



Fit for purpose?

Reforming tertiary education in Australia

Supplementary Paper

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Summary of main points

The attached slides provide a summary of some key issues raised in a framework paper written for the Mackenzie Research Institute which canvasses issues associated with the effectiveness, fairness and efficiency of Australia's tertiary education framework.

The paper and the summary slides contain eight key propositions.

1. Tertiary education can be a driver of economic growth but unrestrained growth in one sector, e.g. higher education, will have only a minimal effect on productivity/economic growth and can create a skills mismatch.
2. Our current tertiary education arrangements have led to a hollowing out of the intermediate skills workforce in Australia and an oversupply of graduates in some fields.
3. Core skills, especially literacy, numeracy and digital competence will bring far greater rewards and mobility to the individual and better productivity outcomes for industry. This is especially so in dynamic contexts when dramatic shifts in the economy can create an obsolescence of existing skills and abilities.
4. The primary driver of growth in higher education is not industry or government but rather middle-class aspiration. It follows that tertiary systems that differentiate between vocational education and training (VET) and higher education must ensure that the VET sector has a clear pathway into applied higher education.
5. Our current VET arrangements are a dead-end and crush aspirations and do not facilitate students reaching their full potential.
6. The uncapped demand driven higher education system has been ineffectual in creating a diversified student population. Australia's disadvantaged groups populate a VET sector that is financially bereft and struggles to provide essential support, notwithstanding the excellent completion rates that VET students achieve.
7. Reform/revitalisation of tertiary education has to begin with the reform of upper secondary education and a recognition that adult needs are different to the needs of sixteen to eighteen year olds. It is suggested that two streams of upper secondary education are needed: a technical stream and an academic stream.

8. In many Organisation for Economic Co-operation and Development (OECD) countries substantial reforms are in place or being developed to cater for diverse student needs and the challenges of the fourth industrial revolution.

In developing the propositions, the paper suggests that the theoretical underpinnings of higher education are flawed and the underpinnings of vocational education in Australia are based on discarded and unproven ideologies.

Using data from the OECD that compares skilled workforces internationally, it surmises that our existing tertiary structure has led to a hollowing out of skills within the Australian economy. If the current arrangements are allowed to continue, Australia will become internationally uncompetitive.

In considering reform, the paper acknowledges the power of a rising middle class and established elites to use higher education for their own interests. It suggests that the movement towards mass education can lower quality.

It is suggested that in any reform of tertiary education the beginning is upper secondary education. An analysis of Australian student outcomes in years 11 and 12 over a four-year period, indicates that the outcomes are unimpressive.

Drawing on an understanding of tertiary systems in Nordic countries, Germany and the nascent UK initiatives, a framework for reform is advanced that collapses Certificates I to III into one upper secondary professional /technical certificate taught in TAFE institutions.

The proposed certificate has a broad-based vocational focus and has a minimum requirement of literacy and numeracy. It is proposed that the certificate would be externally assessed.

An additional strand is added to Australia's vocational education framework with the creation of teaching focused professional universities that are underpinned by adult learning concepts, and extensive lower-level vocational programs.

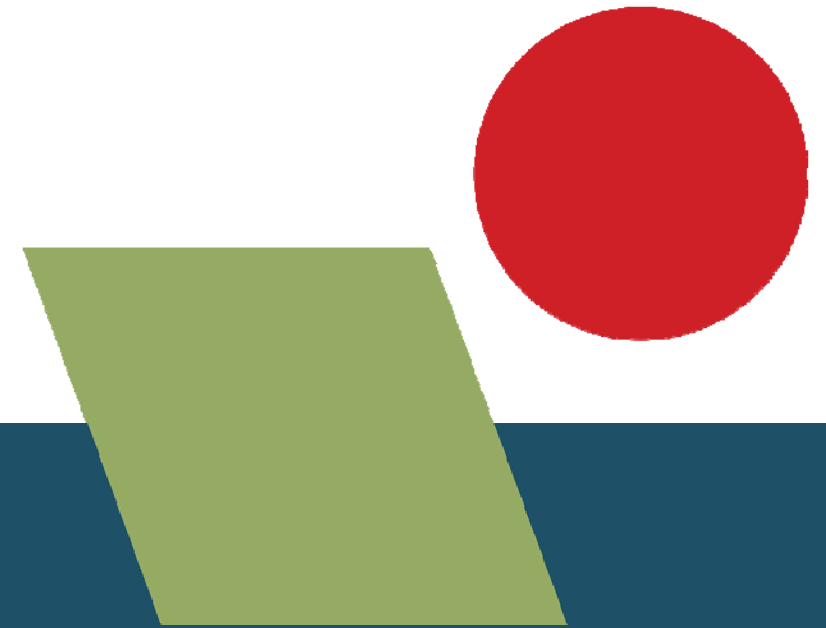
Such arrangements create a binary system in Australia, as well as enhancing diversity. The purpose of the professional universities is to provide an unencumbered pathway for students, both young and mature age, to advance to tertiary studies.

