

MITCHELL REPORT NO.03/2014

# Expenditure on education and training in Australia

Analysis and background paper

OCTOBER 2014

Peter Noonan, Gerald Burke, Andrew Wade, Sarah Pilcher

## About the authors

### Professor Peter Noonan

Mitchell Professorial Fellow, Peter Noonan has played a major role in shaping tertiary education policy in Australia through 25 years' experience working as a policy adviser, senior executive and consultant to federal and state governments, universities, higher education providers and TAFE institutes. He was a member of the Expert Panel for the Review of Australian Higher Education (Bradley Review) in 2008, and in 2010 undertook a Review of Post-Secondary Education in Queensland for the State Government. Peter's work as a Mitchell Institute Fellow is focused on the future of tertiary education in Australia including its interface with secondary education and the labour market. He is Professor of Tertiary Education Policy at Victoria University and an Honorary Senior Fellow at the Graduate School of Education at the University of Melbourne.

### Professor Gerald Burke

Gerald Burke was formerly executive director of the Centre for the Economics of Education and Training (CEET) and now holds an adjunct appointment at Monash University. From 2008 to 2013 he was a board member of Skills Australia and of the Australian Workforce and Productivity Agency which advised Australian Ministers on skills and workforce development. He has undertaken research on financing of education and training over a long period.

### Andrew Wade

Andrew Wade is a Principal with ACIL Allen Consulting. He has provided advice for over 15 years on issues such as school and vocational education policy and funding. Andrew managed the ACIL Allen team that examined the feasibility of, and subsequently estimated, the Schooling Resource Standard for the Review of Funding for Schooling.

In his previous role at the Victorian Department of Treasury and Finance, Andrew provided health policy advice. He has also researched social security policy at the Cato Institute, and lectured in education economics at the University of Melbourne. Early in his career, Andrew provided budget policy advice at the New South Wales Treasury.

### Sarah Pilcher

Sarah Pilcher is a Policy Analyst in the Education Program at the Mitchell Institute. She has worked across education, training and economic policy for the Victorian, New South Wales and Commonwealth Governments, most recently at the Australian Workforce and Productivity Agency.

## About the Mitchell Institute

The Mitchell Institute is an independent think tank that works to improve the connection between evidence and policy reform. We actively promote the principle that education is fundamental to individual wellbeing and to a prosperous and successful society. The Mitchell Institute was established in 2013 by Victoria University, Melbourne with foundational investment from the Harold Mitchell Foundation.

Citation:

P. Noonan, G. Burke, A. Wade and S. Pilcher (2014) *Expenditure on Education and Training in Australia*, Mitchell Institute. Available from: [www.mitchellinstitute.org.au](http://www.mitchellinstitute.org.au)

# ■ Overview

We know that education and training is a continuum, from early childhood, through schooling, to tertiary study and training. Yet our public policy and funding settings continue to reflect a piecemeal approach.

There has been considerable discussion in Australia in recent years about the inevitable repositioning of our economy, and of the significant role education and training will need to play in that transition.

Most agree, if we are to compete and prosper in a global economy and labour market we will be increasingly reliant on the strength of our people, their skills and their ideas.

This realisation has rightly translated into increased attention on our education system, as governments try to get the settings right to meet the challenge. Researchers, policymakers and experts have explored questions of system design and funding at the national, state and institution level, including how much investment is required to achieve our objectives, and how it could be spent most effectively.

A number of significant reforms are being implemented, including the introduction of the student demand-led system in higher education and vocational education and training (VET) and commitments to considerable increases in school funding. However much of this policy attention has been fragmented, looking at individual sectors of the system in isolation.

In Australia we tend to foster expertise in schools, VET and higher education respectively, with these divides often reflected in the portfolio arrangements of governments. Analysis confined to one sector is the norm, with broader thinking the exception.

Of course, this disjointed approach is encouraged by the division of responsibilities under our federal system. As recent experience and attempts at reform have highlighted, a tricky web of historical precedent, national objectives and broader Commonwealth/State relations can combine to thwart or distort attempts at policy development.

