



# Rethinking Australian higher education

Towards a diversified system for the  
21st century

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## About the author



John Howard is a Visiting Professor at the University of Technology Sydney.

John was educated in economics and public administration in the halcyon days of small campuses and virtually free tuition, where universities occupied a unique place in the socio-cultural fabric of a city or region, and where professors were valued for their opinions and commentary on public affairs. They also taught first year classes.

Following graduation from the University of Tasmania in 1971 with a B.Ec. (Hons) he joined the staff of the Department of Political Science in the university with teaching responsibilities in public administration and organisation theory. He left the university in 1972 to join the Commonwealth Treasury – arriving the day after the formation of the Whitlam-Barnard government.

In 1981 John became a committee secretary in the Department of the House of Representatives and went on to join the Advisory Council for Inter-Governmental Relations after completing a Master of Arts in Administration (by research) at the Canberra College of Advanced Education.

In 1984 John formed his own consulting company (John Howard and Associates) with the first commission being research director at the National Inquiry into Local Government Finance. Over the next 4 years he grew a business in local government consulting and public policy research.

In 1988 John was invited to join the partnership of Ernst & Whiney in Canberra, later to become Ernst & Young (EY). He subsequently joined Coopers & Lybrand in Sydney (later to become PWC) where he had responsibility for government services consulting.

John resigned from the PWC partnership in 1998 to re-establish his consulting business as Howard Partners. In 2000 he enrolled in a PhD at The University of Sydney Centre for Innovation and International Competitiveness (ACIIC) on the topic of business-university interaction and knowledge transfer. He completed the PhD in 2003 and went on to lead a number of highly regarded projects on innovation policy and strategy.

Howard Partners is now celebrating 23 years in business.

Between 2008 and 2011 John took a brief respite into the academic world in the role of Pro Vice-Chancellor at the University of Canberra where he held responsibilities for innovation, engagement and advancement.

John has published widely in the fields of innovation policy and strategy, knowledge transfer, and university business relations.

## Foreword

By Roy Green\*

What is higher education for in 21<sup>st</sup> century Australia? How can it be delivered efficiently and equitably to better the life chances of individuals? What role will our universities play in contributing to post-COVID recovery and beyond?

Dr John H Howard is well qualified to answer these questions as the author of many reports on research and education, including the recent UTS Occasional Paper *Challenges for Australian Research and Innovation* (2020). He starts from the view that higher education is a *system* of national goals around learning and the application of knowledge for people to extend their personal horizons, build careers, provide the foundations for a civil society and contribute to employment and productivity growth in the ‘industries of the future’.

John also recognises that higher education has increasingly become an *industry* in its own right that generates substantial export income through the education of international students, contributing to economic growth through flow-on effects on employment, incomes and localised demand for goods and services. While estimates of this contribution have been in the range around \$36-\$40 billion, it has now taken a massive hit with the downturn in international student revenues.

John sees this downturn as an opportunity to rethink how Australia’s higher education system is preparing us for the jobs of the future. It is now widely understood that these jobs will require not only specific academic knowledge of engineering, technology and applied sciences but also the technical, occupational and ‘soft skills’ that promote creativity and a capacity to work in teams.

John argues that planning for growth in a net zero emissions world will mean committing the necessary research and development for the industries that are forming around the application of digital technologies, such as big data and analytics, automation and robotics, simulation, visualisation and augmented reality and cloud-based platforms. We are already seeing the application of these technologies in the resurgence of manufacturing as a new economy industry, as well as in infrastructure and services.

*Rethinking Australian Higher Education* complements these research imperatives by proposing a more diverse and flexible higher education system that breaks with the ‘one-size-fits-all’ characteristics of the current unified system. This diversity would cover research intensive providers particularly in the bio-medical area, providers focussed on developing knowledge and skills in engineering, design and technology, comprehensive providers (in the growth areas of major cities), regional providers and specialised providers across the creative sectors.

John takes pains to emphasise that this framework does not advocate ‘teaching only’ providers but allows for providers to develop research capability that relates to their missions. Some of this would be internationally indexed but the system would allow for a strong commitment to practice-based research that builds capability in the



professions. Research commitment should not only be driven by the goal of moving up international rankings.

The argument in this book is inevitably controversial, even contrarian, challenging as it does many previously held assumptions about Australia's higher education system. However, it is an argument based on evidence that policy-makers and academic institutions themselves will need to address in determining the next steps for this system, whose business model is now under challenge. UTS is ready to play its part in contributing to the skills and research required for the development of an inclusive and dynamic knowledge economy, but much will depend as always on the level of commitment by State and Federal governments.

\*Roy is Emeritus Professor at UTS and former Dean of the UTS Business School.

## Preface

Public policy is often complex, and sometimes incoherent. It can be challenging for governments to think from first principles about a long established policy domain. Instead, ministers turn to incremental addition. An already overloaded system becomes ever more burdened with rules and regulations.

Few policy areas exhibit this tendency to policy inertia so clearly as higher education. Since John Dawkins set out the basic parameters of his 'unified national system' in 1989, his successors as ministers have added their own wrinkles to arrangements, but only rarely challenged the underlying assumptions to Commonwealth policy. A drift to ever more detailed policy prescriptions has followed, with legislation, regulations, standards, and ministerial discretions which numb attempts at comprehension.

In *Rethinking higher education*, analyst John H Howard looks at the various principles said to shape the public university system, from expectations of institutional autonomy to ministerial ambition to set out public-minded goals. He records the tensions between stated lofty ambitions and the quotidian reality of higher education principles shaped by Commonwealth policy instruments.

From system design (or lack thereof), Dr Howard turns to institutional finances. A picture emerges of internal strains, as universities pursue their mission within a funding model which provides deep incentives to fund long-run research investments through short-run teaching income. As the system changes in response to COVID restrictions and reduced international study, so the contradictions of sector finances become more difficult to manage.

The data presented in these sections are unusual in depth but much to be welcomed if policy debate is to be more than contending opinion. Not every analyst will agree with Dr Howard's conclusions based on the evidence, but there is reason aplenty to work through the figures provided. For they inform the policy prescription which frames *Rethinking higher education* – a carefully crafted argument for greater system diversity.

'Diversity' is often a loaded term in higher education debate, seen as code for taking away research from some institutions and requiring instead a teaching-focused mission. This assumes a redistribution within existing resources, and therefore instant opposition from potential losers. Dr Howard, however, makes a more disturbing point: the collapse of international student flows, and the evident reluctance of the Commonwealth to offer further investment, present universities with a dilemma. Many are no longer able to generate internal surpluses which subsidise scholarship.

So though public universities do not wish to rethink their mission, circumstances may force the choice. As Dr Howard documents, the financial boom of recent years cannot be sustained. More non-tertiary sector players look for a place in the market, and the rise of online learning imposed by pandemic has changed calculations about

the reasonable cost of a degree. Diversity of mission may become an imperative rather than a strategic choice if existing universities seek to endure in the very changed circumstances.

Hence Dr Howard proposes an industry approach – thinking from first principles about the role of universities, knowing that rationalisation, disruption, and transformation will follow. He proposes new ways of thinking about the sector, and new arrangements around mission, funding, and organisational types. The result would be a marked transition from a unified national system to what Dr Howard calls a ‘diversified national system’, in which teaching and research, location and specialisation all find a place overall, but necessarily with each and every public university.

This vision contrasts with present policy. It assumes a Commonwealth with the interest – and ability – to think again about the purpose of Australian higher education. Yet there is a price for not acting – rules and regulations made even more unfit for purpose by the underlying changes to finances and sector competition. An industry policy which articulates its goals, sets up mechanisms to support change, and finds more flexible ways to regulate the sector could help future ministers achieve the system design which has proved so elusive.

There is much in *Rethinking higher education* to provoke. It asks a subtlety of judgement from Canberra not always evident in recent policy choices, and a generosity from sector players which may not reconcile easily with institutional interest. The assessment of overall system failure may sit uncomfortably with ministers past and present, while the suggestion of a corporatist logic – closed ranks of employers, unions and government protecting existing provider categories – is bound to encourage argument. Even describing international education as a ‘business’ can create controversy, though the financial reality makes clear who has paid for the expansion of higher education in recent decades.

Yet each of these arguments deserves close attention, and there are very few people who have taken on such an ambitious project about characterising the higher education. *Rethinking higher education* is an important contribution from an author who is independent and fearless in his assessments. It provides detailed evidence in support of sophisticated policy change. The public debate will be much the stronger for this timely and thoughtful contribution from Dr John H Howard.

Professor Glyn Davis AC  
Distinguished Professor of Political Science  
Australian National University

## Introduction

The Australian *Unified national system for higher education* was established in 1988 for a range of reasons, but its essence was a solution to resolve a funding problem.

The system has grown in terms of students, staff, revenues, and assets to the point that it is now an industry making a direct contribution of 2% to GDP. An international education industry has emerged with a reported contribution of \$40 billion to exports<sup>1</sup>. The COVID-19 crisis has had a devastating impact on this industry and has impacted university finances, particularly the "Big 5" research-intensive universities.

The national system, put in place in a hurry 30 years ago, introduced uniformity in higher education funding arrangements, regulation, rules, and controls. The system now lacks diversification in terms of institutional forms and education delivery options that can meet the distinct educational needs of students and businesses in a growing service-oriented knowledge economy.

*Rethinking higher education* provides a detailed analysis of the problems, issues, and opportunities to enable a move away from the straitjacket of the unified national system of Australian higher education to a diversified national system that allows for:

- Higher education providers playing to their strengths
- Allowing for a more efficient allocation and use of resources between and within segments
- Ensuring a greater variety of education opportunities
- A greater mix of teaching and research priorities and concentrations

*Rethinking higher education* is also the first, dispassionate, look at higher education organisations as "businesses" in a national industry - an industry that grew out of the public sector, but without an accompanying industry strategy or policy with clear goals and mechanisms to pursue a national direction. To industry economists this comes as no surprise, and follows a pattern of absence of, or interest in, a national industry strategy for manufacturing, agriculture, energy (including renewables), transport, communication, and infrastructure – or any industry for that matter.

The call from the Prime Minister for international students to "go home" in early 2020 as the COVID-19 pandemic took hold around the world did not demonstrate an appreciation of the scale of the higher education industry, nor the impact and devastation to institutions and local economies if 367,700 students suddenly left. Essentially, the Australian Government lost interest in this rapidly growing industry after the 2013 election, evidenced in the breaking of the then Prime Minister's "no cuts" election promise in the 2014 Budget.

Like it or not, higher education institutions operate as corporations – and we cannot get away from that, no matter how much we may dislike the idea and yearn for the

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<sup>1</sup> This consists of an estimated \$17 billion in fees with the remainder being student living expenses while living in Australia. This may be overstated as many international students work while in Australia to cover living expenses and are paid in Australian currency.

past utopia of communities of disinterested scholarship. In the economist's and the accountant's formulation of the role of corporations, their success is indicated by profits and the creation of financial value. It is not always clear about financial value to whom, but it's the metric that focusses the attention of their auditors. Presumably it means financial value to secure growth and sustainability.

Corporations seek growth in revenues, market share, and profits. But do state parliaments, as owners of these corporations facing a decline in domestic demand, want universities to grow and take market share away from their TAFE institutions? Or do they want them to get better at what they were set up to do and achieve? This could mean smaller, more specifically targeted organisations – covering diverse responses to market demands. Has the one-size-fits-all model of the Australian university matured? Will it develop further along the Michael Porter industry growth cycle?

More recent formulations of corporations' role is to deliver value to stakeholders – in this case, students, staff, industry, and the broader community. But is financial value really what their owners, the state parliaments that created them, and the community, want from their universities? Yes, in that they don't want them going bankrupt, but no, in that they want them to deliver public value to their state and its citizens through education and research (Moore, 1995).

Despite the high-sounding rhetoric about the education, research, and engagement missions of universities operating in a community of science, the reality is that they operate as higher education *businesses* in a higher education *industry*, and work towards achieving or exceeding key financial metrics and benchmarks. But as businesses, the current public health crisis indicates that not all institutions have been well managed in terms of their staffing profiles and exposure to financial risk.

The financial and management crisis that has ensued provides the platform for a fundamental transformation in how the business of higher education is conducted in Australia. As with all new strategic situations, there are opportunities as well as threats and constraints to be addressed. It requires a recalibration of the current university system framework and university operating models.

In the context of recent and current policy settings, the time is opportune to comprehend how an Australian *higher education industry* has evolved in terms of revenues, assets, employment, and outputs (principally educated students and scholarly research outputs). The analysis looks at the industry in terms of its revenue "growth curve" from the introductory stages, through evolution, rapid growth, to maturity, pressure for rationalisation as domestic demand levels off and international demand collapses, and potential entry to another growth curve.

Industry growth has accommodated ever-changing teaching and research funding arrangements with detailed allocation and eligibility regulations, rules, processes, and controls. However, the overall regulatory framework is dispersed, with universities variously being regarded as constitutional trading corporations, charities, and state/territory based statutory corporations. This dispersion potentially creates

weaknesses in capacity to develop and implement policy, adapt to change, and assure accountability.

This regulatory mishmash represents a fundamental system failure in the policy framework and regulation of higher education, making a strong case for a new *Universities commission* with some independence from ministers and the Department of Education. While it is essential to be wary of any regulatory model, market forces in higher education are not acceptable to either side of politics. It follows that an independent capacity for long term policy development and rule-setting outside political whim has become essential. An independent commission is the least bad option of other available approaches.

The goal of *Rethinking higher education* is to provide an understanding and a framework to encourage higher education institutions to focus on their missions. It also aims to present a more complete picture of Australian higher education from a financial, industrial, and system perspective.

Over time, the mission has been compromised in a never-ending search for more money. In that regard, *Rethinking higher education* gives attention to developing a higher education system that is fit for purpose.

We must move away from a tendency to think about "fixing" universities with one simple policy solution. The solution must address the "problem" and the "opportunity".

There are all sorts of problems, but there are also opportunities. *Rethinking Australian higher education* canvasses the difficulties of the one-size-fits-all unified national system and outlines the opportunity to develop a *diversified* national system with different institutional forms that can be developed and tailored for specific market segments covering the distinctive requirements of students, industry, government, and the broader community.

The higher education system operates not only with an education mission but also with important economic and industry development missions - in terms of its delivery of work-related knowledge, skills and qualifications; regional economic development impacts; and participation in the global higher education market.

*Rethinking Australian higher education* points to a maturing of the industry and some emerging forces of disruption, with associated pressures for rationalisation, restructure and innovation. It calls for the development of a *National higher education industry strategy* which should encompass the following elements:

- *Research and education policy* that would cover the core businesses of universities, with links to other elements in the national innovation system – including but not limited to science, research, and innovation (SRI) policy, and skills policy.
- *Economic policy* that relates to the economic contribution of the international higher education business of higher education institutions; that business should be operated separately from the domestic education and research business
- *Regional development policy* – supporting higher education institutions in their role as leaders in regional innovation systems, including investment in development of

regional smart specialisation strategies. Arts, creative, and cultural industries policy.

The issue now is how to resolve the underlying problems with the higher education system and seize the opportunities to create a vibrant higher education system that is fit for purpose as well playing a critical role in the development of Australia's knowledge economy and socio-cultural fabric.

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The data for *Rethinking Australian higher education* has been sourced from the Australian Government Department of Education, Skills and Employment compilations of university audited financial statements to 2019. Data is inflation-adjusted for the implicit price index (IPI) for GDP (2017 base) to arrive at comparable expenditure and revenue. Access to the library and bibliographic resources of UTS is great appreciated.

### **Disclaimer**

The views, opinions, findings, and conclusions or recommendations expressed in this work are strictly those of the author.

Dr John H Howard  
Managing Director, Howard Partners Pty Ltd  
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## Overview

Economically and financially, the first 20 years of this century has been good for Australian higher education:

- Between 2000 and 2019, the system grew from a revenue base of \$14.86 billion to \$35.80 billion (inflation-adjusted)<sup>2</sup>.
- Between 2002 and 2019, net asset value grew by \$27.80 billion to \$60.46 billion (inflation-adjusted)<sup>3</sup>.
- In 2019 1,699,798 students attended higher education institutions, of whom 521,948 (30.7%) were from overseas. This compares with 929,952 students in 2003 (22.6% overseas).
- International education contributed \$9.82 billion (27.4%) to total university revenues in 2019<sup>4</sup>.
- The gross operating margin for universities stood at 6.2%, compared to 4.3% in 2002. In 2008, the year of the GFC impact, it had dropped to 1.9%, with several universities recording losses.

By any industry comparison, this is a strong result. However, the Australia higher education system has a problem. The COVID-19 pandemic and the associated collapse in international student numbers have revealed some fundamental weaknesses in the system's structure and operation that had been building up over many years. The continuing growth and prosperity of the system cannot be assured. There is doom and gloom all around<sup>5</sup>.

Higher education has experienced rapid growth, and over the last 5 years has been in a "bubble" situation with an extraordinary increase in revenues from international students. Like bubbles in other industries, it encouraged both hubris and complacency to expect that the growth pattern would continue. It obscured underlying weaknesses in domestic demand and university strategies and problems with overloaded management structures and administrative inefficiencies.

The COVID-19 pandemic's onset created a financial crisis with declining revenues from international students, creating a liquidity problem and highlighting a decline in overall return on assets. While system finances will recover from the pandemic's impact, its onset revealed several issues in the overall system structure.

<sup>2</sup> Inflation adjustment using implicit price deflator for Gross Domestic Product, base 100 in 2017.

<sup>3</sup> Consolidated balance sheet data was not published prior to 2002.

<sup>4</sup> Using inflation adjusted figures

<sup>5</sup> <https://www.theaustralian.com.au/nation/universities-to-lose-world-ranking-australian-catholic-university-vicechancellor-greg-craven/news-story/3fd9a7fe94857954094ca213951c5ec0>



## The problem revealed

The international students and the income that flowed from the education export “industry” overshadowed some deep-seated domestic higher education sector issues. In particular:

- Domestic enrolments reached “peak demand” in about 2014, have not recovered and, aside from a benign hope for a *Costello baby boom*, are unlikely to do so.
- Australian government grants to universities in 2019 (\$11.79 billion) made up only 33.3% of university revenue (compared to 40.9% in 2002)<sup>6</sup>. The Australian Government exerts a disproportionately large amount of policy leverage for this relatively small sum of money.
- There has been a long-term decline in the return on assets (RoA) across the system, which may be attributed to either over investment or underutilisation of property assets - suggesting that some universities are over-capitalised or sub-scale in operations.
- The international and education businesses are fundamentally different. Although revenue flows from international education look impressive, the *full* delivery costs (staff salaries, marketing, agents’ fees, student support, building costs) are not reported<sup>7</sup>. The 2 businesses should be managed and accounted for separately.
- Despite faltering domestic demand universities, behaving as typical corporatised businesses have, with only one or 2 exceptions, remained committed to continuing growth in revenues and students, and maintaining operating margins. This “going for growth” mind-set has not always worked well.
- Digital “disruption” is having a slow but pervasive impact on education planning and delivery, now accelerated by the COVID-19 situation.
- Student age profiles are increasing, and demand is shifting between undergraduate and postgraduate education.
- There has been a trend increase in attrition rates and falling completion rates, particularly for students studying through distance education.
- The importance of the humanities, arts, and social sciences is being subverted.
- There is a growing priority of research over teaching. However, domestic PhD enrolments are falling, with severe implications for supplying the private and public sector innovation talent pool.
- There is growing competition from non-university and international online providers as demand for micro-credentials takes hold and expands.
- There are high expectations about expanding the role of *non-academic* aspects of higher education in regional economic development.
- The “campus model” is changing from a student-centred community to an “office park” archetype, supporting innovation and regional innovation systems.

The lack of growth in domestic demand has led to a “zero sum” game, played out in expensive marketing and public relations campaigns, lowering admission standards

<sup>6</sup> International revenue is equivalent to 83.2% of the level of Commonwealth Grants.

<sup>7</sup> Moreover, the infrastructure of the domestic business may be subsidising the cost of delivering the international business.

(with inevitable consequences for attrition and completions), and introducing new qualifications such as associate degrees (competing directly with TAFE providers). Higher education providers are now teaching undergraduate certificates and short courses - many already offered by vocational education and training providers. The system runs the risk of being “cannibalised”.

The government wants universities to do more “job ready” education, shifting the emphasis of higher education from academic learning to occupational learning.

Such a move towards “job ready” education will introduce a direct form of competition with the state/territory operated TAFE institutes. There are already arrangements in place to integrate the 2 types of learning. For example, many higher education providers and TAFE institutes have successful articulation and blended learning arrangements in place.

Policy should *build on* successes - rather than superimpose new solutions to issues that are already well understood and being addressed. Of course, if policy is demonstrably not working, change is required.

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*Crunch time is upon us. There is a need to reset policy and focus on what we, as a nation, want from our higher education system.*

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Higher education has become a wealthy and powerful lobby for its interests, particularly in promoting its research and economic development credentials and seeing off the VET sector’s challenges for a more significant share of resources for tertiary education. But it took its eye off its key constituencies: domestic students and their parents; employers in industries that require educated and technically trained “blue collar” graduates; and the broader community which provides its social licence to operate.

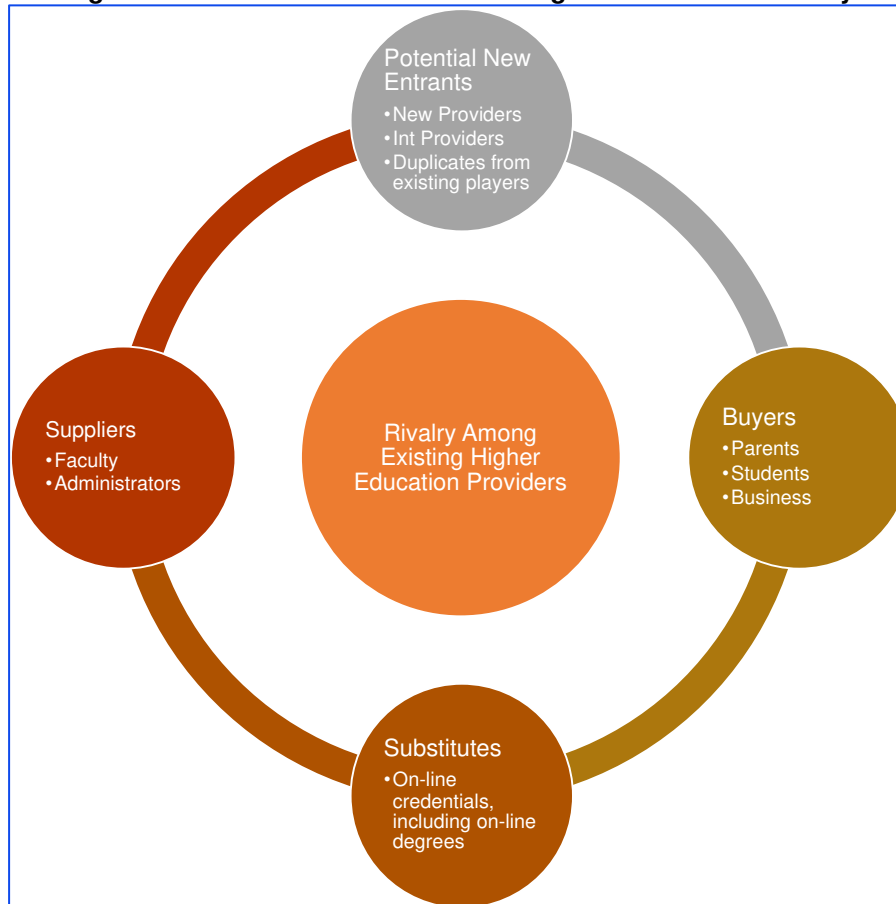
## Strategic solutions

By necessity, higher education is at the cusp of a process of rationalisation, disruption, and transformation<sup>8</sup>.

Many years ago, Harvard economist Michael Porter proposed that an industry grows through a lifecycle of introduction, growth, maturity, and decline. (Porter, 1980). As it currently stands, Australian domestic higher education has reached maturity and is entering a potential decline. Porter’s widely applied strategic framework of *competitive forces* provides a useful starting point (Porter, 2008) to address the current situation. These are represented in Figure 1 adapted for the higher education industry.

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<sup>8</sup> *Digital disruption*, through online learning and automation of learning processes, is one element in the mix, although this aspect of disruption has been underway now for quite some time. The essence of the application of digital technology is its role as enabler of *fundamental change* in the structure and operation of the higher education system, often referred to as an “industry”.

**Figure 1: Porter's Five Forces in the higher education industry**

Source: Pringle and Huisman, 2011, Understanding Universities in Ontario, Canada: An Industry Analysis Using Porter's Five Forces Framework (Pringle and Huisman 2011).

Drawing on experience in other industries, and the Porter Five Forces framework above, rationalisation in the higher education industry could come from several dimensions -

- *Supplier responses* will range from an expectation that things will recover and return to normal as they have in the past, to an understanding that demand conditions have changed forever, and fundamental change is required. In the first scenario all that is needed is for the government to provide money to ride out the storm. In the second scenario, responses can be *strategic*, involving planning, communication, and problem solving, or *tactical*, involving quick fix "slash and burn" cost reduction approaches – achieved mainly by reducing staff. In recent months we have seen evidence of both responses.
- *Buyer (student) responses* will see students looking for alternatives in non-university higher education and VET providers. Already, public and private TAFE sectors have been responding to this reality and drawing students away from universities.
- *Potential new entrants* include new non-university higher education providers and existing providers offering new delivery models.
- *Substitutes* include the provision of online and multi-modal delivery options, which have been stimulated during the COVID-19 crisis and community providers

through community-based university education Centres in rural and regional areas

- *Rivalry* will grow as the student market contracts, domestically and internationally. Domestic rivalry will be among many active suppliers and internationally through competition with the UK, US, and Canada.

Mergers are generally proposed as a “quick fix” to resolve cost and efficiency issues. The reality is that across the public and private sectors, mergers rarely deliver the results intended<sup>9</sup>. There is a need to think more carefully about cooperation and collaboration: in particular, what may work for merged research capability to build scale and critical mass, may not work for teaching or engagement with local economies and communities.

Globally, there is also a range of innovations around online learning including [FutureLearn](#), and new business models such as start-ups [Guild Education](#) and [InStride](#), which have emerged as *intermediaries or brokers* to allow companies to work with higher education institutions to offer learning as an employee benefit. Universities now partner directly with [Starbucks](#) and [Walmart](#) to offer “be-spoke” education to employees.

There is an expectation that *corporate learning* will emerge more strongly as companies argue that they can no longer afford to wait for the current system of higher education to supply the workers they hope will help shape their future; their need is too acute too urgent. In July 2019, Amazon announced that it would spend \$US700 million over 6 years on postsecondary job training for 100,000 of its soon-to-be 300,000 workers (Horn 2020)

The Australian Government is innovating through *community learning* by providing support for *Regional university centres* to improve access to tertiary education for regional and remote students. Centres support students who wish to remain in their local community and study online with any Australian university. Support is provided for:

- Infrastructure including study spaces, break out areas, video conferencing, computing facilities and high-speed internet access
- Administrative and academic support services such as developing writing and researching skills and managing organisational processes
- Student support services, including pastoral support, study advice and assisting with accessing student services

Universities may also seek to underpin their financial position by extending into new business and commercial areas. This activity’s scope extends from the commercialisation of research, contract teaching, and commissioned research and consultancy through to investments in start-ups and related entities, merchandising, naming rights, endorsements, and property development.

<sup>9</sup> In South Australian the Labor state Opposition has an early election policy announcement about merging 3 local units in SA. see <https://www.abc.net.au/news/2020-10-31/sa-labor-election-promise-university-merger-commission/12834964>

Twenty years ago, Australian universities were not good at this – and had poor skills to do it, along with strong academic pushback. Over the ensuing years, some university councils and vice-chancellors have become much more commercially adept at generating commercial income streams.

Of course, in the COVID context, universities could scale back their operations and modify cash operating surplus expectations to finance less ambitious capital programs and expand financial investment portfolios. This response is already in play for many universities, particularly those highly exposed to the international student market and the decline in domestic demand that has already set in.

## **Towards a diversified national system**

Not all the universities play on the same field. The 5 largest institutions have choices not open to the others, but the sector is regarded by government as a single undifferentiated industry for regulatory purposes. A different policy focus would address how individual universities could play to their strengths - but the dominance of the current rules-driven unified national system has proved a binding constraint on specialisation.

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*The unified national system of the “Dawkins” vision is now 30 years old. Even at that time, there were concerns about the one-size-fits-all approach. This unified approach has failed to stimulate difference and innovation in education services delivery.*

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The unified national system’s current operational reality already suggests that the framework is weakening, with the attention being given to the “special place” of regional universities and the emergence of separate funding streams for regionally based education and research.

There is a need to think again about diversification of the system to better meet society’s broadly defined education needs. This diversification would involve starting with the recently announced *Provider category standards* (Coaldrake 2019)<sup>10</sup>. Government would work with providers to develop missions and strategies that would drive funding and regulatory benchmarks in each category for education, research, and service to industry and the community.

Now is not the time for “root and branch” structural change. Change should consider the evolution of existing financial, student and research profiles, strengths, and distinctiveness of different provider operations, and encourage and support evolutionary change through clearly defined and differentiated university strategies.

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<sup>10</sup> The standards are described in more detail on 190 below. These have been criticised as being too oriented to the *status quo* playing to the university lobby’s preferences for a ‘no-change’ needed approach.

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*Change should be driven by thinking of the higher education system in terms of market segments.*

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Across industry, segmentation occurs as demand diversifies with multiple expectations about an organisation's role. That is, multiple clients, multiple outcomes, multiple ways of service delivery. For higher education, this would involve

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- Higher education providers playing to their financial, education, and industry engagement strengths
- Governments to provide a more efficient allocation and use of resources between and within system segments
- A greater variety of educational opportunities that meet the knowledge and education needs of students, industry, and the broader community for building and sustaining businesses, the protection and preservation of natural capital, and delivering a just and fairer society
- A greater mix of teaching and research priorities and concentrations across fields of education and research not only science, technology, engineering, and mathematics (STEM) but also in the humanities, arts, and social sciences (HASS)

One future scenario could be along the following lines: the higher education system could grow and transform around several distinct, but connected, provider categories each with strong, distinctive capabilities, catering for specific marketplace segments. Many of these segments have already started to “self-select”.

The path towards segmentation and diversification should be further encouraged by the following strategies:

1. Encouraging and supporting the emergence of the 6 *established research-intensive universities* at scale. These include the “big 5” universities and the ANU.
2. Building national capability and capacity in the *technology universities* in Information technology, engineering, and management. The collaboration framework of the *Australian technology network* should be strongly supported.
3. Encouraging the further development of research and teaching in the *growing outer metropolitan comprehensive universities*, adjacent to hospitals and medical research institutes and embedded in regional clusters/innovation ecosystems.
4. Encouraging universities in large cities' slow growth areas to build specialisations for niche markets and withdraw from areas where there is low, and declining demand and losses are substantial. Amalgamations should be considered where practicable.
5. Assign a specific charter for *regional universities* to support regional economic development and fund accordingly. Priority should be given to education and research in the rural industries covering rural production, processing, distribution



and participation on global value chains (Howard Partners 2018). Also, encourage and fund consistently the following -

- a. involvement in regional innovation hubs and preparation of smart specialisation strategies
  - b. assign a special responsibility to support younger age cohorts into higher education within a region
  - c. strengthen the regional campus centre model with more CSPs to give strength in negotiations with regional provider universities
6. Encourage the growth of non-university higher education institutions to address specific education needs in disciplines not driven by research scholarship, such as in the arts and creative practice.
  7. Establish public TAFE reform to enable its effective participation in a national *tertiary* education system.

An indicative strategic profile for a *diversified national system* is represented in the diagnostic in Table 1. In this book, it is necessarily brief but provides a basis for considering funding and other regulatory arrangements that would be fit for purpose.

**Table 1: Strategic profile for a diversified national higher education system**

Segment	Distinctiveness	Competitive advantage	Opportunities
Research intensive university	Global rankings, global focus in medical research, and research and teaching in the social sciences and humanities, the visual and performing arts Very high proportion of postgraduate students	Global reputation, international networks, strengths in medical and clinical research Valuable knowledge assets in libraries, archives, collections, cultural facilities	Ever increasing demand for health solutions - drugs and vaccines, surgical procedures, diagnostics, etc National and international centres and hubs for art, music, drama, literature
Technology university	Specialisations and strong linkages between engineering, technology, design and management - a critical requirement for the industries of the future	Strength in capability in the established technology oriented universities Unique link between technology, design and management	The industries of the future are calling for an ever increasing capability in digital technologies In technology, design and management around digital disruption
Comprehensive university - growth	Professional education for professionals in fast growing outer urban and large regional centres	Universities are already strategically located in outer metropolitan growth areas Close connection with local industry and communities	Growing innovation hubs and districts and collaborations with established and emerging technology businesses
Comprehensive university - stable	Established reputations and attractive location	Well-developed campuses and facilities Legacy investments in knowledge assets – libraries, collections, etc	Look for national and global niches in areas of strong capability
Regional university	Located in areas of regional importance Focus on rural and regional issues	Local and regional connections by faculty Regionally “embedded” Potentially good relations with local business and community	Build international reputations for regional teaching and research in all aspects of rural industry value added
Regional hubs and study centres	Unique model for supporting students in regional areas who are required, for studying by distance education	Community owned and operated, creating high commitment Lower infrastructure and operational cost	Build strong regional community engagement and appreciation of the value of higher education
Private and not for profit universities	Important distinctive role that reflects cultures of private enterprise and the role of NFPs	Private and not-for-profit institutions offer variety and choice for students, particularly in specialised areas and offering broader student experience	Opportunity for students seeking more than formal tuition, for example, to build networks nationally and internationally

Specialised university colleges	High performing providers operating in highly specialised and focussed areas such as agriculture, the natural environment, rural health, and Indigenous research and education	Colleges can work at a relatively small scale but can develop global niches in particular areas of capability. Can operate away from the pressures for academic publication	Build and retain a national and international focus in essential aspects of higher education. Collaborate with government and industry in lifting Australia's creative profile
Specialised Institutes of higher education	Focus on delivering courses and programs for the visual and performing arts, including music, theatre, design, art and creative practice	Australia's relatively small creative and cultural sector can allow close contact with professional bodies to develop courses and programs, Can operate away from the pressure for scholarly publication	Design and deliver courses, with close industry involvement, to meet education and training relevant to 21 <sup>st</sup> century jobs, particularly in technology areas
Overseas universities in Australia	Essential to encourage universities with an international reputation to locate in Australia.	Few international providers are operating at scale in Australia	Opportunity to expose students to international perspectives in fields such as innovation, management
Technical and further education institutions	Preparation of people for the workforce with essential vocational skills	Many universities and TAFEs are closely located, and some share campuses, providing a basis for greater interpersonal collaboration	Blended learning with university collaborations with TAFE as integration of academic and occupational learning

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Again, the strategic profile outlined above is indicative only and can serve as a basis for further discussion and debate. Working around this and other possible frameworks must take account of the following considerations:

- Ensuring that higher education is supported by and valued by the community.
- How to set and regulate fees across the categories, including differences.
- The number of research universities that Australia can afford to support at scale.
- Finding a better way of investing in research, including striking an appropriate balance between investigator-driven and mission-driven research.
- The organisational and governance arrangements for research investment.

There are, of course, other scenarios. Still, the one outlined above could set a foundation for developing a higher education system with differentiated roles in teaching, research and engagement. Some considerations in this area are outlined below.

## Differentiated roles in teaching, research, and engagement

Outlined in Table 16 is a draft schematic that addresses the potential specialisations and capabilities in the core functions of teaching, research, and engagement in different institutional forms. *The delineation of roles does not advocate that any segment would be designated as “teaching only”.* The way that research investment is sourced is a separate issue and addressed elsewhere (Howard 2020).

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*Table 16 is not a hierarchy or a ranking system: it is a framework of diverse capabilities and recognises that knowledge can be transferred as much through the education of creative, ingenious, resourceful, and talented graduates as it can through the adoption and application of research.*

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Capability in research shouldn't be the only criterion for judging the value of a higher education to industry, the economy, or society. Only a small proportion of students go to university to do research. Research commitments, whether they be scholarly, applied, problem solving, or engagement oriented, should be closely related to the knowledge and learning characteristics of each segment.

**Table 2: Potential specialisations and capabilities in higher education market segments**

Segment	Teaching	Research	Engagement with industry and the community
Research intensive university	Closely related to research areas Priority in post-grad research degrees – PhDs, Masters Targeted at high achievers who can learn on their own Strong commitment to social sciences and humanities	High priority Global focus, international rankings in mind Strong medical and clinical Basic, fundamental research New Knowledge Investigator driven	Closely related to research and teaching areas – e.g., medicine. Engagement with Health Organisations and MRIs Global engagement
Technology university	To provide the talent for the new industries of tomorrow Industrial PhDs Coursework Masters Emphasis on internships	High Priority National focus Emphasis on engineering and technology, design Collaboration with industry Applied research Problem-solving with industry	Strong engagement in areas of advanced manufacturing and other high technology industries Mandate to revitalise the Australian manufacturing sector Drive industrial strategies and innovation districts, precincts and hubs
Comprehensive university - growth	In areas of growing demand for university educated personnel – e.g., health services and teaching, and for careers in commerce and the law General engineering, science and liberal arts education programs to deliver both specific professional knowledge and soft skills	Research related to teaching roles Applied research Problem-solving focus Research integrated across disciplines Collaborative across institutions and industry	Strong engagement with industry, particularly SMEs Strong engagement with NFP community organisations in health and community services. Service learning
Comprehensive university - stable	Focus on areas of unique capability and specialisation	Areas where a strong reputation is established Select, limited number of fields where capability is strong	Engagement built on established relationships in areas of specialisation – such as the law, finance, and engineering
Regional university	In areas relevant to regional development and growth – rural production, environment, rural and indigenous health Distance education for growth sectors – e.g., for health and education	Rural and regional development issues Applied and problem solving	Close links with regional businesses, government agencies, community
Regional hubs and study centres	Mentoring, tutorials and pastoral support for students studying by distance	Research not part of charter	Strong engagement with regional businesses and NFPs
Private and not for profit universities	In areas of specialisation and demonstrated return	Research to support teaching and building staff capability	Connections with sponsors, donors, and business
Specialised university colleges	Strongly practice oriented in industries with a strong public sector orientation	Research to inform professional practice	Close engagement with practitioners, including advice and extension
Specialised institutes of higher education	Strongly practice oriented in the creative and cultural sectors	Research to inform understanding of practice	Strong engagement with arts and cultural institutions
Overseas universities in Australia	Focus on international curricula and pathways for students wanting to study overseas	Strong connections with international research projects and programs	Strong connections with global corporations

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## Implementation and delivery

It is now appreciated that education delivery can be flexible, portable, and not tied to place, and this development will continue. However, technology will not dissolve a need for higher education providers to exist in some physical form. There will always be significant numbers of students who want to “go” to university, to be part of a

community of learners, educators, and scholars exploring, disassembling, and co-creating knowledge. Learning has a social dimension as well as an academic one.

Thus, place-based education will not disappear entirely; as well as being places of learning, campuses are places for socialisation, where adolescents mature into adults through interaction with others before they embark on careers, and places for innovation and connections between higher education teaching and research, and industry engagement in *innovation ecosystems*. They will be places for older students to reconnect and continue their engagement with education.

Campuses will, however, continue to evolve from their 'ivory tower' legacy, and potentially expand their role as 'public spaces' for industry and community interaction and sites for innovation precincts and clusters. Moreover, in many parts of the world, campuses are a focus for urban renewal, social housing, and regional industry development. Collaboration with state planning and infrastructure agencies will see this continue.

## Towards collaborative system governance

The Australian higher education system does not have a consistent or coherent governance framework. System governance has emerged haphazardly as the resources available for higher education have increased, and interest in public value extends.

The task of higher education system governance at the national level is daunting. It is constrained by the involvement of multiple regulators with a strong rules based and control oriented cultures. This administrative and controlling focus leads to an absence of overall strategic orientation and capacity to respond to major economic change and social imperatives. The system is characterised by

From time to time, proposals are made to re-establish a new *Higher education commission* to provide oversight of university governance, finance, and the development and implementation of a national higher education strategy. The case for such a body has not always been made clear – over and above the role of a minister and advisers in a department of education. The case can now be made around a requirement for effective system governance.

A governance organisation would address *system failure* by setting the framework and parameters for how entities within the system decide what to do and how to do it and how students and industry would access it. It should be collaborative and cooperative, that addresses the unique characteristics of entities within the system. It should draw away from the one-size-fits-all rules based system and control framework currently in place.

The priority task would be to set a longer term strategy and articulate priorities for growth for *a sustainable higher education system that delivers education outcomes*, and *a higher education industry that generates exports and creates jobs*.

The commission would advise on the creation of a *diversified system* that acknowledges the different (and complementary) roles of different provider

categories and the need to develop different funding and investment approaches tailored to specific outcomes within and between categories.

## Rethinking the vision for higher education

The time will come when people look for the national vision for higher education and its contribution to a civil society that values fairness, diversity, and tolerance of a broad range of views and opinions. Universities have traditionally been *places* for debates over ideas, ideals, and reconciliation. People will look again for universities' role in our socio-cultural fabric, with the contributions to non-material aspects of quality of life and well-being.

Fortunately, through their traditions of scholarship and independent inquiry, universities may prove to be far more resilient than public policy pronouncements prescribe. Academic Boards are not easy to push around.

Australia has a small market for most things, including higher education. The market is crowded with 44 universities and over 140 non-university higher education providers. Demand is unstable due to an increasing range of study options and delivery alternatives. Still, we may be confident that the international education business will grow over the medium to longer term – but in a way that may be more ordered and less speculative than in the past. But the future of domestic demand is less assured.

Higher education governing bodies and leaders face a quandary. Should they persist with chasing the potentially loss-making goal of delivering domestic education built around achieving personal, economic, and social purpose, or should they embrace the Australian Government's higher job ready education training agenda, or should they embrace the commercial track of universities as businesses in a global higher education industry? Perhaps it is a combination of all three, but the combination that comes together will differ among institutions.

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*The future is not path-dependent - extrapolating what has gone before and responding to periodic shocks and discontinuities. The future is in innovation and transformation of universities into modern, financially viable, and goal-oriented not-for-profit businesses delivering high quality and sustainable learning experiences.*

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There is a broad academic and community consensus that “learning is for life” will be a way of the future. In this paradigm, universities will build and retain *learning communities* with feeder groups, students, stakeholders, and alumni. It will be around partnership and continuity and re-establish the critical roles of universities in society and the economy.

But boards and auditors will insist that the “learning for life” strategy must deliver a financial benefit to the university – or be paid for by participants or other external sources. To do otherwise would threaten the economic viability of the institution.

The higher education system must be designed to put students in the front and centre of what the system is intending to do and achieve. The system must fully engage with students to deliver valuable student learning experiences and outcomes. This fundamental aspect of mission should come ahead of the task of making money.

While the economic contribution of international higher education is important to the economy, its pursuit should not be allowed to be seen as a commodity, like mining and agriculture, and overshadow the fundamental importance of higher education for Australians to acquire knowledge and skills for future careers, social mobility, and participation in a civil society.

## Structural adjustment assistance

The level of Australian Government funding for universities has been declining since 2013 and universities have continually sought economies in their teaching and learning commitments. It follows that there is little scope within teaching and learning budgets for system re-alignment, innovation, and step changes in mission and strategy.