From an equity perspective it is neither necessary nor logical to reduce options to higher education and to penalise students simply because they have chosen or been channelled into an alternative pathway to academic studies.

In conclusion, it is claimed the Australian economy is in a precarious position. Our VET system is in decline and unless major reform is implemented it is unlikely that this decline can be arrested.

A number of issues are explored in regard to the advantages and barriers of the proposed reform.

Bruce Mackenzie
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2019



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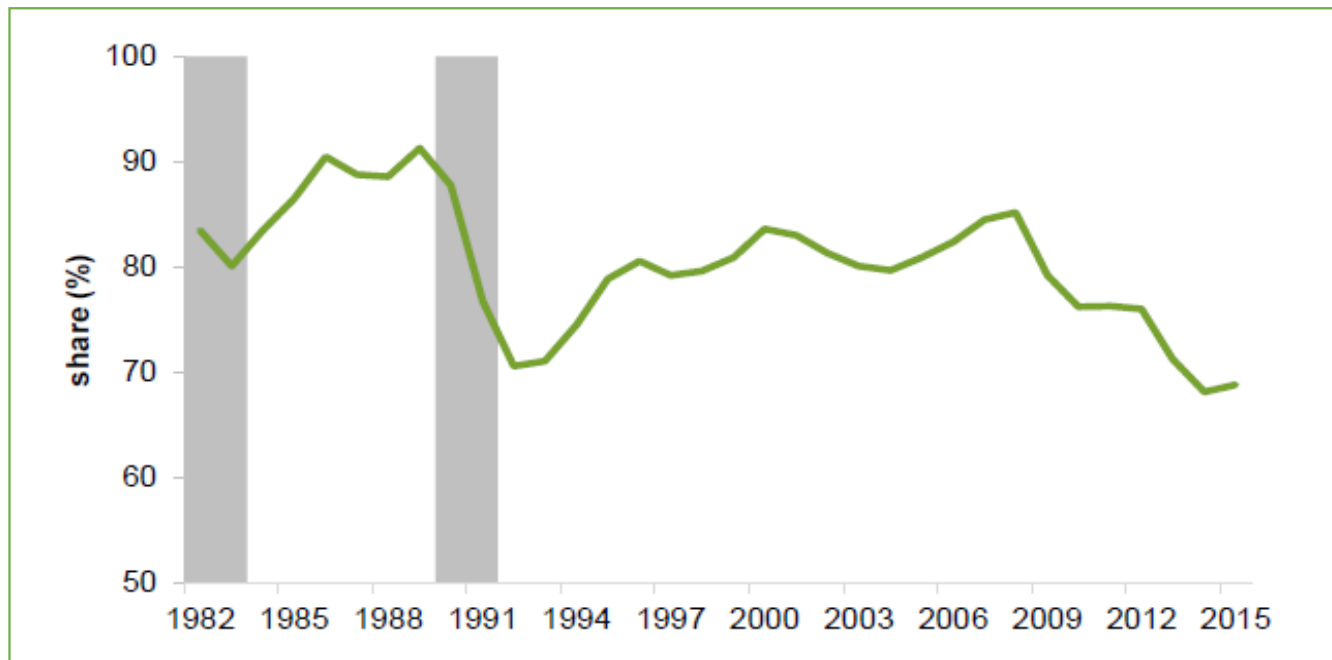
Proportion of working graduates in professional or managerial employment (%)