Given this significant disjuncture, and the importance of education and training to our collective future, the Mitchell Institute saw the need to undertake a broader analysis of investment across the schools, higher education and VET sectors.

This paper, which draws on analysis by ACIL Allen Consulting, provides a comprehensive picture of expenditure across schools, VET and higher education at both state/territory and Commonwealth level, including all expenditure by public sector institutions such as TAFEs and universities.

The ABS data used in the analysis captures expenditure through each education system. At the tertiary level, this means not only funds spent on teaching and learning, but also funding provided by government for income contingent loans. It also includes research expenditure by universities.

This inclusive measure was chosen because the analysis was intended to broadly examine where we are investing in human capital across the three levels of education. Future work by the Mitchell Institute will assess ways in which total public and private spending can be identified and analysed.

This paper also examines real government recurrent spending per student, based on the administrative data from the separate sectors.

Together, these analyses clearly illustrate the uneven nature of Australian governments' expenditure, and the lack of an overall strategic approach to the investment in education and training.

Key findings on this aspect of the analysis were presented in an address by Professor Peter Noonan, Professorial Fellow at the Mitchell Institute, to the TAFE Directors Australia Conference in Sydney on 2 September 2014.

## ■ Summary of key findings

- Comparative analysis of expenditure on education across the three sectors shows a clear trend – while spending on schools and universities has risen significantly over the last decade, **there has been a much lower rate of growth in VET spending.**
- Total expenditure grew only 15 per cent for VET over the ten years to 2012-13, while schools and higher education experienced growth of 23 and 40 per cent respectively over the same period.
- Expenditure on VET amongst the states and territories is uneven. In **Victoria, expenditure on VET grew at an average of 4.2 per cent** per year over the ten years to 2012-13, **whereas New South Wales and Queensland averaged zero and negative growth** over the same period.
- Analysis of expenditure per student also saw VET falling short. In higher education, expenditure per student has been relatively stable, while spending per student in government secondary and primary schools has increased 20 per cent 30 per cent respectively. Meanwhile **expenditure per hour of training in VET actually decreased around 25 per cent** over the same period.

# ■ Analysis

A recent OECD report stated that Australia spends slightly less on education as a percentage of GDP (5.8 per cent) than the OECD average of 6.1 per cent. Although it also found that Australia's total spend has increased relative to GDP over recent years, up from 5.2 per cent in 2000.<sup>1</sup>

These headline figures tell us little about just where and how we are investing this money, and how that investment lines up against policy objectives.

This paper attempts to map our expenditure across schools, VET and higher education in Australia, including how this may be changing over time.

## Scope

The analysis utilises Australian Bureau of Statistics (ABS) Government Finance Statistics data,<sup>2</sup> which provides total expenditure on education and training by public entities.

This data includes total expenditure by government, as well as public entities such as government schools, TAFEs and universities. This was found to be the best means of determining the overall picture of investment with available comparable data, as the ABS applies the same method for the estimates for each sector. By contrast, the national administrative data for each sector, compiled by the Commonwealth Department of Education, the Australian Curriculum and Reporting Authority (ACARA) and the National Centre for Vocational Education Research (NCVER) are not strictly comparable to each other, although they are available at a lower level of aggregation than the ABS data.

In the analysis of ABS data the term 'expenditure' includes: all government expenditure in each sector by Commonwealth, state/territory and local government; government subsidies to the private sector (for example government subsidies to non-government schools or private registered training organisations); and government expenditure on public VET providers and universities. It also includes other operating expenditure by public sector education providers (e.g. government schools, TAFE institutes and public universities) including from fee or other private revenues.

<sup>1</sup> OECD, *Education at a Glance* (2014) tables B2.1 and B2.2.

<sup>2</sup> ABS Government Finance Statistics, Education 2012-13 (Cat. No. 5518.0.55.001) and custom data request. Analysis in 2012-13 dollars using the Gross Domestic Product chain price deflator (index).