Recent university lobbying for funding boosts are essentially premised on maintaining the *status quo*. There is little connection between asking for more money and advocating ways in which the education system might be re-aligned towards a new delivery model.

Creating a *diversified higher education system for the 21<sup>st</sup> century* will require resources. In addition to the financial commitments to higher education policy envisaged above, resources will be required to facilitate change.

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*To facilitate progress to the higher education system for the 21<sup>st</sup> century a national transition fund should be established.*

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Higher education providers that wish to make the adjustment to a new delivery model in the market and delivery segments outlined in chapter 9 should be supported by government on the basis of sound business cases addressing costs, risks, and returns to students, industry and the broader community.

Business cases would address potential growth in areas of distinctive capability and priority in international, national, state, and regional domains. Providers should be assisted in making loss-making courses viable, and withdrawing from uneconomic ventures, such as international education.



# 1 The higher education system demands a reset<sup>11</sup>

*The corporatist/managerialist paradigm introduced in the 1990s, with its heavy focus on financial performance metrics, is being rejected by students, staff, business, and the broader community. The corporatisation of public higher education, and the substantial wealth it has created, has made the advocates for more money in the current fiscal environment look like greedy rent-seekers.*

The expansion of the public university sector due to a boom in international revenues and the subsequent impact of COVID-19 has blindsided Australia's higher education system to the need for a more fundamental change that has been going on in its operating environment.

The deeper implications of the *Job ready graduates package* and the associated budget cuts have also not been seriously addressed in terms of the substantial change it could initiate – except for prognostications of widespread doom and gloom and the end of life as we know it.

There has been an assumption that the current business model would continue unabated. The main arguments set out in public commentaries call for more money to prop up the system and the seriousness of job losses. Outside the higher education system, few have much sympathy for these concerns as they are also doing it tough.

The rapid growth (boom) in public university higher education that started in 2014 could not be expected to continue the exponential trajectory set in train. Booms are always followed by busts with transformation, readjustment, and restructure in their wake. A bust represents an opportunity to break with the past and design a new future. To think that the past can be made to return is folly.

The campus model of the university is also under challenge with distance and multi-model learning and universities locating teaching space in high rise city office blocks or iconic buildings in innovation spaces, technology parks and districts supported financially by state and local governments, public health agencies and property developers. Increasingly, buildings are provided as “right-of-use assets.”

The *unified national system*, also introduced in the 1990s, focusing on uniformity and a one-size-fits-all funding strategy, which has created a powerful industry *within* the public sector, is now being questioned about whether it continues to be fit for purpose.

Politicians talk up the value of the higher education *industry* for its economic impact. The rush to recruit international students to underwrite industry growth compromises commitment to the national higher education system.

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<sup>11</sup> Published in *Pearls and Irritations Public Policy Journal*, 29 October 2020, <https://johnmenadue.com/busted-higher-education-policy-demands-a-reset/>

Domestic enrolments are in decline, attrition rates are high, and slow completion rates cause concern. DESE data shows that low SES students do not receive equitable access to higher education by a long shot. Full-time campus life and “the student experience” tend to be for the well off.

Moreover, campuses now cater to a wider range of business users and cooperate with industry and urban development strategies. This development is important for many universities to leverage their substantial property assets and build university income flows.

Regional university centres are an important initiative to address some of these failings for the less well off in rural and regional areas. Still, so far, the funding has been small and the government commitment short term. They also rely on extensive community funding. But their capacity to facilitate links with the TAFE sector through pathway programs and blended learning is highly innovative. Policy is currently only in the “experimental” stage, but it is a good sign for future policy design.

So, what is the answer?

A serious higher education system policy review and series of recommendations might suggest a leaner, more *diversified national system* that addresses all stakeholders and constituencies' needs and requirements. It would accommodate and appropriately resource a wide range of providers – public, private, and not for profit. It would draw on the framework established in the new provider category standards.

A diversified system would encourage the growth of the 6 large internationally recognised global research universities, currently heavily supported by international student income, and make a major long-term commitment to research investment.

The system would also encourage the growth and development of the 6 specialised technology universities and the ongoing development of the comprehensive universities established in the fast-growing outer metropolitan areas and the growing large regional cities. These would cater for the full range of STEM and HASS (humanities, arts, and social sciences) fields of education.

The system would help refocus the declining growth universities into prestigious smaller organisations in their specific areas of specialisation, and the growth of non-university higher education institutions to meet demands for higher education for the professions – specifically in health and education in accounting, finance and general management.

The new category of institutions of higher education would have a strong teaching and student engagement orientation. They would also focus on developing professional practice, particularly in the creative sectors – for example, in design, the creative and performing arts, and in the application of digital technologies across all industry categories.

Many of these institutions already exist, but their growth has been hamstrung by applying one model and the power of the public university lobby with its historical

access to government resources and a narrative that a public university education is a superior product to the alternatives available.

Implementing this restructuring would require the development of specific funding models suited to each category of institution, together with incentives to implement and adopt change. It will require development of new staffing agreements, in collaboration with education unions, to reflect each institutional category's differing mission and purposes.

It will also require collaboration and support from industry and the community in an environment not dominated by one particular lobby organisation's interests.





## 2 Mission and purpose: historical context and perspectives

In general terms, Australian universities' role and purpose in the Australian higher education system relate to requirements set out in enabling legislation, their unique organisational characteristics, and a set of entrenched beliefs, attitudes, and behaviours that often go unchallenged. This assortment of standpoints gives rise to several perceptions about mission and purpose – and problems in interpreting and discharging those missions. It also gives rise to some widely different perspectives on the role of a university in the first half of the 21<sup>st</sup> century.

Several of those perceptions are canvassed below.

### 2.1 Universities are independent and autonomous public organisations

There are 35 Australian public universities established as independent statutory corporations under state/territory legislation, with the power to make their own statutes (regulations) with the force of law. The ANU was created as a corporation by the Commonwealth parliament. There are an additional 6 private or not for profit universities that receive Australian government grants and funds for student assistance, and 2 overseas universities. Thirty-nine universities receive funds for “Commonwealth Supported Places” (CSPs). These 44 providers enrolled 1.48 million students in 2019 (92.1% of the total 1.61 million).

The Tertiary Education Quality and Standards Authority has a register of 183 higher education providers<sup>12</sup>, of which 54, including all universities, can *self-accredit* some or all of their courses. There are also 90 *non-university higher education* providers, listed in Table 19 (page 229) that can enrol students who can receive Australian government financial assistance. These providers currently account for 7.9% of total university enrolments. There is strong pressure from business and the broader community to grow this segment to provide diversity and choice in access to higher education.

Public universities are governed by independent Councils/Senates with some government appointed members, but they are usually in the minority. The members' profile has been shifting from a strong academic orientation to a strong commercial and legal background. Many university Chancellors now come from a private sector corporate background, whereas several years ago, academic experience predominated.

Public universities are audited by state/territory government auditors-general and are subject to the Australian Accounting Standards Board's Financial Accounting Standards. Financial statements adopt a similar style and presentation to statements prepared by publicly and privately-owned companies.

<sup>12</sup> <https://www.teqsa.gov.au/national-register>

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*Apart from audited financial statements presented to state/territory parliaments, there are minimal public accountability channels for universities for the efficient and effective use of public funds.*

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There is no mechanism for universities to report to the Commonwealth parliament – the principal source of funding. Moreover, there is no provision to sack poorly performing university councils for financial mismanagement, as has occurred with the fallout of the COVID-19 crisis. In many cases, risk management systems have been demonstrated to be exceptionally poor. Local government councils, also public bodies established under state legislation, have been removed for less.

The *Tertiary Education Quality and Standards Agency* (TEQSA) was established to register higher education organisations - public, private and not-for-profit - as higher education providers and accredit their courses of study and conduct compliance and quality assessments. TEQSA does not perform a prudential role concerning university financial management in a similar way role that APRA performs a function concerning the finance and insurance industry.

## **2.2 Universities provide common benefits and are ‘doers of social good’**

Universally accessible and affordable public higher education is considered an economic and social necessity for advanced nations, states and communities. But policymakers have a declining interest in providing the adequate funding to secure these benefits; policymakers instead look to universities to raise funds from students, particularly international students, and industry. The problem of public defunding has become acute in Canada and the US over many years and is becoming so in Australia<sup>13</sup>.

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*With declining public funding universities have switched attention to generating income from property development (by leveraging substantial property portfolios) and international students to assure their institutions’ financial viability.*

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In this process, the “public good” aspect of their missions is becoming lost:

- The boom in international student revenue over the 2015-2019 period, particularly among the 5 largest universities, encouraged universities to operate as commercial enterprises, including remuneration of senior executives at levels commensurate with private sector executives in similar size businesses.

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<sup>13</sup> The ‘demand driven’ funding system, introduced in 2009, was never going to be sustainable in a national budgetary and fiscal context.

- Universities are significant players in the urban and regional development landscape and can provide, and in many cities and regions, leadership in urban and regional development and renewal.
- Several universities are reported to be contemplating detaching from government support and charging higher fees – much like the private universities in the US. This has attracted some support from commentators.

These trends have occurred at a time when domestic enrolments appear to have peaked.

## 2.3 Universities provide the workers for the knowledge economy

The significance of the knowledge economy achieved wide acceptance in the 1990s as a system of consumption and production based on intellectual capital. It also refers to the ability to capitalise on scientific discoveries and basic and applied research.

Growth in the demand for university education has been derived from industry and governments requiring more and more “knowledge workers” to underpin the development of the knowledge economy and an observed willingness to pay more for people with a strong academic foundation (theory-based) knowledge reflected in their qualifications.

In this knowledge economy context, a university qualification implies a better precondition for entry into a profession (learning through the acquisition of knowledge), compared to the more traditional vocational/occupational training pathway (learning through proficiency and competence in practice). *A university degree became a key criterion for entry into a growing number of jobs.*

Universities grew in size due to students (and their parents and career advisers) seeing the opportunities and advantage of a university education, and by governments providing subsidies to students, and grants to universities, to support more student places. The university lobby actively promoted university education as a superior product with better job prospects and a greater likelihood of securing better lifelong earnings than non-university higher education, or technical, vocational, craft-oriented, and trade-based education.

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*In the early years of this century, the universities vigorous advocacy that a university qualification is a better way to get a job in the knowledge economy was mistaken and misguided.*

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Technical and trade-based qualifications were often assumed, wrongly, to lack knowledge intensity with the result there is now a severe shortage of people who have the technical knowledge and skills required to work in the industries of the future - including computing and programming, software engineering, robotics and

artificial intelligence, cybersecurity, big data, social media, visualisation, autonomous transport, nanomaterials, energy capture storage, and transmission.

In some areas, knowledge and skills development was inappropriately transferred from a technical to an academic environment, including design and creative practice and the tactical elements of communication and media (e.g., building Apps and Websites). Features that stayed, such as film and video production and animation, have flourished (e.g., the Academy for Interactive Entertainment based in Canberra)<sup>14</sup>. Industrial design and other design disciplines continue to do well in a vocational education environment.

The vocational/occupational training pathway, primarily a state/territory government responsibility, was defunded through fiscal austerity and effectively privatised through “contestability” models with adverse long-term consequences for the availability of innovation skills<sup>15</sup>. Leadership had been provided through the *National Training Authority*, abolished in 2005, Skills Australia, abolished in 2012 and its replacement, the Australian Workforce and Productivity Agency (AWPA), abolished in 2013.

The AWPA report, *Future Focus* (Australian Workforce and Productivity Agency 2013), had set out a vision to realise Australia’s growth potential through a highly skilled and adaptable workforce where “the changing nature of work poses a new set of challenges for the future, with new technologies, a growing focus on digitisation, and demand for flexibility in both the workplace and the home. AWPA proposed initiatives across several areas:

- positioning Australia as a knowledge economy through skills development and targeted planning
- equipping Australians with the language, literacy and numeracy skills needed for full participation in community life, education and work
- enabling individuals and the tertiary system to respond flexibly and creatively to change strengthening quality in the tertiary sector
- investing in the tertiary system and workforce development strategies to meet our skills needs.

The folly of this lack of commitment to the development of vocational/occupational training strategies is now appreciated, and corrective action is now underway. However, its potential effectiveness is subject to ongoing discussion and debate. Universities and vocational colleges are looking to strengthen partnerships in areas such as blended learning and articulation.

<sup>14</sup> <https://aie.edu.au>

<sup>15</sup> With the increased Australian government support for university education, state government support for vocational/occupational learning, including apprenticeships, collapsed in 2012-13. See Mitchell Institute data analysis Pilcher, S. and K. Torii (2017). Expenditure on education and training in Australia: Update and analysis, Mitchell Institute policy paper No. 05/2017. Melbourne, Mitchell Institute.

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*Australian government strategy for growth in the supply of knowledge workers to fuel the knowledge economy was heavily, and mistakenly, biased towards university education growth.*

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With the demand for skills to grow the industries of the future, now is the opportunity to start correcting this policy failure.

## **2.4 Universities operate within a *unified national higher education system***

A *unified national higher education system* was created in 1988. The system delivers research, education, workplace training, and employability skills and capabilities. In the language of organisational systems, thinking it is a *closed* system. The objectives behind the creation centred on diversity and choice and achieving greater efficiency in allocating public resources. The reality has been somewhat different.

The *unified national system* is not always well regarded in meeting the needs of students, industry, government, and the community. The system lacks strategic direction and leadership.

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*In general, effective organisational and social systems are open, dynamic, agile, and responsive to change in external operating environments. The unified national system is none of these.*

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The system tends to be inward-looking, rules obsessed, elitist, entrenched, combative, and defensive of the *status quo*. It has resisted new institutional forms, is excessively vocal about its virtues, and alleged contribution to economic development. It is badly in need of reform.

With the emergence of public policy thinking stemming particularly from the OECD and trickling down to member governments and policy analysts about the “knowledge” economy, or the “new” economy, university education was regarded as a superior product, making a more significant contribution to economic growth in comparison with an “old” economy focus on technical, vocational, craft-oriented, and trade-based skills acquisition.

In the new economy, growth was considered to come from the “application of knowledge on knowledge” rather than applying capital or knowledge on materials. This view is now seen as mistaken as craft and trade-based activities become increasingly knowledge-intensive and high-level technical skills are very much part of the new economy. These skills are also currently in short supply.

University education was regarded as more prestigious and carried with it a promise of better job prospects and a greater likelihood of securing better lifelong earnings. Through public policies and professional organisations, the system reflected a view that academic learning was the best way to achieve a career, overshadowing the

importance of an occupational (vocational) education pathway. Professional organisations supported the transfer of accreditation courses from TAFE to universities – often much to their subsequent regret, for example in design.

Discussion and profiling of the system usually leaves out the substantial and growing private and not-for-profit segment of non-university higher education providers.

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*The national higher education system contains a significant gap in excluding the vocational education and training (VET) system.*

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Within the system universities compete for students, faculty, research grants, revenue, rankings, and prestige. In this respect, they behave like any commercially oriented business. Competition is increasingly around “the student experience”. They also compete by providing satellite campuses across the country to attract students. They are not permitted to compete on domestic student fees.

Together with the business orientation, this competition may cut across the objectives of delivering national (and state and local) economic and social benefits. This has included encouraging students into a university environment where a VET based qualification could have been more appropriate.

The unified national system consists of 44 providers that can receive Australian government grants under the *Higher Education Support Act 2003* (HESA). Providers are listed in Table 17 in Attachment 1 (page 227) under 3 categories.

- “Table A” providers (38 in total) - eligible for all forms of Australian government grants under *HESA* and their students can receive all forms of assistance<sup>16</sup>
- Table B providers (4) – eligible to receive some *HESA* grants and can offer FEE-HELP to students<sup>17</sup>
- Table C providers (2) - eligible to offer FEE-HELP only<sup>18</sup>.

There are, in addition, 90 *Non-university higher education (NUHE)* providers who provide FEE-HELP assistance. These are listed in Table 18 on page 228. Additional information on Table C and *NUHE* providers is contained in Table 19 on page 229 including numbers of students enrolled in 2019.

Table A providers, and the University of Notre Dame, are required to submit annual financial statements to the Department of Education, Skills and Employment for inclusion in the annual financial performance data publication, on which the financial analysis for this book is based.

The Table A providers broadly look the same<sup>19</sup>. There is some segmentation between the wealthy research-intensive institutions and the others, but they

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<sup>16</sup> Consisting of 35 universities established under state/territory legislation, the ANU, established under Commonwealth legislation, the privately owned Catholic University and The Batchelor Institute of Indigenous Tertiary Education.

<sup>17</sup> Bond, Notre Dame Australia, MCD University of Divinity, and Torrens University

<sup>18</sup> Carnegie Mellon and University College London

<sup>19</sup> Excluding the Batchelor Institute of Indigenous Education



generally offer a very similar portfolio of courses and programs. Despite the similarities, with closer examination, they are quite different and have emerged into several distinctive segments -

- Six large research-intensive universities,
- Six technology-oriented universities – focusing on engineering, technology, and related disciplines
- 17 comprehensive universities – in 2 sub-segments
  - Ten in the growth areas of the outer metropolitan regions of major capital cities and growing regional centres (including Newcastle, Wollongong and Geelong)
  - Seven in stable or declining areas - in CBD areas of major capitals (Adelaide, Perth) or in regional cities where there is aggressive competition (University of Canberra, for example, with a physical presence of 4 other universities for a city of 457,000<sup>20</sup>)<sup>21</sup>
- Nine regional universities - as defined by the Department of Education, Skills and Employment for targeted regional support and assistance<sup>22</sup>
- Six Table B and C providers

The emergence of these segments provide a basis for thinking about a new system framework with a clear segmentation of capabilities and differentiated public support and assistance options. This framework should consider the mix between teaching, research and engagement profiles, and the strategic focus on global or local orientation. Above all, it should have an overarching focus on the diverse educational needs of students. The problem was raised in The Senate References Committee Report, *Universities in crisis*, in 2001:

The creation of the unified national system in 1988, by promoting autonomy and competition between institutions, was intended to foster diversity as universities sought to meet the diverse needs of the market. Most commentators agree that increased competition has, instead, promoted increasing convergence while the funding indicators adopted by the Commonwealth government have also served to smother diversity. The highly artificial nature of the market in Australia, and, in particular, the large distances and tendency for students to study in their local area, as well as the formulaic-based Commonwealth funding arrangements, inhibit the development of true diversity (Australia. The Senate. Employment Workplace Relations Small Business and Education References Committee 2001).

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*The higher education system must be fit for purpose and offer real diversity in educational alternatives but be sufficiently integrated to allow efficient and effective movement of students between segments and locations.*

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This issue is explored further in later chapters in this book.

<sup>20</sup> ANU, ACU, UNSW, Charles Sturt. In addition, the Canberra Institute of technology offers a range of non-university higher education programs.

<sup>21</sup> Covers Australian Catholic University and Bachelor institute in the Northern Territory.

<sup>22</sup> Charles Sturt, Southern Cross, New England, Federation, Central Queensland, James Cook, Southern Queensland, Tasmania, Charles Darwin.



## 2.5 The gap between the rhetoric and the reality of higher education

Reference is often made to a growing gap between public needs and the reality of higher education performance. In the US *The future of higher education project* (Newman, Couturier et al. 2004) argued that the gap had received too little attention within universities due to a strong sense of satisfaction with how things are going and a lack of meaningful performance measures that would serve to connect institutional performance with society's changing needs. These concerns are echoed by university presidents and senior academics (Bok 2005, Zemsky and Massy 2005, Palmer, Zajonc et al. 2010, Taylor 2010, Arum and Roksa 2011)

Higher education has always relied on a narrative describing the benefits to society of a university education. But the narrowing of the narrative, reflected in current policy, about the importance of a university education to get a job, is not universally shared among different groups in society. This narrowing may impede higher education's ability to serve the broader community and challenge its specific place in society.

The higher education system has distorted the narrative by engaging in competition between institutions based on prestige and status rather than concentrating on improving graduates' skills and knowledge. There is a focus on *employability*, and employment outcomes after graduation, but this may relate as much to local demand as to intrinsic knowledge attributes. The competition around prestige is reflected in the increasing array of university ranking lists. However, it was pointed out 16 years ago that -

This flood of "best" lists has led to such distortions as submission of false or misleading data by institutions, the shift to early admissions to raise yield rates, and even financial incentives for presidents who can move the institution up the rankings. The flaw, as argued year after year, is that the rankings are based on factors that do not measure the actual learning experience (Newman, Couturier et al. 2004)

Nearly all Australian universities play the ratings game. This drive for prestige has led to important gains, most notably in university research quality among the larger universities and some of the smaller ones. But it has hampered the ability to meet society's needs by diverting resources from teaching to scholarly research.

The ratings game has led to substantial "mission creep" as universities attempt to lift their status as research universities and turn away from their teaching mandate. Historically, it has been claimed that good research and teaching go hand in hand. Still, the current incentive and reward structure around research performance has ensured that this is no longer the case. Many academics are required to teach in areas that they have not undertaken research.

There is a disjuncture in the rhetoric and reality. For example, there is a rhetoric about university devotion to their students, but the reality is:

- The student bears nearly all the responsibility for learning and any failure.

- Staff devote time, energy, and creativity to research, publishing and outside consulting.
- There is less focus on service to the community unless this is explicitly funded from external sources.

At a time when society needs a diverse array of institutions to meet the requirements of a diverse variety of students, including a large share from disadvantaged groups, institutions have been moving towards homogenisation. For example, state teachers' colleges became CAEs, which in turn became universities, and in the process sought to develop a research capability as they were absorbed into existing or newly created education faculties.

A large proportion of university research is routine and pedestrian - as opposed to being brilliant and original. Universities are extending research and PhD programs to build prestige – not always responding to public or industry need. The growth in PhD programs enrolments has been in international students; domestic participation has been falling, particularly in the research Intensive universities<sup>23</sup>. There is a focus on investigator-initiated “interesting projects” with marginal potential impact for student learning, industry, government or society. There is also substantial duplication.

In many branches of the social sciences research is commentary and critique with little in the way of actional recommendations for improvement. Academic staff spend a lot of time talking to each other and national and international conferences: very few people from industry attend academic meetings – and *vice versa*.

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<sup>23</sup> See chapter 4, section 5 below.



### 3 Cash is king: the structure and dynamics of universities' finance

The injection of funds under the demand-driven system and the increase in international student income has enabled the growth of the larger universities into global organisations. It has also sustained the financial performance for some smaller, and perhaps marginal, operations for the time being at least.

Over the 1995-2019 period, with the unified national system's operation, the differences in size among universities have widened: the larger universities have tended to get more extensive in terms of their scale and revenue share. The smaller ones have remained stable or become smaller. *The result is that universities are starting to look less alike. The appropriateness of the one-size-fits-all approach of the unified national system must be called into question.*

Universities must have the flexibility and agility to go their own way having regard to their market situation and strategies.

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*Not all the universities play on the same field. The 5 largest institutions have choices not open to the others, but the sector is treated as a single undifferentiated industry for regulatory purposes.*

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This theme is continued in later chapters, but it is enough to say here that a different higher education policy focus would address the issue of how to encourage individual universities to play to their strengths: the dominance of the rules-based and control-oriented unified national system has proven to be a binding constraint on innovation and differentiation to address differing market segments.

This chapter sets the scene for considering strategies to acknowledge differences in size and market position and develop funding, regulatory, and governance arrangements for a *Diversified national higher education system*.

#### 3.1 Overview

Over the 2014-2019 period, there has been a surge in university income driven by the boom in international education and the demand-driven student enrolment system's introduction. This surge has offset the steady decline in government grants for universities from 2013, culminating with the cessation of the demand-driven system in 2017. However, the increase in international student income was concentrated in a relatively few universities. It allowed for substantial investment in research capacity and capability and greater specialisation in areas important for global rankings.

For many universities, international student income substituted for the disappearance of Australian government capital funding pools for investment in property and other capital assets. This withdrawal may have worked to the

disadvantage of universities that have required capital to finance domestic growth, particularly the outer suburban and regional universities that have not had access to a large flow of income from overseas students.

Financial management is becoming more sophisticated with the growing size of institutions and much larger financial flows. For example, this is indicated by the disappearance of the ancient title of Bursar and its replacement with Chief Financial Officer and Chief Operating Officer or Vice-President (Finance).

Some of the larger universities have also substantially increased their borrowing levels (loans and “assets in use” leases) to finance campus expansion, drawing on their substantial financial leverage and AA credit ratings. Several universities are now highly geared (debt to equity ratios), and some also have low current ratios (current assets to current liabilities) and low cash ratios (cash to current liabilities).

Universities that are doing well seem to have taken a robust and long term strategic approach to growth and have exploited opportunities through long term investment and borrowing plans. Universities that have taken a more path-dependent and transactional approach built around international student recruitment have not fared as well.

The result is that some universities have become quite wealthy (in terms of net assets), whilst others are struggling with low operating margins and limited capacity to support new investments in buildings, facilities, and services for teaching and further research. These universities do not have the education, research and engagement choices available to the larger multi-billion-dollar universities. Still, they must be encouraged to develop their areas of specialisation and distinctiveness.

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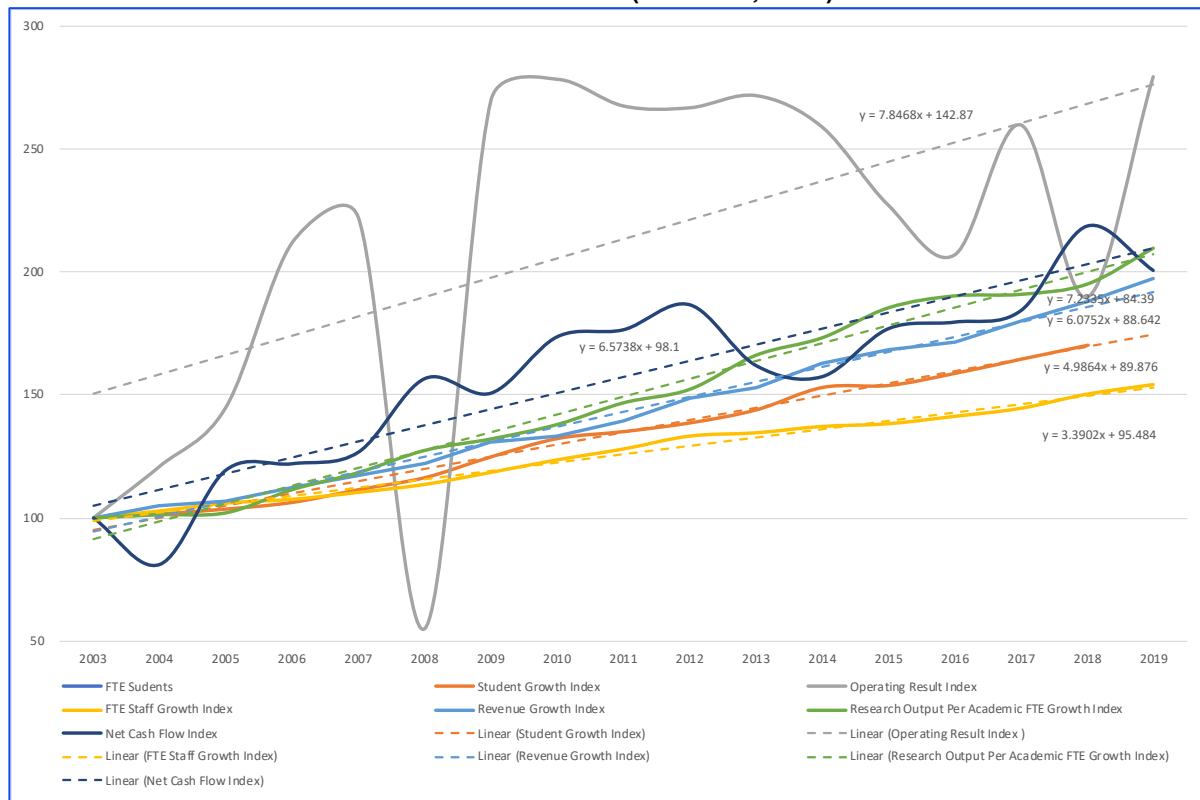
*Some of the slower growth universities may see advantage is staying small and focus on a more limited and targeted range of education and research strategies.*

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Figure 2 presents data for several key financial and operational indicators for universities over the period 2003-2019. The data are presented as *indexes* with base 100 in 2003. The data shows:

- A consistent growth in revenues of approximately 6% a year (solid blue line), but the operating result (wavy grey line) has fluctuated markedly on a year on year basis, with an average annual growth rate of 7.8% over the period.
- The aggregate operating result dipped substantially in 2008 (associated with the impact of the GFC) and again in 2016 and 2018. It picked up also in 2019. But it is expected to show a significant dip in 2020.
- Net cash flows (dark solid blue line) also fluctuated significantly over the period, dipping in 2013 and 2014 and recovering in 2015 with the inflow of international student revenues. The average annual growth has been 6.6%. A significant dip was expected in 2020.

**Figure 2: Growth in revenues, operating results, cash flows (inflation-adjusted), staff, and students 2003-2019 (base 100, 2003)**

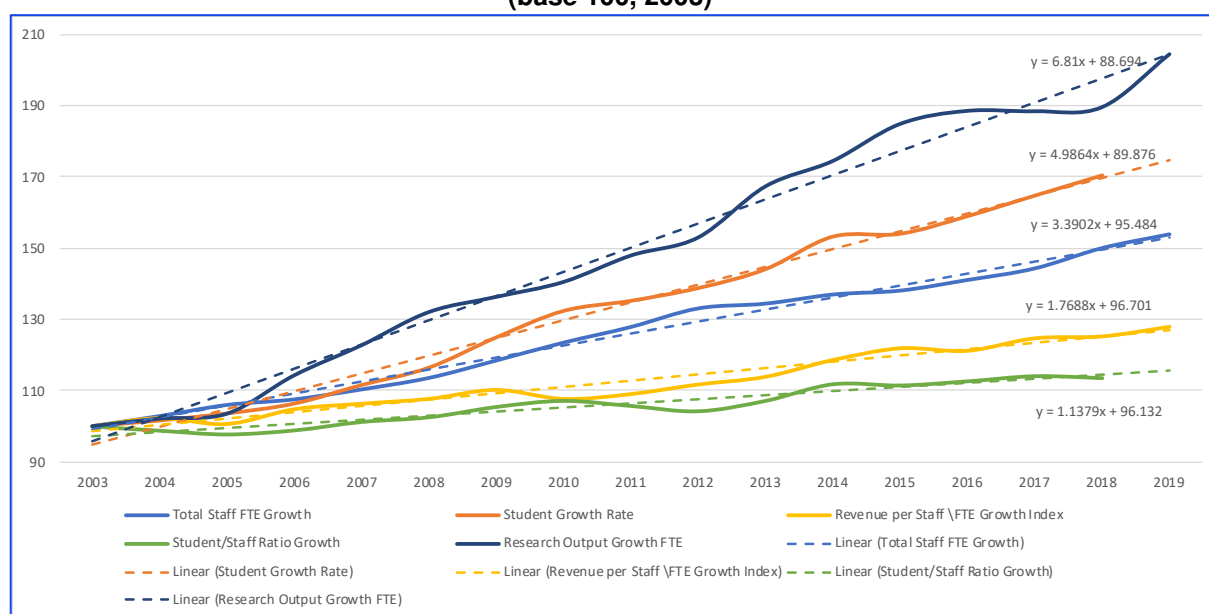


Source: DESE Finance, Student and Staff publications. Calculations by author.

Figure 3 presents an overview of universities' growth performance by relating revenues to a range of performance metrics over the period. It shows:

- University revenue per staff FTE has increased by an average of 1.8% annually over the period 2003-2019
- Effective Full-Time Equivalent (FTE) university staff have increased at an annual average rate of 3.4% over the period
- Research output (articles, books, book chapters) per FTE (total) has increased at an average yearly rate of 6.8% over the period
- FTE students have grown at an average annual rate of 5% over the period
- The student-staff ratio has increased by an average of 1.1% annually.

**Figure 3: Growth in revenues (inflation-adjusted), staffing, students and research outputs (base 100, 2003)**



Source: DESE Finance, Student and Staff publications. Calculations by author.

These trends might infer that universities' productivity could be higher in terms of the relationship between FTE staff numbers and revenue per FTE staff member. This relates specifically to the declining proportion of staff in revenue-generating roles (research and teaching) and those in support roles. This is discussed further in chapter 4.

## 3.2 Universities operate as cash flow businesses

Universities operate on cash flows – cash in and cash out. There is little in the way of stock accumulation and inventories. Control of cash flows is, therefore, a critical financial management function. Many organisations report their cash positions on a weekly or daily basis.

Governing boards, Vice-Chancellors (Presidents) internal financial managers, bankers, investors and financial analysts take a strong interest in *cash*.

Without sufficient cash, statutory and legal obligations, such as payrolls, cannot be met. Surplus cash is invested in money markets awaiting expenditure commitments or long term investment decisions. Short term cash shortages are met by accessing credit lines negotiated with banks or accessing the short term money markets.

Cash is what goes into and comes out of bank accounts and sends signals about an enterprise's liquidity. With multiple funding buckets across a university, effective cash management is a significant financial management priority. Cash flows also determine what and how much a lender will provide if a business wants to borrow.

Businesses, including universities, prepare budgets on a cash basis over 3 to five-year time frames. *They report publicly on their financial position on an accrual basis*, as determined by financial reporting standards, 4-5 months after the end of the financial year. They are not required to publish quarterly or half-yearly results, as is the case with publicly listed corporations.

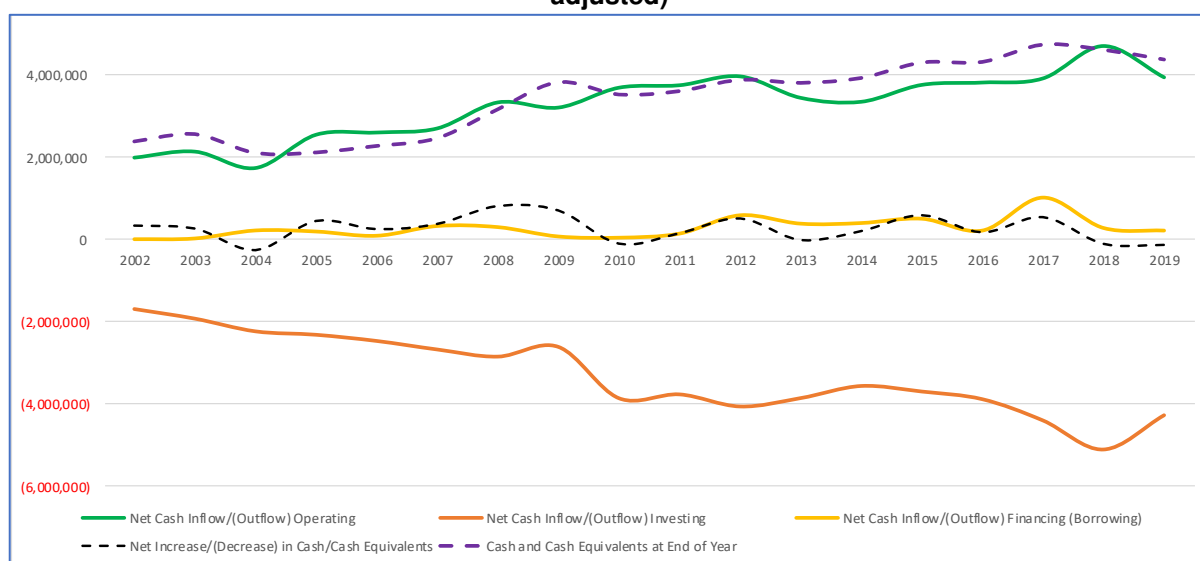


Universities generate large amounts of cash principally from Australian government grants (53.8%) and Student fees and other charges (38.4%). Cash pays for staff, *including research staff* (56%), suppliers (30%), and taxation and other categories (13%). *Funding for research, excluding capital items, rolls into and out of the cash operating budget.*

### 3.2.1 Overall profile

Figure 4 gives a profile of university cash flows from operating, investing, and financing activities over the 2002-2019 period, together with the annual net increase/decrease in cash (or cash equivalents) and cash and cash equivalents held at the end of each year.

**Figure 4: Net cash flows from operating, investing and financing 2002-2019 (\$, inflation-adjusted)**



Source: DESE Finance, Student and Staff publications. Calculations by author.

Figure 4 indicates that over the period, the aggregate annual cash surplus on operations has doubled in real terms, from a total of \$2.1 billion to \$4.4 billion in 2019. The increase in cash flows is reflected in the balance sheet item, cash and cash equivalents held at end of year. Several universities have very substantial cash holdings with 5 universities (Melbourne, Sydney, Monash, Griffith, and SA), representing 50% of the total.

Universities wish to retain a “safe” margin of cash operating surpluses. This margin has averaged 10% over the 2002-2019 period, but with significant differences between universities. The cash margins of the 5 largest universities are UNSW 5.6%, Sydney 9.6%, Melbourne 6.6%, Monash 5.9%, and Queensland 6.6%. These margins show up in liquidity ratios and sit behind some of the speculative reports of financial problems experienced with the COVID-19 crisis.

Reports from universities indicate that cash holdings would suffer a deterioration over 2020 with the COVID-19 impact. Each university has reported on the risks of their exposure to COVID-19 in their 2019 *Annual reports and financial statements*. The auditor-general in NSW and Victoria have also commented in their overview

reports to their parliaments. However, universities go out of their way to preserve cash holdings – as indicated in the increase in cash in 2009 following the GFC crisis.

An analysis of university cash flow reports and explanatory notes indicate a very sophisticated financial management process covering the management of cash resources and property and financial investments. Many universities are active traders in financial markets and issue their own financial securities.

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*Cash flow management has become increasingly involved with the increase in cash flowing into the university “business” and the need to manage it diligently and prudently.*

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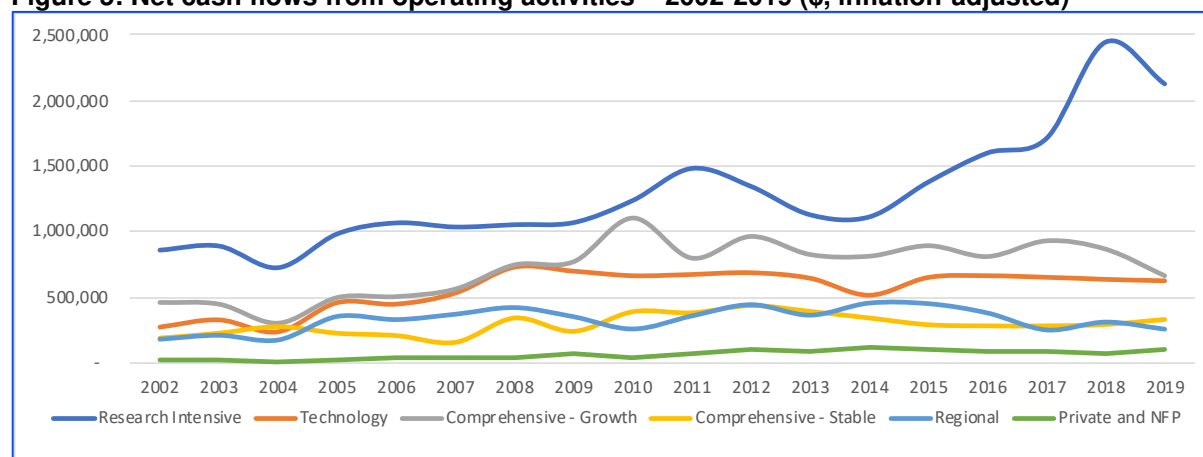
Significant cash holdings provide a better tolerance for risk and better enable the asset portfolio leverage for opportunistic purchases. Although the ratio of cash and cash equivalents to net assets is an indicator of portfolio liquidity, assets held in cash do not yield a return to a university or are forestalling capacity-building investments.

After the 2008 GFC, universities looked for security in cash. There are indications that in 2020 universities are looking to convert fixed assets into cash, such as the sale of buildings that are deemed to be excess to requirements.

### 3.2.2 Cash flows from operations

In 2019 universities generated a net cash operating surplus of \$4.0 billion (up from \$2.0 billion in 2002, inflation-adjusted). The annual net operating cash flows for the major university groupings are shown in Figure 5. This illustrates the highly dynamic nature of cash flows over an extended period. Most universities suffered cash flow reductions in 2019.

**Figure 5: Net cash flows from operating activities – 2002-2019 (\$, inflation-adjusted)**

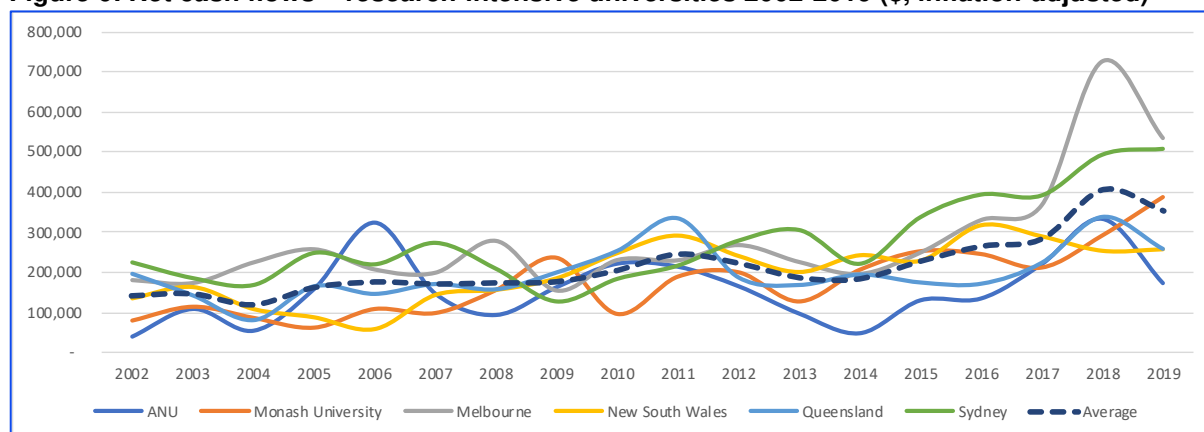


Source: DESE Finance, Student and Staff publications. Calculations by author.

The increase in cash flows from 2014 in the research-intensive universities reflects the increased revenue from international students, offset to some extent by payments for staff employment (including research staff) and employment-related costs. The picture for other universities is more even.

The net cash flows for the 5 large research-intensive universities are shown in Figure 6.