Source: ABS, Education and Work. In *Demand driven facts and figures*. Grattan Institute, 2018 (p.29)

Undergraduate full-time employment

As a proportion of those available for full-time employment, four months after completion



Note: grey areas indicate recessions

Source: GCA (2016), *Graduate Destinations Report*, cited in 5-Year Productivity Review Supporting Paper No. 7, University Education, 2017 (p.16)

Low SES enrolment proportion by institutional groupings, 2012-2017

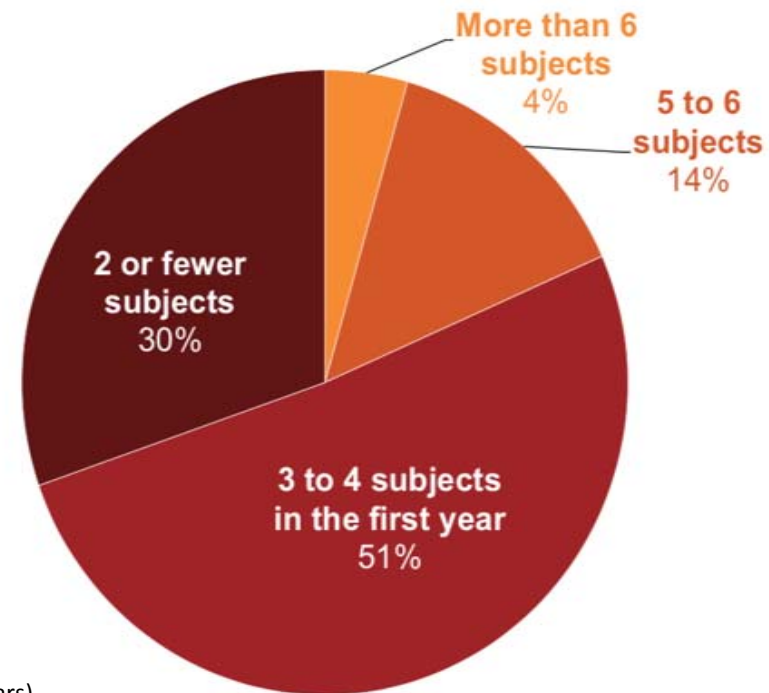
	2012	2013	2014	2015	2016	2017
Group of Eight	8.8%	9.1%	8.9%	8.9%	10.0%	9.8%
Australian Technology Network of Universities	13.9%	14.0%	13.9%	14.2%	15.6%	15.4%
Innovative Research Universities	19.3%	19.8%	19.8%	20.2%	21.8%	21.9%
Regional Universities Network	27.6%	27.4%	26.8%	26.8%	27.5%	27.6%
Unaligned Group	16.7%	16.9%	17.0%	17.0%	17.5%	17.6%

Source: Australian Government Department of Education and Training (2018). In *Equity Student Participation in Australian Higher Education* (p.8), National Centre for Student Equity in Higher Education (NCSEHE), Curtin University.

- The Go8 have barely moved in terms of diversity and inclusion. They are more likely to enrol high-achieving and high-income school leavers than other Australian universities.
- Regional universities, on the other hand, which include equity and inclusion as their core missions, have been unable to increase low-socioeconomic enrolments over the 2012-2017 period.

Commencing bachelor degree students, 2015

Of students who are more likely to drop out than complete, more than 80 per cent study part-time