It does not include: expenditure identified as being for capital (eg. capital transfers); expenditure of fees paid by parents (and other non-government revenue) for non-government schools; expenditure of fee revenues paid by subsidised students to private education providers; and expenditure associated with non-subsidised students in private education providers.<sup>3</sup> It also does not take into account the significant private spending on non-government schools, private higher education providers or private registered training organisations.

## Comparing total expenditure across schools, VET and higher education

Comparative analysis of expenditure on the three education sectors showed some stark disparities. While investment in schools and universities has risen significantly over the last decade, there has been a much lower rate of growth in VET.

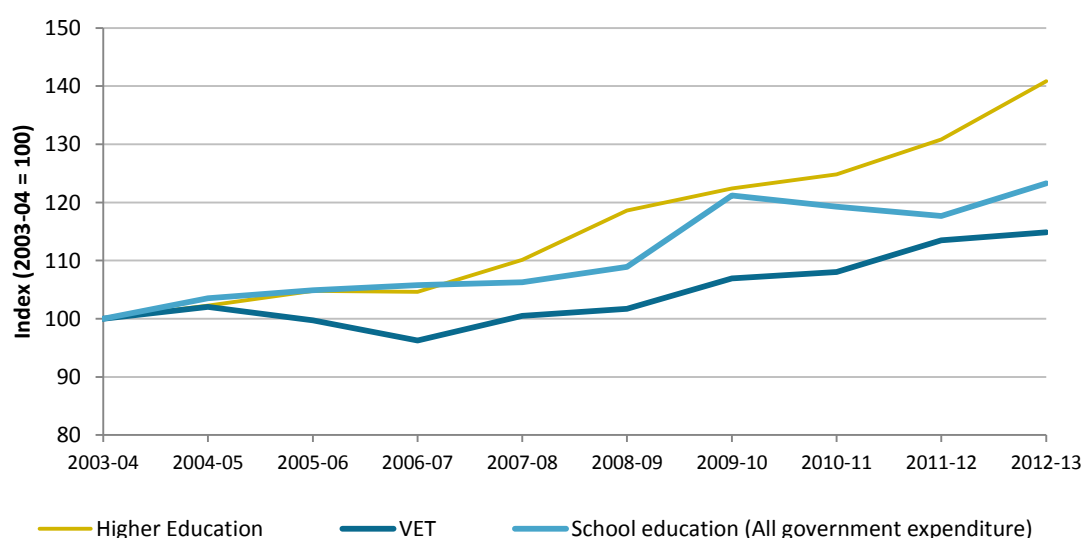
As Figure 1 shows, expenditure on higher education has grown markedly during the ten years to 2012-13, increasing by over 40 per cent over the decade in real terms.

Funding started to grow steeply in 2010-11 and 2011-12 as universities began to ramp up enrolments in preparation for the introduction of the demand driven system, and even more sharply from 2011-12 to 2012-13 when caps were formally removed.

In schools, while there has been much debate about where additional funding should be directed, it is also clear that overall investment has grown significantly over the same period. Collective government expenditure in the Australian school sector has grown by over 23 per cent over ten years.

School funding is also likely to continue on an upward trajectory over the period of the forward estimates, given the commitment from the Commonwealth and various state governments for significant increases over this period. The picture for school funding beyond that point is less certain.

**Figure 1: Expenditure on education by sector - 2003-04 to 2012-13**



ACIL Allen Consulting analysis based on Australian Bureau of Statistics data

<sup>3</sup> It also excludes provision for bad and doubtful debt associated with income contingent loans under the HECS-HELP, FEE-HELP or VET-FEE-HELP systems.

By contrast, expenditure on VET remained largely unchanged from 2003-04 to 2008-9, with modest increases to 2011 - 12 when it has plateaued again.

This overall flat to negative trend becomes even more pronounced if we exclude Victoria from the analysis, a state that has run counter to the national trend by significantly increasing its spending on VET in recent years.<sup>4</sup>

Overall, expenditure on VET grew around 15 per cent over the decade to 2012-13 – modest when compared to spending on schools and higher education.