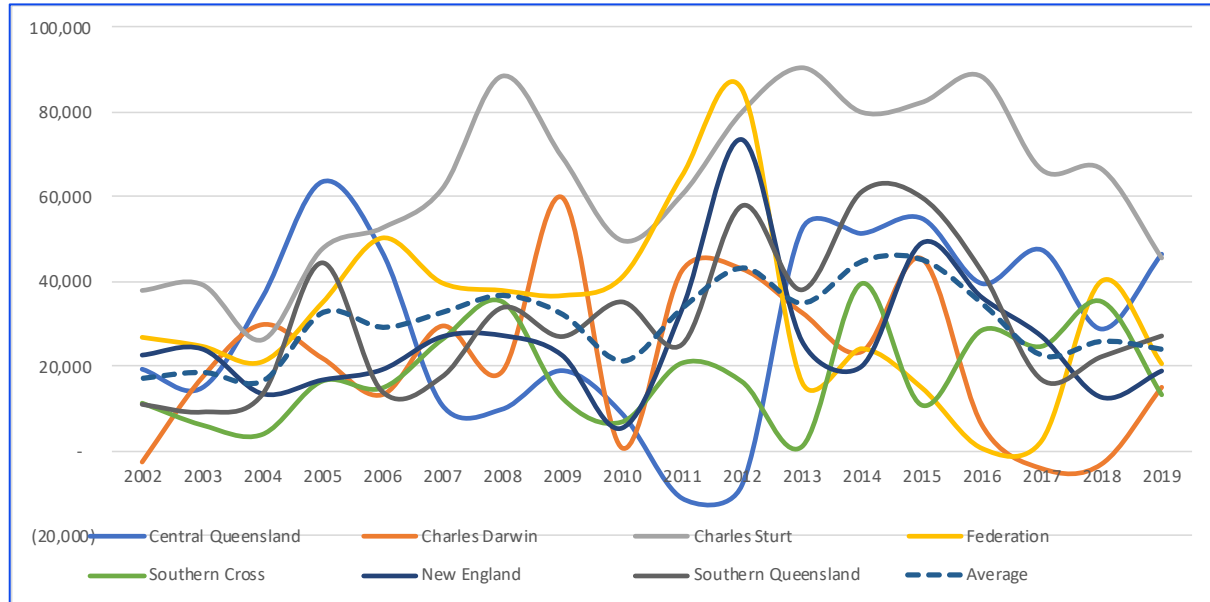
**Figure 6: Net cash flows – research-intensive universities 2002-2019 (\$, inflation-adjusted)**



Source: DESE Finance, Student and Staff publications. Calculations by author.

The highly dynamic nature of cashflow movements in regional universities is illustrated in the “oscilloscope” diagram Figure 7. This dynamic makes the task of financial management in these universities particularly challenging.

**Figure 7: Net cash flows – regional universities 2002-2019 (\$, inflation-adjusted)**



Source: DESE Finance, Student and Staff publications. Calculations by author.

The task of managing cash is aggravated by the very large number of grant programs available to universities from a very wide range of sources. Amounts, particularly for regional universities can be quite small compared to larger research-intensive universities.

Without central corporate support and guidelines academic staff, under strong pressure to generate research income, can chase very small grant amounts where the cost of administration might actually exceed the financial returns. Moreover, management accounting systems to track grant applications and payment schedules can be unsophisticated making the task of tracking cash even more challenging.

When available, surplus operational cash flows are transferred to investing activities – payments for property, plant and equipment, and financial assets purchases. As will be discussed below, universities have added substantially to their asset portfolios in these 2 areas over the last 4 years.

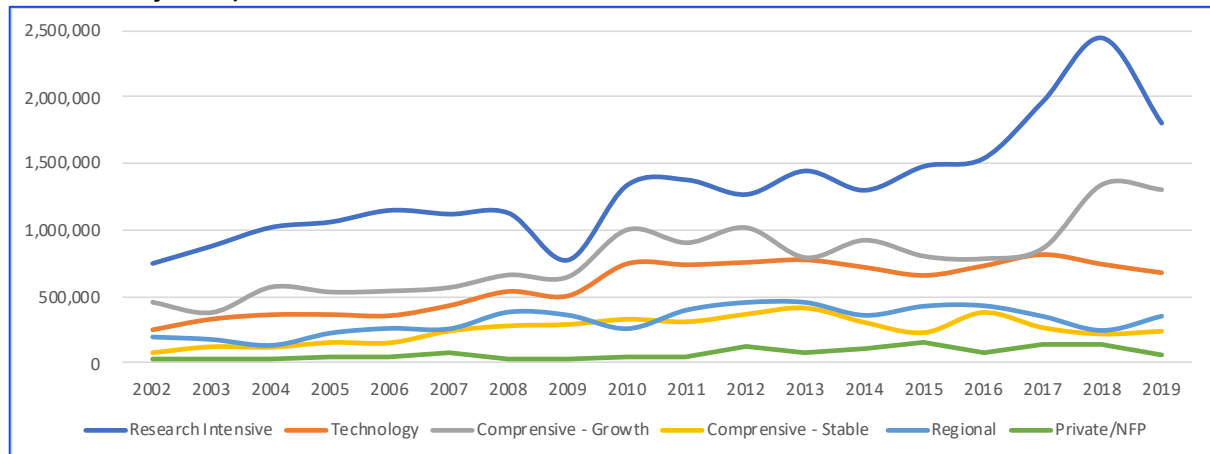
A significant disruption to the flow of international students will have a considerable impact on cash flows and, potentially, on the operating surpluses, and amounts available for investment in property and financial assets. The effect may be cushioned for universities operating international satellite campuses together with substantial holdings of cash.

The ratio of cash/cash equivalents to net assets averaged 7.2% over the 2002-2019 period. Universities that held more than 10% of their assets in cash in 2019 were Sydney, Wollongong, Melbourne, Central Queensland, Griffith, Sunshine Coast, and South Australia. Seven universities held 2% or less of their assets in cash.

### 3.2.3 Cash flows from investing

In 2019 universities had a net cash outflow of \$4.31 billion for Investing activities (down from \$5.12 billion in 2018). This included \$4.46 billion for property, plant, and equipment (up slightly from \$4.26 billion in 2018). The remainder was mostly for the purchase of financial assets. Trends in investing activities for the primary university groupings are shown in Figure 8.

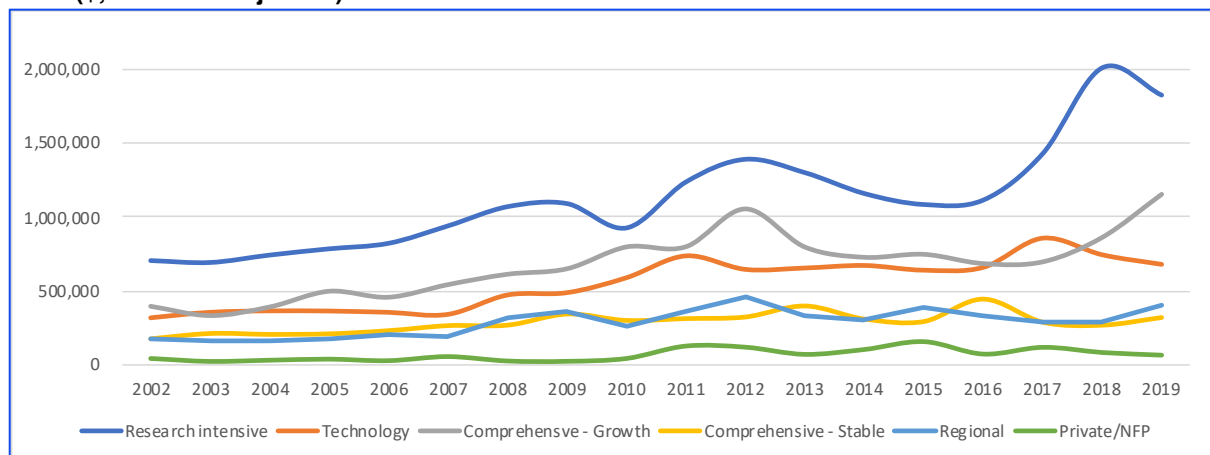
**Figure 8: Australian university groups – net cash flows for investing activities 2002-2018 (\$, Inflation Adjusted)**



Source: DESE Finance, Student and Staff publications. Calculations by author.

Trends across the sector in payments for property, plant, and equipment are shown in Figure 9, with the most active investors being the research-intensive and the technology universities, and particularly since 2014.

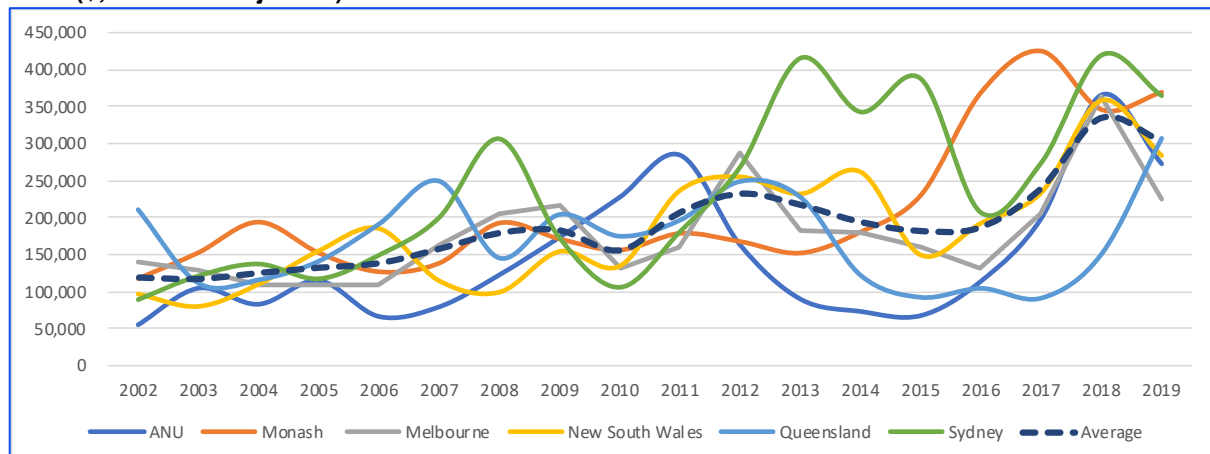
**Figure 9: Australian university groups – payments for property, plant and equipment 2002-2019 (\$, inflation-adjusted)**



Source: DESE Finance, Student and Staff publications. Calculations by author.

In the 5 years between 2014 and 2019, universities invested \$22.31 billion in property, plant and equipment (inflation-adjusted). This compares with the spend between 2009 and 2013 of \$17.06 billion, of which \$6 billion was financed by the EIF. The research-intensive universities spent \$8.61 billion with the biggest spenders being Sydney (\$1.99 billion) and Monash (\$1.91 billion and UNSW (\$1.48 billion). The commitment is shown in Figure 10.

**Figure 10: Research-intensive universities – payments for property, plant and equipment 2002-2019 (\$, inflation-adjusted)**



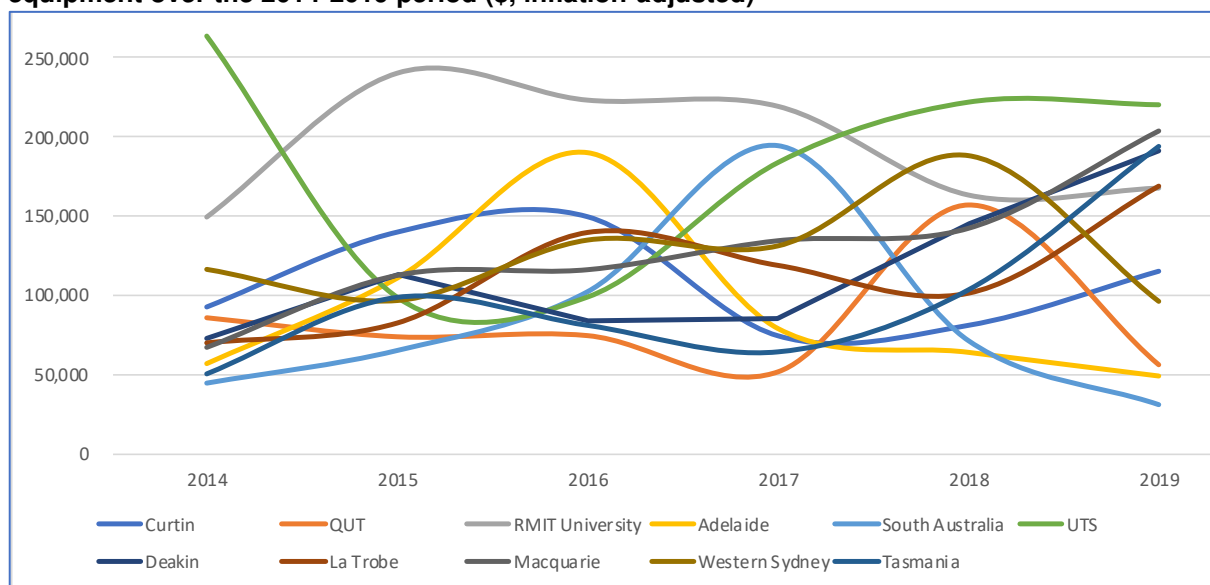
Source: DESE Finance, Student and Staff publications. Calculations by author.

It is concerning, however, that the investment commitment fluctuates widely over the period for most universities, suggesting an opportunist approach to investment planning and strategy. Of course, this would reflect the absence of an Australian government strategy for university infrastructure investment: universities tend to take what money is on offer from whatever source is available and spend it quickly.

The alacrity of spending may, however, reflect conditions of grant that require funds to be spent in accordance with specific milestones and tight completion dates set out in funding agreements.

As indicated above, the capacity of the larger universities to finance capital expenditure from a flow of international student income places most other universities at a disadvantage in being able to fund much needed and high priority capital investments. The eleven universities that invested over \$500,000 in property, plant and equipment over the 2014-2019 period are shown in Figure 11.

**Figure 11: Non research-intensive universities that paid over \$500,000 for property plant and equipment over the 2014-2019 period (\$, inflation-adjusted)**



Source: DESE Finance, Student and Staff publications. Calculations by author.

Many of these universities received grants from the Australian and state governments, such as City Deals and Regional Development related payments, and philanthropic donations for buildings such as a \$20m donation for the UTS Chau Chak Wing Building.

The investment in property, plant and equipment for most other universities over the 2015-2019 period has been relatively modest.

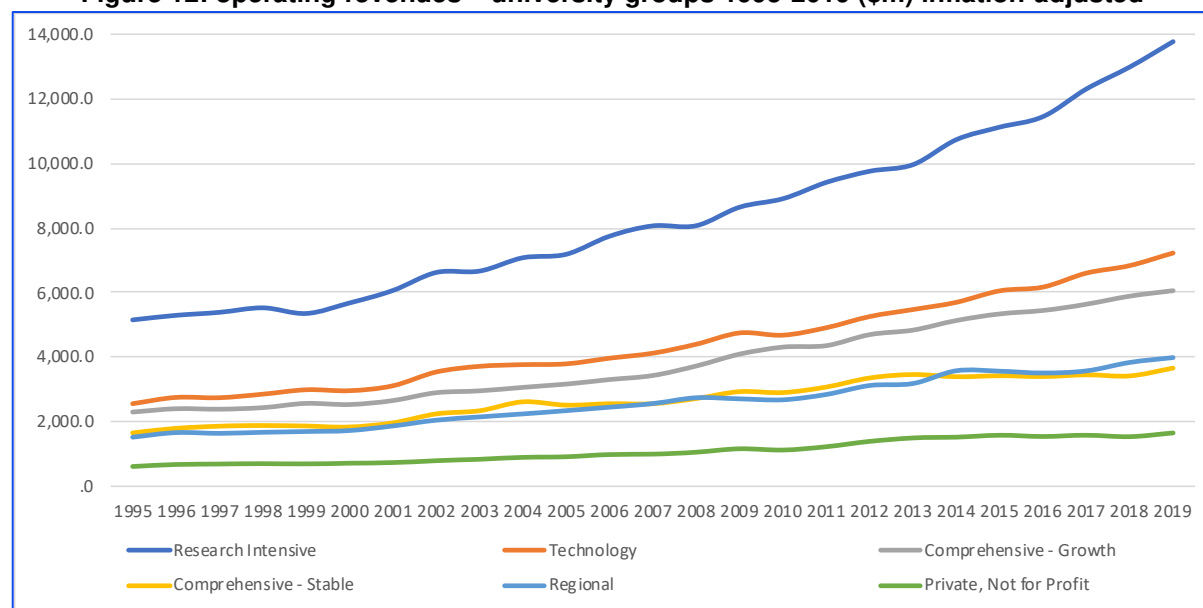
*The absence of a substantial Australian government capital funding pool for new buildings and resources for university expansion in the outer metropolitan, regional, and rural areas is a serious shortcoming.*

## 3.3 Revenue

### 3.3.1 Operating revenue

In inflation-adjusted terms, university operating revenues have grown 2 and a half fold between 1995 and 2019 to \$36.52 billion. The more significant part of that growth has been in the research-intensive universities, as indicated in Figure 12.

**Figure 12: operating revenues – university groups 1995-2019 (\$m) inflation-adjusted**

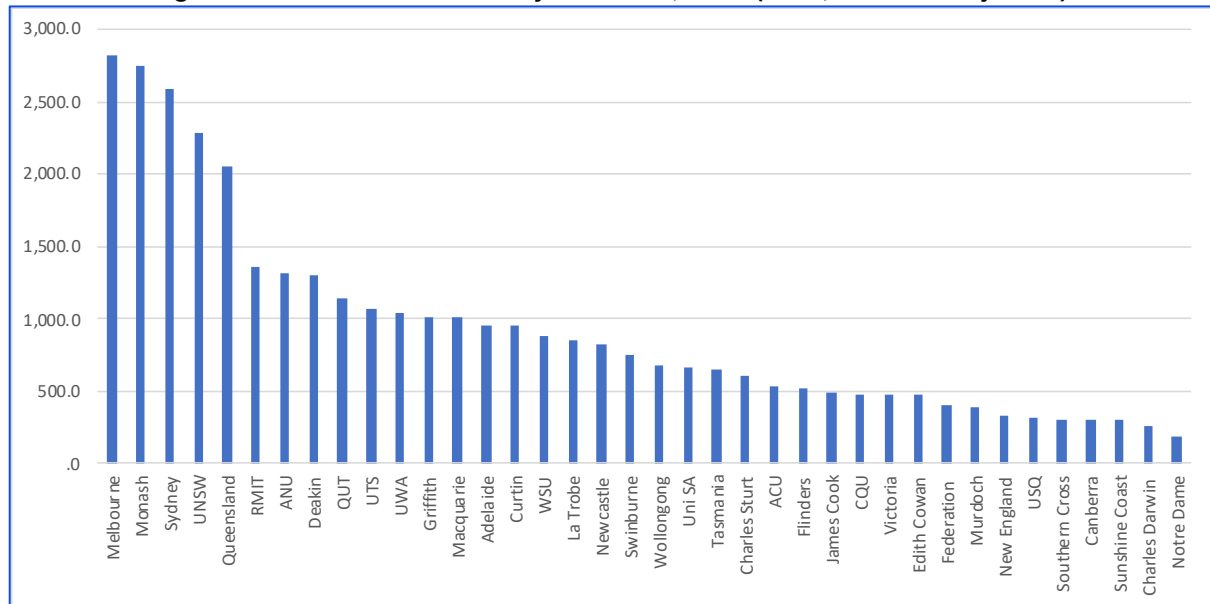


Source: DESE finance publications. Calculations by author.

In 2019 the average size of Australian public universities, in terms of revenues generated, was \$944.8 m. Revenues have increased by a factor of 2.7 since 1995. Between 2003 and 2019 revenues have doubled in inflation-adjusted terms.

In 2019 5 universities had revenues in excess of \$2 billion which is large by international comparisons; 8 had revenues between \$1 billion and \$1.5 billion; and a further 12 had revenues between \$500m and \$1 billion. Fourteen universities had revenues below \$500m. The size distribution of universities, in terms of revenues, is shown in Figure 13.



**Figure 13: Australian university revenues, 2019 (\$'000, inflation-adjusted)**

Source: DESE finance publications. Calculations by author.

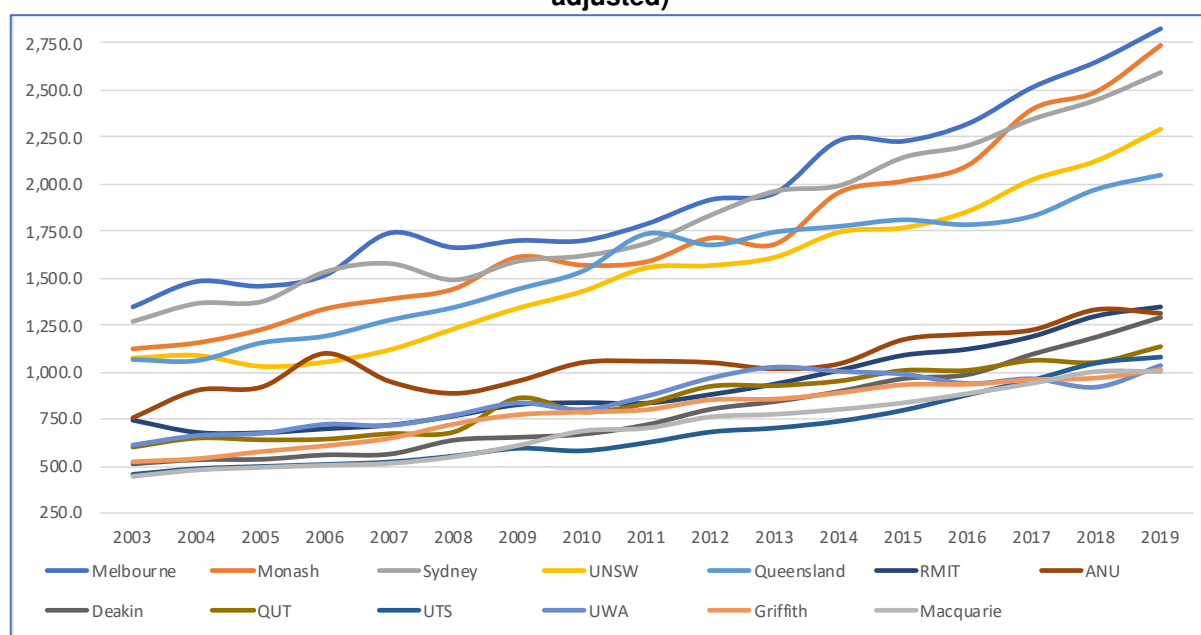
The largest Australian universities measured by turnover and employee and EBITDAR<sup>24</sup> numbers would fall in the top half of the ASX 100 index. The University of Melbourne is the largest single-site employer in Victoria and the largest state export earner. Monash is not far behind<sup>25</sup>.

Universities that generated revenues over \$1 billion in 2019, together with growth since 2003, are shown in Figure 14 below. The data show the emergence of a “Big 5” grouping over the period (Melbourne, Monash, Sydney, UNSW, and Queensland).

<sup>24</sup> Earnings before interest, taxes, depreciation, amortisation and restructuring or rent costs.

<sup>25</sup> The largest Australian universities have an economic impact larger than many of Business Council of Australia (BCA) members. Yet they are treated essentially as government entities and excluded from the fora where more coherent policy approaches might be advanced. As long as this remains the case there is no channel to ‘normalise’ universities as significant economic contributors with policy needs worth discussion. Similarly, in large regional cities and towns universities are the largest employers with substantial economic impact. The reason every regional town wants its own campus is not just to keep young people local, but because (like a jail, railway station, hospital, or other public good) a university can add considerably to local prosperity.

**Figure 14: Australia's largest universities operating revenues 1995-2019 (\$,000, inflation-adjusted)**



Source: DESE finance publications. Calculations by author.

Sydney's drop from the highest revenue generator in 1995 to third in 2019 raises concerns about Australia's oldest university's strategic and financial direction. The faltering decline and subsequent rise in revenue at the ANU from 2006 is also reflective of strategic approaches.

Universities with the fastest revenue growth between 2003 and 2019 are Monash (increase by a factor of 2.4), Deakin (2.5), and UTS (2.4). Not shown in Figure 14 are ACU (3.4), Federation (2.6), Southern Cross (2.3), and Sunshine Coast (5.3)<sup>26</sup>.

Universities that had more modest revenue growth (below the 1.8 average) were ANU (1.7), Curtin (1.7), Uni SA (1.5), CQU (1.6), Victoria (1.1), Edith Cowan (1.6), Murdoch (1.3), UNE (1.4), Charles Darwin (1.3).

There is a view in the university community that growth occurs through *path dependency* – the continuation of entrenched institutional norms and ways of operating. In reality, the differentiator between fast and slow growth universities reflects the *strategic decisions* made by councils and university executives.

The universities that increased their revenues by very significant amounts have not only embraced a corporate mode of operation (being run on a business-like basis) but would also appear to have been exceptionally well-led in terms of their governance and the leadership and management capabilities of councils/senates, vice-chancellors and executive teams.

University leaders would appear to have overcome the “herding cats” challenge documented by Geoff Garrett (Garrett, Davies et al. 2011). However, and in comparison, to the private sector, very little is known about “what drives university

<sup>26</sup> Universities that more than trebled revenues between 1995 and 2019 are: Melbourne (3.2), Monash (3.2), RMIT (3.0), Deakin (3.4), UTS (3.4), Griffith (3.0), Macquarie (3.1), Swinburne (4.7), ACU (4.5), CQU (3.6), Federation (5.3), Sunshine Coast (7.7), and Notre Dame (9.0).

success”, notwithstanding a substantial literature on corporate success (Collins and Porras 1994, Collins 2001, Kay 2003)<sup>27</sup>

Going for growth would be well advised in strengthening demand conditions, including urban growth and a strategic approach to international education. Still, in weakening demand situations consolidation and specialisation away from the comprehensive university model may be better advised. Several universities saw international education as a panacea for weakening domestic demand and approached it opportunistically. This theme will be taken up in later chapters.

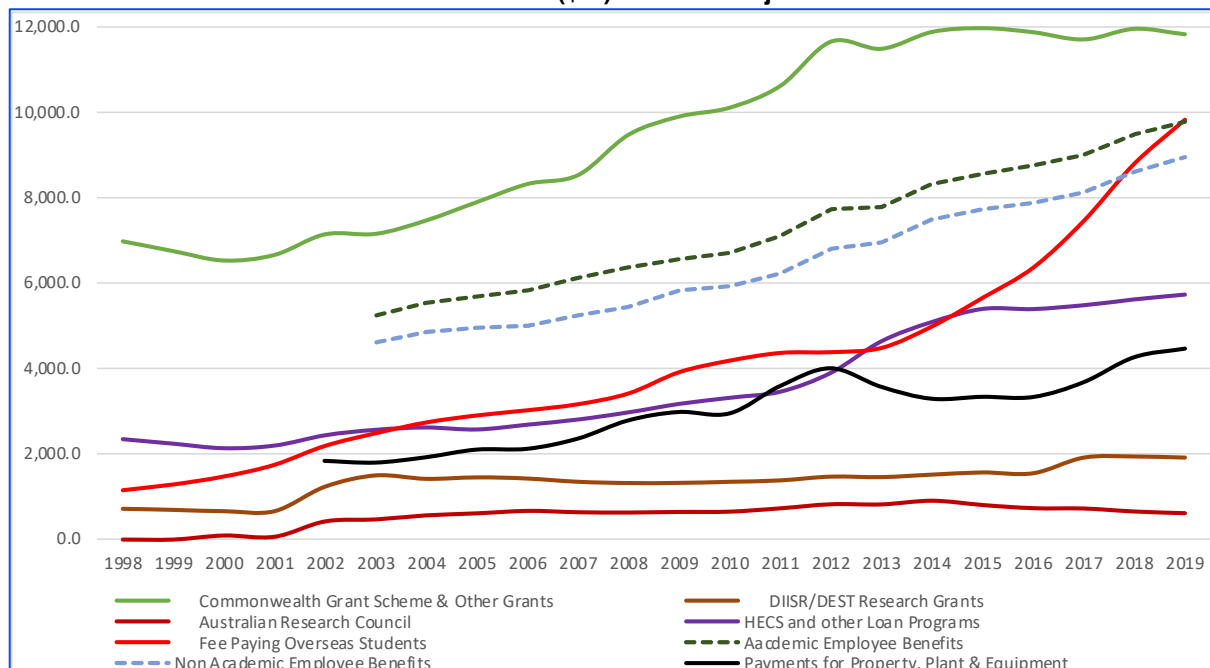
*The revenue growth in several of the newer 1960s and 1980s universities has been impressive, suggesting that growth is determined by strategic decisions rather than path dependency*

University revenues represent approximately 2% of GDP (\$1.8 trillion), making higher education an important industrial sector. University staffing purchases of goods and services and construction programs significantly impact economic growth in state and regional economies.

### 3.3.2 The composition of revenue

The composition of Australia public university revenue, and its changing structure, over the period 1998 to 2019 is represented in Figure 15<sup>28</sup>. It points to dynamic changes in revenue sources and expenditure on capital assets.

**Figure 15: Universities major sources of revenue 1998-2019 and major expenditure commitments (\$m) inflation-adjusted**



Source: DESE finance publications. Calculations by author.

<sup>27</sup> The author is currently working on this project

<sup>28</sup> Some data are not available from University Annual Reports prior to 2003.

Figure 15 shows that revenue from the Australian Government grants scheme and other Schemes increased sharply until 2012, levelled off, and reduced from 2018. The fall in Australian government grants has been offset by a sharp increase in income from international students from 2013 (red line).

Australian government grants as a proportion of revenue have fallen from 50.8% in 1998, to 40.9% in 2002 and 33.25% in 2019, while international student income has increased from 8.3% in 1998, to 12.5% 2002, and 27.7% in 2019. The increase has been particularly marked since 2013. Additional factors include:

- Australian government payments under student loan programs fell from 17.2% of revenue to 13.1% in 2002 and 13.0% in 2019
- Upfront student contributions had *decreased* from 2.7% in 2002 to 1.3% in 2019
- Investment income had doubled from 3.4% in 1998 to 6.1% in 2019.
- Income from state and local governments has fallen from 4.0% to 2.1%
- Income from consultancy and contracts has been steady over the period at about 4.0% of income
- Income from royalties, trademarks and licenses has increased only slightly - from 0.2% in 2002 to 0.4% in 2019
- Donations and bequests represented 1.4% of income in 1998, reaching 1.5% in 2017, but falling to 0.2% in 2018 and 2019

The increase in Australian government grants (solid green line in Figure 15) from 2013 can be associated with introducing the demand-driven funding system in 2012, as outlined in the Bradley Review of higher education (Bradley, Noonan et al. 2008), and terminated in 2017. The solid purple line tracks payments under the student contingent loan programs.

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*On a per-student basis, Australian government budget direct financial assistance and support for Australian higher education has been declining in real terms since 2012.*

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Costs are being shifted to domestic students through the higher education loan program (FEE-HELP) and international students through universities' ability to charge the higher fees. As indicated, state/territory governments provide virtually no financial support for higher education. In fact, they take much more than they give - recovering more in payroll tax than they pay in grants<sup>2930</sup>.

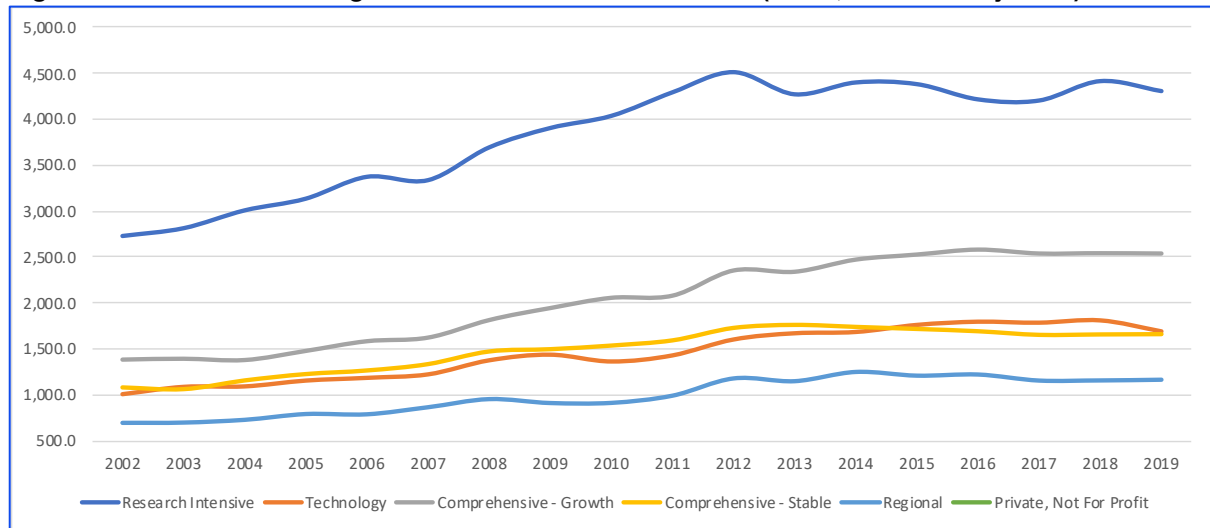
<sup>29</sup> State/territory Governments also recover costs of hosting practicums for health, medical, and education students in public hospitals and in state schools: The states/territories are ultimately the major beneficiaries of this. This is a reversal of the pre 1973 situation (prior to the Commonwealth takeover of full responsibility for university finance) when responsibilities for health, medical, and education training rested with state health and education departments. The takeover involved a significant cost shift from the states to the Commonwealth. In this context, care must be taken with proposals for the Commonwealth to assume full financial responsibility for public TAFE education.

<sup>30</sup> In 2019 state/territory government payments to universities amounted to \$725.4m; Payroll tax collections amounted to \$922.7m. State/territory governments argue that universities benefit from a wide range of generally available infrastructure and community services. Universities generally do not pay local government rates – a sore point for many CBD and metropolitan local councils. In 2016 the NSW Independent pricing and regulatory tribunal (IPART) recommend that university student accommodation on campus should no longer be exempt from rates. See <https://www.ipart.nsw.gov.au/files/sharedassets/website/shared-files/investigation-section-9-legislative-review-of-the-local-government-rating-system/final-report-review-of-the-local-government-rating-system-december-2016.pdf>

### 3.3.3 Commonwealth grants scheme

Commonwealth grants to universities are determined principally by the number of student places the Australian Government decides to fund (Commonwealth Supported Places) and the funding level per place. In the research-intensive universities payments peaked in 2012. The comprehensive-other universities and the technology universities saw increased funding, while other university groupings experienced a plateau from 2014. Trends are shown in Figure 16.

**Figure 16: Commonwealth grants to universities 2002-2019 (\$'000, inflation-adjusted)**

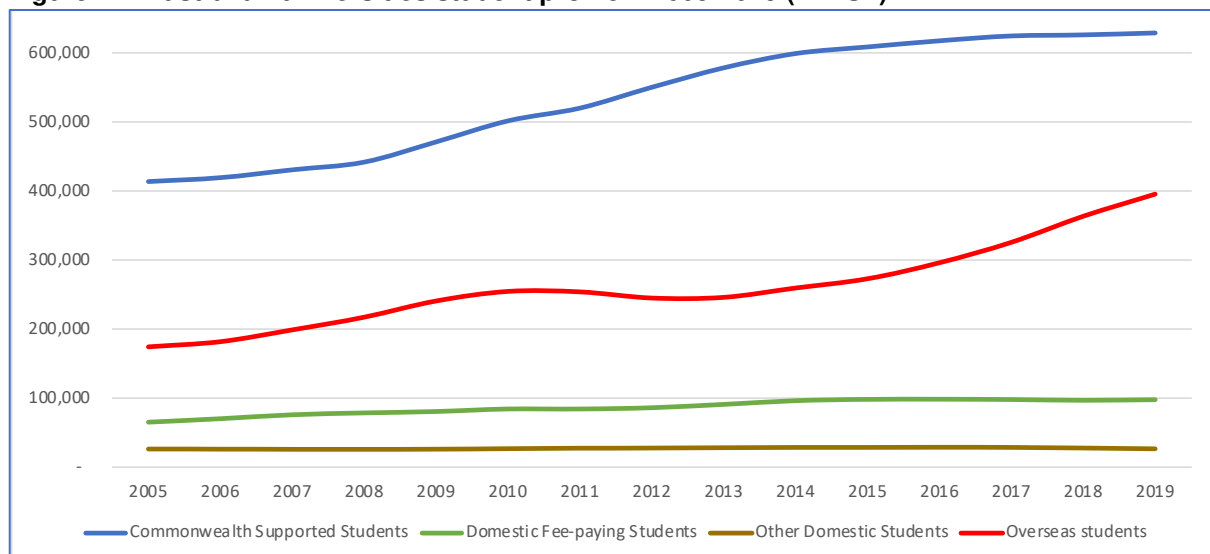


Source: DESE finance publications. Calculations by author.

This reduction in Commonwealth grants had been occurring when the number of domestic students increased from 590,344 in 2005 to 797,719 in 2018 - 35.1%.

During that time, the number of international students more than doubled to 363,377. In total, over the period 2005-2018 the number of EFTSL students increased by 64.6% - from 674,092 to 1,109,202. These trends are shown in Figure 17.

**Figure 17: Australian universities student profile – 2005-2019 (EFTSL)**

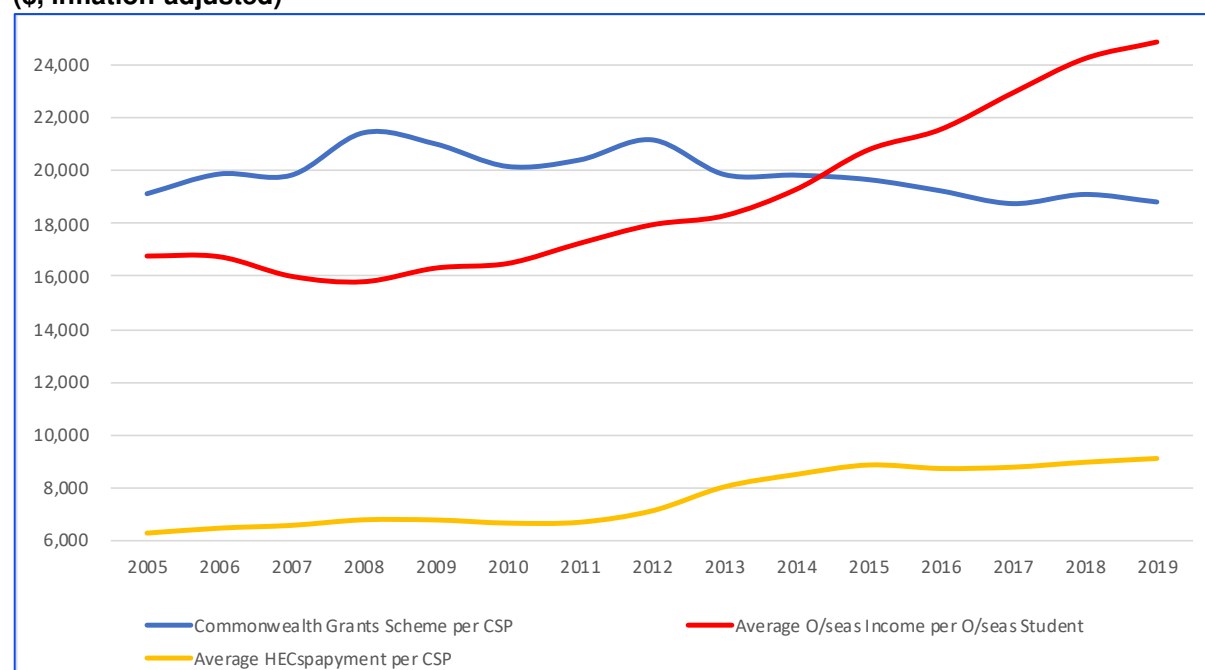


Source: DESE finance publications. Calculations by author.

The flattening of the Commonwealth grants trend has been associated with an evening out of demand for domestic places, as well as a reduction in real terms of the amounts paid in respect of each CSP. This reduction was associated with a shift in policy thinking that students should pay more for their education because there was a substantial individual/private benefit. This shift also increased the liability of the Commonwealth under the contingent loan program. The Australian Government suspended the demand-driven funding system in 2017.

Due to the decline in domestic demand and the reduction in Australian government funding for supported places, universities turned to the international student market to grow EFTSL and income. From 2014 average income from international students exceeded amounts paid by the Australian Government for domestic students. The trend in these ratios is represented in Figure 18 below.

**Figure 18: Average CSP payment and average income from international students 2005-2019 (\$, inflation-adjusted)**

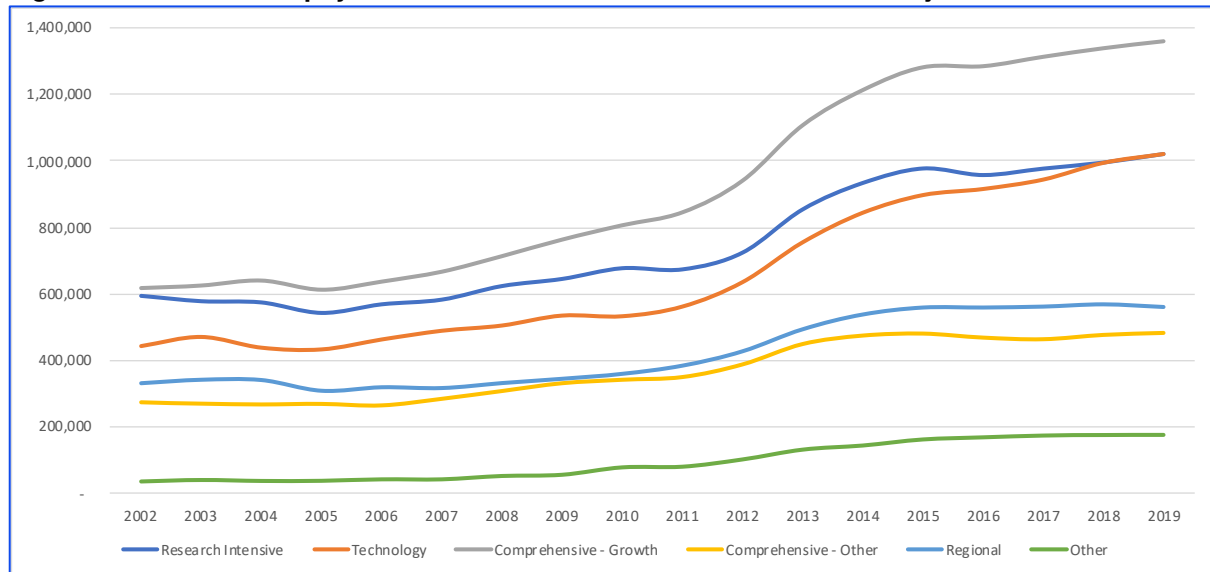


Source: DESE finance publications. Calculations by author.

### 3.3.4 HECS-HELP

A proportion of university revenues is underwritten by the Australian Government as guarantor for the HECS-HELP contingent loan program and paid directly to universities.

Payments have increased substantially from 2011 with growing student numbers associated with the demand-driven funding system. As indicated in Figure 19, the largest single proportion has flowed to the comprehensive-growth universities – universities concentrated in the faster growing outer metropolitan areas of capital cities.

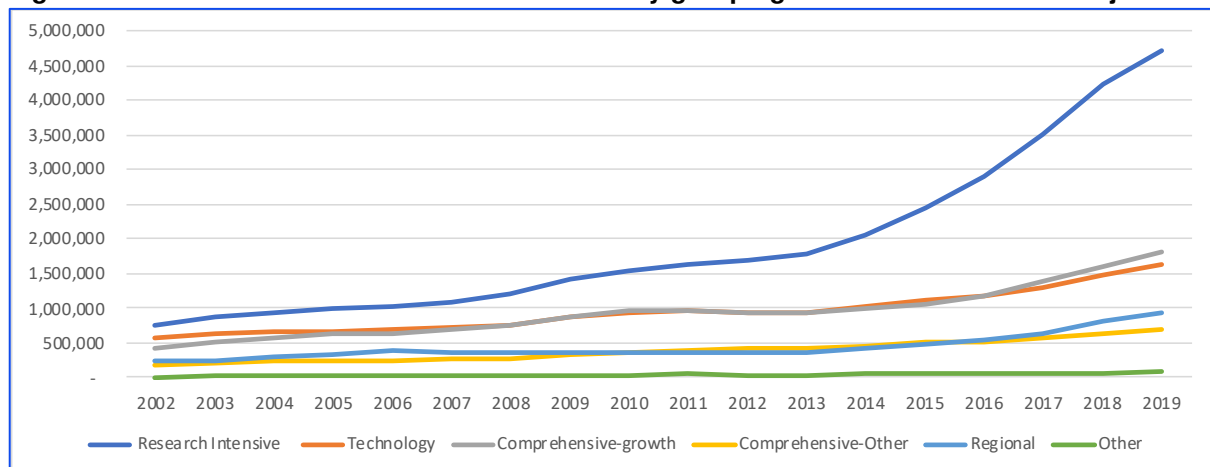
**Figure 19: HECS-HELP payments to universities 2002-2019 – inflation-adjusted**

Source: <https://www.education.gov.au/finance-publication>

However, with caps again being placed on the number of Commonwealth Supported Places (CSPs) this revenue source has evened out.