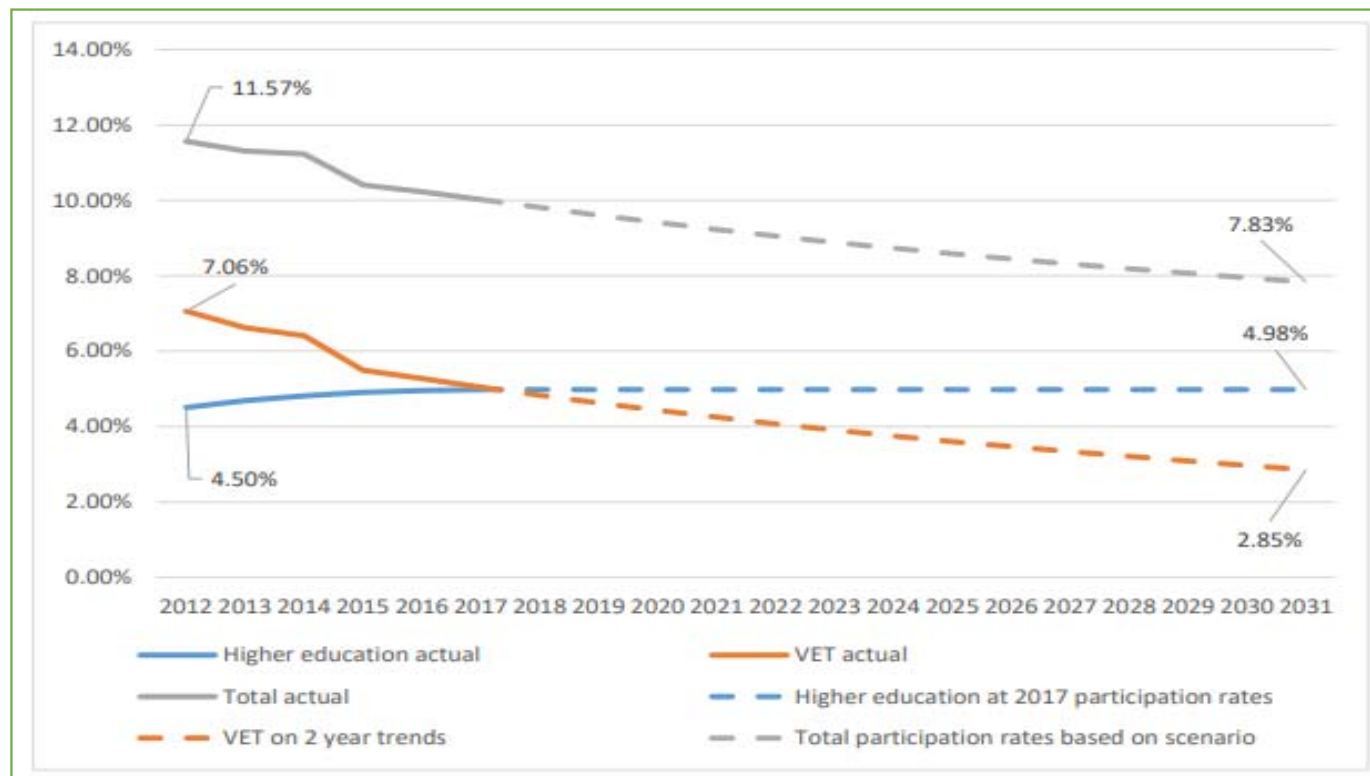


Note: Rounding means percentages do not add up to 100

Chart based on number of subjects in the first year

Source: Grattan Institute and Department of Education and Training (various years)

Tertiary education participation rates, 15-64 year olds (actual and scenario)



Source: ABS and NCVER data. In Dawkins, P., Hurley, P., & Noonan, P. (2019). *Rethinking and revitalising tertiary education in Australia* (p.8), Mitchell Institute.

Enrolments in VET, 2016-2017

Diploma and above	Decreased by 18.1%
Certificate I	Decreased by 2.6%
Certificate III	Increased by 0.1%
Certificate IV	Decreased by 4.0%

Source: NCVET, 2018

- Australia's tertiary education arrangements since 2009 onwards have been to promote undergraduate enrolments.
- Unsurprisingly as university enrolments increased, enrolments in VET plunged.