### Comparing VET expenditure across jurisdictions

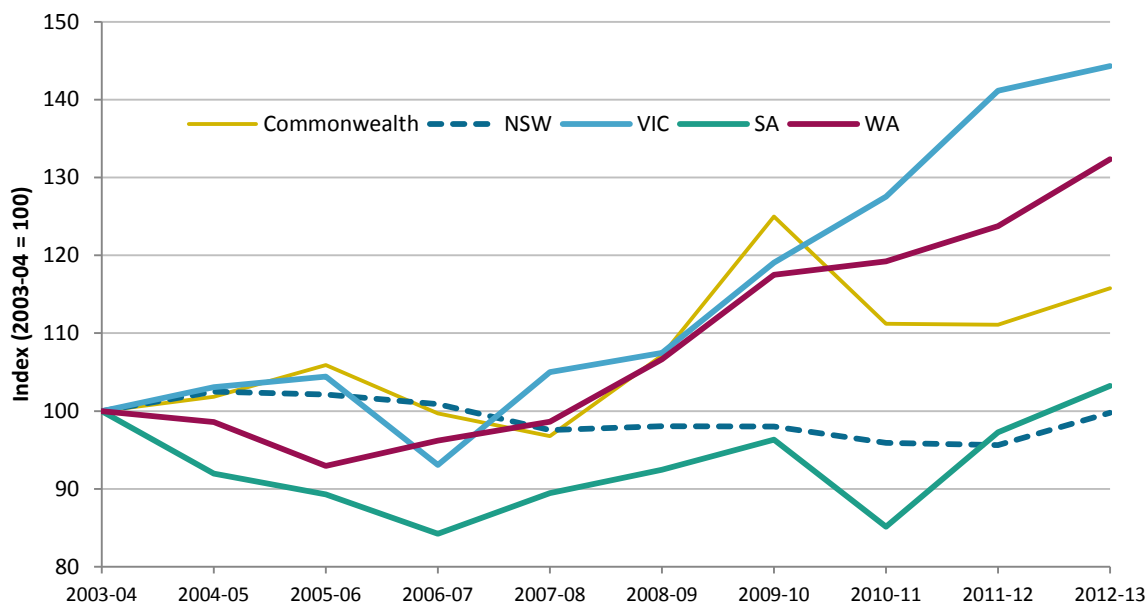
Given the clear disparity emerging between VET and the rest of the education system, it is worth further unpacking the trends in VET expenditure across different jurisdictions.

The following comparison looks at the level of growth (or in some cases decline) in expenditure on VET across the eight Australian states and territories and the Commonwealth.

For ease of viewing the comparison is presented in two parts.

Figure 2 sets out expenditure in the Commonwealth, Victoria, New South Wales, South Australia and Western Australia.

**Figure 2: VET Expenditure across the federation 2003-4 to 2012-13**  
**Comparison 1 - Commonwealth, New South Wales, Victoria, South Australia and Western Australia**



ACIL Allen Consulting analysis based on Australian Bureau of Statistics data

It shows that Victoria is a clear outlier when it comes to expenditure on VET at the state and territory level, with sharp growth over the ten year period to 2012-13.

<sup>4</sup> This is also reflected in the Productivity Commission’s *Report on Government Services* (2014).



Western Australia has also seen relatively strong growth in expenditure on VET over the same period, while Commonwealth spending has also grown solidly.

South Australia and New South Wales showed flat to negative growth over the ten years, with both states experiencing a modest uptick from 2011-12 to 2012-13.

Figure 3 sets out expenditure on VET in Queensland, Tasmania, ACT and Northern Territory, alongside the Commonwealth.

Here, any growth remains modest in all jurisdictions except Tasmania, where the impact of introducing and winding back changes in institutional structures is evident around 2008 to 2010. Queensland and the ACT in particular show very little increase in public investment in VET over this period.