### 3.3.5 International student income

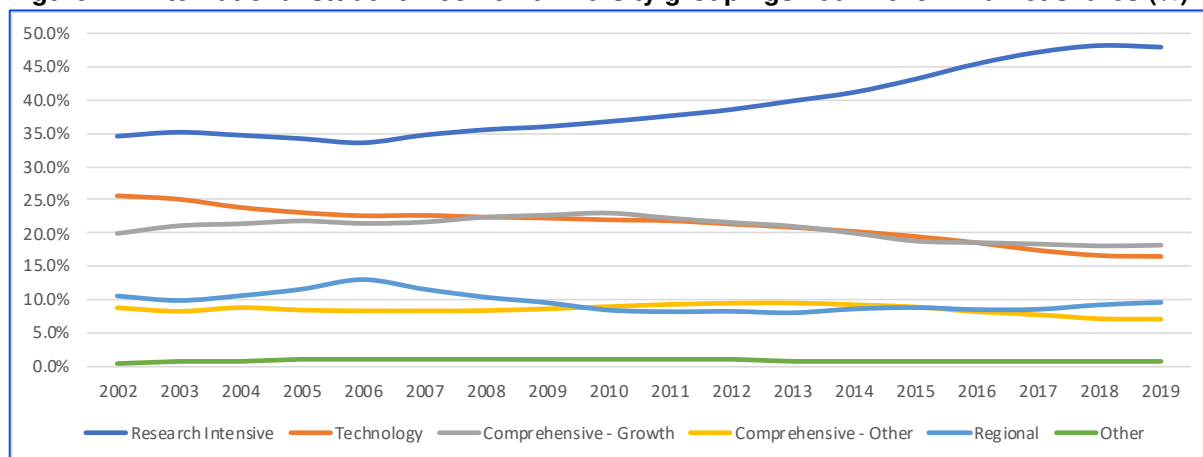
Income from international students totalled \$9.8 billion in 2019, an increase of 12.2% over the previous year. It has increased from \$2.2 billion (inflation-adjusted) in 2002 – more than a fourfold increase. The growth has been concentrated in the research-intensive universities, as indicated in Figure 20.

**Figure 20: International student income – university groupings 2002-2019 – inflation-adjusted**

Source: DESE finance publications. Calculations by author.

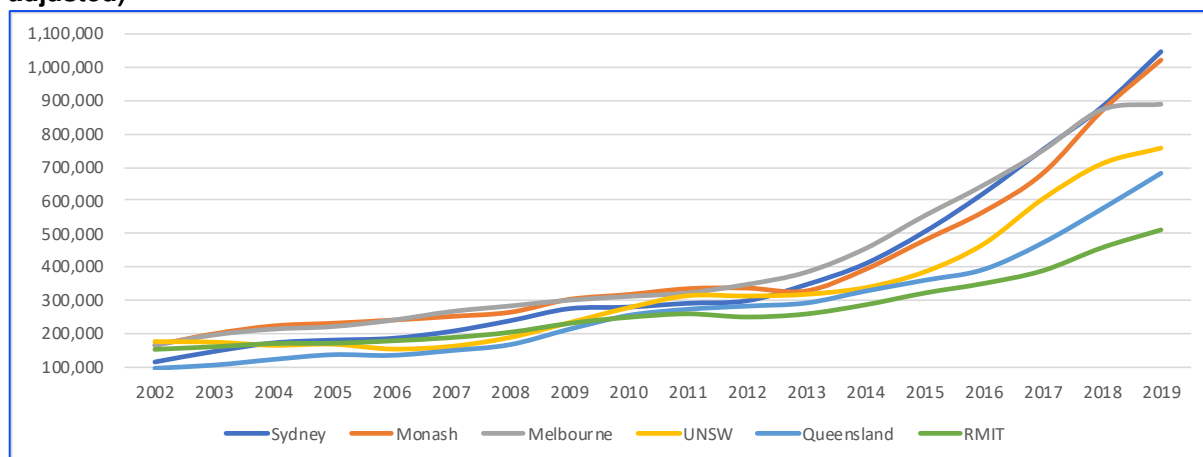
In 2019 the research-intensive universities accounted for 47.9% of international student income – having increased from 39.9% in 2013. The trend in market share of other university groupings has been declining, as indicated in Figure 21.



**Figure 21: international student income - university groupings 2002-2019 – market shares (%)**

Source: DESE finance publications. Calculations by author.

The market is becoming progressively more concentrated, with just 5 universities generating half (49.8%) of the total of international student income, compared to 43.2% in 2013. Increases in the income generated by these universities is shown in Figure 22.

**Figure 22: The 5 universities that generate half of international student income (\$ inflation-adjusted)**

Source: DESE finance publications. Calculations by author.

Eight universities generate more than 30% of their revenue from international students, and a further 11 generate more than 20%.

It is important to note that not all international student income is generated from students studying in Australia. Of the 521,948 overseas students in 2019, 405,270 (77.6%) studied onshore and 116,678 (22.4%) studied offshore. This varies considerably among universities. Travel restrictions associated with responses to the COVID-19 pandemic will impact the income from international students studying in Australia due to international travel controls.

Table 3 below displays the numbers of onshore and offshore international students for the 10 largest international student income generators. It shows that Monash, UNSW, and RMIT, have more than 30% of their international students studying offshore – some in dedicated satellite campuses. These universities would be less

vulnerable to travel restrictions, for example, Sydney, Queensland, Deakin and the ANU.

**Table 3: Overseas students by higher education institution and onshore/offshore status 2019**

	Onshore	Offshore	TOTAL	Proportion Offshore
Sydney	29,592	503	30,095	1.7%
Monash	28,446	12,954	41,400	31.3%
Melbourne	23,056	5,561	28,617	19.4%
New South Wales	17,081	7,771	24,852	31.3%
Queensland	19,924	288	20,212	1.4%
RMIT	18,695	15,155	33,850	44.8%
UTS	13,826	1,748	15,574	11.2%
Deakin	14,863	1,281	16,144	7.9%
ANU	9,741	763	10,504	7.3%
Macquarie	9,690	2,534	12,224	20.7%
<b>Total Top 10</b>	<b>184,914</b>	<b>48,558</b>	<b>233,472</b>	<b>20.8%</b>

Source: DESE finance publications. Calculations by author.

There is no public information available about the *cost* of generating international student income. Published data relate to *gross* income without deducting for marketing, agents' commissions, student support, and other personnel, administrative and corporate costs. These costs could be as high as 50% of revenues - but would vary among universities according to scale. Should there be a long term reduction in international student revenue, these costs could also be reduced substantially. This has been occurring over the June-September 2020 period.

### 3.3.6 Other revenue

Not shown in Figure 15 above are the minimal amounts received from donations and bequests (0.2% of revenues in 2019) and royalties, trademarks and licenses (0.4%). University income statements do not show income from the sale of equity in start-up companies or the sale of university-owned enterprises. These are reflected in balance sheet transactions with some substantial transactions over the years, such as the sale of Melbourne IVF.

Revenue from contracts and consultancies contributed only \$1.57 billion (4.3%) to university revenues in 2019. This has fallen from 4.7% of revenues in 2008.

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*This relatively small amount of revenue from contracts and consultancies is a matter of concern as universities seek to increase their engagement with industry and government.*

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It is often reported that university research staff tend to have little interest in contract and consultancy work *unless* projects can be defined as research projects that generate publications and additional revenue under the research support scheme.

There is also some leakage of consultancy income as university staff undertake private outside work in their own time or during time allocated for engagement activity. Large universities support staff in their consultancy work through their Technology Transfer Offices. research centres and institutes rely on consultancy work to underwrite their operational costs.

### 3.3.7 Research income

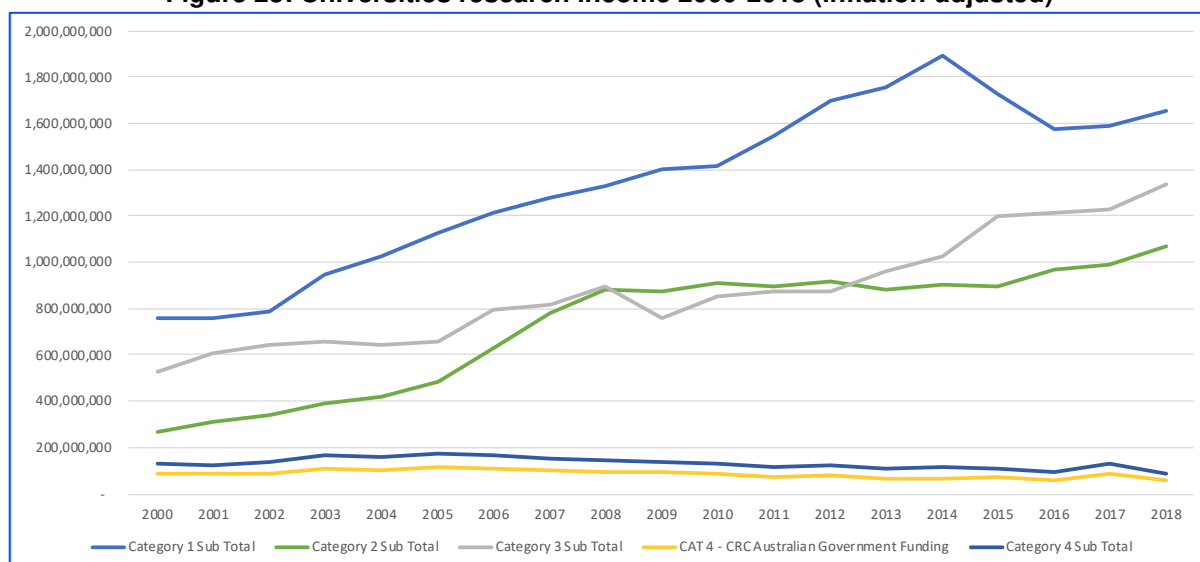
Universities have also drawn attention to the need to reverse the trend reduction in competitive research grants schemes since 2014, where ARC grants have fallen from \$899.5 million in 2014 to \$608.5 million in 2019 (inflation-adjusted). However, over the same period, the total of DIISR/DEST research grants has increased from \$1,497 million to \$1,885 million (inflation-adjusted).

Universities fund their research through external grants and by re-allocating available internal funds.

### 3.3.8 External sources

Over the years 2000-2018 university research income recorded in the higher education research data collection, increased from \$1.68 billion to \$3.95 billion. The trends among the 4 categories are shown in Figure 23.

**Figure 23: Universities research income 2000-2018 (inflation-adjusted)**

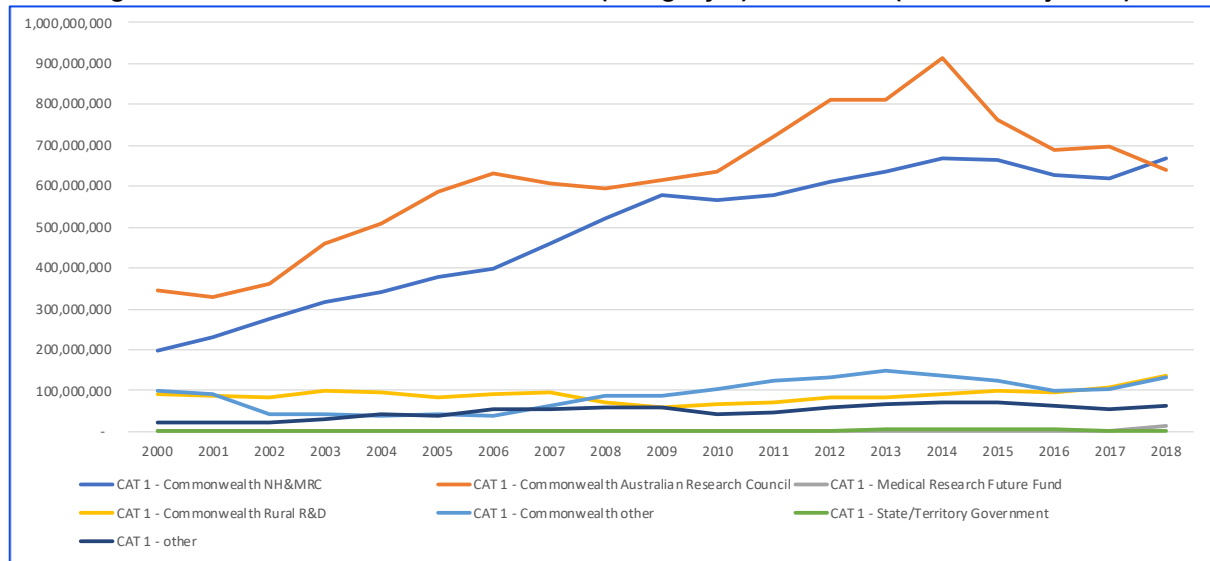


Source: Higher Education Research Data Collection

Figure 23 shows that Category 1 (competitive grants) peaked at \$1.89 billion in 2014 and fell rapidly to \$1.57 billion in 2016. There was some compensation from an increase in Category 3 income (industry and international) from \$0.88 billion in 2012 to \$1.33 billion in 2018. A significant proportion of this increase has come from international sources.

Category 2 income (other government grants) has remained relatively flat, increasing slowly from \$0.88 billion in 2008 to \$1.07 billion in 2018. Over half of this income is sourced from the Australian Government, with 28.1% for its own purposes.

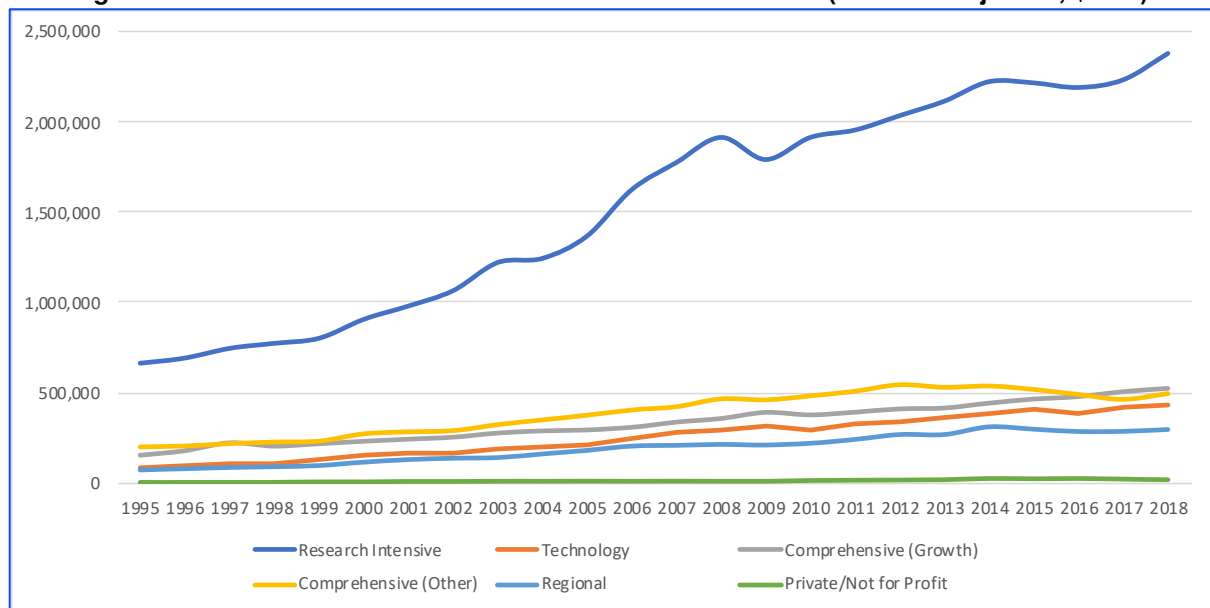
Information on movements in Category 1 income is shown in Figure 24 which shows a *very sharp fall in ARC grants from \$0.91 billion in 2014 to \$0.64 billion in 2018*. This cut has been offset to a minimal extent by a small increase in NH&MRC grants, returning to the level they had reached in 2015. NH&MRC grants now exceed the level of ARC grants. This, in addition to MRFF grants, reflects the very high priority that the Australian Government and universities give to medical research.

**Figure 24: Universities research income (category 1) 2000-2018 (inflation-adjusted)**

Source: Higher Education Research Data Collection

The fall in competitive grant income from the Australian Government has had a significant impact on research capacity and capability. While there has been some transfer of income from the international student business, this should not obviate the Australian Government's responsibility to invest in building national research capability. This failure to fund university research has been a major dereliction of Australian government responsibility.

Information on the growth in research income, defined by the higher education research data Collection categories from 1995 is set out in Figure 25. It points to the phenomenal growth in research income for the universities categorised as research-intensive over the period.

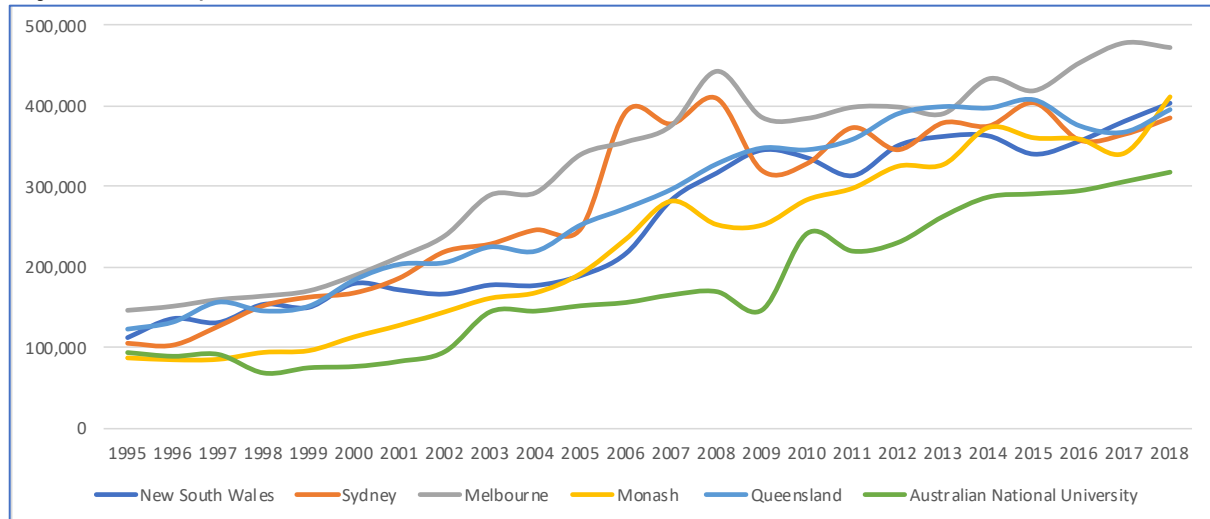
**Figure 25: Universities external research income 1995-2018 (inflation-adjusted, \$'000)**

Source: Higher Education Research Data Collection

Figure 25 also points to the increase in research income for the comprehensive-growth and technology categories, but points to the fall in comprehensive-other

category, which includes UWA and Adelaide. The extent to which the research-intensives are progressively capturing a greater share of research income is shown in Figure 26.

**Figure 26: Research-intensive universities – trend growth in research income (inflation-adjusted, \$'000)**



Source: Higher Education Research Data Collection

The level of research income is closely connected to standings in international rankings – with all 6 included in the top 100 of the major global rankings systems.

### 3.3.9 Internal sources

ABS data has shown for many years that half of university research is financed from internal sources<sup>31</sup>. Ironically, universities have been increasing their research commitment as both government and business commitment falters (Howard 2020). Some of these internal sources reflect surpluses on teaching activity where Australian government CSP payments and student contributions exceed delivery costs. Of course, a large component of internal funds is international student income.

The reliance by universities on international student income and other internal funds to finance their research, and the progressive reduction in Australian government funding can distort commitment to national science and research priorities – as investments are made according to *university priorities*.

It may also be that university centric investments of teaching surplus funds are not necessarily allocated to the best quality research from a national perspective. As discussed in section 4.8 below, increasing research output has not been matched with research quality being placed at above world standard.

As part of a national science, research and innovation (SRI) strategy, a better arrangement might be for university research investments to be allocated according to national priorities regarding their capacity and capability to deliver high-quality research outcomes. But Australia does not have a national science, research and innovation strategy – only an aggregation of expenditure programs, which is falling.

<sup>31</sup> These “internal” sources may include, however, profits made on teaching where income from government and fee-paying students exceeds the cost of course delivery. The 2020 *Job ready graduates* package seeks to eliminate this surplus. The Commonwealth objective is to have separate funding streams for teaching and research.

This argument is made strongly in the recent UTS Paper, *Challenges for Australian Research and Innovation* (Howard 2020).

*The Australian Government's reliance on universities to fund research from overseas student income and a "teaching surplus", without specific consideration of national priority, is a matter of deep concern*

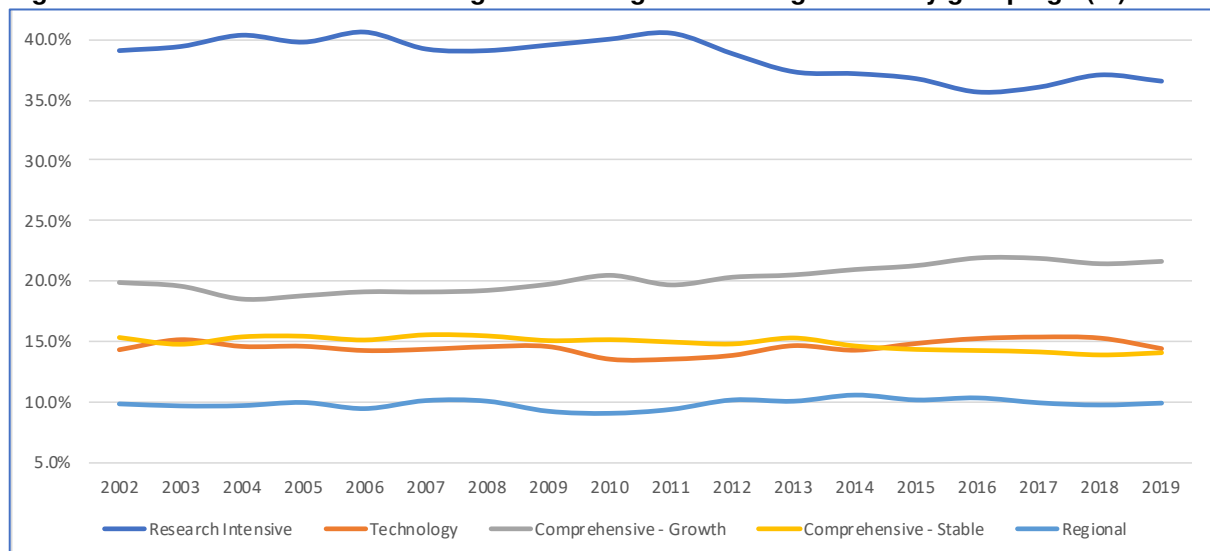
There are also gaps in our knowledge about the allocation of teaching time between domestic and international students and the extent of cross-subsidy from international student revenue to domestic teaching costs and research. However, it is believed to be significant.

Universities have differing arrangements for allocating internally generated funds for research activities. Many have established "funds" that researchers can apply for, assessed by a committee led by a deputy vice-chancellor (research) based on merit. Research output data suggest that a significant proportion is allocated to health and medical research, delivering returns in lifting international rankings performance.

### 3.3.10 Overall impact

The overall effect of declining Australian government grants, rising international student income, and changes in the FEE-HELP program has been that Australian government grants have been redistributed between university groupings. This is shown in Figure 27 where the research-intensive universities now account for 36.5% of Australian government grants, down from 40.5% in 2011.

**Figure 27: Distribution of Australian government grants among university groupings (%)**



Source: DESE finance publications. Calculations by author.

By contrast, the comprehensive-growth universities have increased their share from 19.7% to 21.6% over the same period. The share for the comprehensive-stable universities has fallen from 15.6% in 2007 to 14.0% in 2019.

Currently at 9.9%, the regional share would be expected to increase as the *Job ready graduates package* initiatives take hold. Not shown in Figure 27 is an increase in the share of private and not-for-profit institutions increasing from 1.7% in 2007 to 2.8% in 2019.

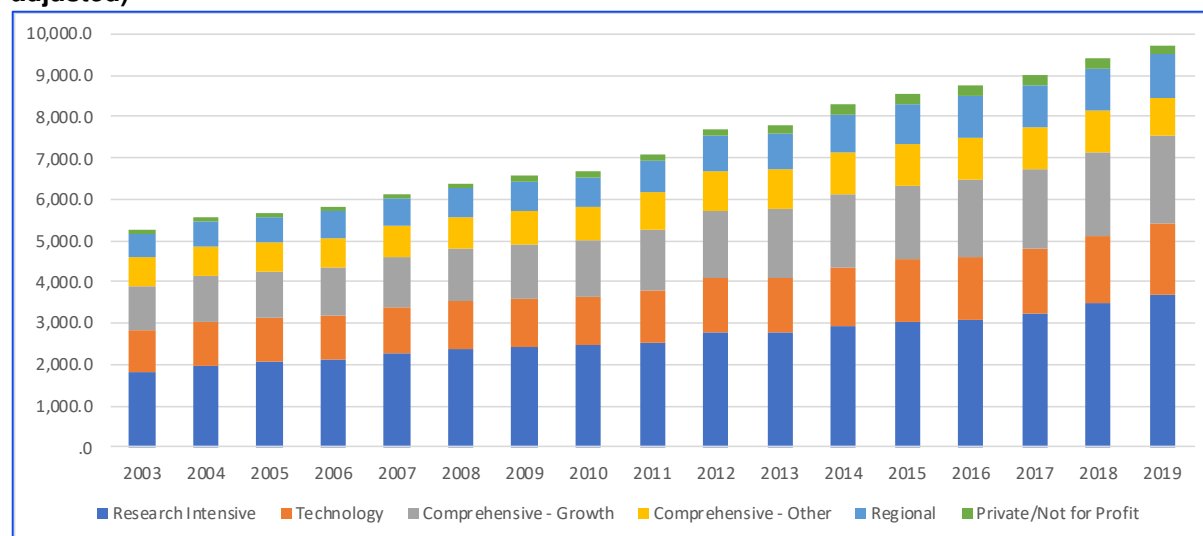
## 3.4 Expenditure

### 3.4.1 Staff costs

Academic and non-academic staff costs (salaries, superannuation, and direct on-costs) are the largest single item of expenditure for public universities, averaging 53% of total operating revenues. The proportion has fallen from 55% in 2003<sup>32</sup>, although this has varied over time and between institutions. Some of the larger universities operate below 50%, whilst the smaller ones can approach 60% and over. Several universities with high employee costs have managed to rein them in over the period.

Figure 28 shows academic staff costs over the period 2003-2019. It indicates that costs increased by \$4.46 billion between 2003 and 2019 and by \$1.42 billion between 2014 and 2019. Academic staffing costs benefits increased most in the research-intensive universities.

**Figure 28: Universities academic staff costs 2003-2019 by university grouping (\$'000, inflation-adjusted)**



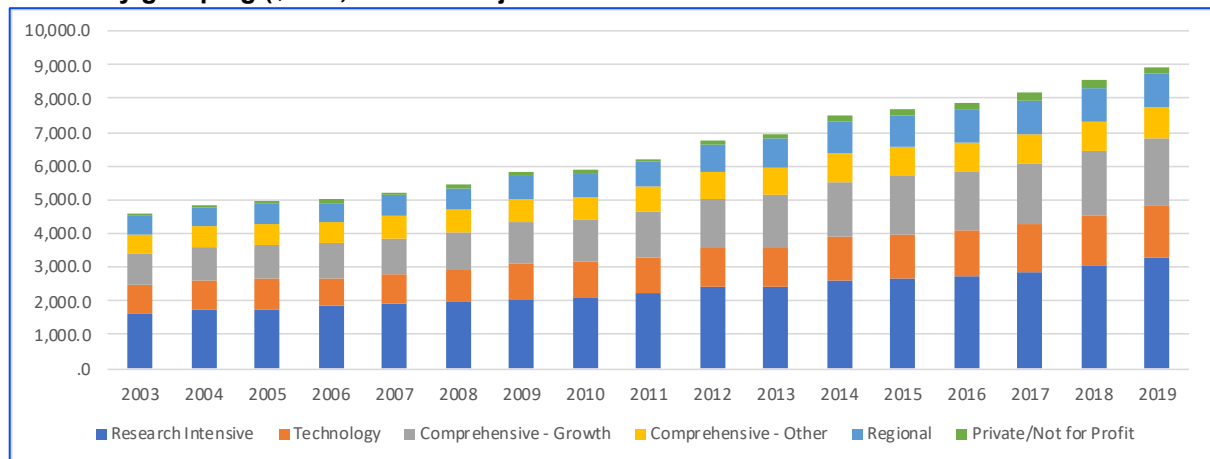
Source: DESE finance publications. Calculations by author.

As shown in Figure 29, non-academic staffing costs increased by \$3.99 billion over the 2003-2019 period and \$1.13 billion (2014-19)

<sup>32</sup> Before 2003 university financial reports did not separate academic and non-academic employee benefits.



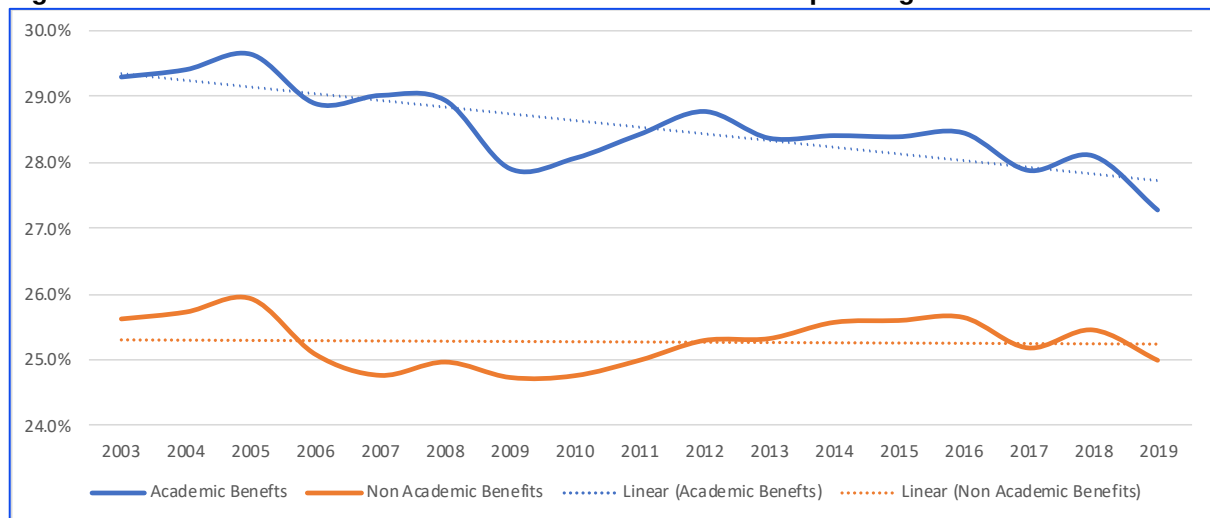
**Figure 29: Universities expenditure on non-academic employee benefits 2003-2019 by university grouping (\$'000, inflation-adjusted)**



Source: DESE finance publications. Calculations by author.

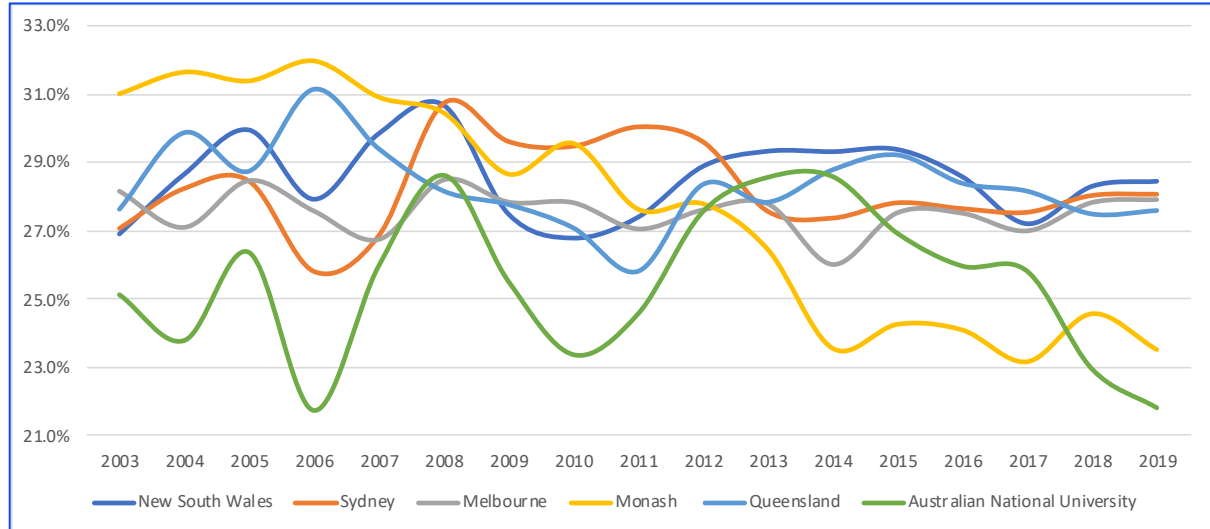
The proportion of staff costs relative to operating revenues is considered to be an essential performance metric. Figure 30 indicates that the proportion of academic staff costs to revenues has been declining over time, while the proportion of non-academic costs has been steady. Across the system, the ratio of academic staff costs to revenues is concentrated within the 27-28% range.

**Figure 30: Ratio of academic and non-academic staff costs to operating revenues**



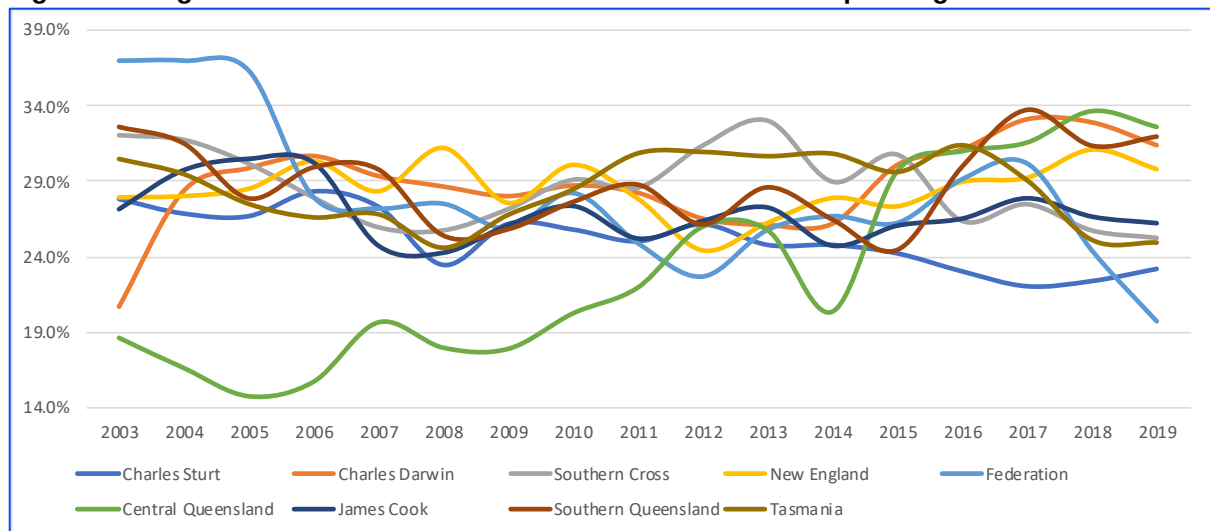
Source: DESE finance publications. Calculations by author.

The “lumpiness” of year-on-year figures reflects one-off impacts, such as voluntary redundancies and recruitment costs. The research-intensive universities tend to be within the 27-29% range, but Monash and ANU have been pushing down the ratio, as indicated in Figure 31. There is currently pressure within Sydney and others to push the ratio down in the aftermath of the COVID-19 impact.

**Figure 31: Research-intensive universities: ratio of academic staff costs to operating revenues**

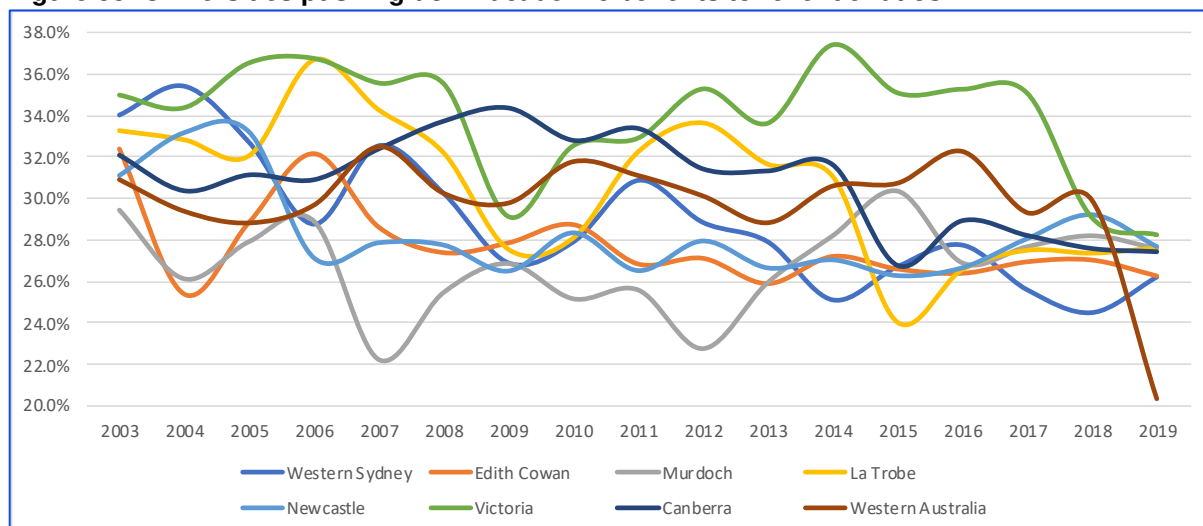
Source: DESE finance publications. Calculations by author.

Some regional universities' ratio tends to be much higher, potentially reflecting more significant teaching delivery costs over a wider area and smaller scale (CQU, CDU, USQ, UNE). Others are pushing to a lower ratio more consistent with the research-intensives. This is indicated in Figure 32.

**Figure 32: Regional universities: ratio of academic staff costs to operating revenues**

Source: DESE finance publications. Calculations by author.

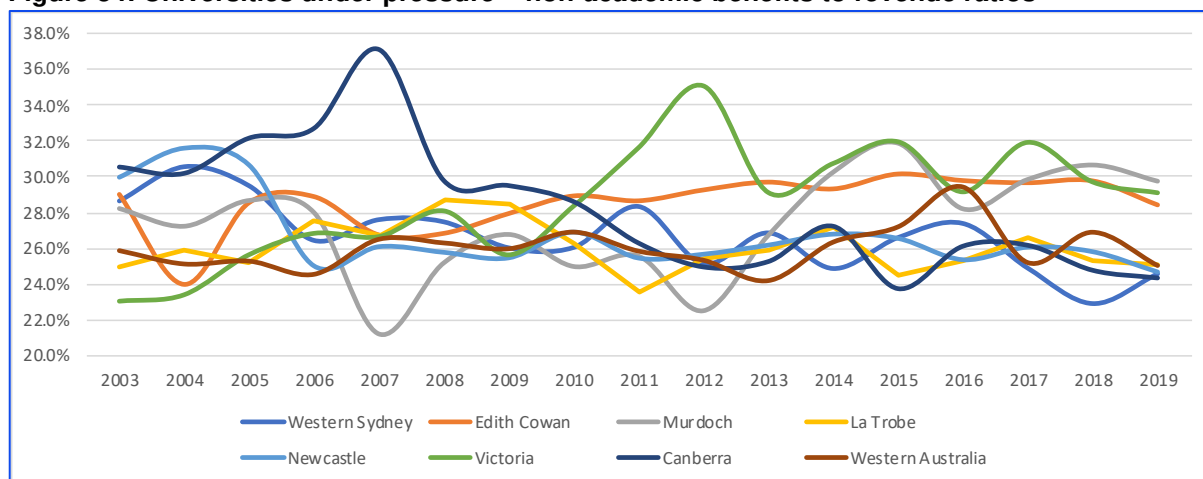
Several universities confronting a slow or negative growth position, have also been pushing down the academic staff cost to revenue ratio, as indicated in Figure 33. Some universities pushed down hard in 2015 (e.g., La Trobe, Canberra) and recovered towards 2019, whilst others (e.g., UWA) left the task until later. The target looks to be in the region of 28%.

**Figure 33: Universities pushing down academic benefits to revenue ratios**

Source: DESE finance publications. Calculations by author.

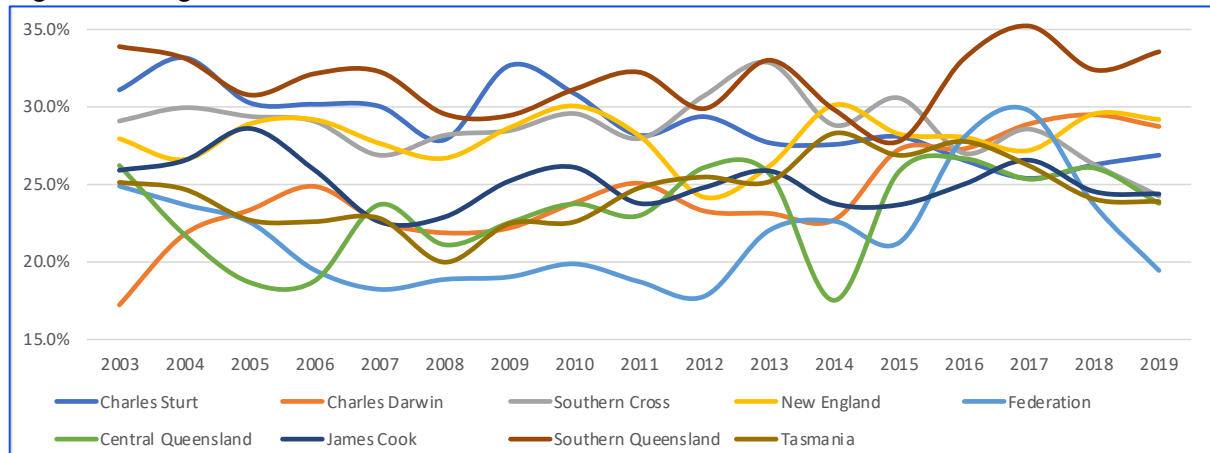
*The continual downward pressure on academic staff benefits will have the ultimate result of declining teaching quality and/or a severely constrained ability to discharge mission.*

The universities included in Figure 33 have mostly pushed the non-academic staff costs to revenue ratio towards 25%, although 3 are in the range 28-30%, as indicated in Figure 34.