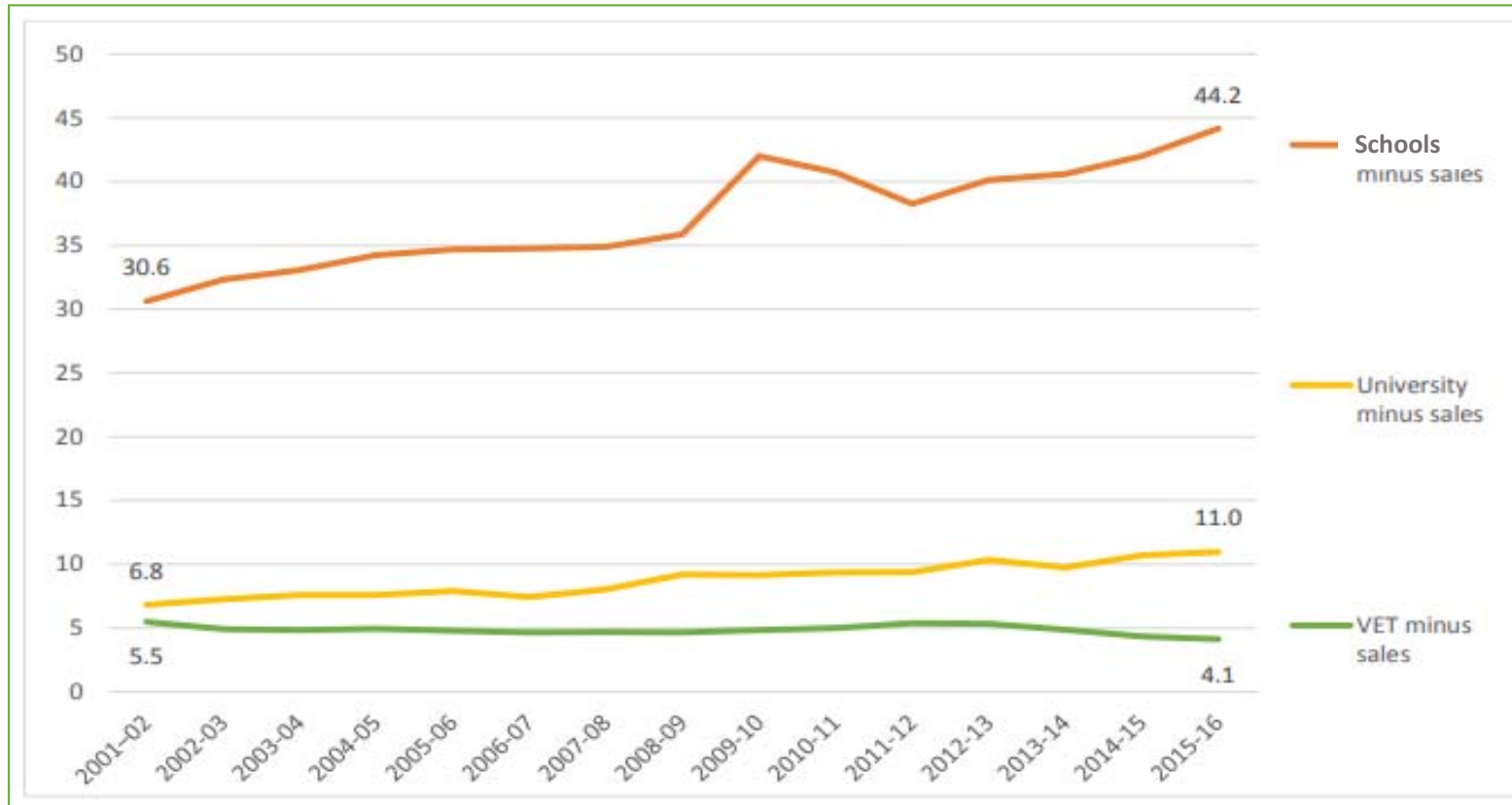
Student characteristics by tertiary institute, 2016

VET		University	
Highest commencing age as % of all commencers (30-39 years)	18%	Highest commencing age as % of all commencers (18 years)	17%
Low SES % - All students	41%	Low SES % - All students	18%
NESB	20%	NESB	4%
Regional / Remote	36%	Regional / Remote	20%

Source: Strategic Intelligence and Insights Unit, 2018. Monash Commission.