**Figure 3: VET Expenditure across the federation 2003-4 to 2012-13**  
**Comparison 2 – Commonwealth, Queensland, Tasmania, ACT and NT**

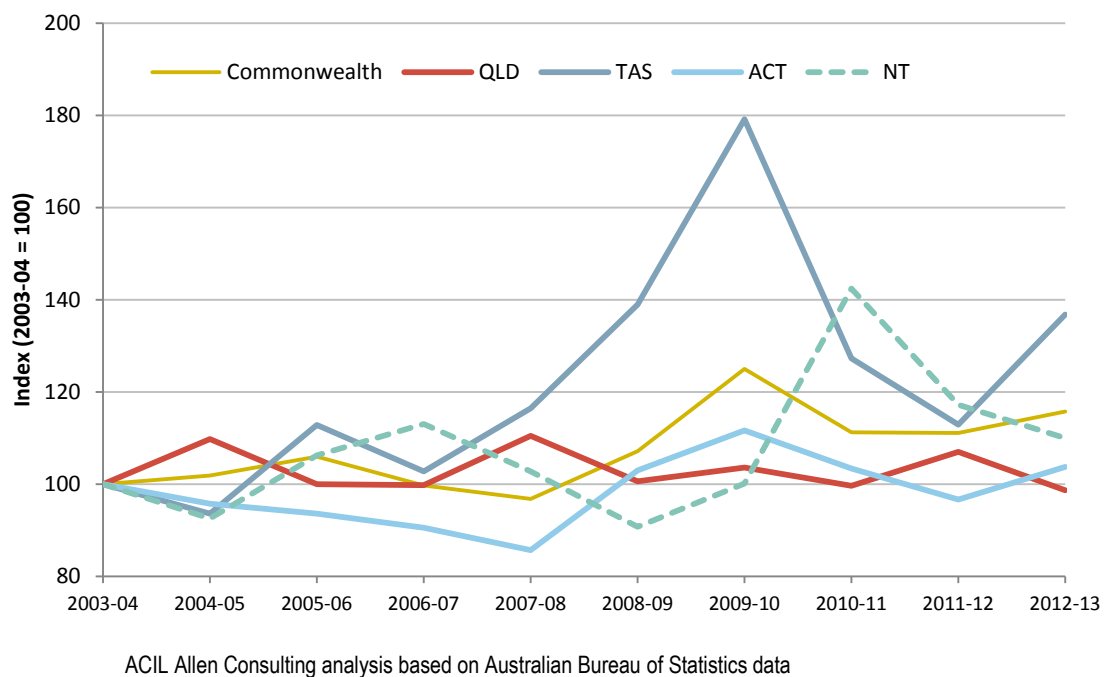


Figure 4 better illustrates the highly uneven nature of government investment in VET across the federation in recent years.

Victorian government expenditure has grown significantly over the period 2003-04 to 2012-13, at an average of 4.2 per cent per annum.