**Figure 34: Universities under pressure – non-academic benefits to revenue ratios**

Source: DESE finance publications. Calculations by author.

Most regional universities have a non-academic staff cost to revenue ratio in the range 24-29%, with 2 outliers, as indicated in Figure 35.

**Figure 35: Regional universities – non-academic benefits to revenue ratios**

Source: DESE finance publications. Calculations by author.

The upward trends in the ratio may be associated with declining revenues rather than increased benefit payments.

### 3.4.2 Other expenses

Other expenditures relate mainly to payments to suppliers, scholarships and grants, advertising, marketing and promotion, and reported financial statements as “other expenditure”.

Depreciation expenses have grown due to the active building programs since the EIF and later building and construction investment financed from international student income. In 2019 Depreciation expense was reported as \$2.65 billion, or 7.3% of revenue. This non-cash expenditure has a significant impact on reported operating margins.

Other university expenditure was reported as a very significant 22.5% of revenue in 2019. Details of this expenditure are not available in aggregate but are available for each university as a note to the financial statements.

In 2019 Monash University reported the highest level of Other expenditure, at \$647.1m – amounting to 23.2% of revenue for the year. This aggregate amount covers some very substantial items, as indicated in Table 4 below.

**Table 4: Monash University – other expenses – as reported in note 14 to the 2019 income statement (\$'000)**

	2018	2019
Rent and utilities	120,226	74,751
Staff related	95,472	114,069
Travel	62,227	64,830
Laboratory	65,084	64,475
Student related	57,160	57,732
Information technology	65,533	82,090
Non-capitalised equipment	25,197	24,965
Communication	19,181	18,876
Books and library	17,069	15,876
Advertising, marketing, and promotional	15,122	19,355
Motor vehicle expenses	10,966	10,466
Printing and stationery	9,603	10,939
Net loss on disposal of property, plant and equipment	5,515	1,380
Royalties, patents, licenses and permits	4,778	5,435
Transfer from Foreign Currency Translation Reserve	0	22,062
Foreign Exchange losses	0	407
Bad or Impaired receivables	7,766	1,833

	2018	2019
Impairment of Assets	1,309	0
Assurance services	1,424	1,487
Other financial and administration	10,432	11,238
Other expenses	39,682	36,063
	633,746	638,329

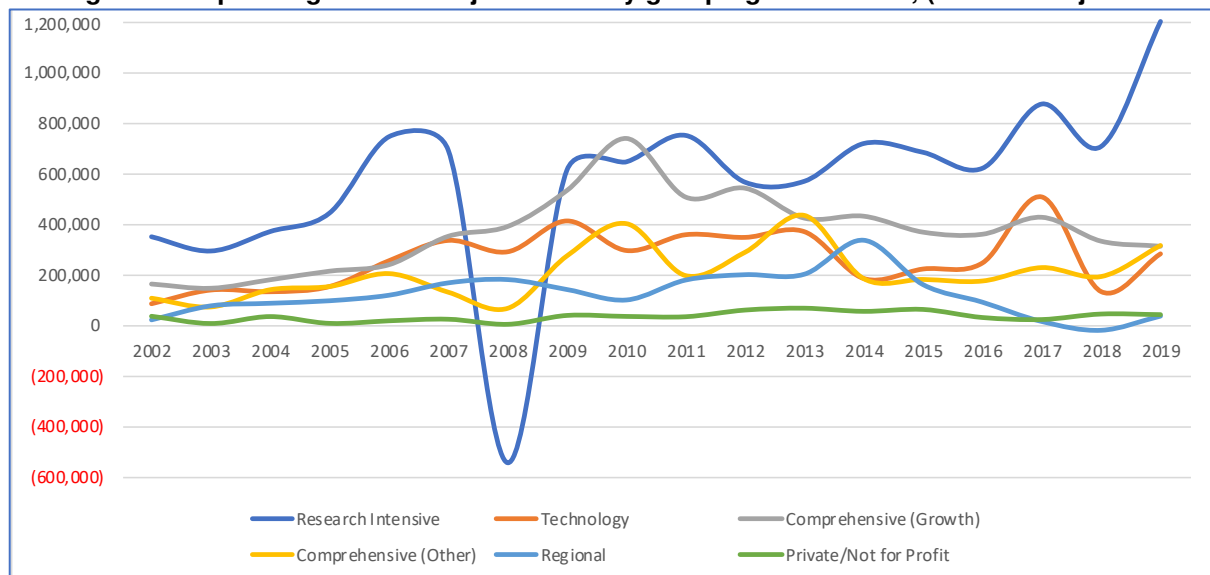
Source: DESE finance publications. Calculations by author.

*Accountability could be better served if universities were required to report expenses separately on large items, or if the information was more accessible*

### 3.5 Operating results

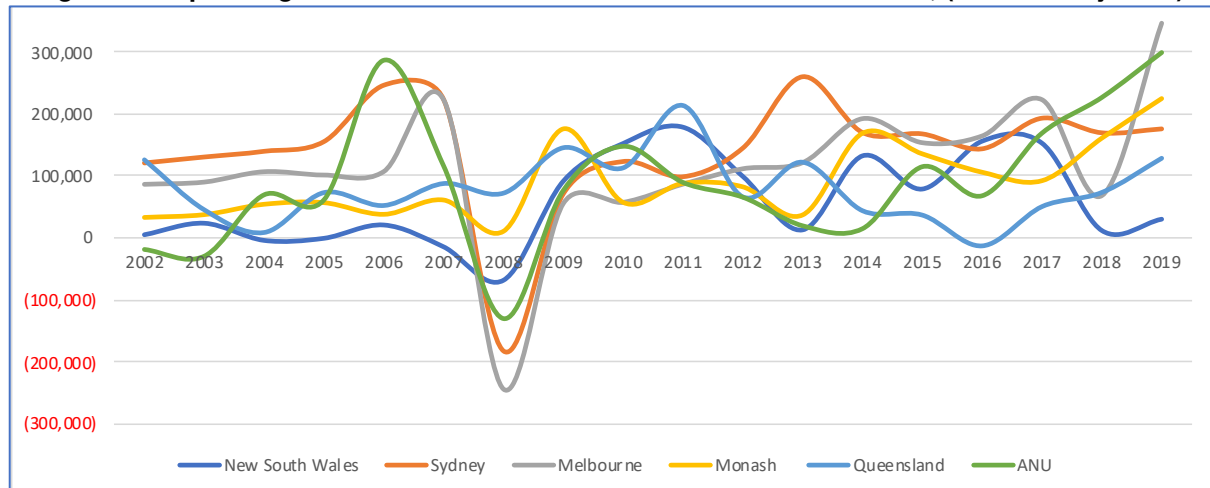
Universities report an operating result on a consistent basis in their annual financial statements. A summary of operating results for university groupings is shown in Figure 36.

**Figure 36: Operating result – major university groupings 2002-2019, (inflation-adjusted**



Source: DESE finance publications. Calculations by author.

From 2009, the operating result trend has been generally downward, except for the research-intensive universities. However, significant losses were incurred in 2008 with the impact of the GFC on their investment holdings. This may have led to a more strategic approach in the management of their financial assets. The operating results for each of the research-intensive universities are shown in Figure 37.

**Figure 37: Operating result – research-intensive universities 2002-2019, (inflation-adjusted)**

Source: DESE finance publications. Calculations by author.

In 2019 the research-intensive universities accounted for 52.9% of the aggregate operating result, with comprehensive-growth universities accounting for 14.7%, comprehensive-stable 14.8%, and technology universities 13.2%. Regional universities accounted for 2.0%.

The results across the sector are uneven, with significant disparities between universities. Sometimes this is due to extraordinary items and provisions being taken up. For example, the Education Investment Fund (EIF) payments softened the blow for many universities over the 2009-2015 period. Total payments under the EIF amounted to \$3.21 billion, with 69% falling in the 2009-2012 period.

The growth in operating results since the 2009 policy paper *Transforming Australia's higher education system* (Australia. Minister for Education Employment and Workplace Relations 2009) of all universities are included in Table 5 below.

**Table 5: University operating results 2009-2019, selected years (\$'000 inflation-adjusted)**

	2009	2015	2019	2009-2019 Total	2009-2019 Average
Sydney	70,491	167,094	175,219	1,709,848	155,441
Melbourne	55,791	153,612	345,934	1,581,197	143,745
Monash	177,095	136,375	226,589	1,335,245	121,386
ANU	76,778	114,698	223,596	1,216,635	110,603
New South Wales	91,367	78,993	30,736	1,096,082	99,644
Queensland	146,816	37,541	129,856	991,990	90,181
Deakin	85,450	67,561	105,753	885,168	80,470
Adelaide	76,697	55,970	41,414	843,896	76,718
Griffith	107,971	53,738	51,993	828,400	75,309
Western Australia	59,258	34,251	110,026	781,861	71,078
QUT	126,370	35,616	87,080	755,325	68,666
Curtin	68,244	65,423	80,837	691,597	62,872
RMIT	87,859	63,867	43,208	675,180	61,380
Newcastle	46,858	70,260	64,011	645,406	58,673
UTS	67,048	32,752	27,190	580,896	52,809
Macquarie	62,572	28,454	1,391	573,141	52,104
Western Sydney	60,865	45,415	18,801	552,838	50,258
La Trobe	60,330	71,017	19,051	538,490	48,954
South Australia	49,171	59,163	20,816	479,570	43,597
<b>Tasmania (Median)</b>	<b>60,586</b>	<b>6,705</b>	<b>53,288</b>	<b>455,179</b>	<b>41,380</b>
Wollongong	65,400	41,528	17,405	441,825	40,166
Swinburne	50,865	14,672	33,249	426,548	38,777
ACU	16,981	45,279	44,366	373,684	33,971
Flinders	33,831	17,463	24,708	348,625	31,693
Edith Cowan	29,067	30,516	35,950	320,325	29,120

Charles Sturt	28,478	37,332	(16,313)	298,241	27,113
Murdoch	12,877	(814)	19,609	297,083	27,008
Southern Queensland	20,596	86,179	5,803	295,739	26,885
James Cook	22,870	31,393	10,229	250,403	22,764
Sunshine Coast	19,986	16,005	19,614	233,069	21,188
Federation	34,534	6,713	36,179	228,604	20,782
Central Queensland	4,629	14,284	3,362	202,083	18,371
Southern Cross	3,553	(5,077)	15,553	127,894	11,627
Canberra	1,961	27,924	18,922	123,096	11,191
New England	12,577	17,030	(4,773)	78,861	7,169
Victoria	30,583	(12,805)	29,886	41,516	3,774
Charles Darwin	17,948	(23,389)	(8,632)	2,411	219
Batchelor College	12,965	(3,364)	(1,220)	187	17
<b>Total</b>	<b>2,067,539</b>	<b>1,740,209</b>	<b>2,140,686</b>	<b>21,439,405</b>	<b>1,949,037</b>
<b>Average</b>	<b>53,014</b>	<b>44,621</b>	<b>54,889</b>	<b>549,728</b>	<b>49,975</b>

Source: DESE finance publications. Calculations by author.

## 3.6 Wealth

### 3.6.1 Net Assets

At the end of 2019 public university net assets stood at \$60.3 billion, having increased from \$33.67 billion in 2002 (inflation-adjusted to 2017 base) with approximately one third (\$9.84 billion) being added in the 2014-19 period. The distribution of that increase varies widely across the system. Melbourne is the largest increase (\$2.16 billion, with UNSW, Sydney, Monash, UTS, Macquarie, Western Sydney, Deakin, and ANU each adding more than \$1 billion).

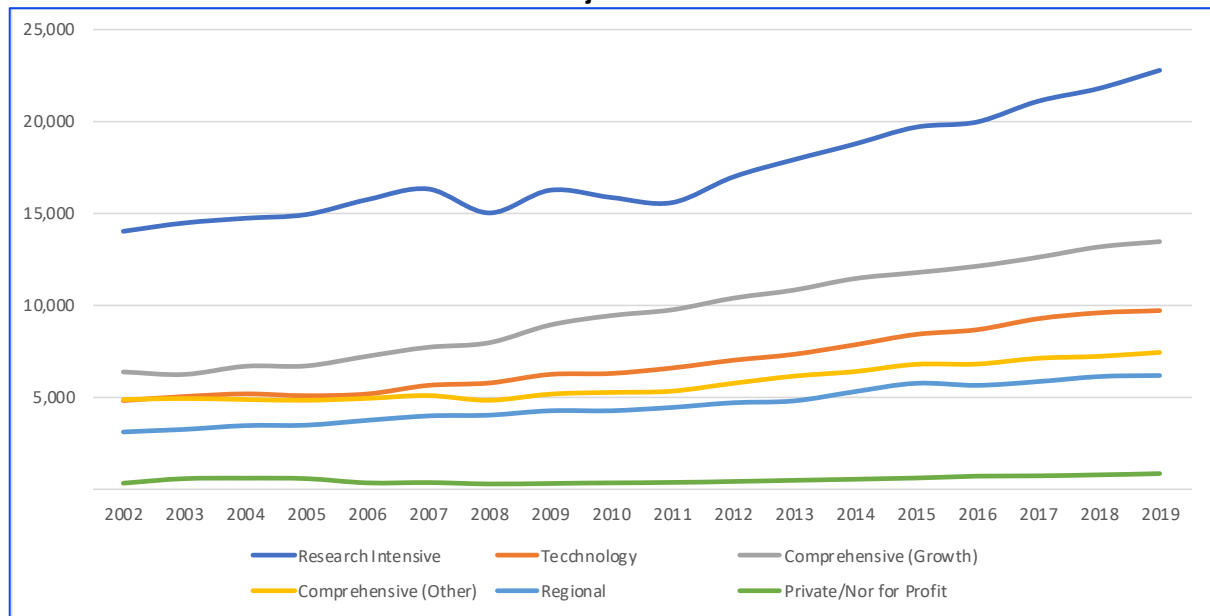
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*In terms of revenues and net assets, higher education is now “big business”.*

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The growth in net assets for university groupings is shown in Figure 38. It shows the dip in net assets in the research-intensive universities in 2008 through the impact of the Global financial crisis (GFC) and their exposure to derivative financial instruments. They had recovered by 2012.

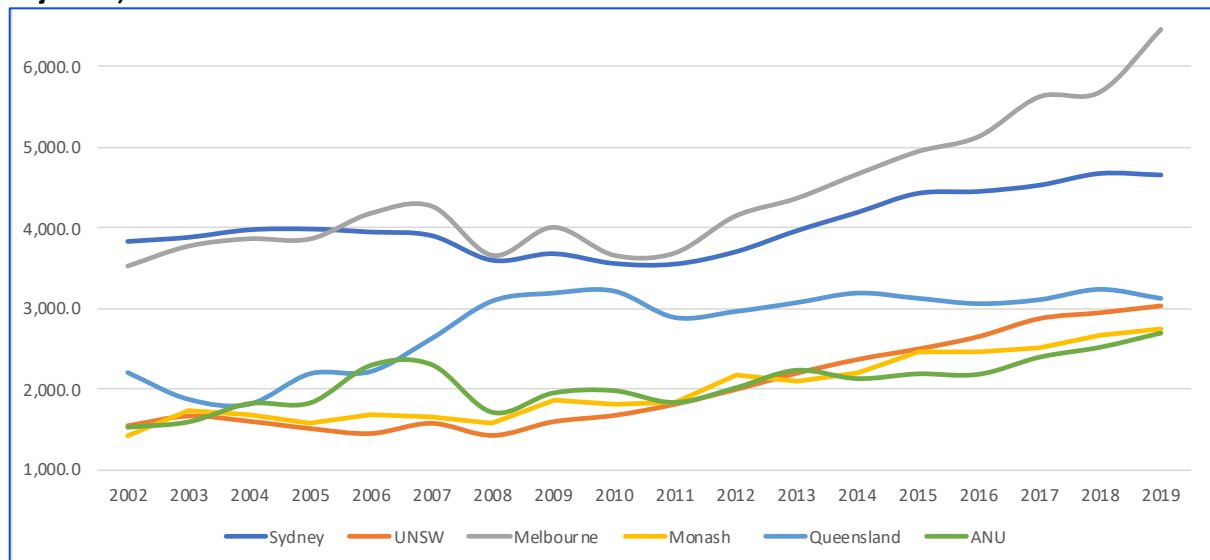
**Figure 38: Universities growth in net assets 2002-2019 university segments (\$'000 inflation-adjusted)**



Source: DESE finance publications. Calculations by author.

The growth in physical and financial assets has involved developing much more refinement in managing and maintaining those assets. The 6 research-intensive universities account for 37.6% of net assets, with much of the growth being concentrated in the universities of Melbourne and Sydney. Trends are shown in Figure 39.

**Figure 39: Research-intensive universities growth in net asset position (\$'000 inflation-adjusted)**



Source: DESE finance publications. Calculations by author.

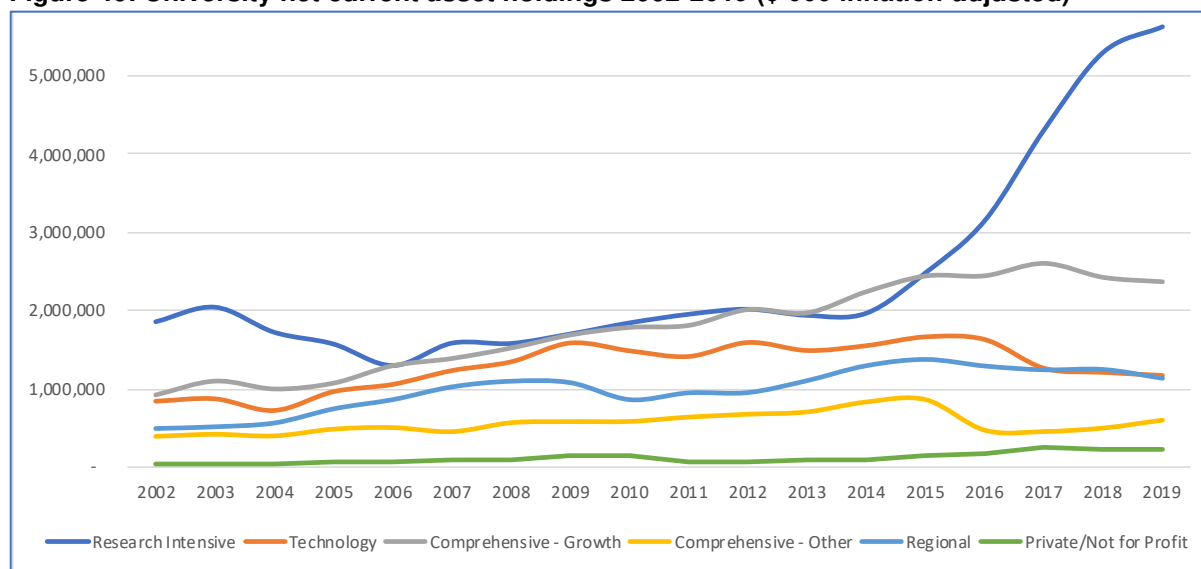
Figure 39 suggests that the “group of eight” largest universities has become the “group of six”. There are now 5 universities larger than UWA (Macquarie, RMIT, Griffith, Western Sydney, Deakin) and 2 larger than Adelaide (UTS and QUT). This changing order reflects more substantial growth opportunities in the east of the country than in the west *and* the universities’ growth strategies.



### 3.6.2 Current assets

At the end of 2019 university holdings of current assets stood at \$11.1 billion - an increase of \$6.5 billion since 2002 and \$4.88 billion since 2008. The greater part of the growth was generated in the research-intensive universities, as shown in Figure 40.

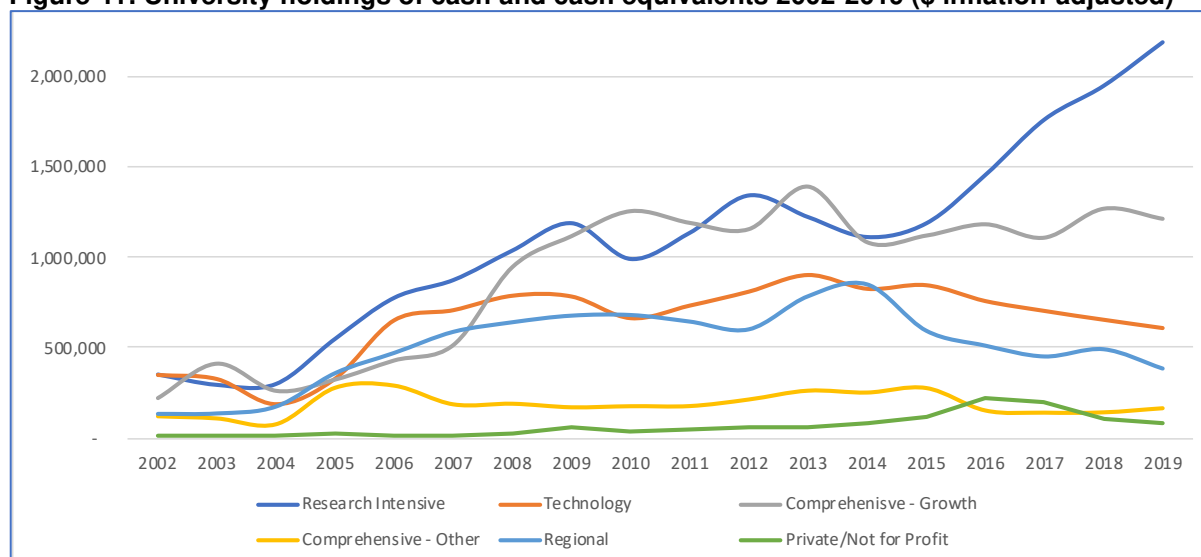
**Figure 40: University net current asset holdings 2002-2019 (\$'000 inflation-adjusted)**



Source: DESE finance publications. Calculations by author.

The major proportion of current assets is cash and cash equivalents, totalling \$4.71 billion at the end of 2019. These assets increased sharply from 2007, as shown in Figure 41. The increase in assets in the research-universities from 2014 is particularly marked. Melbourne and Sydney have been large cash hoarders over the years, with \$875 m and \$665 m respectively at the end of 2019. Other universities have been running down their cash holdings since 2017.

**Figure 41: University holdings of cash and cash equivalents 2002-2019 (\$ inflation-adjusted)**



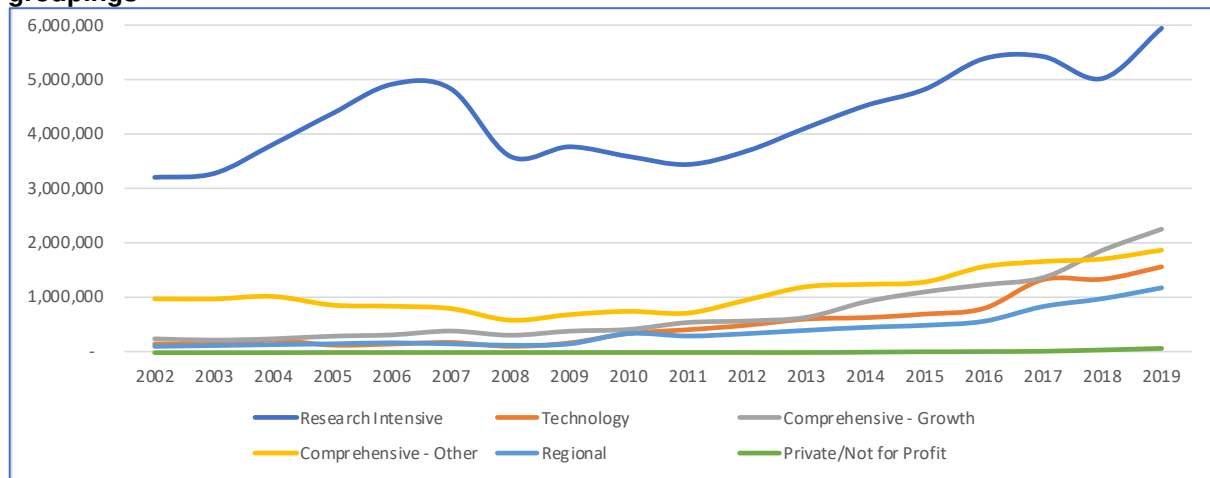
Source: DESE finance publications. Calculations by author.

### 3.6.3 Non-current financial assets

In 2019 higher education non-current financial asset holdings stood at \$12.86 billion, having trebled in inflation-adjusted terms from \$4.6 billion in 2002. Figure 42 shows the trend increase in holdings of non-current financial assets over the 2002-2019 period.

Figure 42 indicates the observation made earlier in this book that several of the research-intensive universities were hit badly by the 2008 global financial crisis. The value of assets dropped from \$4.8 billion in 2007 to \$3.6 billion in 2008. There was some impact in the other university groupings.

**Figure 42: University holdings of non-current financial assets (\$ inflation-adjusted) university groupings**



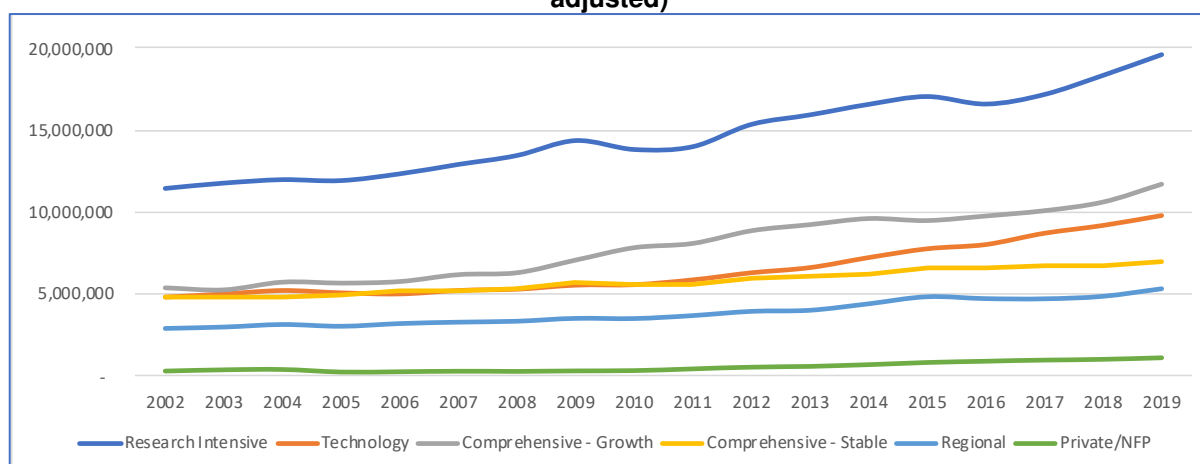
Source: DESE finance publications. Calculations by author.

The state auditors-general point out in their overview reports on university finances that while a substantial proportion of financial assets are categorised as non-current, in that they are held for more than a year, they can be liquidated readily should the need arise. This provides a major qualifier to the discussion of liquidity – see below.

### 3.6.4 Property Plant and Equipment (PPE) Assets

Consistent with the discussion of cash flows earlier where attention was drawn to *payments* for property assets, the university balance sheets also record a substantial increase in the *value* of property assets over the 2002-2019 period – from \$29.78 billion in 2002 to \$54.9 billion in 2019 (inflation-adjusted) – an increase in value of 82.6%. A total of \$10.12 billion has been added since 2014 (inflation-adjusted).

That increase was heavily concentrated in research-intensive universities, as shown in Figure 43.

**Figure 43: University holdings of property plant and equipment assets 2002-2019 (\$ inflation-adjusted)**

Source: DESE finance publications. Calculations by author.

As indicated, the build-up in property asset values reflects the impact of cash funding available from cash operating surpluses generated by income from international student income and from a small amount of capital payments deemed by the government to be revenues.

Many of the buildings associated with the investments over this time are iconic in terms of architecture and landscape design, sustainability and energy efficiency, and student amenity and space. Many buildings have won national and international design and architecture awards.

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*The overall financial effect of the growth in student numbers over the last 20 years is that some universities have become quite wealthy with substantial assets bases available for diversification and entry into new business lines.*

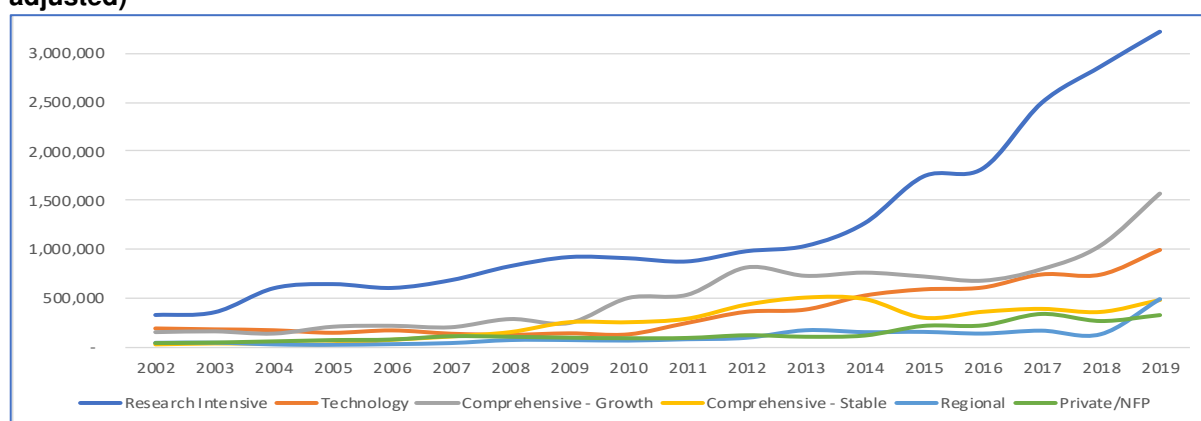
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### 3.6.5 Borrowing

As indicated earlier, and reflecting their corporate characteristics, universities have become much more sophisticated in their financial management and access to long and short term borrowing to finance their operations, growth, and investment portfolio.

#### **Non-current (long term) borrowings**

Several universities have substantially increased their commitment to borrowing, particularly since 2007. In 2019 non-current borrowings stood at \$7.35 billion, up from \$0.79 billion in 2002. The extent of that commitment is shown in Figure 44.

**Figure 44: Australian university groups – non-current borrowing 2002-2018 – (\$ inflation-adjusted)\***

Source: Source: DESE finance publications. Calculations by author. \*Includes non-current lease liabilities, separately reported as \$1.74 billion in 2019<sup>33</sup>.

The 2019 uptick in the trend in Figure 44 is influenced by applying an Accounting Standard that requires practically all leases for property, plant and equipment to be recognised in the Balance Sheet as “right-of-use” assets with corresponding lease liabilities represented as long term borrowing commitments. The 2019 balance sheets record right-of-use assets totalling \$2.14 billion, amounting to 3.8% of total property, plant, and equipment assets. The primary users of this form of finance are listed in Table 6.

**Table 6: Reported value of right-of-use assets 2019 above 5% of total PPE asset value**

University	Value of right-of-use assets in Balance Sheet.	Proportion of Asset Value
Charles Sturt	58,336	6.7%
Southern Cross	33,698	11.5%
Sydney	200,899	5.3%
Western Sydney	212,099	9.4%
Wollongong	42,181	5.0%
Monash	195,005	5.7%
Central Queensland	274,144	33.4%
QUT	94,562	7.1%
Sunshine Coast	33,032	6.5%
Queensland	263,454	8.9%
Tasmania	41,084	5.0%
ACU	67,630	7.9%

Source: DESE finance publications. Calculations by author.

Net long term borrowing activity over the years 2014-2019 has been concentrated in a small number of universities, as Table 7 shows.

**Table 7: Major increases (decrease) in university non-current borrowing 2014-2019 (inflation-adjusted)**

	2014	2015	2016	2017	2018	2019
<b>Research-intensive</b>						
ANU	(8,201)	202,042	(95,661)	(5,285)	(7,108)	(5,483)
Monash	19,547	167,908	(23,497)	252,419	125,242	120,522
Melbourne	137,639	41,300	218,963	76,207	14,478	30,728
New South Wales	(14,427)	(590)	(2,384)	219,996	109,586	7,425
Queensland	(42,259)	0	0	134,761	43,240	104,232
Sydney	138,684	67,123	(18,541)	(8,435)	87,714	95,745
<b>Technology</b>						
Curtin	(1,419)	(1,671)	(3,985)	(21,806)	(2,292)	5,724

<sup>33</sup> Universities had previously classified leases as operating, or finance leases based on assessment of whether the lease transferred substantially all of the risks and rewards incidental to ownership of the underlying asset to the University. Under AASB16, this classification no longer exists. Instead, practically all leases are now recognised in the Balance Sheet as right-of-use assets with corresponding lease liabilities comprising all amounts which are considered to be lease payments. Lease payments include right-of-use for buildings used by a university and constructed by another party – e.g., a developer.

	2014	2015	2016	2017	2018	2019
QUT	(23,129)	(1,710)	27,907	(5,132)	50,946	32,073
RMIT	20,650	108,939	2,261	62,265	(48,350)	99,020
South Australia	0	0	0	0	0	14,621
Swinburne	0	0	0	0	0	12,219
UTS	147,899	(40,863)	(7,533)	99,676	(2,075)	91,224
<b>Comprehensive-growth</b>						
Deakin	(9)	0	0	0	0	44,425
Flinders	0	0	0	0	2,388	6,252
Griffith	52,375	39,687	(22,261)	(16,280)	(11,682)	(12,290)
La Trobe	(58,028)	(6,546)	(4,261)	(9,028)	5,656	92,571
Macquarie	1,688	854	(14,591)	(107,564)	243,931	23,303
Newcastle	640	(89,298)	0	0	0	8,831
Sunshine Coast	(1,611)	(1,766)	(2,201)	(2,078)	5,402	112,101
Western Sydney	37,078	(113)	4,764	79,006	(1,808)	226,469
Wollongong	1,041	(71,841)	(3,619)	172,404	(2,102)	36,016
<b>Comprehensive-other</b>						
Adelaide	(4,676)	(27,069)	14,519	13,875	(5,361)	13,047
Canberra	(17,681)	(53,410)	50,230	2,533	(4,405)	(22,530)
Edith Cowan	10,528	(19,428)	(22,850)	20,755	(22,280)	95,222
Murdoch	(609)	(412)	(2,967)	(479)	(378)	2,231
Victoria	0	0	429	(185)	10,599	29,585
Western Australia	(1,836)	(2,359)	20,882	(5,948)	(10,246)	(4,654)
<b>Regional</b>						
Central Queensland	2,990	84	(3,074)	0	0	259,621
Charles Darwin	(12,486)	(2,090)	(2,112)	0	0	4,319
Charles Sturt	211	153	(530)	1,810	1,567	36,547
Federation	(658)	(172)	0	0	0	12,964
James Cook	(16,644)	2,659	(9,227)	31,034	(9,084)	8,744
New England	21,011	109	(760)	(360)	(20,000)	3,799
Southern Cross	(8,729)	2,757	(2,958)	(2,620)	(7,580)	41,546
Southern Queensland	(4,645)	(1,485)	1,804	(487)	(2,304)	(1,001)
Tasmania	705	511	(3,559)	(1,685)	(466)	43,113
<b>All Institutions</b>	<b>388,180</b>	<b>414,088</b>	<b>100,455</b>	<b>964,621</b>	<b>483,631</b>	<b>1,857,440</b>

Source: DESE finance publications. Calculations by author.

Several universities listed as having increased non-current borrowings in 2019 have ambitious campus development programs – in Australia and overseas.

### Current borrowings

Australian universities had not tended to be heavy borrowers for current purposes - until 2019 when short term borrowings more than doubled from the previous year. The small number of universities with more than \$10,000 in current borrowings on their balance sheets is listed in Table 8.

**Table 8: University current borrowing commitments 2008-2019 (inflation-adjusted)**

	2012	2013	2014	2015	2016	2017	2018	2019
`	1,106	1,166	1,261	42,541	47,112	55,787	25,506	260,415
Western Sydney	12,872	20,143	9,311	8,111	80,654	9,201	11,971	50,706
Monash	66,226	49,061	19,202	8,092	84,137	40,590	40,652	52,418
Griffith	13,960	13,179	27,055	18,894	17,363	14,348	11,219	11,489
Edith Cowan	2,455	179	131	20,002	19,786	21,399	21,868	22,237
Adelaide	5,297	5,221	5,259	5,280	5,090	5,000	4,975	24,631
Tasmania	-	-	2,102	26,401	9,671	-	-	67,586
All other	94,220	80,730	119,136	187,036	112,378	172,908	129,361	57,317
Total	196,136	169,680	183,458	316,358	376,190	319,233	245,552	546,799

Source: DESE finance publications. Calculations by author.

The universities listed in Table 8 have aggressive growth plans or are financially stressed. Universities would have sought to pay down short term borrowings or convert them to longer-term facilities.

### Credit ratings and the cost of debt

Higher credit ratings allow universities to access debt markets or issue bonds on better terms than lower-rated entities and at lower costs. In recent years many credit-rated universities have moved away from traditional bank funding models and taken on corporate style funding arrangements via debt markets, including the US placement market<sup>34</sup>.

In 2018 4 universities were paying more than 7% of their borrowing in borrowing costs, 5 were paying over 6%, 4 were paying 5% or above. The rest were paying 4% or lower. Monash was the largest borrower, paying 3.6%, and the second largest, Sydney, was paying 4.0%.

## 3.7 Reporting financial performance

With increasing financial commitment, there is a growing interest in measuring higher education institutions' financial performance.

### 3.7.1 Metrics overview

The Victorian auditor-general has documented a range of financial and non-financial sustainability indicators to assess universities' financial risks.

**Table 9: Financial and non-financial sustainability indicators, formulas and descriptions**

Indicator	Formula	Description
Net result margin (%)	Net result/Total revenue	A positive result indicates a surplus, and the larger the percentage, the stronger the result. A negative result indicates a deficit. Operating deficits cannot be sustained in the long term. The net result and total revenue are obtained from the comprehensive operating statement. The <b>adjusted net result margin</b> is the net result margin adjusted for the one-off accounting changes introduced by AASB 9 in 2018.
Liquidity (ratio)	Current assets/Current liabilities	This measures the ability to pay existing liabilities in the next 12 months. A ratio of one or more means that there are more cash and liquid assets than short-term liabilities
Adjusted liquidity (ratio)	(Current assets + Non-current financial investments)/Current liabilities	Liquidity ratio adjusted to include non-current financial investments, since most of these can be converted to cash or cash equivalents at short notice and are available to the universities to meet any liabilities if required. The ratio should ideally be above 1, indicating sufficient liquid assets to meet short-term liabilities.
Capital replacement (ratio)	Cash outflows for property, plant and equipment/depreciation	Comparison of the rate of spending on infrastructure with its depreciation provision. Ratios higher than 1:1 indicate that spending is faster than the depreciating rate. This is a long-term indicator, as capital expenditure can be deferred in the short term if insufficient funds are available from operations and borrowing is not an option. Cash outflows for infrastructure are taken from the cash flow statement. Depreciation is taken from the comprehensive operating statement.
Internal financing (%)	Net operating cash flow/Net capital expenditure	This measures the ability of an entity to finance capital works from generated cashflow. The higher the percentage, the greater the entity's ability to finance capital works from their own funds. Net operating cash flows and net capital expenditure are obtained from the cash flow statement. Note: The internal financing ratio cannot be less than zero. Where a calculation has produced a negative result, this has been rounded up to 0%.

<sup>34</sup> Walker, Anthony, "Universities are in a good position to borrow as they enter a new financial era", Financial Review, 11 Feb 2018. <https://www.afr.com/policy/health-and-education/universities-are-in-a-good-position-to-borrow-as-they-enter-a-new-financial-era-20180201-h0rq3>

Indicator	Formula	Description
Debt to equity (%)	Total borrowings/ Equity	This measures the reliance on debt as a source of funding. A higher ratio indicates greater reliance on debt and an increased risk of insolvency.
Cost of debt (%)	Finance costs/Total borrowings	This measures the effective rate of interest and other costs paid on borrowings.
Employee benefits ratio (%)	Employee expenses/ Total revenue	This measures how efficiently each university uses its staff to deliver revenue-generating services. Generally, a smaller ratio indicates a more efficient and sustainable workforce.
Repairs and maintenance to depreciation (%)	Repairs and maintenance expenses /Depreciation	This measures the rate of assets being replaced or renewed. Generally, a ratio above 100 per cent indicates long-term assets are being adequately renewed.
Effective Full-Time Student Load (EFTSL) to Employee Full-Time Equivalent (FTE) (ratio)	Total EFTSL/Total FTE employees	This measures the adequacy of available resources per student load.
Employee expenses per EFTSL (ratio)	Employee expenses/ Total EFTSL	This measures the cost of employees per student. Generally, a smaller ratio indicates greater cost efficiency.
Operating expenses per EFTSL (ratio)	Operating expenses/ Total EFTSL	This measures the operational cost per student. Generally, a smaller ratio indicates greater cost efficiency.

Source: Report on university Audits, 2019. (Victorian Auditor General's Office 2020)

A profile of the key indicators relating to liquidity and financial management are summarised below.

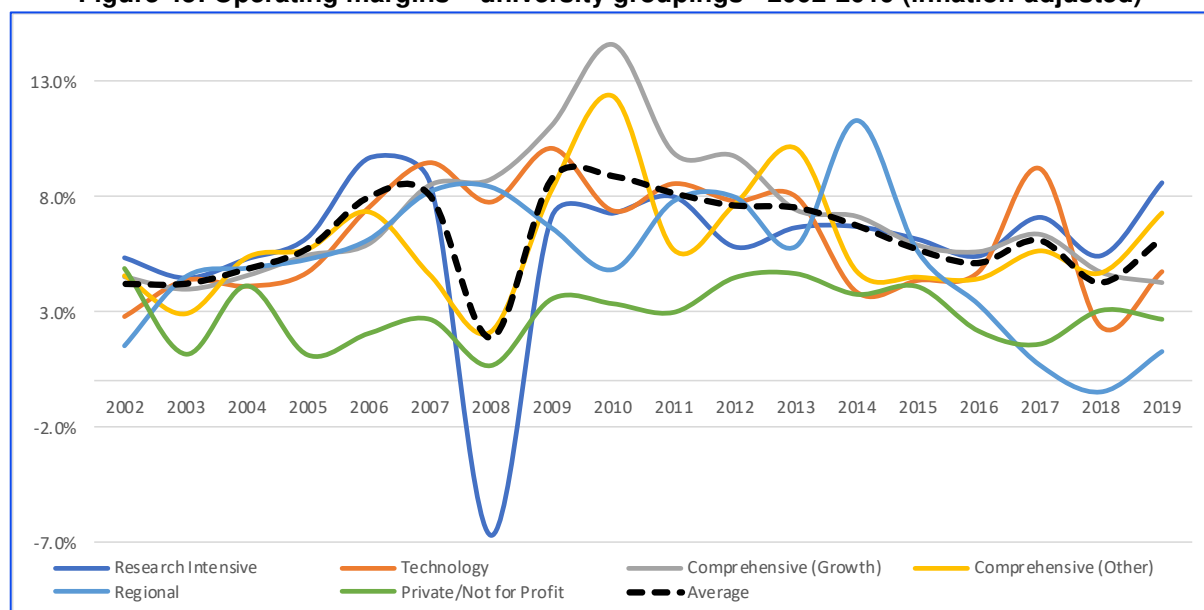
### 3.7.2 Net result margin

The *net result, or operating, margin* is a “profitability” ratio that measures the percentage of total revenues made up by operating income. In other words, the operating margin ratio demonstrates how much revenue is left over after all the variable or operating costs have been paid. A margin of 6% for a university is regarded as financially prudent.