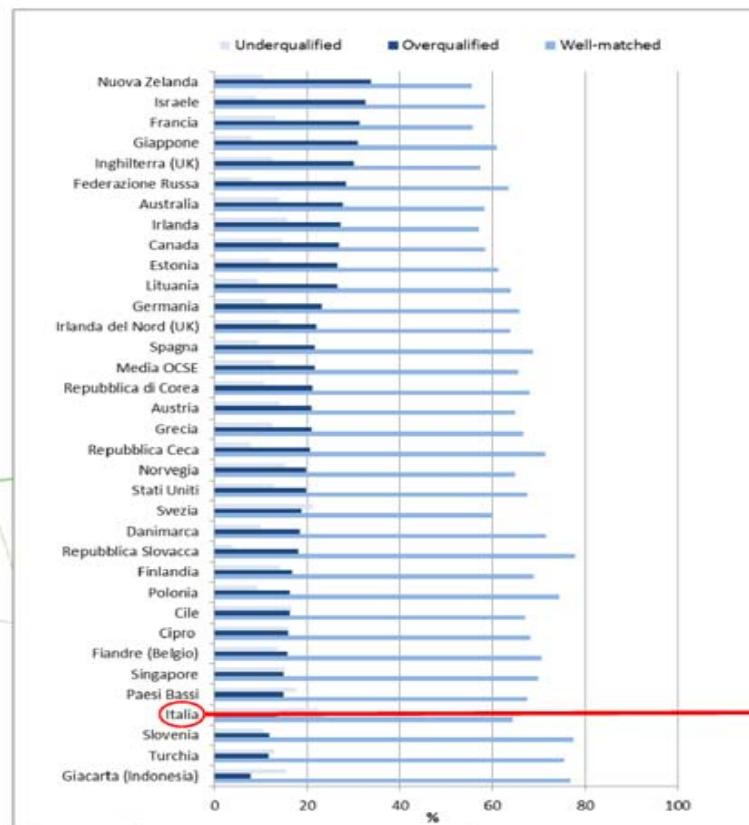
- Subject pass rates are similar: 83%
- VET has lower completion rates: 44.2% Uni; 39.7% VET (enrolled in 2012)
- 10% of undergraduate cohort come from VET into university
- Most VET students are upskilling/reskilling, rather than entering the labour force

Public expenditure by sector Australia, 2001-2016 (\$ bil.)



Source: ABS (2017). In Burke, G. (2018). *Changes in funding in Australian vocational education and their effect* (p.27), LH Martin Institute, Melbourne.

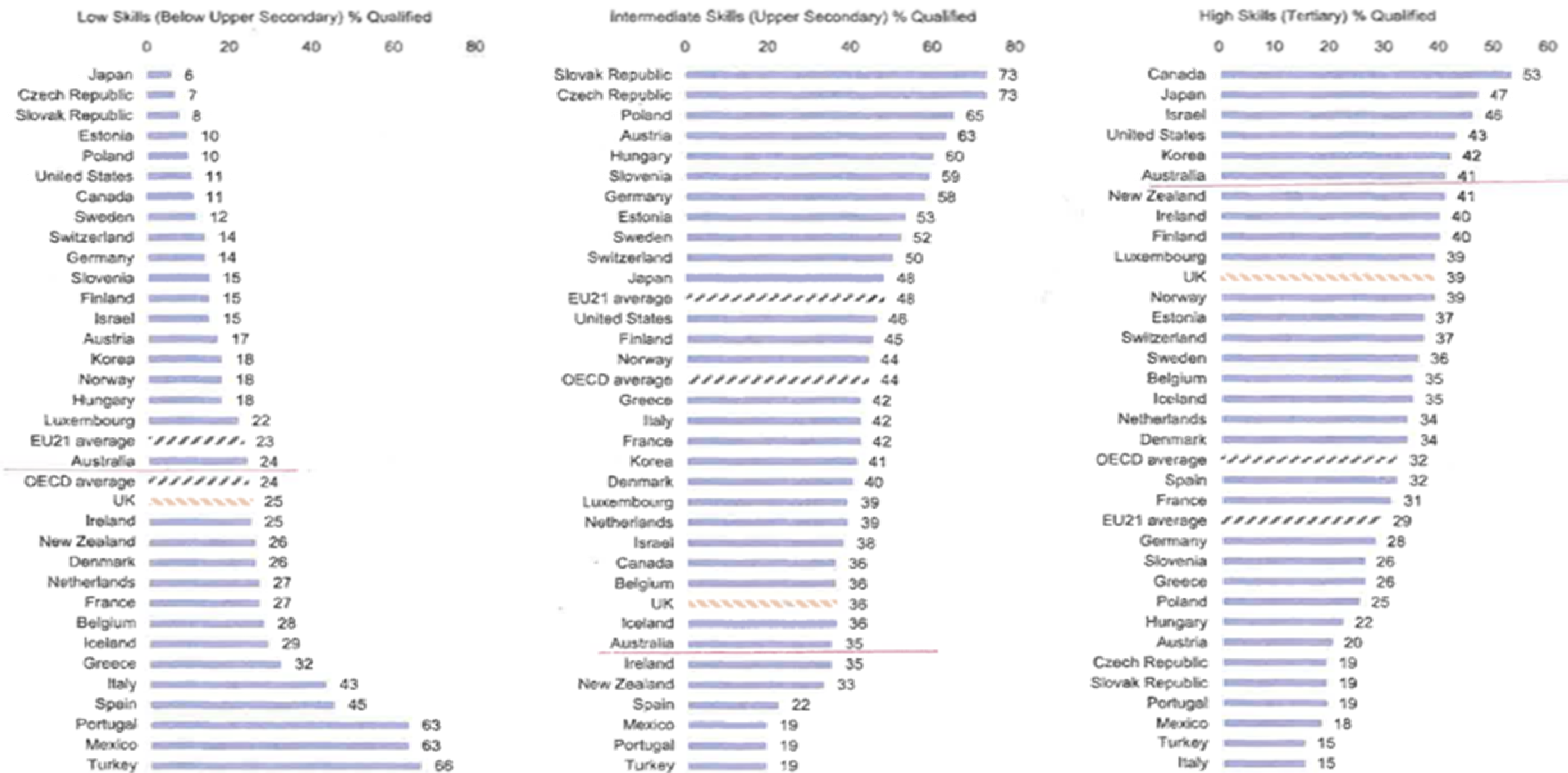
Incidence of qualification Mismatch in PIAAC