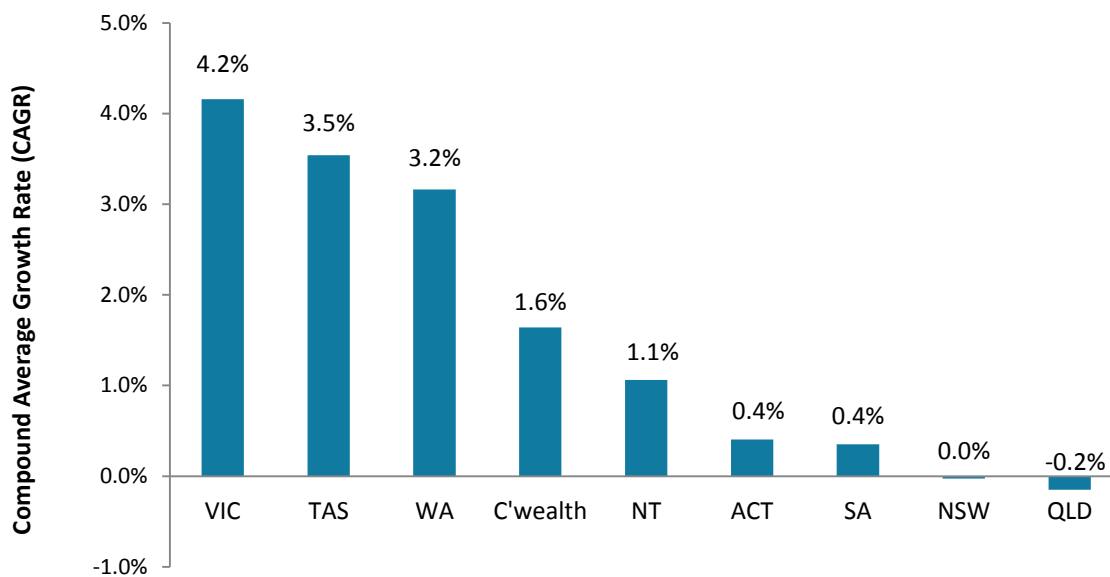
This can be contrasted with New South Wales and Queensland at the opposite end of the spectrum, averaging no growth, or slightly negative growth respectively over the same period.

These analyses highlight the challenges inherent in the VET system, as it relies on investment at the state and territory level more than any other element of the Australian education system.

While this comparison does not take into account the quantum of funding, it is interesting to note that the Commonwealth has increased its expenditure on VET over this period by an average of 1.6 per cent per annum. This

means that the Commonwealth's investment in VET has grown faster in recent years than that of five state and territory governments, including the populous states of New South Wales and Queensland.

**Figure 4: Average growth in VET Expenditure across jurisdictions 2003-2004 to 2012-13**



ACIL Allen Consulting analysis based on Australian Bureau of Statistics data

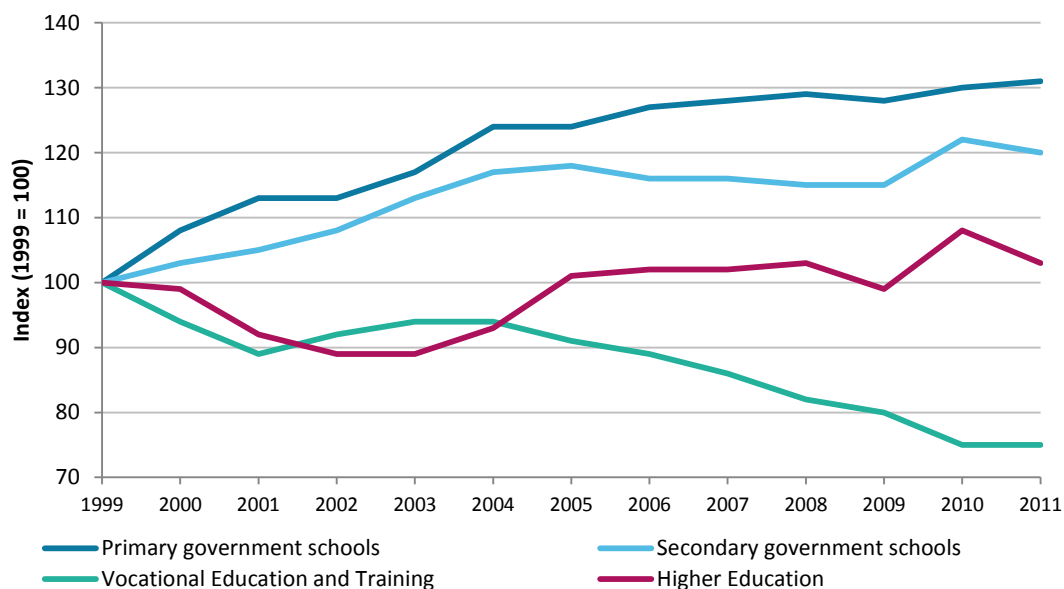
### Comparing expenditure per student unit

Of course the headline expenditure figure only tells part of the story - to determine the impact on individual students we need to look at changes in spending per student unit.