As shown in Figure 45, the operating margin has been falling steadily for all university groupings since 2010. The system-wide operating margin stood at 4.3% in 2018 and 6.2% in 2019, reducing from 6.3% in 2017. A peak of 8.9% was reached in 2010 following the injection of *Education investment funds* (EIF) and other nation building funds, and the demand-driven funding system beginning to take effect.

*The calculation of margins in Figure 45 is based on published data and does not reflect internal adjustments agreed by auditors.*



**Figure 45: Operating margins – university groupings - 2002-2019 (inflation-adjusted)**

Source: DESE finance publications. Calculations by author.

This relatively tight margin has been occurring within a university system currently receiving a substantial injection of funds from international student fees. This is difficult to explain, based on the figures, but it may well be that the costs of running an international business have been much more than anticipated or accounted for. The simple average of operating margins over the period 2014-2019, the years covered by the international student boom, for all universities is shown in Table 10.

**Table 10: Australian universities – average of university operating margins 2014-2019**

	2014	2015	2016	2017	2018	2019	Average
Australian National University	1.5%	9.8%	5.7%	13.8%	16.9%	20.2%	11.3%
University of the Sunshine Coast	17.9%	7.0%	11.6%	6.7%	5.1%	6.4%	9.1%
University of Southern Queensland	15.4%	22.1%	7.3%	-0.2%	3.2%	1.8%	8.3%
Edith Cowan University	7.0%	7.4%	5.8%	6.4%	4.9%	17.0%	8.1%
University of Western Sydney	14.3%	5.9%	4.7%	6.1%	9.5%	6.7%	7.9%
Central Queensland University	34.1%	3.8%	4.2%	3.9%	0.0%	0.7%	7.8%
The University of Newcastle	7.4%	9.4%	11.1%	7.6%	3.2%	7.8%	7.7%
Monash University	8.7%	6.8%	5.1%	3.9%	6.5%	12.2%	7.2%
Deakin University	7.4%	7.0%	4.5%	9.0%	4.4%	9.0%	6.9%
The University of Sydney	8.5%	7.8%	6.5%	8.2%	6.9%	-1.4%	6.1%
Curtin University of Technology	5.6%	6.8%	4.2%	8.5%	2.9%	8.5%	6.1%
The University of Melbourne	8.6%	6.9%	7.1%	8.9%	2.6%	2.2%	6.1%
Griffith University	9.2%	5.8%	4.1%	7.9%	3.9%	5.1%	6.0%
Murdoch University	2.0%	-0.2%	10.7%	-0.2%	2.7%	20.8%	6.0%
RMIT University	7.4%	5.8%	6.1%	4.4%	3.0%	8.2%	5.8%
University of Technology, Sydney	5.5%	4.1%	8.1%	8.2%	7.1%	1.3%	5.7%
The University of New South Wales	7.6%	4.5%	8.4%	7.5%	0.6%	5.0%	5.6%
University of Tasmania	-0.1%	1.1%	1.2%	8.1%	15.6%	7.0%	5.5%
Queensland University of Technology	3.7%	3.5%	5.2%	9.4%	3.1%	7.6%	5.4%
La Trobe University	2.0%	9.4%	5.1%	3.8%	3.8%	8.1%	5.4%
University of Wollongong	3.7%	6.9%	6.3%	10.3%	1.2%	2.5%	5.1%
University of Adelaide	6.5%	6.1%	6.7%	7.0%	-0.4%	4.3%	5.0%
University of South Australia	5.0%	9.2%	6.6%	2.2%	3.0%	3.1%	4.8%
Flinders University	3.6%	3.6%	5.8%	5.1%	4.2%	4.8%	4.5%
Swinburne University of Technology	2.4%	2.5%	3.5%	15.8%	-1.3%	3.2%	4.3%
James Cook University	12.0%	6.2%	3.9%	-1.7%	1.5%	2.1%	4.0%
Macquarie University	5.9%	3.4%	5.0%	4.3%	5.3%	0.1%	4.0%
University of Canberra	-0.8%	8.9%	2.6%	0.5%	6.1%	6.1%	3.9%
Charles Sturt University	8.0%	7.0%	5.3%	5.0%	0.8%	-2.7%	3.9%
The University of Queensland	2.5%	2.1%	-0.7%	2.8%	3.8%	6.3%	2.8%
The University of Western Australia	1.8%	2.1%	0.8%	0.5%	-0.7%	10.6%	2.5%
Southern Cross University	6.3%	-2.4%	7.3%	-1.6%	0.0%	0.1%	1.6%
Federation	1.0%	2.3%	0.2%	-1.6%	2.0%	2.6%	1.1%
The University of New England	0.3%	5.3%	3.5%	1.4%	-7.0%	-1.4%	0.3%



	2014	2015	2016	2017	2018	2019	Average
Victoria University	-3.8%	-3.0%	-2.7%	-6.8%	1.6%	4.4%	-1.7%
Charles Darwin University	2.3%	-8.2%	-7.9%	-5.4%	-8.3%	-3.2%	-5.1%
Batchelor Institute	-3.2%	-7.7%	-17.3%	-0.5%	-3.8%	-3.8%	-6.0%

Source: DESE finance publications. Calculations by author.

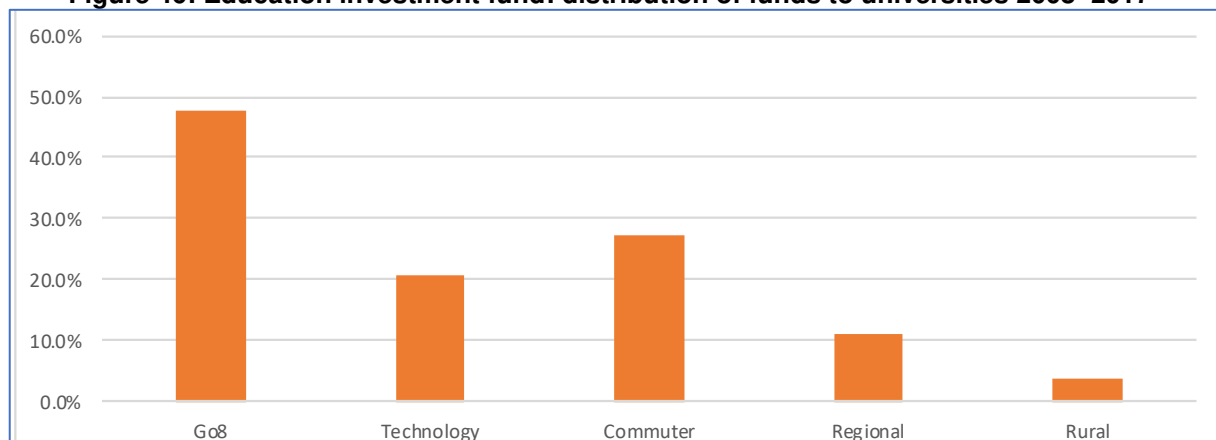
Table 10 indicates that the largest universities are not necessarily the most profitable in terms of revenues. There are also considerable fluctuations between years which could only be explained by a more detailed examination of individual university finances and extraordinary items. The ANU has been the most profitable since 2017.

By commercial standards or benchmarks, the operating margins across the system are not impressive. There is also a growing pressure for universities to commit further resources for research activity, which from a financial perspective, may depress margins below a prudential level for many universities.

The operating results for the Go8 universities would have been much worse if not for the *Better universities renewal fund* that commenced payments in 2008 followed by the EIF that formed an essential element of the 2008 post-GFC national recovery package. Total funding under these programs amounted to \$3.19 billion (inflation-adjusted).

Initially, the amount available under the fund was \$6 billion, but allocations virtually ceased in 2013 when the government decided to transfer the balance to the NDIS. Just under 50% of EIF funding flowed to the Go8 universities, as shown in Figure 46

**Figure 46: Education investment fund: distribution of funds to universities 2008–2017**



Source: Source: DESE finance publications. Calculations by author. Commuter universities refer to providers located in outer metropolitan areas. A separation is made between universities in the larger regions (Deakin, Wollongong, Newcastle) and universities in smaller rural cities.

The distribution does not reflect a predetermined bias. Advice from the allocation committee is that the larger universities were much better at coming up with investible “business cases”.

### 3.7.3 Net result before depreciation and amortisation

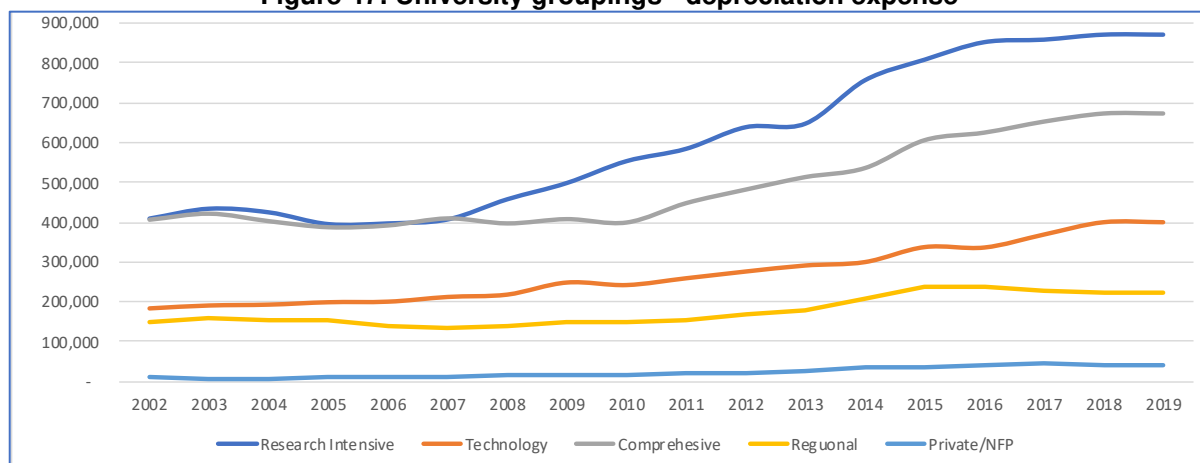
The net result, published under accepted accounting standards, can understate universities’ true financial position, particularly by including the *non-cash* expenditure on depreciation. Depreciation is a calculation intended to reflect the cost of using/running down capital purchases over time to provide a fairer perspective of the

assets' value in question. However, a depreciation charge does not commit governing boards to replace an asset.

In the corporate world analysts and investors look at operating performance in terms of *earnings before interest, taxes, depreciation, and amortisation* (EBITDA). EBITDA margins provide a snapshot of short-term operational efficiency. Because the margin ignores the impacts of non-operating factors such as interest expenses, taxes, or intangible assets, the result is a metric that is a more accurate reflection of a business's operating profitability. This ratio is not currently published in university financial reports.

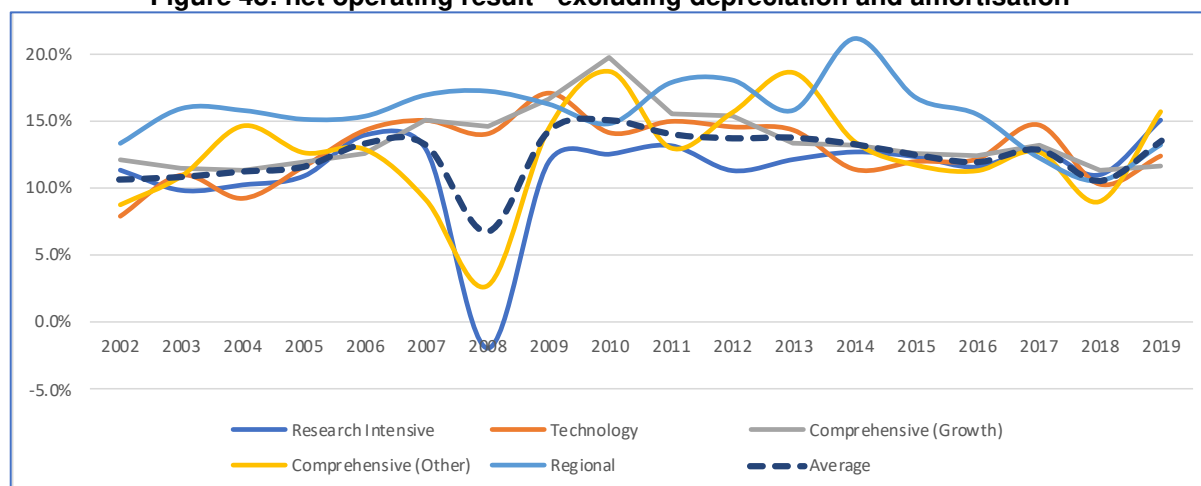
In 2018 depreciation expense in university operating results stood at \$2.14 billion, having risen from \$1.16 billion in 2002 (inflation-adjusted). This is a reflection of the substantial commitment to investment in new buildings financed by philanthropy in the early 2000s (particularly Atlantic Philanthropies), state government investment programs (notably the Victorian STI and the Queensland *Smart state initiative*), the EIF between 2008 and 2011, and capital purchases funded by international students from 2014. The distribution of the depreciation expense across university groups is reflected in Figure 47.

**Figure 47: University groupings - depreciation expense**



Source: <https://www.education.gov.au/finance-publication>

Consistent with the high proportionate allocation of EIF funds to the research-intensive universities, depreciation expense has been concentrated in that group. The overall picture that emerges by excluding *non-cash* depreciation expense is provided in Figure 48. It gives a better representation of the research-intensives' performance and evens out results for the other groups, although the regional group still trends downwards.

**Figure 48: net operating result - excluding depreciation and amortisation**

Source: <https://www.education.gov.au/finance-publication>

The result of excluding depreciation from university income statements is that the net result ranges between 10% and 20% over the period, except for the 2008 GFC impact. Following the effects of COVID-19 universities have been focussed on restoring cash margins and will make every effort to do so in 2020 and beyond.

A more complete picture would be provided by excluding all EBITDA expenses. Although universities pay minimal taxation, interest expenses are rising with the increase in borrowing to fund capital expenditures.

### 3.7.4 Liquidity

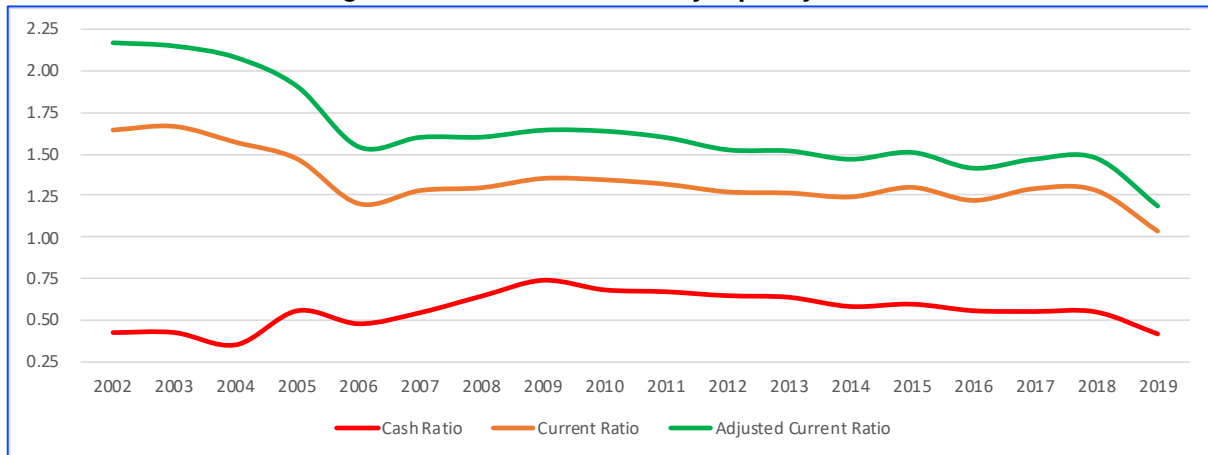
In the corporate sector, analysts and advisers take a deep interest in businesses' liquidity – the ability to meet their financial obligations as they fall due. Liquidity is also an issue in public organisations; governments are not keen to see universities default on their obligations.

In 2019 the higher education system started to show signs of a liquidity problem; a problem that is being exacerbated by COVID-19 impact in 2020. However, liquidity issues have also occurred in the past, as indicated in Figure 49, which shows longer-term trends in 3 key liquidity ratios:

- The *cash ratio* - the ratio of total cash and cash equivalents to current liabilities
- The *current ratio* - the ratio of current assets to current liabilities
- The *adjusted current ratio* - the ratio of current and non-current financial assets to current liabilities (universities hold large quantities of long term financial assets which, by their nature are highly liquid)<sup>35</sup>.

A good liquidity ratio is considered to be anything greater than 1. It indicates that a business is in good financial shape and is less likely to face financial hardship. The higher the ratio, the higher is the safety margin that the company possesses to meet its current liabilities.

<sup>35</sup> This appearance of a vulnerable financial position may be qualified by the very substantial holdings of non-current financial assets in some universities, which have the potential to be liquidated over the medium term – although this may result in substantial costs such as pulling out of complex derivative arrangements. Some universities are currently in the process of liquidating property assets through sale and disposal.

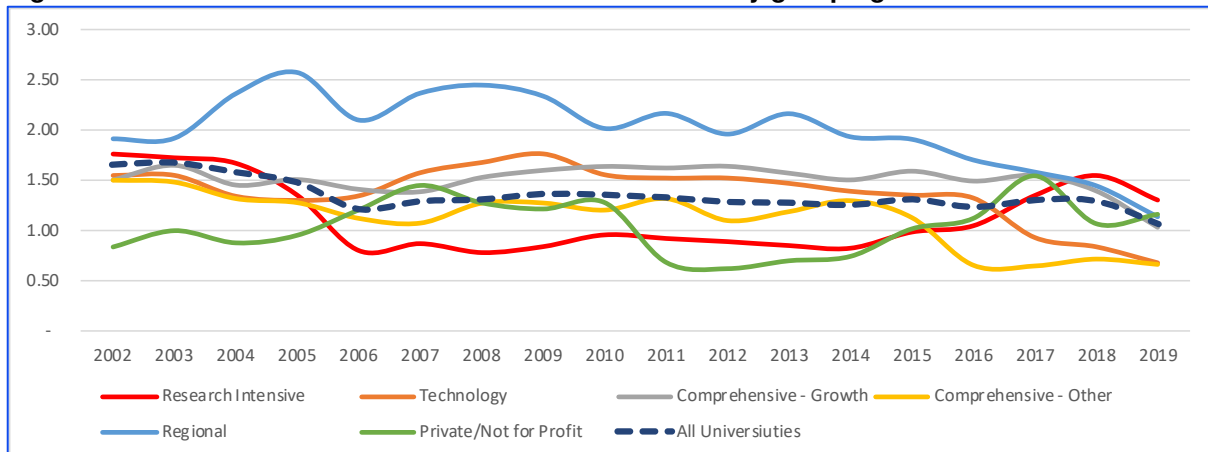
**Figure 49: Trends in university liquidity ratios**

Source: DESE finance publications. Calculations by author.

The current ratio has been trending down since 2003 and the cash ratio from 2009. Both ratios had noticeable falls in 2019. *The COVID-19 crisis did not drive the falls in liquidity*, but the crisis which hit in early 2020, is reported to be having a major impact on liquidity.

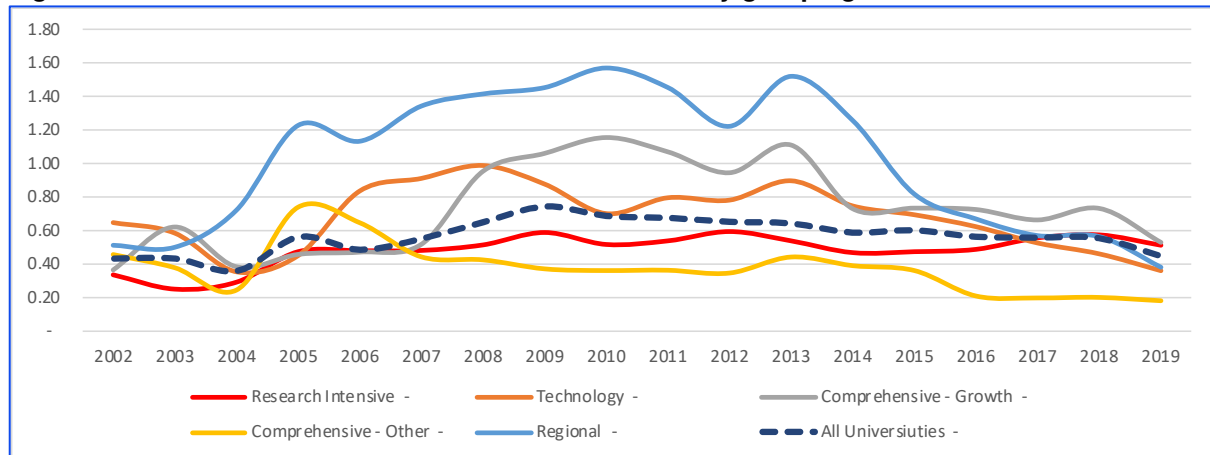
This long-term decline in liquidity, mainly since 2009, results from resource allocation and investment decisions made by university governing bodies (councils or senates) and the senior staff and bankers who advise them. The decline may reflect a more informed financial risk approach and the need to hold large quantities of non-performing financial assets.

The long term trend in the current ratio among university groupings is shown in Figure 50 below.

**Figure 50: Trends in the current ratio 2002-2019 – university groupings**

Source: DESE finance publications. Calculations by author.

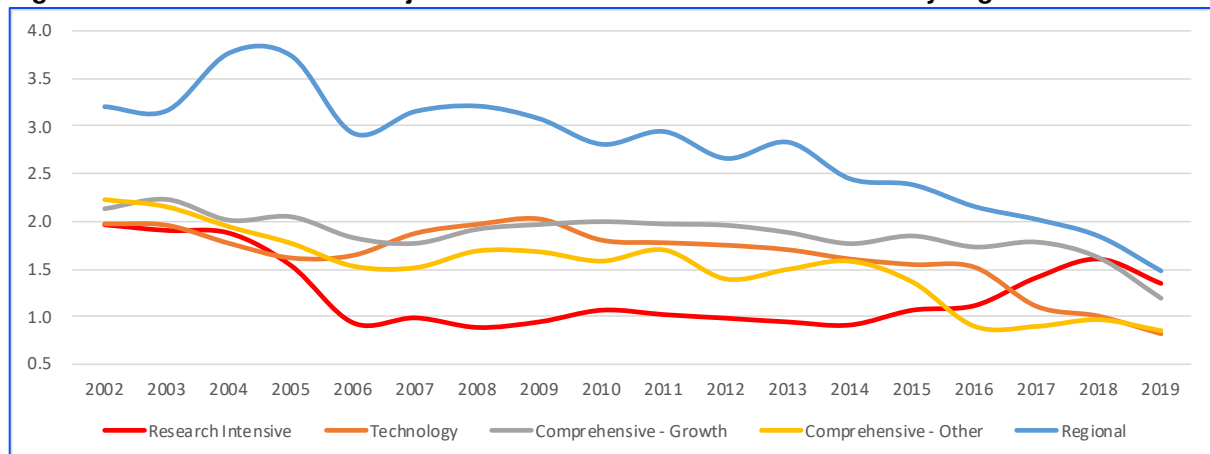
Figure 50 shows a tightening in the cash ratio for the comprehensive-other category (yellow line). A similar picture emerges with the cash ratio as shown in Figure 51.

**Figure 51: Trends in the cash ratio 2002-2019 – university groupings**

Source: DESE finance publications. Calculations by author.

### 3.7.5 Adjusted liquidity

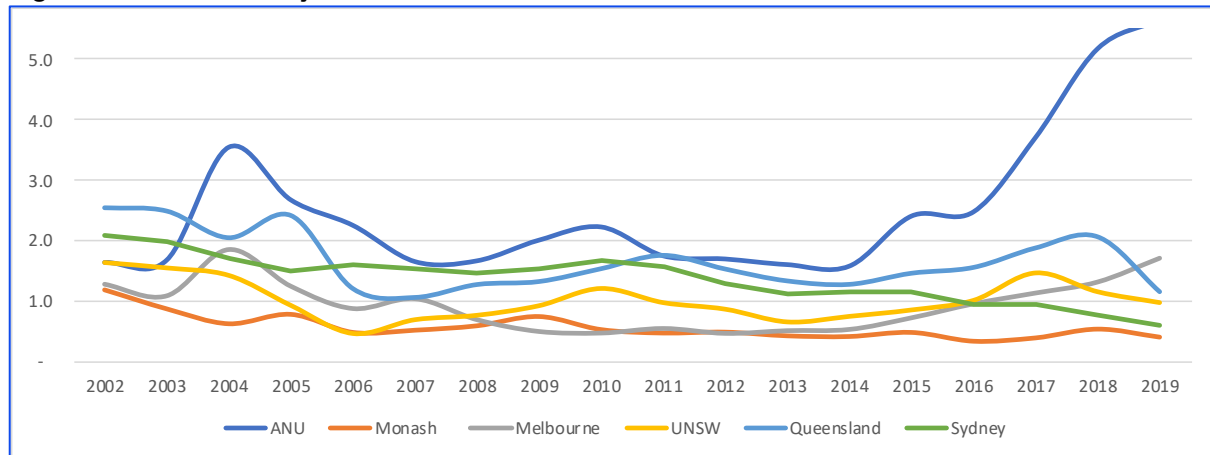
The movements in the adjusted current ratio for university segments is shown in Figure 52 which indicates a sharp decline to 2006, particularly in the research-intensive universities. However, the research-intensives built up liquidity from 2014 with income from the international student boom. The fall in liquidity of the research-intensives in 2019 has not been enough to take the segment back to the low point recorded in 2006. The decline in liquidity is most marked in the regional university category.

**Figure 52: Movements in the adjusted current ratio 2002-2019 – university segments**

Source: DESE finance publications. Calculations by author.

With this level of liquidity, the government has not considered it appropriate to bail out universities suffering losses in the COVID-19 pandemic in the context of the current university financial crisis. Nonetheless, some state governments have offered short term loans to some universities to address structural issues.

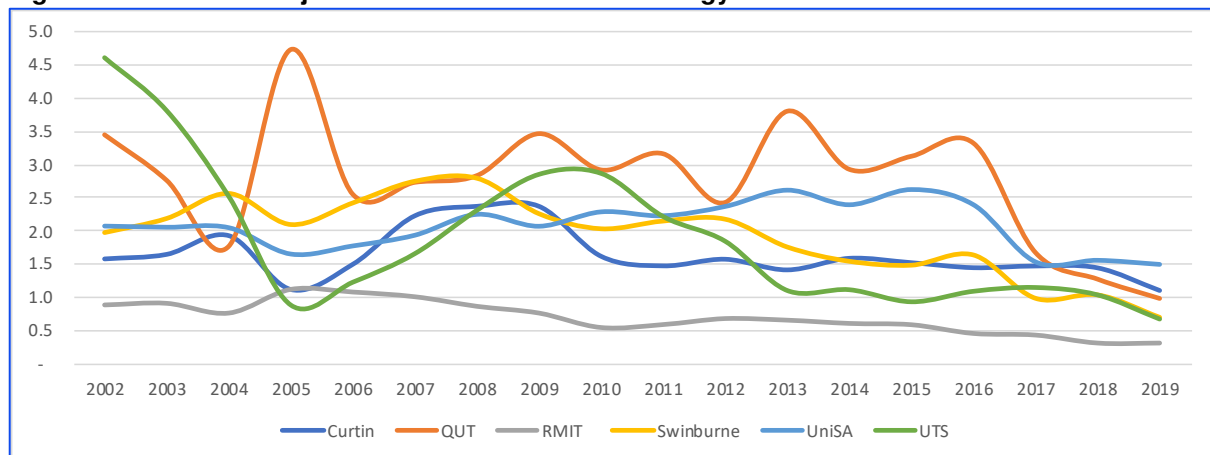
The trends in adjusted liquidity among the research Intensive universities, as indicated in Figure 53, shows divergent patterns no doubt reflecting differences in financial management strategy.

**Figure 53: Trends in adjusted current ratios – research-intensive universities 2002-2019**

Source: DESE finance publications. Calculations by author.

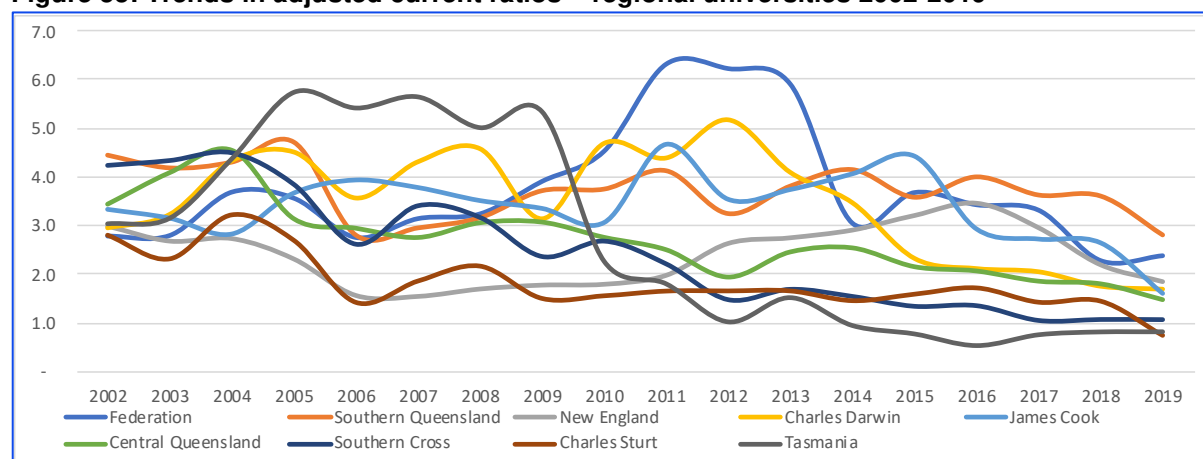
The liquidity position at the ANU indicates a degree of caution in managing the university's financial situation and its preference to place increasing revenues from international students in liquid or near liquid assets. By contrast, Sydney, Monash and UNSW have been operating in very tight liquidity positions.

Liquidity has also been trending downwards in the technology universities since 2016 and the onset of the international student boom, as shown in Figure 54. From 2016 there was substantial investment in property, plant and equipment.

**Figure 54: Trends in adjusted current ratios – technology universities 2002-2019**

Source: DESE finance publications. Calculations by author.

Figure 55 shows the deteriorating liquidity position of the DESE classified 9 regional universities. The weakening positions of Tasmania, Charles Sturt and Southern Cross seem to be a direct consequence of faltering domestic student demand.

**Figure 55: Trends in adjusted current ratios – regional universities 2002-2019**

Source: DESE finance publications. Calculations by author.

The 2020 *Job ready graduates* initiative includes measures specifically designed to lift the fortunes of regional universities.

### 3.7.6 Financial leverage/debt to equity

A university's financial leverage represents its use of borrowed money to increase income – principally from students and/or research income. Councils/senates may increase financial leverage with a loan or other long term financial instrument to allow them to invest in new buildings and equipment.

The degree to which a university uses financial leverage, or growing its business with borrowed funds, provides an easily calculated way of assessing its financial risk.

While there is no set ratio that indicates a good or bad structured company, general guidelines for gearing ratios suggest that between 25% and 50% is best unless more debt is needed to operate. The data suggests that most Australian universities work with that benchmark. Only 3 universities have a debt to equity ratio exceeding 20% with 5 well below 20%, and the remainder below 10%.

### 3.7.7 Cost of debt

In 2018 4 universities were paying more than 7% for their borrowing, 5 were paying over 6%, 4 5% or above, and none paying over 4%. Monash was the largest borrower, paying 3.6%, and the second largest (Sydney) was paying 4.0%. These costs reflect credit ratings determined by ratings agencies.

Higher credit ratings allow universities to access debt markets or issue bonds on better terms than lower-rated entities and at lower costs. In recent years many rated universities have moved away from traditional bank funding models and taken on corporate style funding arrangements via debt markets, including the US placement market.

### 3.7.8 Return on assets

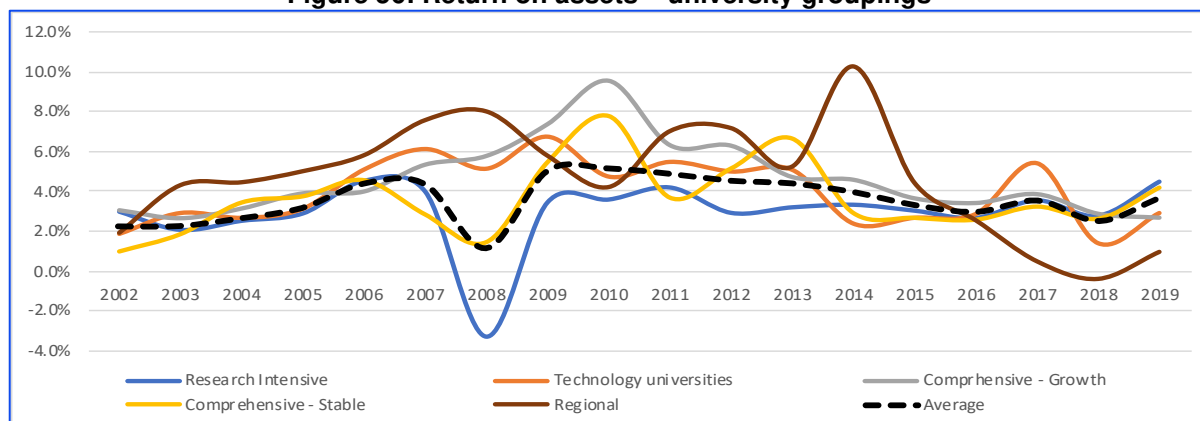
The return on assets (ROA) is a ratio of the net income produced by total assets during a period to the average total assets in use. In other words, the ROA measures

how efficiently a university, or more broadly, the higher education system, can manage its assets to produce a surplus during a period.

Over the period 2002-2019, higher education ownership of net assets (net wealth) has increased by 58%. However, the financial trends reported above suggest that this accumulation of wealth has not been associated with a superior generation of financial returns. The ratio for university groups, together with the average for all universities, is shown in Figure 56.

From a purely business perspective, the situation is quite concerning. In 2019 the ratio stood at 3.5%, reflecting the long-term average over the 2002-2019 period<sup>36</sup>. Three universities had an average return of 2% or lower<sup>37</sup>. These generally poor returns may be attributed to over investment in, and underutilisation of, property assets and generally low capital productivity. For some universities it has led, inevitably, to a liquidity problem.

**Figure 56: Return on assets – university groupings**



Source: DESE finance publications. Calculations by author.

The trends contain some one-offs on a year-on-year basis, but overall, it shows a decline in ROA for all Groups since 2010, a small pick-up in 2017 a decline in 2018 and recovery in 2019.

The average ROA for all universities over the period 2010-2019 are shown in Table 11 below. A comparative ratio for 2014-2019 is also shown to indicate how well universities did in the international student boom. *Only ANU, Monash, Western Sydney, Western Australia, and Southern Cross delivered a better ROA during the boom.*

**Table 11: Australian universities – return on assets ratio - selected years 2010-2019**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Average 2010-2019	Average 2014-2019
Sunshine Coast	9.2%	4.4%	11.6%	8.7%	12.8%	4.5%	7.4%	4.3%	3.3%	4.2%	7.0%	6.1%
ANU	7.5%	4.9%	3.3%	0.9%	0.7%	5.2%	3.1%	7.0%	9.0%	11.0%	5.3%	<b>6.0%</b>
Monash	3.2%	4.8%	3.8%	1.7%	7.7%	5.5%	4.3%	3.7%	6.1%	8.3%	4.9%	<b>5.9%</b>
Newcastle	4.0%	3.5%	6.1%	5.7%	4.2%	5.3%	6.8%	4.4%	1.8%	4.6%	4.6%	4.5%
Curtin	4.8%	8.9%	7.9%	5.6%	4.2%	5.0%	3.0%	5.8%	1.9%	6.1%	5.3%	4.3%
Tasmania	7.3%	2.7%	4.3%	4.5%	0.0%	0.8%	0.9%	6.4%	12.4%	5.6%	4.5%	4.3%
USQ	4.3%	2.1%	5.5%	4.8%	8.1%	2.8%	5.1%	3.2%	2.5%	2.8%	4.1%	4.1%

<sup>36</sup> Only 8 universities had a return on assets in excess of 5% in 2019 - Southern Cross (6%), Federation (5.3%), Monash (8.3%), Curtin (6.1%), Western Australia (5.3%), ANU (8.8%), Tasmania (5.6%) and ACU (6.4%). An acceptable commercial return would be in the region of 7-10%

<sup>37</sup> UNE, Victoria, and Canberra.

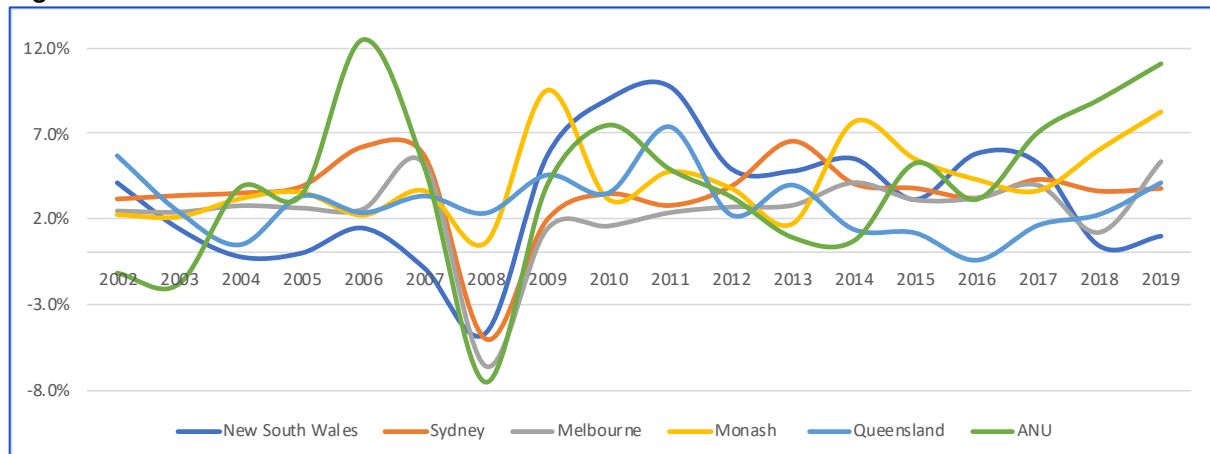


Deakin	7.5%	6.4%	8.3%	5.3%	4.1%	3.8%	2.4%	5.2%	2.6%	4.7%	5.0%	3.8%
Sydney	3.4%	2.8%	3.9%	6.5%	4.0%	3.8%	3.2%	4.3%	3.6%	3.8%	3.9%	3.8%
Wollongong	14.9%	5.4%	2.4%	1.9%	2.6%	4.8%	4.5%	7.5%	0.9%	1.9%	4.7%	3.7%
QUT	4.2%	5.3%	8.0%	4.3%	2.5%	2.3%	3.5%	6.1%	2.0%	5.1%	4.3%	3.6%
UNSW	9.0%	9.8%	5.0%	4.8%	5.6%	3.2%	5.9%	5.3%	0.4%	1.0%	5.0%	3.5%
Melbourne	1.6%	2.4%	2.7%	2.8%	4.1%	3.1%	3.2%	4.0%	1.2%	5.3%	3.0%	3.5%
Western Sydney	5.0%	1.2%	4.3%	0.3%	7.3%	2.7%	2.2%	2.6%	4.2%	0.9%	3.1%	3.3%
UWA	3.7%	3.4%	6.5%	7.4%	5.1%	1.8%	1.4%	4.2%	1.4%	5.3%	4.0%	3.2%
Swinburne	8.2%	7.0%	3.8%	6.5%	1.6%	1.5%	2.2%	11.1%	-0.8%	2.7%	4.4%	3.1%
Flinders	13.6%	6.3%	5.4%	5.5%	2.5%	2.5%	3.9%	3.4%	2.8%	3.2%	4.9%	3.1%
UTS	2.7%	2.3%	4.7%	4.7%	2.8%	2.1%	4.2%	4.0%	3.8%	1.4%	3.3%	3.1%
Adelaide	17.6%	5.9%	6.0%	10.0%	3.9%	3.7%	3.8%	4.0%	-0.2%	2.5%	5.7%	2.9%
Edith Cowan	2.6%	3.9%	3.2%	3.8%	3.1%	3.2%	2.6%	2.9%	2.2%	3.5%	3.1%	2.9%
RMIT	5.6%	3.9%	3.4%	3.3%	4.0%	3.3%	3.4%	2.4%	1.8%	1.9%	3.3%	2.8%
Griffith	6.3%	4.8%	4.3%	3.4%	3.5%	2.8%	2.0%	3.7%	1.8%	2.4%	3.5%	2.7%
UniSA	7.0%	8.5%	3.6%	7.4%	2.9%	5.2%	3.4%	1.1%	1.6%	1.7%	4.3%	2.7%
Southern Cross	2.8%	4.7%	1.9%	-2.9%	6.1%	-	7.1%	-1.6%	0.0%	6.0%	2.2%	2.6%
La Trobe	10.1%	7.9%	3.3%	3.9%	1.2%	5.4%	2.9%	2.3%	2.2%	1.4%	4.1%	2.6%
James Cook	2.7%	5.8%	3.0%	2.1%	7.6%	3.4%	2.1%	-0.7%	0.7%	1.0%	2.8%	2.3%
Charles Sturt	2.6%	5.7%	3.1%	7.1%	4.6%	3.9%	3.2%	3.1%	0.5%	-1.6%	3.2%	2.3%
Macquarie	7.4%	4.6%	3.2%	4.4%	2.8%	1.5%	2.1%	1.8%	2.3%	0.1%	3.0%	1.8%
Queensland	3.5%	7.4%	2.3%	4.0%	1.4%	1.2%	-	1.6%	2.3%	4.2%	2.8%	1.7%
Federation	7.9%	10.0%	11.9%	0.8%	0.6%	1.2%	0.1%	-0.8%	1.0%	5.3%	3.8%	1.2%
Murdoch	4.5%	5.1%	9.2%	4.2%	0.7%	-	3.9%	-0.1%	0.9%	1.9%	3.0%	1.2%
New England	1.0%	5.8%	14.6%	4.0%	0.3%	4.3%	2.7%	1.1%	-5.6%	-1.2%	2.7%	0.2%
Victoria	4.8%	1.2%	-0.8%	0.7%	-2.0%	-	-	-3.0%	0.8%	3.0%	0.2%	-0.7%
Charles Darwin	3.5%	2.7%	5.1%	2.0%	1.2%	-	-	-2.7%	-4.2%	-1.7%	-0.2%	-2.6%

Source: DESE finance publications. Calculations by author.

Table 11 shows that several universities that experienced financial pressures earlier in the period could recover their positions by 2018. They include ANU, Canberra, Sydney, Tasmania, and Western Sydney (Tasmania data reflects the transfer of funds from the University Foundation to revenue).