Over-qualified: 14.0
Under-qualified: 23.6
 Well-matched: 62.4

Source: B. Manuela and M. Simona, *Social Integration dynamics for migrants: PIAAC to measure skill and qualification mismatch* - INAPP - Public Policy Innovation, Torino, 30 June 20, 2017

Current international skills position



Source: OECD Education Database and Labour Force Survey, ONS. Distribution of the 25–64 year old population by highest level of education attained. Excludes Chile.

Higher education drivers

Martin Trow – The evolution of higher education

Three
stages:

Elite

Privileged access

Mass

Right to access

Universal

Obligation. Part of the infrastructure (road, railways, etc.)

Participation in higher education is driven primarily by the ambitions of families for social position and young people self-realisation.

Access is not equal in mass systems

- Elite institutions are dominated by privileged social groups

“Educating the masses was intended only to improve the relationship between the top and the bottom of society, not for changing the nature of the relationship”

John Ralston Paul – ‘Voltaire’s bastards’

- To be effective, Australia’s tertiary education system must ensure that unimpeded access is available to students from vocational/technical education to higher education.
- This can only happen if a binary system of higher education is created.

Destination patterns – Year 12 completers

Destination	2014	2015	2016	2017	2018
Bachelor degree	54.3%	53.2%	54.2%	53.8%	54.9%
Certificate/Diploma	16.1%	16.3%	14.6%	12.9%	12.1%
Apprenticeship/Traineeship	7.0%	7.5%	8.1%	8.1%	8.1%
Employed	9.1%	9.6%	9.6%	11.1%	11.3%
Looking for work	3.7%	3.6%	3.3%	3.4%	3.2%
Not in labour force, education or training	0.4%	0.5%	0.5%	0.6%	0.4%

Source: *On Track 2018: Destinations of Victorian School Leavers*. Education and Training, Victoria State Government

- The overwhelming destination of year 12 completers is a bachelor degree.
- There has been a sharp decline in year 12 completers choosing VET as a destination.
- The trend is consistent across 2014-2018.