The ABS data are not available at a level of disaggregation suitable for this analysis so it is based on administrative data on public expenditure directed at domestic students. It excludes the private revenues of public institutions that were included in the ABS data.

Figure 5, drawn from work done by the Australian Workforce and Productivity Agency, compares overall operating public expenditure *per student* in equivalent full-time units across government schools and higher education, and VET public spending per hour of training over the period 1999-2011.

**Figure 5: Public recurrent expenditure per student in schools and higher education and per hour of training in VET**



Source: Australian Workforce and Productivity Agency, Future Focus : 2013 National Workforce Development Strategy

While the data for the separate sectors are compiled on somewhat different bases, the trends over time can be considered comparable.

This analysis shows considerable increases in expenditure per student in both primary and secondary schools, with per student spending in primary schools increasing over 30 per cent during this period.

Higher education mirrors VET in experiencing declines in per student funding until around 2005, when it recovered, before experiencing significant increases in recent years.

Although total public VET expenditure has grown over this period, the hours of publicly supported training have grown even faster. The result is that public expenditure per VET hour of training is actually falling (around 25 per cent over the period) and the VET sector is again the clear loser.

Some efficiency gains associated with market reforms undertaken during these years may explain some of the decline. However even taking this into account, the analysis paints a picture of significant decline in expenditure on individual VET students over the last decade or so, as Australian governments have arguably turned their focus elsewhere.

This stark comparison shows VET to be an anomaly - missing out on the general trend towards increased public investment across the rest of the Australian education system.

## Comparing indexation

The past changes in real funding reflect not only funding policy changes, but also differences in indexation arrangements.

The method of indexation used by the Australian Government for its funding has been different across sectors, and helps explain at least some of the greater growth in school funding.

For schools, from the early 1990s recurrent grants by the Australian Government have been adjusted on the basis of the changes in the average recurrent cost of government schools - in effect adjusted in response to growth in expenditure by the states. In the decade to 2012 this measure increased on average by 5.2 per cent for secondary schools, or 2.4 percentage points per annum more than the Consumer Price Index (CPI) growth of 2.8 per cent.

Since 1995 the Australian Government's main VET funding paid to the states has been adjusted on a measure comprising 75 per cent Safety Net Wage adjustment and 25 per cent CPI. For the last few years this has averaged 0.7 percentage points per annum less than the CPI.

University teaching and learning grants had been based on the same arrangement as VET. However for 2012 and 2013 an index more closely reflecting changes in costs in the sector was used. That index was nearly 1 percentage point higher than the CPI per annum over the last three years.

Changes to be made in the next few years will see both school and higher education Australian Government grants adjusted by the CPI.

By contrast, VET indexation arrangements are set to remain below CPI.

## ■ The big picture

The analyses presented here clearly show an uneven, and sometimes disjointed, approach to investment across education and training in Australia.

It is evident that some parts of the system - schools and universities - have seen considerable increases in investment over the last decade, most noticeably from the Commonwealth.

National attention has been focused on the need to adequately resource our schools and universities, and rightly so. However the same cannot be said for the diverse VET sector, which, often without a strong advocate and low political capital, suffers more than most in our federated model.

Further, if public expenditure on VET continues on its current trajectory in coming years – as it likely will in the absence of any significant intervention - then the prognosis is grim.

While the policy environment across education remains uncertain, it seems clear that both universities and schools will remain high on the political agenda, with both set to receive significant additional revenue in coming years – albeit from a mix of public and private sources.

The result will be an increase in the already considerable divergence in resources between schools, universities and VET.

The primary concern for governments is not the prioritisation of one sector over another *per se*, but the fact that it is occurring, not as a result of a clear objective or policy direction, but rather by default.

### Equity

These analyses also draw attention to our inconsistent approach to the public funding of education and training in Australia, and the potential for inequity.

