a residual sector by the end of the next decade. To just maintain publicly funded enrolments in VET at 2016 levels would require an additional 150,000 enrolments by 2030.
- As a consequence, overall participation levels in tertiary education will fall even with modest growth in higher education.

Discussion about funding for tertiary education in Australia has been sector specific, and dominated by issues related to efficiency and savings, subsidy levels, student contributions, provider access to public funding and in VET by the consequences of the abuse of the VET FEE HELP scheme, the effects of poorly designed markets and the ongoing decline of TAFE.

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<sup>7</sup> P. Noonan and S. Pilcher, *Participation in tertiary education in Australia: Modelling and scenario analysis*, Mitchell Institute, 2018.

These are all important issues but are essentially about means – not ends. What is required is a comprehensive, sustainable and long-term funding framework for VET and higher education in Australia to meet the needs of the country's growing population and to support increased participation in its workforce.

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Minto – As discussed I can go into detail here on my proposed financing model and framework but am at 1100 words already and not sure if other papers are addressing that issue.