Destination patterns – Year 12 non-completers

Destination	2014	2015	2016	2017	2018
Bachelor degree	0.7%	0.9%	0.7%	0.8%	0.9%
Certificate/Diploma	28.1%	25.8%	23.6%	18.9%	19.5%
Apprenticeship/Traineeship	25.1%	28.2%	29.6%	31.6%	32.1%
Employed	23.9%	23.7%	24.0%	25.8%	27.5%
Looking for work	16.9%	15.6%	15.9%	16.7%	15.0%
Not in labour force, education or training	5.1%	5.5%	5.9%	5.8%	4.8%

Source: *On Track 2018: Destinations of Victorian School Leavers*. Education and Training, Victoria State Government

- Excluding apprenticeships, which have little relationship with upper secondary schooling, the majority of non-completers are either in employment or looking for work.
- They too are increasingly shifting away from VET as a preferred post-school destination.

Top 5 preferred employment destinations

	2014	2018
Year 12 completers	<ul style="list-style-type: none"> • Sales assistants and store persons (36.5%) • Food, hospitality and tourism (28.5%) • Labourers, factory and machine workers (6.5%) • Clerks, receptionists and secretaries (4.1%) • Health, fitness, hair and beauty (3.8%) 	<ul style="list-style-type: none"> • Sales assistants and store persons (29.9%) • Food, hospitality and tourism (29.7%) • Labourers, factory and machine workers (8.7%) • Teaching, childcare and library (4.4%) • Clerks, receptionists and secretaries (4.3%)
Year 12 non-completers	<ul style="list-style-type: none"> • Food, hospitality and tourism (30.3%) • Sales assistants and store persons (20.2%) • Labourers, factory and machine workers (12.3%) • Other (7.2%) • Building and construction (6.6%) 	<ul style="list-style-type: none"> • Food, hospitality and tourism (28.7%) • Sales assistants and store persons (21.6%) • Labourers, factory and machine workers (14.4%) • Building and construction (8.9%) • Gardening, farming and fishing (6.1%)

Source: *On Track 2018: Destinations of Victorian School Leavers*. Education and Training, Victoria State Government

What can we do?

- Starting point is upper secondary education
- Two streams – Year 11 and Year 12
 - ✓ Academic
 - ✓ Technical/professional
- T stream characteristics:
 - ✓ Underpinned by applied learning and adult education principles
 - ✓ Organised around robust broad-based occupational clusters e.g. health and science
 - ✓ Employment specialisation evolves to lead to direct employment qualifications
 - ✓ Literacy, numeracy, broad-based subjects developed contextually
 - ✓ Switching capacity between streams to be built into the design
 - ✓ Work placement. X days supervised and assessable

Implementation

- Certificates I to III to be restructured and incorporated into one qualification as part of the technical stream
- Externally assessed
- Literacy and numeracy levels must be achieved for the award of the certificate
- The jurisdictional responsibility and funding. State government. No fees.
- Commonwealth takes responsibility of Certificate IV and above
- Technical option to be delivered only in world-class facilities and where curriculum is underpinned by adult learning concepts i.e. TAFE (partnership could be developed)
- Admission to professional university is on the basis of successful completion of the certificate and the attainment of literacy and numeracy competencies

Adult education

- The principle behind adult education is that it builds on existing skills and abilities
- Internationally, adult education strategies seem to build around three levels:
 1. **Foundation:** Literacy, numeracy, and sometimes digital competency (employment based)
 2. **Intermediate:** Similar to T-level programs for 16 to 19 year-olds but with substantial use of RPL, etc. Externally assessed and include literacy, numeracy competence
 3. **Advanced:** Undergraduate study / postgraduate study at a professional university

The professional university

- Access to fit-for-purpose higher education is fundamental to:
 - ✓ Increased participation and success for disadvantaged groups
 - ✓ The utility and status of vocational education
- The provision of fit-for-purpose – higher education is an obligation of government
- Unified system was underpinned by the concept of a diverse university system, and student choice
- An alternative university stream that places teaching before research is a necessity if the status and utility of Australia’s VET system is to be improved.

Characteristics of the professional university

- Any higher education offering is underpinned by lower-level vocational qualifications
- Breadth of provision and scale
- Flexible, adult-focused, short-cycle programs as well as full degrees
- Not funded for postgraduate studies
- Larger VET enrolment than higher education enrolment
- Applied learning