For example, addressing socio-economic disadvantage has been an underlying principle and feature of funding models and policy settings in both schools and higher education.<sup>5</sup> By contrast, socio-economic status is less of a consideration in VET funding models, despite the fact that the VET student cohort is disproportionately made up of students from disadvantaged backgrounds.<sup>6</sup>

Further, when we look at the education and training system overall, it is the VET sector which has seen by far the slowest growth in investment over the last decade, despite this student profile.

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<sup>5</sup> For example, in the recommendations of the Review of School Funding (Gonski Review) (2011) and in programs such as the Higher Education Participation and Partnerships Program (HEPP) in universities.

<sup>6</sup> When measured on socio-economic status, 15 per cent of higher education students are in the bottom 25 per cent, whereas 21.6 per cent of VET students are in the bottom 20 per cent. Socio-economic Index for Areas (SEIFA) 2011.

Funding equity is being further eroded within VET as policies at the state and territory level designed to provide students with an 'entitlement' to training do not adequately address equity considerations.<sup>7</sup>

## Meeting future challenges

Australia is likely to continue to experience significant economic transition as we move away from traditional industries and embrace new markets.

As a nation we are increasingly feeling the pinch of declining productivity growth and an ageing workforce, as well as a more competitive, globalised economy and labour market. The workforce is changing rapidly, with multiple careers and retraining becoming the norm.

Many Australians agree that a high quality, integrated and responsive education and training system will be key to ensuring our future, and that this is something worth considerable public investment.

However, given our scarce public funds, many would also argue that such investment should be deliberate and strategic, with clear objectives and consistent principles underpinning the allocation of funds across the education continuum.

This analysis shows the current approach falls well short of this ideal, with hidden variability, and potentially, inequity, in our investment in education and training.

Given education's importance to the development of an economically and socially prosperous society, the Mitchell Institute intends to build on the initial analysis presented here.

Future work will investigate the inconsistencies and distortions in investment in education and training nationally and in each jurisdiction. It will critically examine the different funding and entitlement models across the spectrum, from early childhood to higher education, including the various policy objectives and principles underpinning their design.

It will also continue to ask how and where our finite investment can be directed most effectively, both across the education lifecourse, and within education systems themselves.

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<sup>7</sup> See R Astley and P Noonan (2011) *Competitive tendering and contestable funding in VET: approaches to supporting access and equity*, Report to National VET Equity Advisory Council.

# ■ Notes on data

## Figures 1, 2, 3 and 4

Source: ABS Government Finance Statistics, Education 2012-13 (Cat. No. 5518.0.55.001) and custom data request.

Analysis in 2012-13 dollars using the gross Domestic Product chain price index.

## Figure 5

Source:

Schools - Schools Average Government School Recurrent Costs data. Note that in DEEWR publications for schools the final data for a given year is the financial year data for the previous year. Includes state and territory expenses.

VET - VET Government Recurrent Expenditure per annual hour sourced from Productivity Commission, *Report on government services*, Table 5A.19. Includes state, territory and Commonwealth government expenditure.

Higher Education - Based on published and unpublished higher education data from the Department of Industry, Innovation, Science, Research and Tertiary Education. Operating Grant and Commonwealth Grant Scheme funding only. Excludes student contributions, HELP expenses, research funding, other Commonwealth higher education funding and state and territory government funding. From 2008 to 2011 universities were funded for target places plus over-enrolment above the target funding of up to 5 per cent in 2008–2009 and 10 per cent in 2010–2011. A number of universities enrolled above the over-enrolment limit, particularly in 2009, 2010 and 2011, and received only the student contribution for those places. For 2008 and 2009, funding for over-enrolments was paid in the following year. From 2010, over-enrolments were paid in the actual year. CGS funding for 2010 includes funding for 2009 and 2010 over-enrolments.



Mitchell Institute for Health and Education Policy  
300 Queen Street, Melbourne, Victoria 3000  
+61 3 9919 1820  
[info@mitchellinstitute.org.au](mailto:info@mitchellinstitute.org.au)  
[mitchellinstitute.org.au](http://mitchellinstitute.org.au)