**Figure 57: Return on assets – research-intensive universities**



Source: DESE finance publications. Calculations by author.

## 3.8 Implications

The financial performance data presented in this chapter points to the very substantial growth in university revenues and assets over the last 20 years. However, the financial performance data suggests that there is currently little cause for concern about the higher education system's financial viability. State auditors-

general have not raised the alarm (Audit Office of New South Wales 2020, Victorian Auditor General's Office 2020).

Although standard liquidity ratios have been falling, universities have become much more adept at managing their financial affairs and substantial financial investments. They can also call on highly liquid “non-current” financial assets should a short term liquidity event arise.

From a perspective of corporate finance, the focus on financial management may detract from a focus on building investments in education assets to deliver high-quality education outcomes for current and potential Australian students.

Despite the boost in revenues from international students, universities have also achieved their financial strength by exercising tight control over staff costs, particularly academic staff costs to deliver target operating results and margins. This is a pattern that is consistent with most industrial corporations wanting to build financial strength and increase shareholder value.

However, increasing shareholder value is not necessarily a behaviour that education policymakers want to see in predominantly publicly funded government owned statutory corporations. Policymakers should be interested in *public value* – the value that a university contributes to society and the broader common good.

There is a view emerging, and reflected in the *Job ready graduates package*, that government funding intended for teaching purposes should only be used for teaching and not be diverted into investments that strengthen university balance sheets.

In Germany, for example, the federal audit office has issued a series of “stinging” criticisms of universities in recent years, accusing them of using funds earmarked to improve teaching to build up a financial buffer, deployment in construction projects, and the failure to improve staff-student ratios (Matthews 2020). As in the Australian federal system, there is a tension -

The broader problem for German universities is that they are caught between the demands of their local states, which generally give them the financial autonomy to spend money how they wish and build up reserves, and the federal government, which is playing an ever-greater role in funding but demands a strict audit of certain types of spending.

The implication of a rule in Australia that teaching money is *only* for teaching purposes will profoundly impact university finances. Suppose universities are prevented from making *any returns* on Australian government teaching money. In that case, they will be under pressure to explore other revenue sources, such as research commercialisation and other profit-making ventures, to finance growth. Or they may need to revise their growth ambitions to concentrate more on public value creation. Different universities will likely be forced to take different approaches.

The growing wealth and financial strength of the Australian higher education system are associated with many paradigmatic changes in the system's organisation, delivery, and operation. These are addressed in the next chapter, which provide the basis for further consideration of system performance and building the case for diversification that can accommodate different value creation approaches.



## 4 A changing paradigm: higher education in the 21<sup>st</sup> century

The gap between the rhetoric and reality addressed at the end of the last chapter reflects a more fundamental change in the nature of higher education that has emerged in the early part of this century. Part of this is due to extending access to higher education and focusing on the importance of higher education to get a job. But there are more deep-seated changes in the system's structure and performance that will call for a fundamental rethink about how higher education is planned, organised and delivered as the 21<sup>st</sup> century unfolds.

As the knowledge economy framework and innovation systems approaches emerged in the 1990s (den Hertog and Bilderbeek 1997, OECD 1997, Bryant 1998) an expectation and a new narrative emerged about university centrality education and research for economic development and growth. This narrative became a prevailing wisdom among innovation analysts and industry economists. However, over the last 20 years, the strength of the narrative has been wavering as the environment of higher education delivery changes and is required to confront new expectations. These include:

- Disruptive forces
- The nature of the campus model
- Student age profiles and shifting demands
- The mix between undergraduate and postgraduate education
- Increasing attrition rates and falling completion rates
- Differing patterns of international and domestic demand
- Downplaying the importance of the humanities, arts, and social sciences
- A growing priority of research over teaching
- An increasing proportion of professional managers and administrators
- Expectations about the expanding role of higher education in regional economic development

Each of these factors is considered in this chapter.

### 4.1 Disruptive forces

Ten years ago, there was a surfeit of predictions of major disruption in higher education, and potential chaos, with declining quality standards in teaching and research (Keller 2008, Wildavsky, Kelly et al. 2010, Bailey, Henry et al. 2011, Christensen and Eyring 2011). Many of the prognoses have turned out to be a little off the mark, whilst others have come into play. This is due, in large part, to complacency, substantial resistance to change, and other factors that tended to embed the *status quo*:

- Many opinion leaders regard higher education as delivering a superior qualification to an occupationally oriented vocational or technical one. Of course,

this argument is flawed, with blue-collar and white-collar technical qualifications being able to generate more in lifelong earnings and career opportunities.

- Demand for a university education benefitted from the substantial under promotion and underinvestment in public technical and further education and a broken VET system in many states, following misguided attempts to push contestability as part of the national micro-economic reform agenda in the 1990s. The systemic roting of the VET FEE-HELP scheme by private colleges uncovered in 2015 (Australian National Audit Office 2017) did not help the sector's brand or reputation.
- None of the 36 publicly funded universities has gone bankrupt or has yet experienced long-term financial difficulties. Many had responded to structural problems in their business models, particularly concerning high fixed cost structures (notably staffing costs). Growing international student income provided a cushion for financial stress.
- There was some comfort among policymakers and commentators for universities to look similar (neater) in a unified national system without understanding or appreciating the alternatives and advantages offered by a more diverse system.
- An extensive (and growing) structure of detailed regulatory oversight that limits opportunities for innovation. The unified national system has become a comprehensive "rules-based" system.
- The presence of overseas private universities in Australia is not strong.
- Mass online open courses (MOOCs) have not yet eaten into the traditional universities market. Existing institutions have embraced MOOCs through the formation of collaborations and consortia.

These factors have created an atmosphere of comfort and complacency. But this is coming to an end with current financial pressures combined with a range of other factors:

- Even before COVID-19, the competition in the international student market had been intensifying. Moreover, the Australian Government is seen as "unwelcoming" by international students. State/territory governments have tended to see the international student market in commodity terms<sup>38</sup>
- Professional organisations, such as the big accounting firms, and industry associations, offer their own "bespoke" higher education qualifications
- Competition from the VET sector, as students and parents realise that students don't have to go to university to get a good job
- States are starting to sort their TAFE businesses out, although there is a long way to go<sup>39</sup>. This has involved re-building capacity and capability, re-establishing brand, and creating a reputation as a credible higher education provider

<sup>38</sup> That is, a focus on "student recruitment" to contribute to state/territory economic development by their spending on goods and services, rather than longer term educational partnerships between overseas higher education providers and formation of strong alumni relationships.

<sup>39</sup> No state has advocated setting up TAFEs as public organisations like universities. They suffer financially by being part of state/territory budget sectors in terms of capacity to invest for the longer term.

- State/territory governments are taking a much higher degree of "ownership" of their TAFE systems and building them into their skills planning and industry strategy agendas
- State TAFEs offer a range of university qualifications as accredited higher education providers and are partnering with universities in pathway programs towards the award of bachelor's degrees
- Private TAFE's growing its profile in terms of brand, reputation, and quality - particularly in the creative and technology-oriented industries (e.g., multimedia, gaming, augmented and virtual reality)

Regulatory constraints, including limits on universities' ability to charge higher fees for domestic students for prestigious courses in high demand, may limit rationalisation and restructure opportunities. There may also be resistance from business and the community.

University leaders and commentators are now very aware that they must embrace a digital environment to make their institutions "future-proof", as represented in the text box below (Vermeulen 2020).

#### **Why Universities Will Be Disrupted in a Digital World**

- New educational opportunities created by digital technologies

New technology means that content can be delivered to students in new and different ways. Content can be made more accessible. For instance, classes can be organised and paced in a more relevant way for a faster-moving digital generation. The "consumption" of educational materials can also be made more flexible. More and more universities now offer the possibility of following distance-learning courses. Multimedia and online resources (think YouTube, Coursera etc.) offer interesting and useful content that can easily be integrated into the classroom.

- External demands of the market

New technologies are transforming the global economy. The result is that universities find themselves under more external pressure to adapt to these new realities. They have moved from old-economy signalling mechanisms (prestige university degrees, finance sector pedigree) to freelance marketplaces, crowdfunding campaigns and Instagram portfolios. In this world, the most successful platforms will need to find and engage creative thinkers in innovative, mutually rewarding ways."

- Potential risk for universities.

If they don't rethink education, they will find that a university degree is no longer the "signalling mechanism" of talent that it once offered. As such, universities will be forced to adapt. The "market" will demand an education that provides skills and knowledge appropriate to a digital age.

Source: <https://hackernoon.com/why-universities-will-be-disrupted-in-a-digital-world-52bdc3f05782>

These factors have led to renewed prognoses, particularly from the global consulting firms, about disruption, its implications, the opportunities for rationalisation and offers of advice (Evans-Greenwood, O'Leary et al. 2015, Driessen 2017, Hazan 2017, Constantinou and Moyseos 2020, Parker 2020).

The reality is, however, that higher education is *already* in the midst of digital disruption. That this is true is no longer hotly debated. Online learning emerged over 2 decades ago as a technology category that enables a range of potentially disruptive business models. No longer do students need to convene at a central location to enjoy a real-time, interactive experience with a teacher and peers (Horn

2020). They can instead participate from anywhere in the world, more affordably and conveniently.

In the US it is estimated that in 2018 35.3% of students took at least one online course as part of their accredited higher-education experience, and over 16.6% studied exclusively online. The proportions are higher for postgraduate education, where 30.7% of postbaccalaureate students studied exclusively by distance education (National center for education statistics 2020).

In Australia the proportion of entirely internal students has fallen from 77.0% in 2013 to 71.4% in 2018. The number of students studying externally has increased from 186,084 in 2013 to 242,843 in 2018. Similarly, numbers learning in a "multi-modal" format has risen from 115,444 in 2013 to 204,591 in 2018.

Most universities now offer online courses, although the full impact of disruption is some way off. Online is being used to sustain what they already do: they continue with the lecture room model, for example. They do not take advantage of the available technology to make education cheaper. Paradoxically, online delivery has often resulted in more centrally created controls and "procedures" to maintain and "assure quality", but it often results in bland standardisation that limits fast change or any innovation and experimentation.

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*As in other industries, sustained change and disruption are likely to come from the outside and take existing institutional forms by surprise.*

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Disruption is also occurring through the development and application of platform technologies in education, research, and administration. Cloud-based platforms – e.g., [Blackbaud](#) - create software that helps higher education providers with student relationship management, marketing campaigns (student recruitment), advancement (fundraising), finance and accounting, and analytics.

Digital technologies are transforming the way students learn and is changing the long-established university campus model. While world-class universities in both teaching and research may be less vulnerable than other institutions, digital disruption is already underway and has the potential to send traditionally structured comprehensive campus-based universities into decline, particularly where these institutions are located in the older parts of cities and have weak links with industry, government (including the public health and hospital system), and the broader community.

The COVID-19 pandemic has had the effect of accelerating online learning in Australia as higher education institutions sought to transition their teaching programs to online or remote learning and assessment. In late mid-2020, TEQSA commissioned a study that aimed to understand the nature of students' experience in the transition process (Martin 2020).



The study identified the following most critical issues that needed to be addressed -

- IT-related issues
- Academic interaction
- Examinations
- Staff expertise with using the IT applications
- Academic issues associated with particular disciplines or type of study

The study report observed

In addition, lack of access to libraries emerged as a significant concern to students. It appeared this was related to not having a quiet place to study but also contributed to the sense of isolation because libraries are now a major contributor to students' socialising with their peers. The expected health and well-being issues such as the economic impact of the virus on individuals' employment, housing and finances were evident in the survey responses but overall, these were not mentioned as frequently as the above academic matters (Martin 2020).

These issues sit behind the discussion in section 4.6 below (p 91) regarding course attrition and completions, which are comparatively very high for students studying online. The government has sought to address this problem through initiatives such as the regional universities centres program established initially as the regional study hubs program<sup>40</sup>.

## 4.2 The campus model of the university is changing

The traditional perspective is of an open campus (an estate) with buildings containing lecture and tutorial rooms, libraries, student amenities, including bars and cafeterias, on-site craft breweries, and student accommodation – with free movement between all. It has been seen as a self-contained community – *a city of intellect*.

The campus, and the university, have a tradition of hosting and supporting clubs and societies, including clubs that participate in local competitions, and a broad range of special interest groups. It was a closed society for personal development and building life-long friendships and networks. This atmosphere was built during a time that university education was mostly free.

Campuses now tend to be more welcoming of people from outside the university. Campuses have always welcomed visiting scholars to use libraries and participate in academic seminars, conferences, and events, but this role is being extended. More recently universities have been making facilities available to people outside the academic community for conferences and events on a commercial basis, providing catering services, and hosting indoor and outdoor concerts for the public at large.

Over the last 10 years, there has been a massive investment in campus buildings, lecture rooms, and academic facilities. An extensive range of other "spaces" are being built with multiple purposes with an eye to income generation. This includes providing office accommodation and other commercially oriented facilities for

<sup>40</sup> <https://www.dese.gov.au/regional-university-centres>



medical, pharmaceutical, and technology corporations, public and private hospitals, and housing.

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*Capacity to generate revenue is central to developing the business case for new building investment. It has involved the active participation of property developers and state government economic development agencies and Australian government infrastructure funds (e.g., "City Deals").*

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At the same time, regional and outer metropolitan-based universities have been establishing CBD based satellite campuses, located in high rise office towers, to attract part-time professional students, particularly in postgraduate management and commerce fields and education. CBD locations facilitate engagement of professional and visiting lecturers and tutors.

While this has been going on, students tend to spend less time on campus as they listen to lectures online, read pre-prepared reading handouts and concentrate on absorbing the content of prescribed texts. With the broadening entry into university education, and as students' demographic moves into older age groups, and the focus of tuition moves from undergraduate to postgraduate courses, students are more likely to be in fulltime or part-time work or engaged as a carer of children of family members.

There is also a view that the future of crowded inner-city campuses may be under challenge. Ironically, the more expansive outer suburban and regional campuses may become more attractive as students become less enchanted with online learning isolation. Comprehensive campuses are attractive as innovation hubs, science and technology parks, and innovation districts. On the other hand, several universities are scaling back their extensive outer urban campuses and making space available for housing and related developments and relocating to CBD locations. No-one can predict what will happen with any certainty.

As the building work goes on, campuses are beginning to look less like the vibrant social communities they once were and more like commercial centres. They carry legitimacy through branding as centres for innovation. Still, their integration with the university's undergraduate academic and community life requires a lot of work and commitment from university and industry leadership. However, some universities have done this well through robust and inclusive campus development plans driven by academic priority<sup>41</sup>.

Nonetheless, campus leaning, with extensive investment in teaching spaces, libraries, cafeterias, open spaces, and attendant overheads, is a costly form of education delivery. With the emergence of a post COVID hybrid model, existing campus building spaces will need to be restructured in context of online and face to face contact for academics, professional staff and students. It is likely that

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<sup>41</sup> UTS and the Ultimo campus development program.

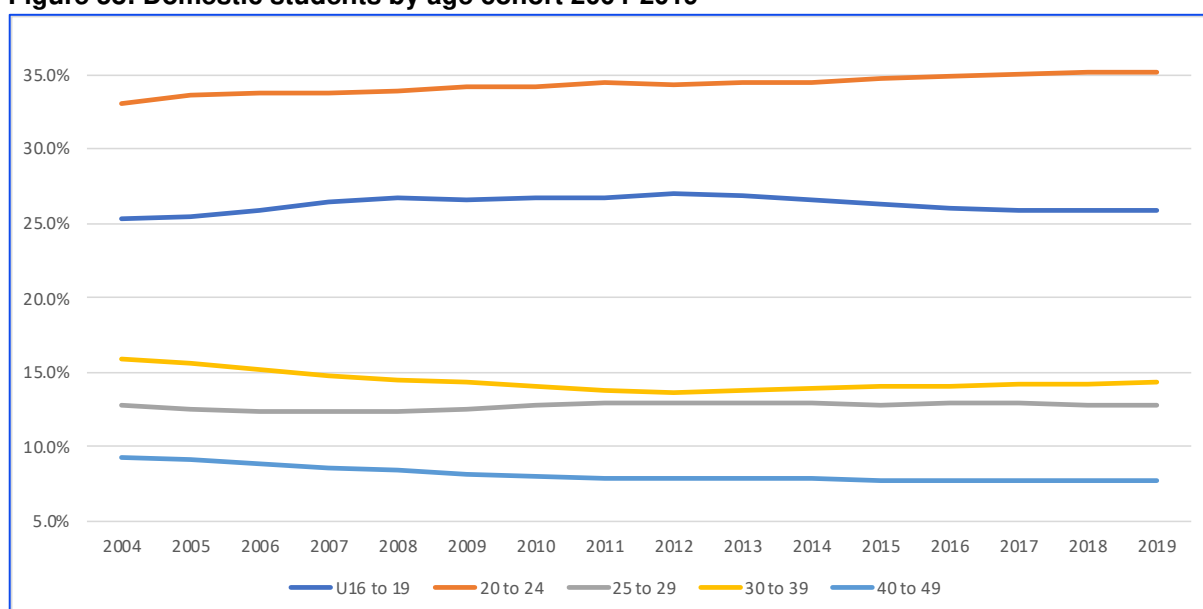
significantly less space will be required, and other uses will need to be found. Accordingly, a university campus will become less focussed on a place for education and more as an asset for making money.

### 4.3 The student age profile is getting older

The proportion of domestic students in the under 16 to 19 year age cohort has been steady over the last 16 years. It is currently at 25.8% of the total, having been 25.3% in 2004. However, it peaked 27.0% in 2012 when the demand-driven funding system was getting up speed.

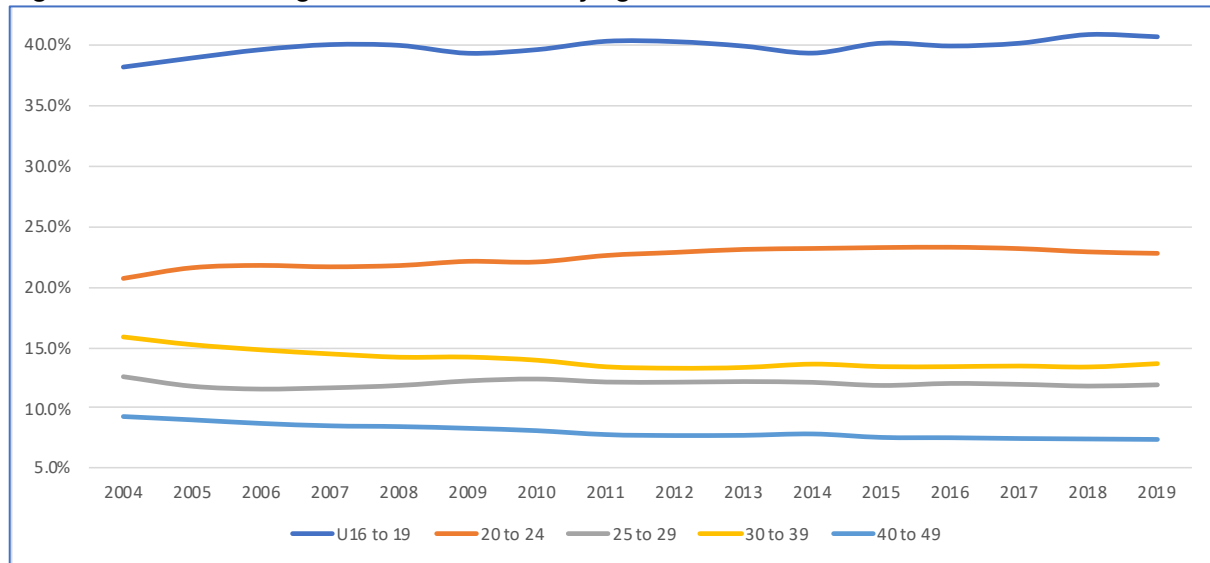
The largest cohort is the 20-24 age group, at 35.2%, having increased from 33.1% in 2004. While there has been growth in the 25-29 cohort, the 30-39 group has fallen since 2004 but growing again from 2012. Trends in broad age cohorts are shown in Figure 58.

**Figure 58: Domestic students by age cohort 2004-2019**



Source: DESE Student Data. Calculations by Author.

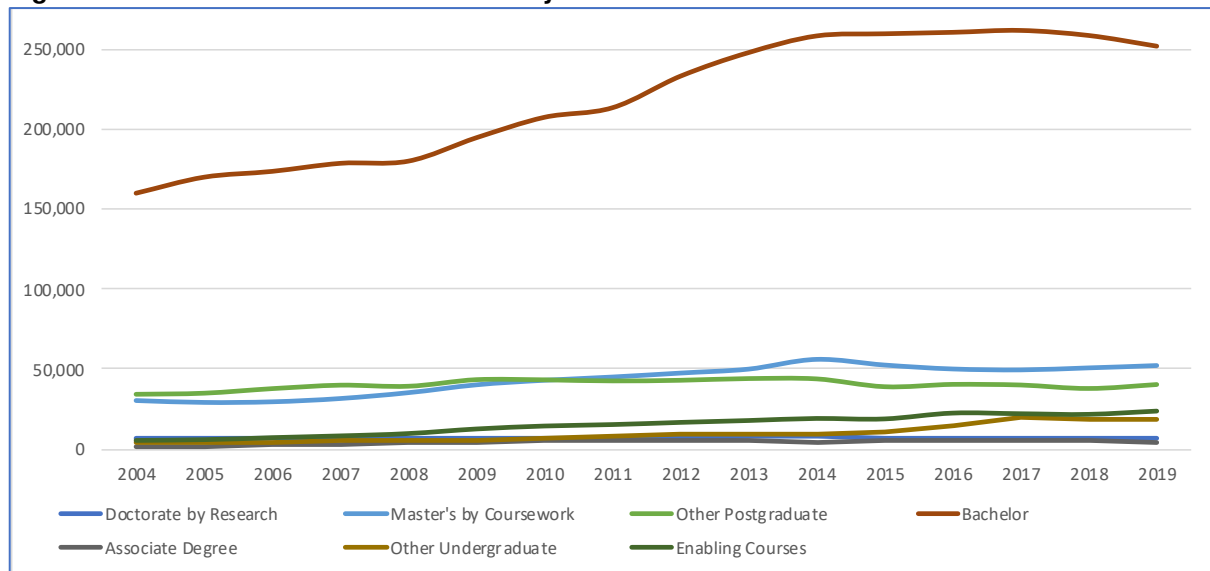
It is clear from the data that only 40% of students are school leavers, with just over 20% deferring until they reach the age of 20. The proportion of commencing students in the school leaving age group has remained stable at around 40%. A quarter of students do not commence until age of 30.

**Figure 59: Commencing domestic students by age cohort 2004-2019**

Source: DESE Student Data. Calculations by Author.

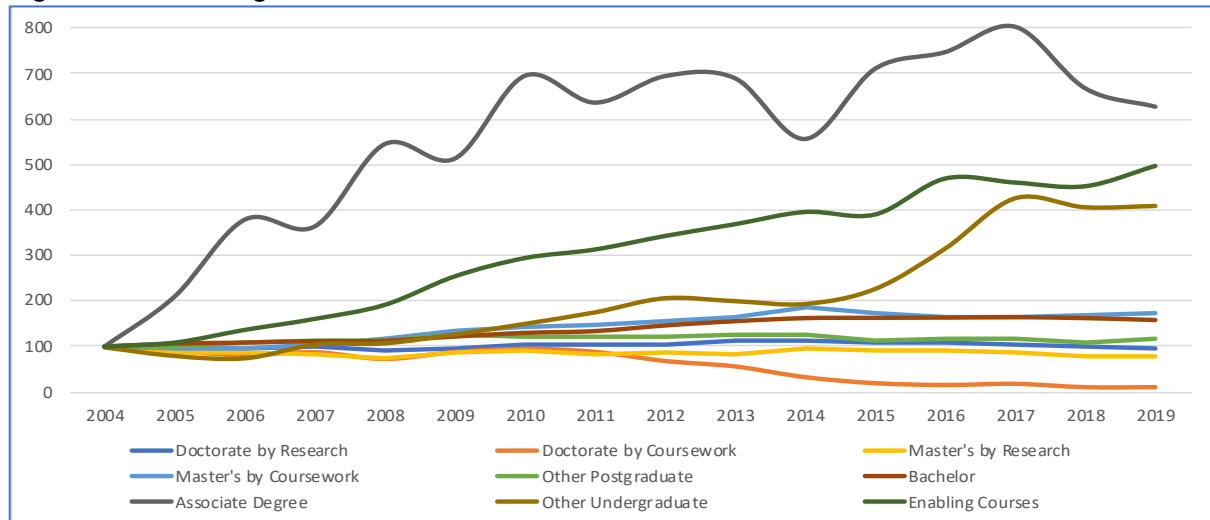
## 4.4 Domestic student demand is shifting

Domestic demand for university courses is concentrated in bachelor courses, representing 62% of total enrolments in 2019, down from 63.6% in 2014. Demand has shifted towards enabling courses, and "other" undergraduate courses. In 2014 masters by coursework enrolments were 13.7% of enrolments but have since fallen back to 12.7% of the total. The fall in the proportion of PhDs from 2.6% in 2004 to 1.6% in 2019 is disappointing as is the fall in "other postgraduate" from 13.7% in 2004 to 9.9% in 2019. Trends are shown in Figure 60.

**Figure 60: Trends in enrolment numbers by course 2004-2019**

Source: DESE Student Data. Calculations by Author.

Figure 60 suggests that the Australian higher education system hit "peak demand" for bachelor courses in 2014. This is addressed further in chapter 8. A clearer picture of trends is revealed in terms of an index (base 100, in 2004) in Figure 61.

**Figure 61: Relative growth in domestic enrolments**

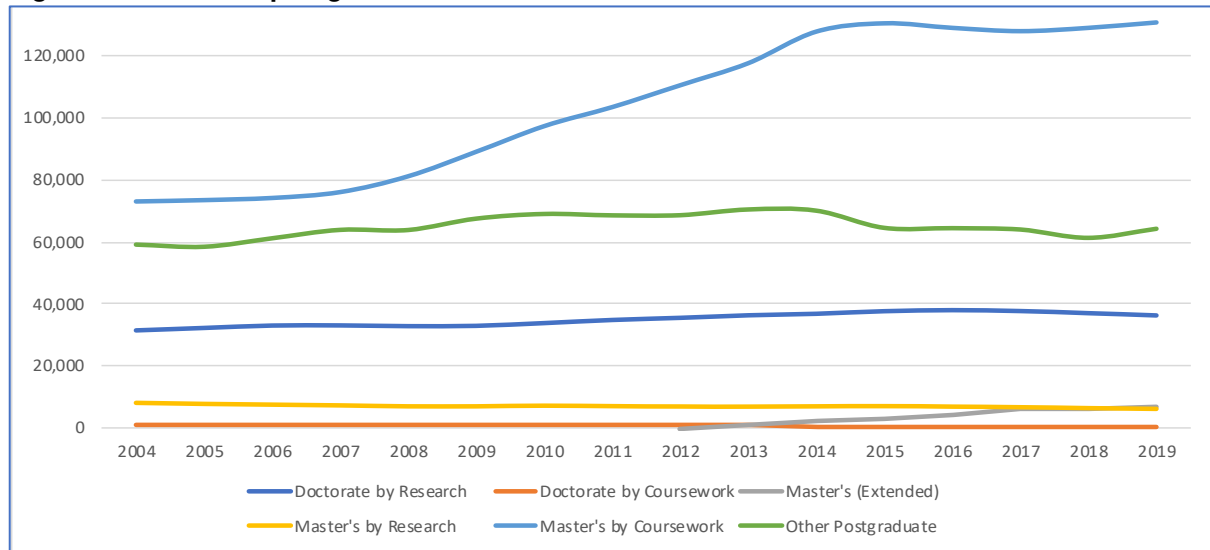
Source: DESE Student Data. Calculations by Author.

Figure 61 points to the significant growth associate degree programs, enabling courses and the "other" undergraduate category. Australian students have not taken to doctorate by coursework programs.

There is some anticipation of increased enrolments in 2020, associated with the economic downturn and an increase in potential students from the short term baby boom at the turn of the century. Vice-Chancellors are looking for growth through the international student market's return with pressure on governments for financial support. However, as argued in chapter 8, the higher education system issues are deeper-seated and structural. The forces driving this readjustment are addressed in the remainder of this chapter.

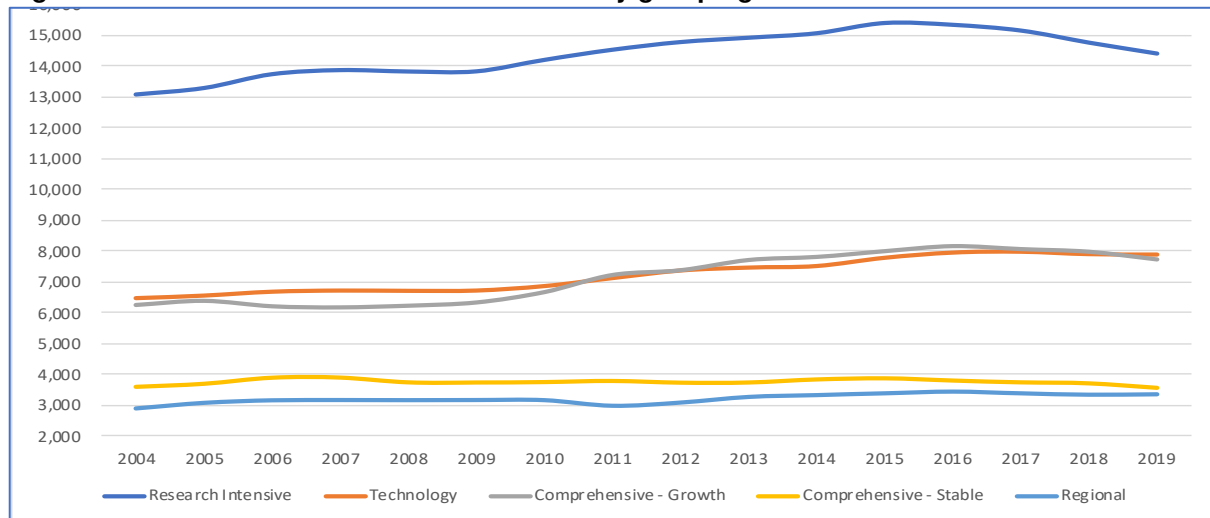
## 4.5 Decreasing priority to postgraduate education

The Australian commitment to postgraduate education has been faltering. Figure 62 shows that since 2015 PhD enrolments have been declining. Masters by coursework enrolments started falling in 2014. This is a disappointing trend for building Australia's research capability in higher education, government, business and more generally, the knowledge economy.

**Figure 62: Domestic postgraduate enrolments 2004-2019**

Source: DESE Student Data. Calculations by Author.

Figure 63 shows domestic PhD enrolments by university groupings and draws attention to the declining numbers of PhD students in the research-intensive universities. The decline is likely to have been much more significant in the absence of international research income applied by universities to subsidise domestic research in the form of PhD scholarships.

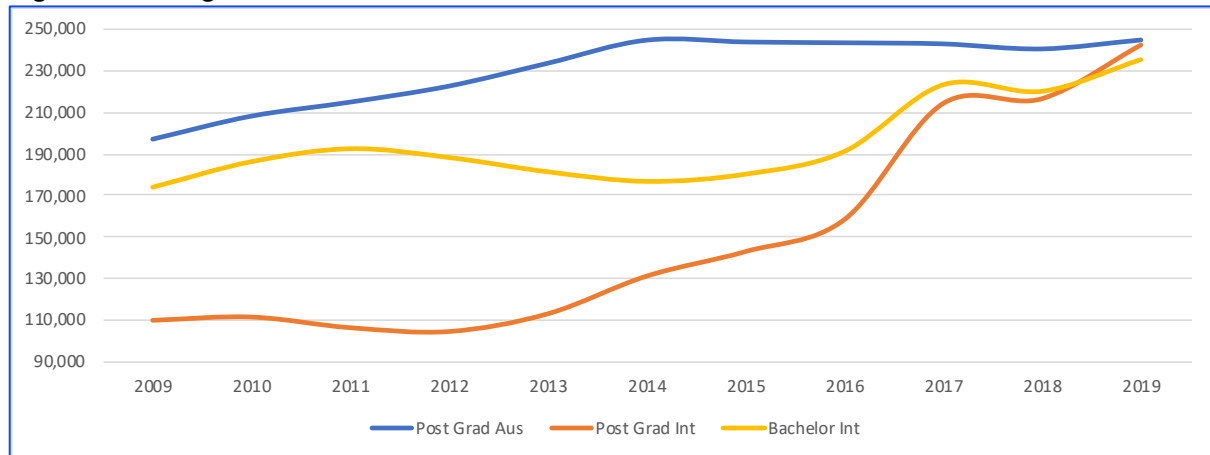
**Figure 63: Domestic PhD enrolments – university groupings 2004-2019**

Source: DESE Student Data. Calculations by Author.

Figure 63 also shows that technology and comprehensive-growth universities have increased their commitment to PhD programs. More detail on university groupings is at Attachment 3.

In 2019, as shown in Figure 64, there were similar numbers of international and domestic postgraduate enrolments. International postgraduate enrolments are now higher than the international undergraduate commitment<sup>42</sup>.

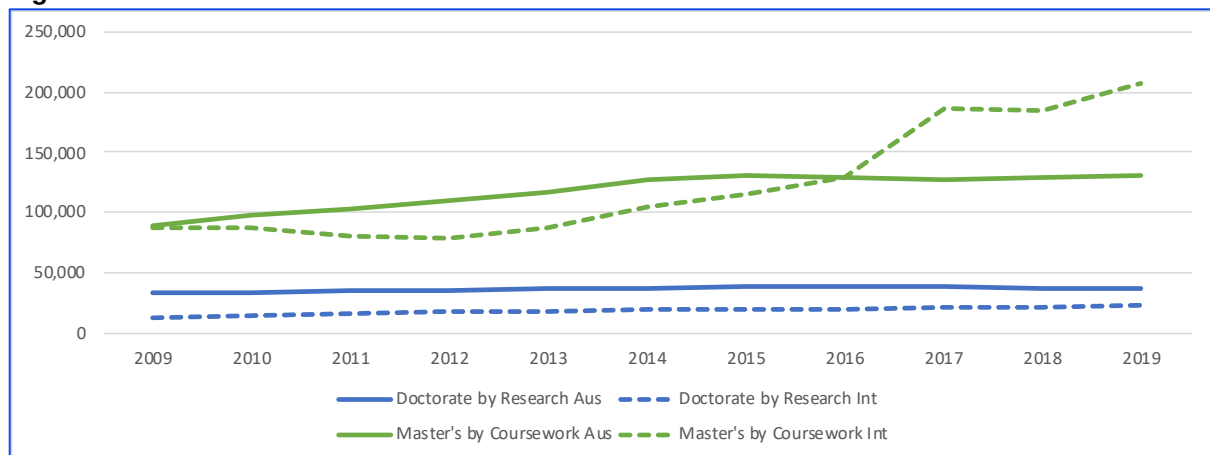
<sup>42</sup> Further information on enrolment trends by university grouping is in Attachment 3.1

**Figure 64: Postgraduate domestic and international enrolments 2009-2019**

Source: DESE Student Data. Calculations by Author.

*There has been no growth in Australian postgraduate education since 2014*

Figure 65 indicates that international student enrolments in masters by coursework programs now exceeds demand from domestic students<sup>43</sup>.

**Figure 65: Domestic and international doctorate and masters enrolments**

Source: DESE Student Data. Calculations by Author.

## 4.6 Attrition rates are increasing

University attrition rates are increasing, particularly at the bachelor degree level and for universities that responded to the demand-driven funding system's financial opportunity by accepting students with a lower admission rankings<sup>44</sup> (Australian Tertiary Admission Rank – ATAR). Over the period 2005-2018 attrition rates for students admitted to a higher education institution with an ATAR of between 30 and 49 fluctuated around 20%, whereas students admitted with an ATAR of 80 and over were less than 5%.

<sup>43</sup> Further information and discussion on international enrolments is in Attachment 3, commencing on page 199.

<sup>44</sup> The attrition rate for any year is the proportion of students who commenced a course in that year and who neither completed in that year nor the following year or did not return in the following year.

Attrition rates are also higher for low SES and regional groups

In 2017 The Higher education standards panel released a discussion paper, *Improving Retention, Completion and success in higher education* (Higher Education Standards Panel 2017). The paper noted 60 years of concern about attrition and made suggestions for providing greater student support. But the problem continues particularly for students with low ATARs, low SES status, and regional universities.

High attrition rates amount to a significant misallocation of public sector resources. Resources lost in attrition might have been better allocated to providing greater education and training opportunities in other tertiary education forms. The problem is not only providing student support in universities; it is also a matter of ensuring that students make the most appropriate choices in selecting institutions to secure a tertiary qualification.

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*As remarked earlier, students do not have to go to university to get a good knowledge economy job. Moreover, technical, creative, and trade based qualifications are increasingly knowledge-intensive<sup>45</sup>.*

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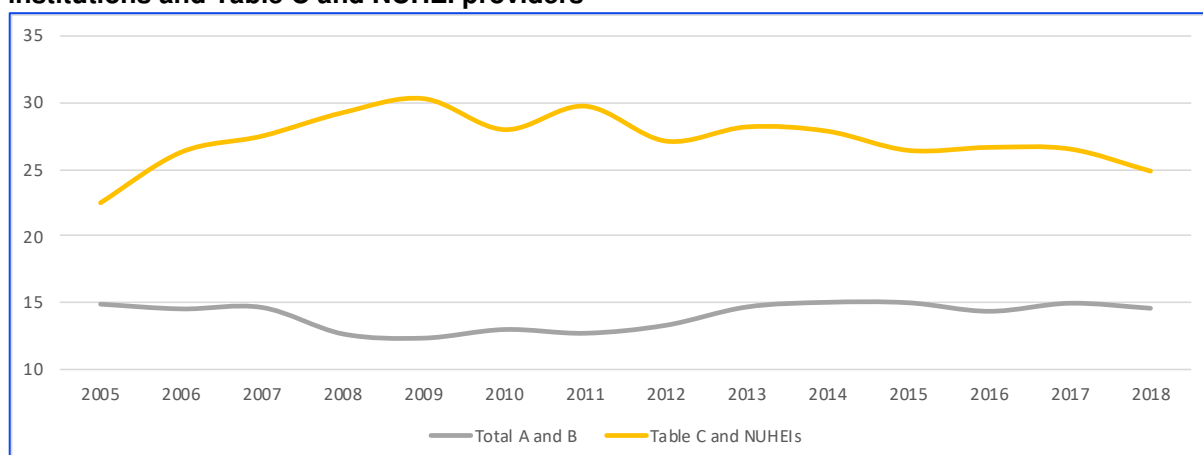
Figure 66 shows the trend movements in student attrition rates from 2005 to 2018 for Table A and B university providers and Table C and *Non-university higher education institution (NUHEI)* providers. For Category A and B providers attrition rates increased sharply from 2011 as student numbers increased following the introduction of the demand-driven funding system announced in 2008. Before 2009 attrition rates had been falling from a high of nearly 15% in 2005.

From 2009 universities had been aggressively recruiting students with a wide range of inducements (including free laptops) and dropping ATAR acceptance cut off points. The competition for students was intense. It is now widely appreciated that many of the low ATAR students were not well prepared for university.

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<sup>45</sup> This argument is made by Dr John Howard in the *Capabilities for Australian Innovation* project for the Australian council for the learned academies Howard, J. H. (2016). *Securing Australia's Future - Capabilities for Australian enterprise innovation. The role of government, industry and education and research institutions in developing innovation capabilities - Issues arising from key informant interviews and matters for policy consideration*. Canberra, Australian Council for the Learned Academies. and in Howard, J. H. (2020). *Challenges for Australian Research and Innovation*. Sydney, University of Technology Sydney. Acton Institute for Policy Research and Innovation: 91.

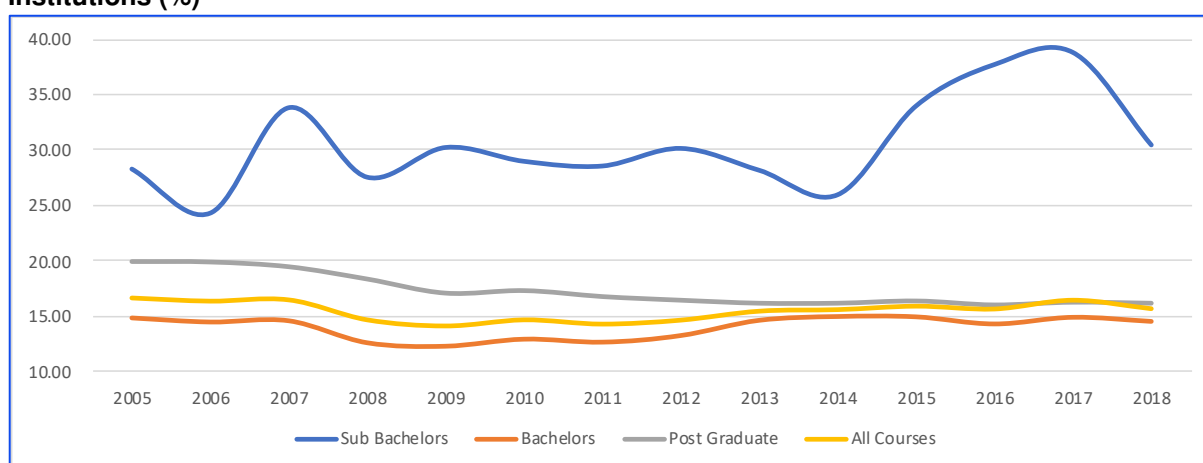
**Figure 66: Attrition rate for domestic commencing bachelor students at Table A and B institutions and Table C and NUHEI providers**



Source: DESE Student Data. Calculations by Author.

Figure 67 shows attrition rates for domestic students by level of course. There has been a long term downward trend in postgraduate attrition and an overall increase in attrition in bachelor's courses from 2009. The substantial increase in attrition in sub-bachelor's courses from 2014 possibly indicates student disenchantment with university education and the availability of other options for gaining associate degrees and advanced diplomas.

**Figure 67: Attrition rate for domestic commencing students by level of course at Table A and B Institutions (%)**



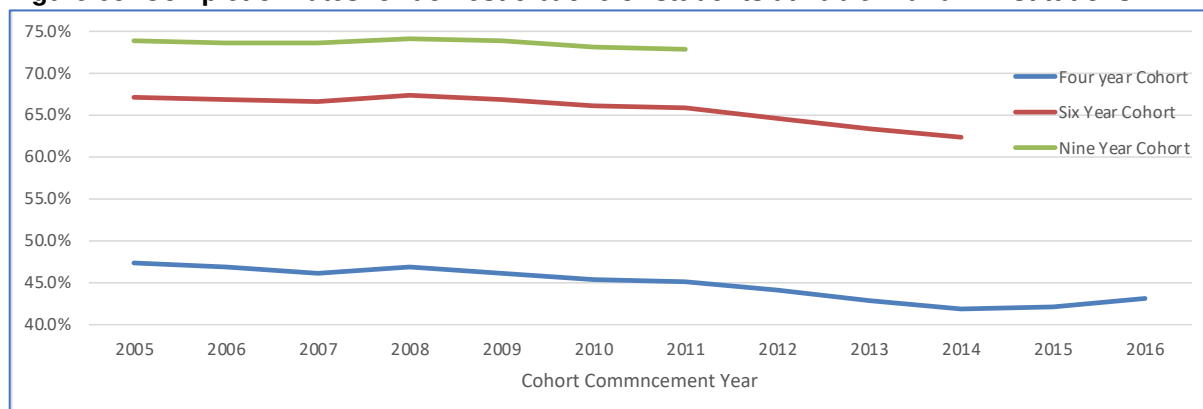
Source: DESE Student Data. Calculations by Author.

Further discussion of attrition rates is at Attachment 3 commencing on page 248.

## 4.7 Completion rates are trending down

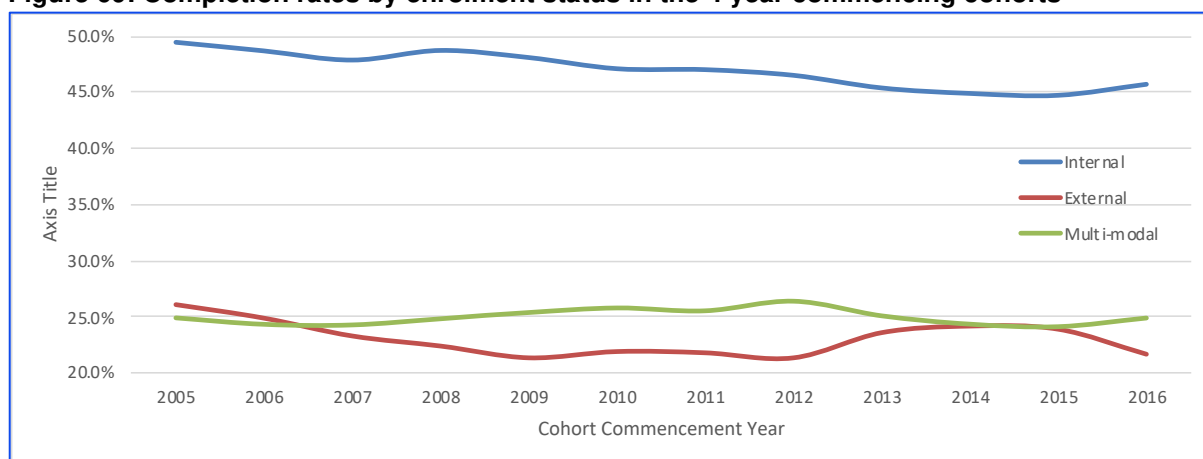
Figure 68 shows published completion rates for domestic students at Table A and B Institutions for the 4, 6 and nine-year enrolment cohorts over the 2005-2019 period. It indicates that the proportion of students completing a bachelor's degree within 6 years has decreased substantially since 2008, but since 2014 the 4-year trend has stabilised and is hovering around 42-43%. After 9 years about 72% of students have completed their bachelor's degree. This suggests that 28% of students are taking longer than 9 years or did not complete.



**Figure 68: Completion rates for domestic bachelor students at Table A and B Institutions**

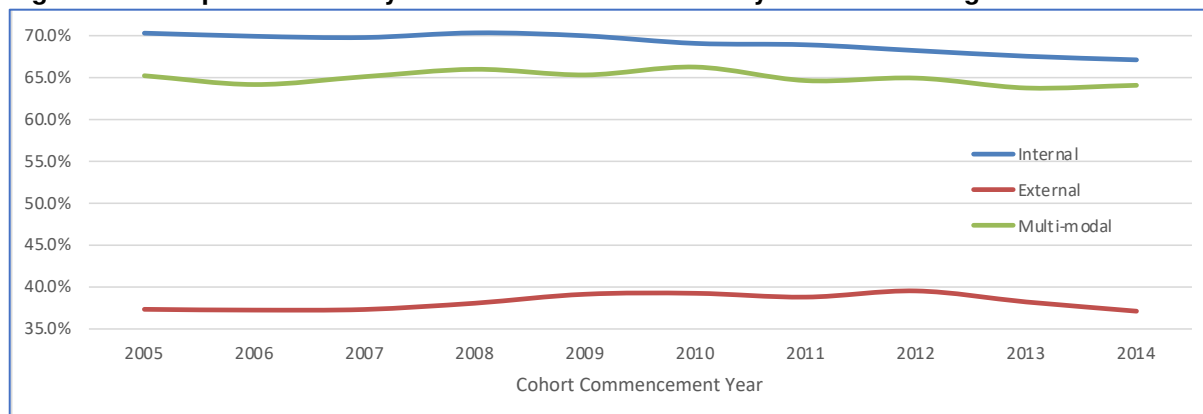
Source: DESE Student Data. Calculations by Author.

Completion rates among the 4-year cohorts are shown in Figure 69. This suggests that internal students have been taking longer to complete their qualifications, although the trend started to move upwards from the 2015 cohort – except for external students.

**Figure 69: Completion rates by enrolment status in the 4 year commencing cohorts**

Source: DESE Student Data. Calculations by Author.

As shown in Figure 70 completions are much higher in the six-year cohort, particularly in the multi-modal category. But the overall trend is still declining. Completions are still very low in the fully external category.

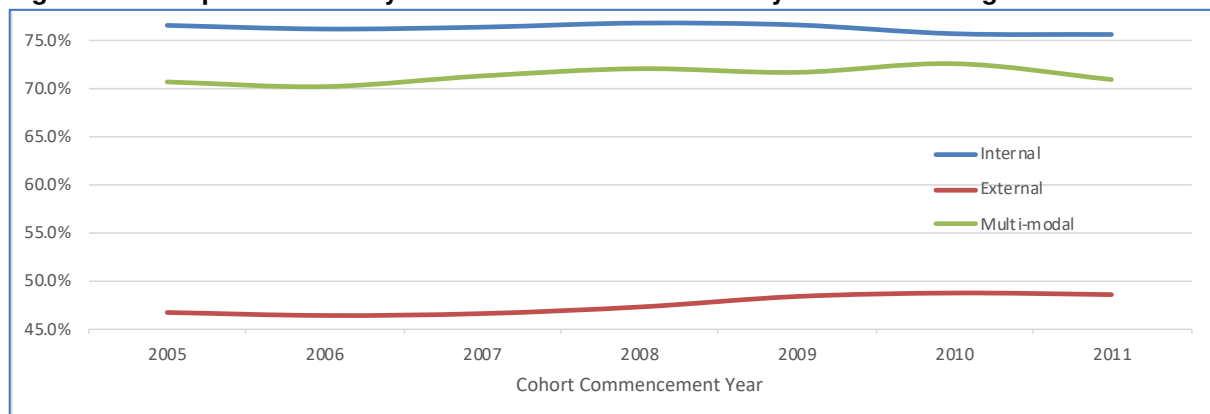
**Figure 70: Completion rates by enrolment status in the six-year commencing cohorts**

Source: DESE Student Data. Calculations by Author.

The trends in Figure 70 suggest that students do not do well in distance or online learning *unless they are supported with on-campus tuition components*. Support may be provided by university established study centres in capital city CBDs and regions. However, these can be expensive to operate with low student take-up. The government's regional university centres program<sup>46</sup> also aims to address the need to provide face-to-face tuition support.

As shown in Figure 71, completion rates for external students increase in the nine-year cohort by 10-15% (to just under 50% for the 2011 cohort). The increase for other enrolment categories is about 5% over the six-year cohort.

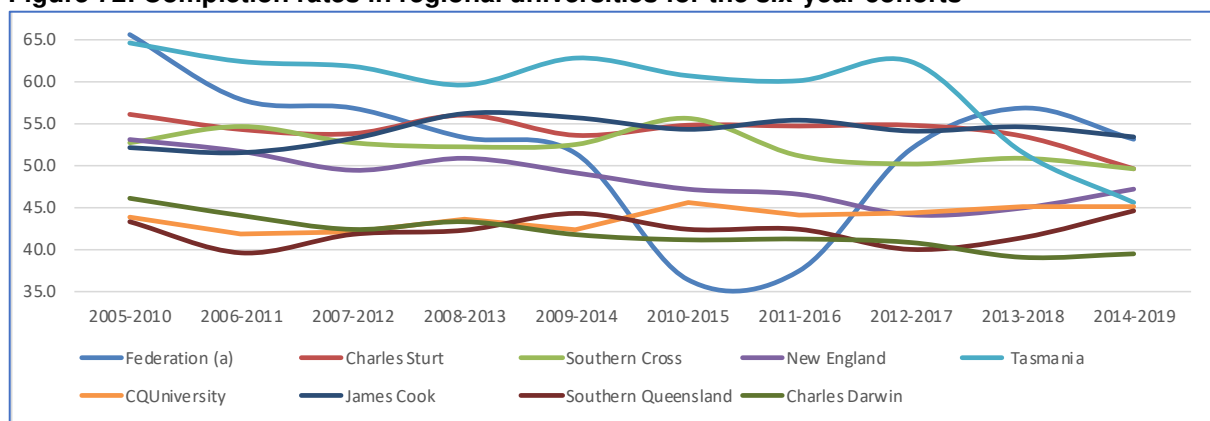
**Figure 71: Completion rates by enrolment status in the nine-year commencing cohorts**



Source: DESE Student Data. Calculations by Author.

These data point to a severe concern about the completion rates for external students, many of whom are enrolled in regional universities where completion rates for the 6-year cohort have been trending down with 7 of the 9 below 50%, as indicated in Figure 72.

**Figure 72: Completion rates in regional universities for the six-year cohorts**

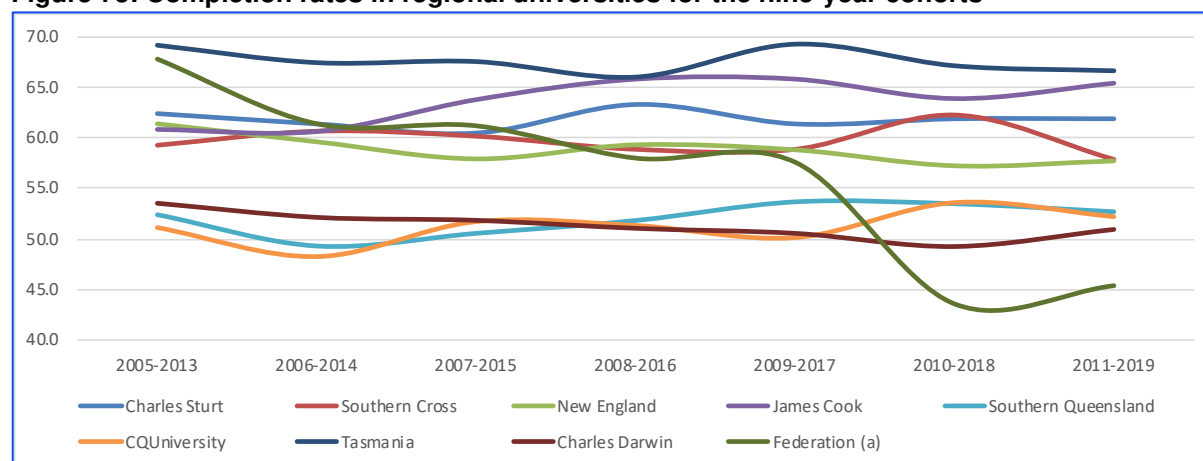


(a) The completion rates reported for Federation University are adversely impacted by a (now rectified) administrative problem in the university's student management system leading to the under-reporting of student completions prior to 2017

Source: DESE Student Data. Calculations by Author.

Figure 73 shows that regional universities' completion rates have generally increased to between 50-70% for the nine-year cohorts.

<sup>46</sup> <https://www.desse.gov.au/regional-university-centres>

**Figure 73: Completion rates in regional universities for the nine-year cohorts**

(a) The completion rates reported for Federation University are adversely impacted by a (now rectified) administrative problem in the university's student management system leading to the under-reporting of student completions prior to 2017.

Source: DESE Student Data. Calculations by Author.

Further discussion on completion rates in other university groupings are included in Attachment 3.

Low levels of completion are a matter of serious policy concern. They reflect many factors, including but not limited to universities' financial pressure to enrol low ATAR students who had more limited chances of success in academic/theory-based learning. Low ATAR students might have been better served by enrolling in non-university higher education institutions, or different institutions able to provide more intensive academic support or attend a more occupationally oriented learning institution.

The pressure for corporate universities to generate money has been a pervasive factor in rising attrition and falling completion rates, particularly in regional universities. Current government policies aimed at addressing this problem are steps in the right direction. Still, they need to tackle these initiatives in an *ad hoc* manner, requiring more rules and amendments to rules, points to a weakness in the one-size-fits-all unified national system.

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*Lifting completion rates and reducing attrition rates for externally enrolled students should mark the beginning of a paradigm shift in thinking about delivering higher education to regional and remote students.*

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That shift will require moving towards a diversified national system that reflects the fundamentally different contexts in which higher education institutions operate. This theme continues in the next section and is taken up in later chapters.

## 4.8 International demand differs from domestic demand

The Australian higher education system is heavily oriented to the international student market. In 2019 the *Effective Fulltime Student Load (EFTSL)* at Australian

higher education Institutions stood at 1,143,424 students<sup>47</sup>. Of these, 748,626 (65.5%) were domestic students and 394,798 (34.5%) were international. But there is little to suggest that international demand has skewed domestic demand into an international pattern. This may have been a lost opportunity as the Australian system continues to educate domestic students for what are often regarded as "old economy" skills.

The pattern of demand for courses between domestic and international students is shown in Table 12 below.

**Table 12: Student Demand: Domestic and International EFTSL 2019**

	Domestic Students		International Students		Total Students	
	No	%	No	%	No	%
Natural and physical sciences	102,018	13.6%	32,272	8.2%	134,290	11.7%
Information technology	28,996	3.9%	55,196	14.0%	84,192	7.4%
Engineering and related technologies	40,937	5.5%	40,470	10.3%	81,407	7.1%
Architecture and building	16,127	2.2%	9,743	2.5%	25,870	2.3%
Agriculture, environmental and related	9,794	1.3%	4,317	1.1%	14,111	1.2%
Health	137,516	18.4%	30,105	7.6%	167,621	14.7%
Education	65,636	8.8%	9,133	2.3%	74,769	6.5%
Management and commerce	85,665	11.4%	131,625	33.3%	217,290	19.0%
Society and culture	194,124	25.9%	58,563	14.8%	252,687	22.1%
Creative arts	64,487	8.6%	21,487	5.4%	85,974	7.5%
Food, hospitality, and personal services	226	0.0%	730	0.2%	956	0.1%
Mixed field programmes	3,102	0.4%	1,157	0.3%	4,259	0.4%
<b>TOTAL</b>	<b>748,626</b>	<b>100.0%</b>	<b>363,452</b>	<b>100.0%</b>	<b>1,143,424</b>	<b>100.0%</b>

Source: DESE Student Data. Calculations by Author.

Table 12 indicates that the pattern of domestic and international demand differs in several important respects:

- *Domestic demand* is relatively higher in the Natural and physical sciences, Health, Education, and Society and culture. There are 69,746 more domestic students in the Natural and Physical Sciences than overseas students, 107,411 more in health and 135,561 more in society and culture.
- *International demand* is relatively higher in information technology, engineering and related technologies, and management and commerce. *There are 26,200 more international students than domestic students in information technology and 46,590 more in management and commerce.* In Engineering domestic students outnumber international students by only 467.

Many international students in information technology and engineering stay in Australia to take up locally based employment. Management and commerce students can return to their countries of origin with a good knowledge of Australia, and more generally Western, business and financial institutions. Through alumni relations, this has beneficial impacts for Australian international trade and commerce. Developing these relationships, however, is very much in the hands of universities. governments (Australian and state/territory) appear to have taken little interest.

<sup>47</sup> This compares with \$1.6m actual students.

The strong areas of domestic course demand probably reflect a perception of job opportunities requiring skills and capabilities for established industrial sectors, such as Mining, Agriculture fisheries and forestry, public health, public administration, and a range of public sector-oriented industries (education, water and land management, and the broader natural environment). This perception is reflected in the more detailed classification of fields of education<sup>48</sup>:

- *Natural and physical sciences* – mathematics, physics and astronomy, chemistry, earth sciences (including geology, geophysics, soil science, hydrology) and the biological sciences (including biochemistry, ecology, marine science, genetics, microbiology and human biology) for jobs in established industrial sectors of mining, agriculture fisheries and forestry, natural resource management, and the health industry
- *Health* – medicine, nursing, pharmacy, dentistry, optometry, veterinary, rehabilitation, and public health (including occupational health and safety, indigenous health, health promotion, and community health) – for jobs in the large and growing and predominantly public sector health industry
- *Education* - teacher education, including early childhood, primary, secondary, vocational and English as a second language – for jobs in the education sector
- *Society and culture* - political science and policy studies, social welfare and services, law, justice and law enforcement, psychology, economics and econometrics, criminology and security services

The pattern of domestic enrolments is also largely an outcome of the demand-driven funding system, where *students* decided on what they wanted to study, guided by careers advisers, families and their preferences without much support from a higher education industry strategy that links to other areas of national industrial strategy.

The higher areas of international demand are in fields of education that relate much more to jobs in the *new economy*:

- *Information Technology* – covering computation theory, computer programming, data formatting and coding, management, storage and retrieval of information in a computer environment, robotics programming and artificial intelligence and systems analysis
- There are twice as many international students in this field of education than domestic students
- *Engineering* – covering aeronautics, engineering and manufacturing technology, food technology, land information technology and remote sensing, materials science, principles of design and drafting, planning and commissioning, plant and machine maintenance. There is broad equivalent in the numbers of international and domestic students

There is also a high level of international demand for *management and commerce* courses – covering general and business management, human and material

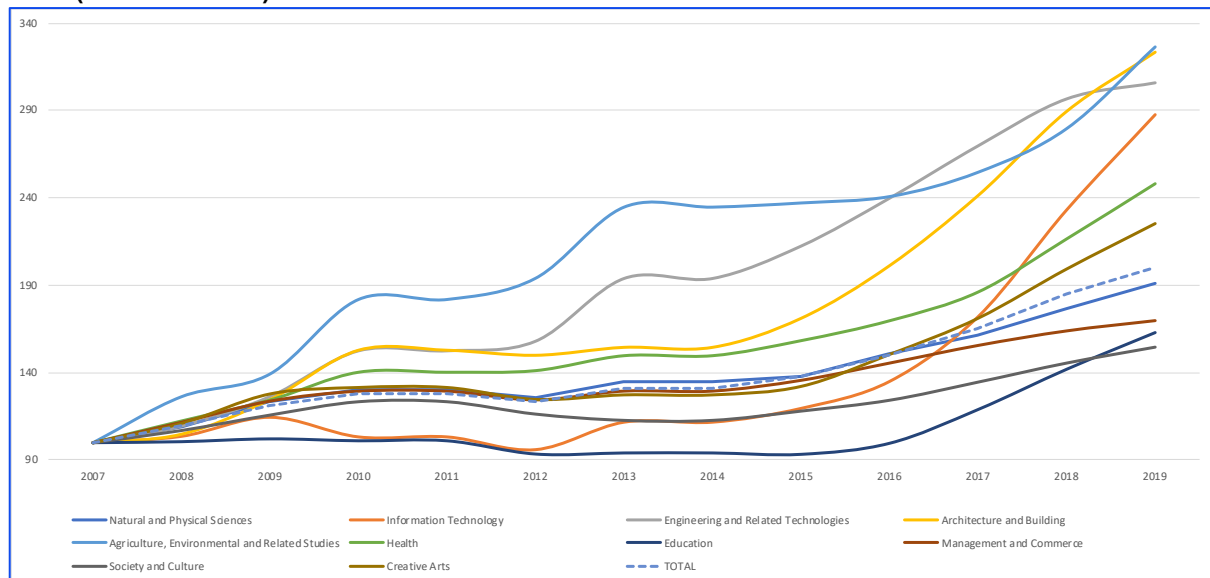
<sup>48</sup> See <https://heimshelp.dese.gov.au/resources/field-of-education-types#Section8>

resources management, sales and marketing, banking, finance and financial management, and Tourism. This may reflect a better understanding of the critical importance of management capacity and capability to industrial and economic progress by international students and advisers.

*It would appear that Australia has developed a higher education system that educates international students for skills in the new industries of the new economy, whilst catering for a domestic demand profile that addresses old economy skills.*

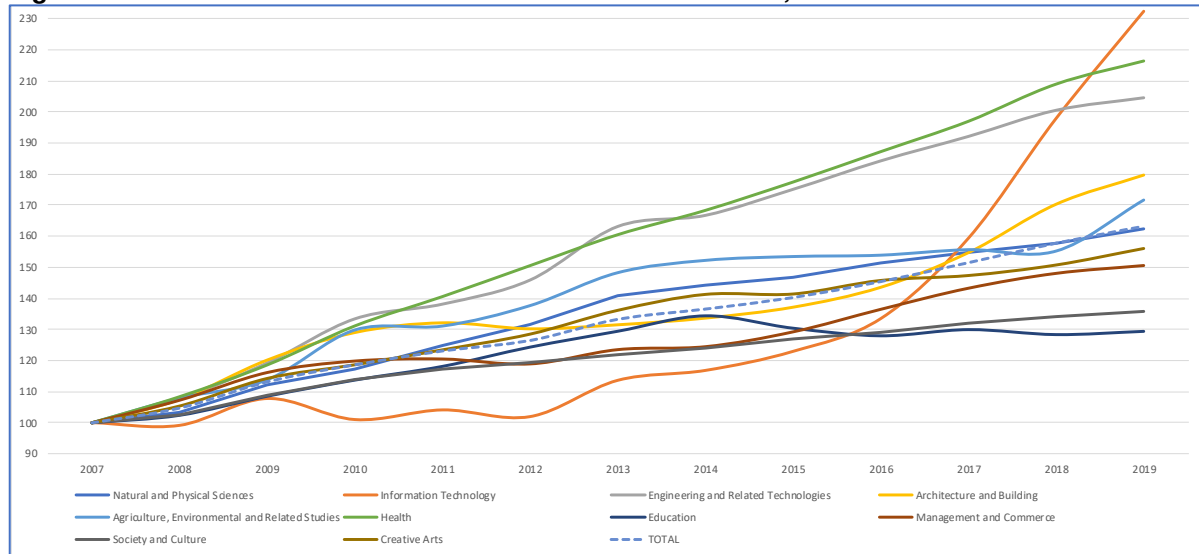
The comparative growth in international student EFTSL over the 2007-2019 period is shown in Figure 74, where the demand for courses in agriculture and the environment has been growing strongly as has demand in engineering, architecture and information technology.

**Figure 74: Index of growth in international students across fields of education, EFTSL 2007-2019 (base 100 2007)**



Source: DESE Student Data. Calculations by Author.

But even before the launch of the *Job ready graduates* package a domestic preference for STEM courses was becoming apparent. This is reflected in the increase of over 50% in students' natural and physical sciences (54.4%) and information technology (63.0%) over the 2007-2019 period. The trend growth in EFTSL shown in Figure 75 in terms of indexes (base 100 in 2007) draws attention to the remarkable increase in information technology enrolments since 2016.

**Figure 75: Growth in domestic students in fields of education, EFTSL 2007-2019**

Source: DESE Student Data. Calculations by Author.

Growth has also been strong in health and engineering and related technologies, driven by science community advocacy and student perceptions of opportunities. This growth pattern was reinforced in the 2020 *Job ready graduates package*, premised on an objective to increase enrolments in the engineering, education, and health disciplines and reduce the demand for society and culture and management and commerce disciplines by sending 'price signals' through the level of student contribution to courses.

## 4.9 Subverting the role of the humanities, arts, and social sciences

The 2020 *Job ready graduates package* (Minister for Education 2020) has sought to shift the emphasis in higher education towards STEM fields by lowering the student contribution to courses in science and technology areas. It has also reduced the level of student contribution for health and education courses on account of the "public good" component and shortages in these areas.

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*The government objective in the Job ready graduates package is to "incentivise students to make more job-relevant choices".*

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Simultaneously, the government has substantially increased the cost to students of an education in management and commerce and society and culture due to the perceived substantial private returns generated in these fields. *There are, of course, significant public returns in lifting Australia's management capacity through productivity returns (Green 2009, Green and Howard 2015) and essential social returns with greater capability and expertise in social welfare and social justice, criminology and national security.*

It is widely accepted that students graduating in humanities courses do better in the employment market than almost anyone else. Studies in the humanities create the



"soft skills" in writing, communication, and critical thinking. Employers argue that technical skills can be picked up on the job with the capacity to think and learn developed in the humanities (National Endowment for Science Technology and the Arts 2007, Howard 2016).

Margaret Gardner, chair of the Group of Eight research universities, recently pointed out that the *Job ready graduates* package ignored the evidence on which degrees actually lead to employment; that is people who do humanities and social science degrees get jobs at about exactly the same rate as science graduates, and that employment rates, covering either full-time or part-time work, for the 2 groups are roughly the same (Australian Policy Observatory 2020, Campbell and Johnson 2020)<sup>49</sup>.

The simple dichotomous relationship between the science and humanities disciplines is also inconsistent with economic and industrial history where knowledge and skills in Arts and creative practice are intimately interlinked with science and engineering in creating the products and services that consumers want and were prepared to pay for in a market economy (Howard 2008)<sup>50</sup>. Design is a much neglected aspect of Australian industrial strategy.

Knowledge and skills in the humanities is a fundamental underpinning for the values of a Civil Society<sup>51</sup>.

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*To be sure, HASS knowledge is essential for a civil society, but perhaps not to the extent that our system educates 3 times more students in these disciplines than in technology and engineering.*

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## 4.10 The priority of research over teaching

Universities have been created to provide education, undertake research, and engage with the communities in which they have been established. More often, however, their *success* is indicated by their research capability and performance, denoted by international rankings systems. Success is also celebrated by the extent to which research is adopted, applied, and used in industry. This is much more difficult to measure systematically, but several universities have built strong profiles around research adoption.

From published financial data, it isn't possible to ascertain how much universities actually spend on education, research, and teaching. Many still operate on an assumption that an *academic* staff member allocates 40% of time to teaching, 40% to research, and 20% to administration and service. However, the career incentives

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<sup>49</sup> Fact Check estimates the employment rate in 2020 for science graduates was 90.9 per cent. Meanwhile, estimates for humanities and social science graduates ranged from 91.4 to 93.6 per cent, depending on the definition used. Experts contacted for the Check said the relationship between graduate employment and the government's fee changes was not always consistent, with students being encouraged into some fields with poor job prospects.

<sup>50</sup> It is well understood that demand for the iPhone, and the price premium, is related as much to design as it is to the technology.

<sup>51</sup> Further information on student enrolments is provided in "Understanding Growth Drivers – Students" from page 149.



work towards maximising the amount of time spent on research – writing and preparing papers for scholarly publication and generating research income.

Most universities are focussed on growing their commitment to research, and particularly research excellence and relevance. Excellence brings prestige, or eminence, which can attract research income and international students, who pay substantial amounts in fees, which in turn, pays salaries of academic staff, who in turn, commit to further research. Relevance concerns the perceived importance of research to industry, government (public policy) and to the broader community in its quest for knowledge and expertise<sup>52</sup>.

There are only a few areas where universities push their capabilities in education and talent creation. The most prominent is in business education through business school offerings of prestigious MBA programs. However, there are a few measures such as time taken to secure employment after graduation, but there is little understanding of how new graduates bring new ideas, new perspectives, innovation, and new business growth.

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*While universities themselves value research commitment and performance, businesses value universities in terms of their ability to create talent. Students value them in terms of their ability to provide an education.*

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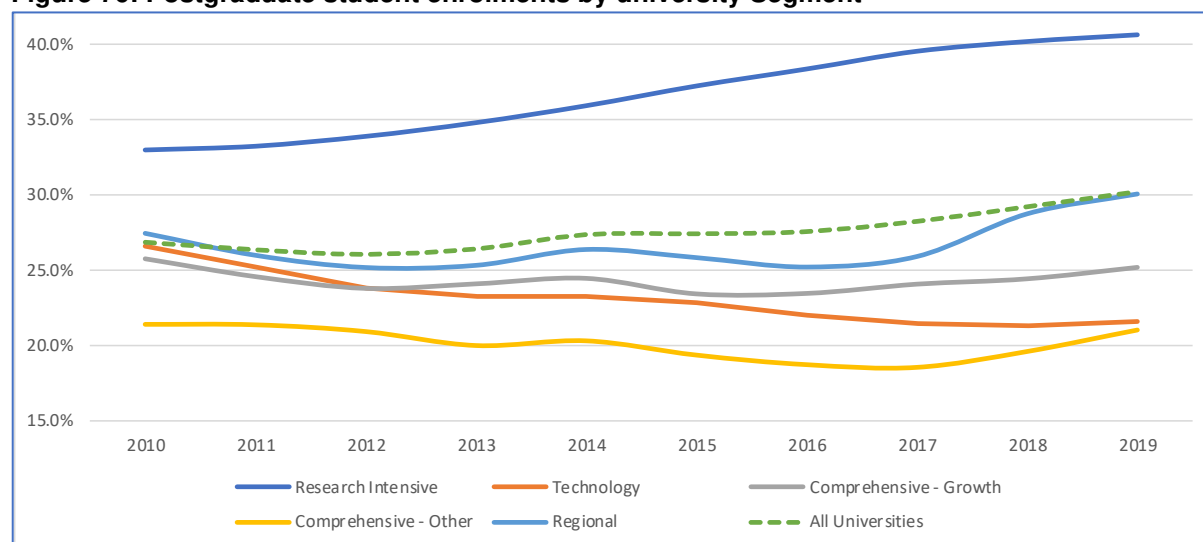
Very few of the 1.2 million students at Australian higher education institutions go there to do research. Consistently over the last decade, 70% of students study at the undergraduate (bachelor's degree) level. Most postgraduate students are concentrated in the research-intensive universities, as indicated in Figure 76 – a trend that is continuing to rise. As pointed out above, the growth in postgraduate enrolments has been sourced almost entirely from international students.

#### **4.10.1 Postgraduate students**

The generally upwards trends in postgraduate student enrolments across university segments are shown in Figure 76.

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<sup>52</sup> In this area universities now compete among a very broad range of knowledge sources, including think tanks, the press, professional organisations and self-styled experts.

**Figure 76: Postgraduate student enrolments by university Segment**

Source: DESE Student Data. Calculations by Author.

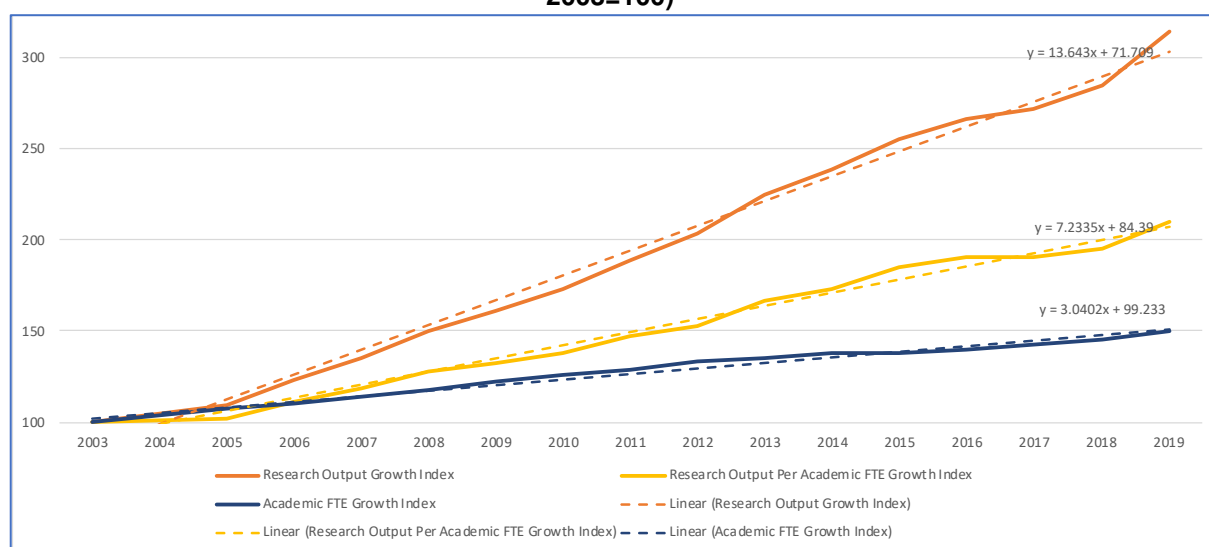
Of the total 456,777 students in postgraduate programs in 2019, 69.5% were in Master's programs, and most of these in Master's by Coursework. These programs are attractive to distance education offered by the regional universities, particularly in education and health fields. The upward trend in regional university enrolments from 2017 is apparent in Figure 76.

#### 4.10.2 Research output

By international standards, Australian universities are relatively new to the "research business". Commonwealth funding, outside of medical research, only began to increase in earnest with the establishment of the Australian Research Council (ARC) as a statutory body in 2001. This funding has been evenly split between the STEM and HASS disciplines. The amounts involved are still comparatively small in relation to overall operating revenues.

The phenomenal growth in research output indicates the priority for research. Figure 77 shows the average annual growth rate in research output (articles, books, book chapters) over the 2003-2019 period for all research for academic FTEs. It shows an annual average growth in output of 13.6%, an increase of 3.0% for academic FTEs and 7.2% for output per academic. Academic staff have been very productive in research, consistent with the incentives and metrics for publication.

**Figure 77: Growth in research output, academic FTEs, and output per FTE (growth index 2003=100)**



Source: Clarivate Analytics InCites web of science database.

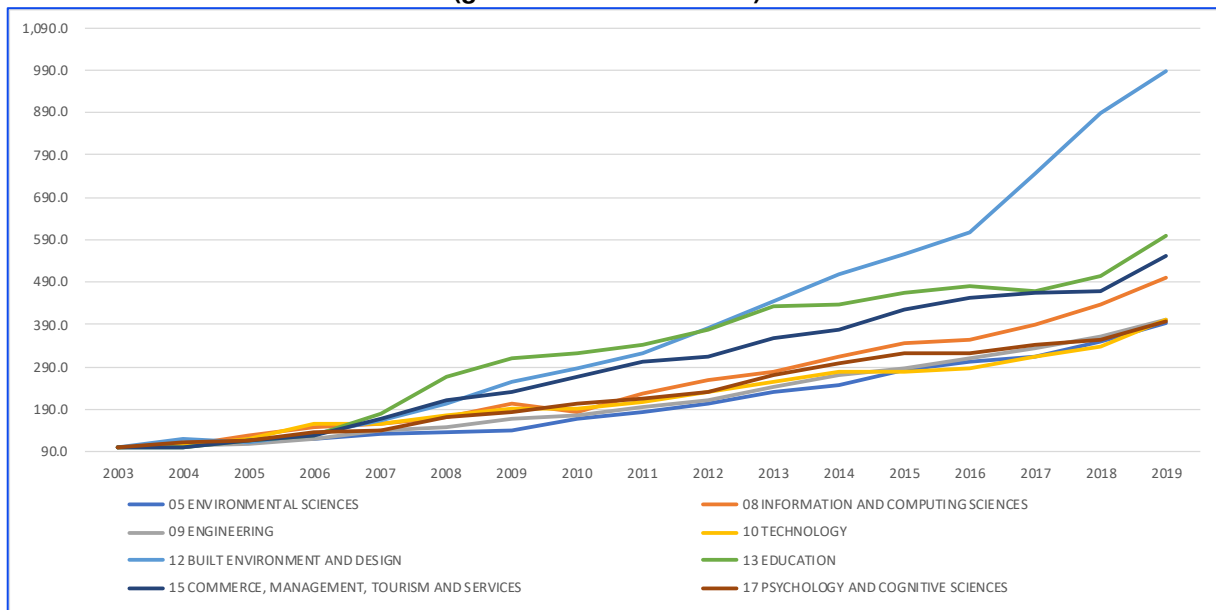
The commitment of academic staff to research is to be commended and has been instrumental in raising Australia's place in global university rankings. But the commitment may have come at the expense of commitment to teaching and learning. Also, and as indicated below, not all research output has been of good quality.

Whilst universities have been paid by the Commonwealth for both teaching and research, the actual allocation of staff time between those functions is uncertain. *The excess of staff time and costs over and above that required for teaching is commonly referred to as the teaching surplus.* Academic staff who have received external funds for research projects have been able to "buy-out" teaching time, which has been generally backfilled by casual staff.

The 2020 *Job ready graduate* package seeks to direct funding specifically to teaching and remove the "surplus" funds allocated to research. Presumably, the capacity for staff designated as "research active" to "buy-out" teaching time to pay casual staff for the teaching commitment will continue.

While Health and Medical Research has the most significant output of research (21.2%), other research fields have recorded the fastest growth rates. These are represented in Figure 78, and include Built environment and design, education, commerce, management, tourism and services, and information and computing sciences.

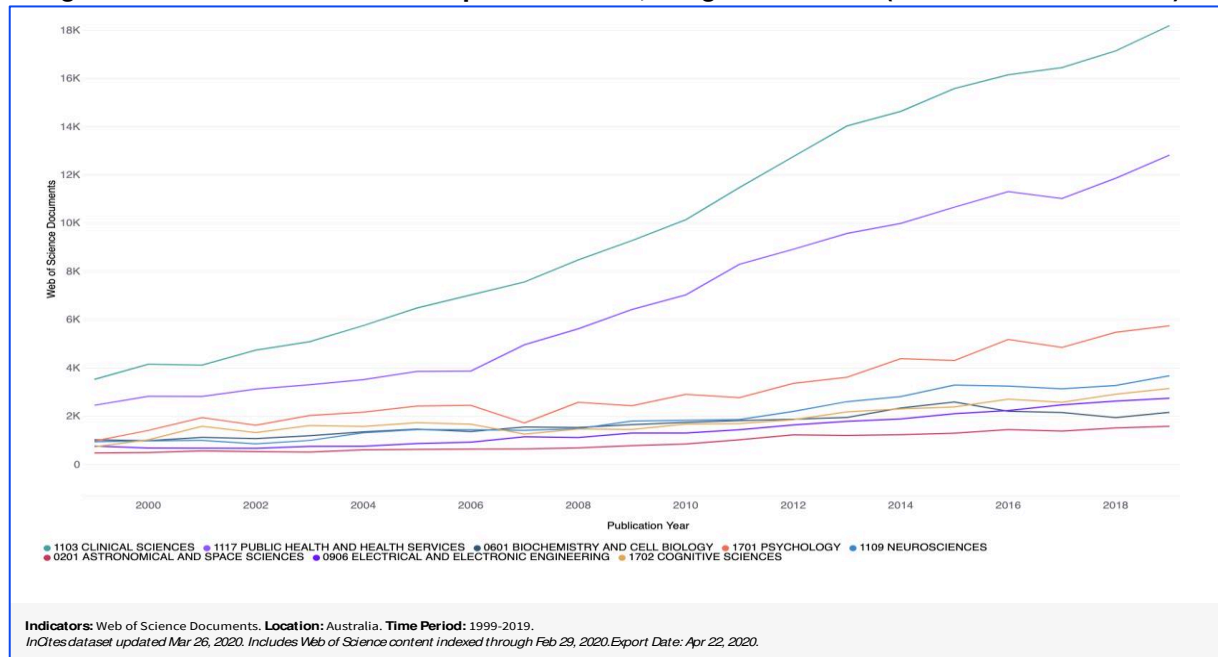
**Figure 78: Fields of research (excluding medical) with the fastest growth in research output (growth index 2003=100)**



Source: Clarivate Analytics InCites web of science database.

Many of these fields are undertaken in faculties/schools that have delivered profitable courses and/or have a high proportion of international students, suggesting that "teaching surpluses" are being applied to increasing research output. However, the volume (quantity) of research output does not necessarily translate into research quality.

Research output is also concentrated in several fields within the major categories, including Clinical sciences, Public Health and Health Sciences, Biochemistry and Cell Biology, Psychology, Neurosciences, Astronomical and Space Sciences, Electrical and Electronic Engineering, and the Cognitive Sciences. The growth in research output in these fields is shown in Figure 79.

**Figure 79: Growth in research output 1999-2019, 4 digit FoR codes (number of documents)**

Source: Clarivate Analytics InCites web of science database.

In Clinical sciences output increased from 2,253 documents in 1999 to 18,519 in 2019 and from 1,435 to 7,114 in public health. The concentration of output in medical and health sciences may have carried through to a growth of students in nursing and allied health disciplines. This is a commendable outcome as the demand for clinical and health services workers increases and will continue.

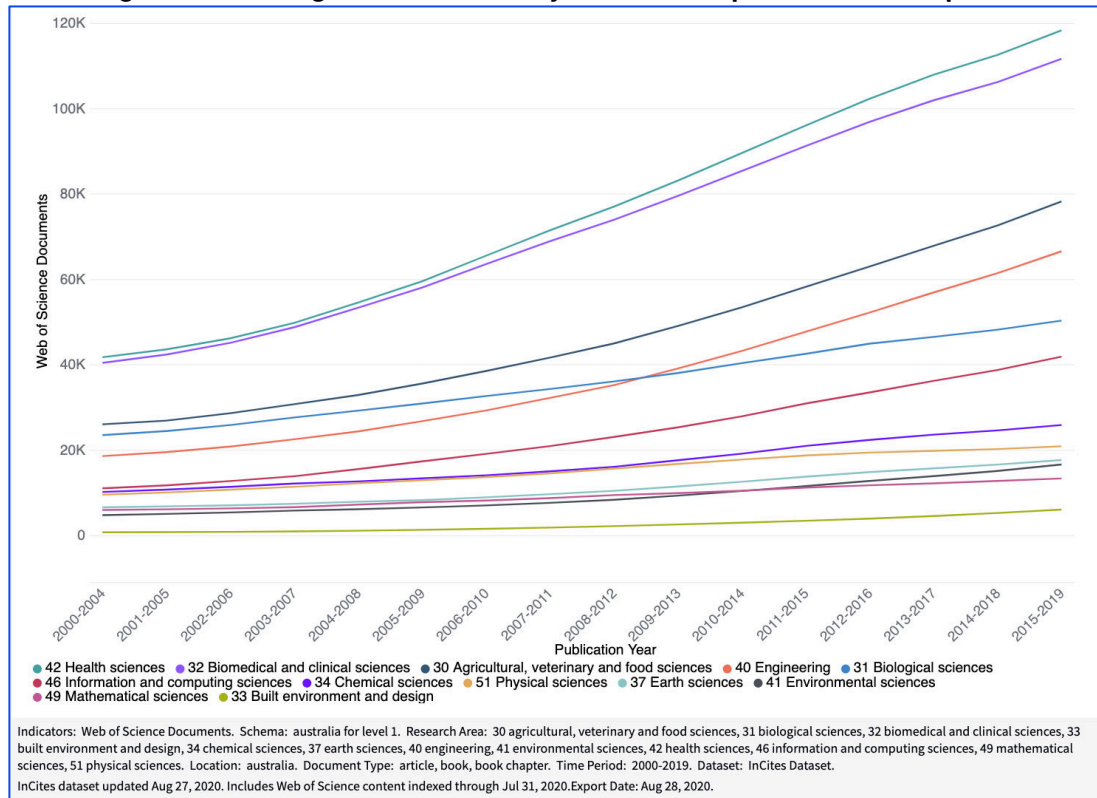
The increase in Australian medical research output is truly remarkable in comparison with other nations. However, the concentration may have come at the expense of building capacity in "new industry" technologies around engineering, technology and computer and information sciences.

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*Notwithstanding the research commitment, government policy is being directed towards delivering education in science, technology, engineering and mathematics (STEM) disciplines.*

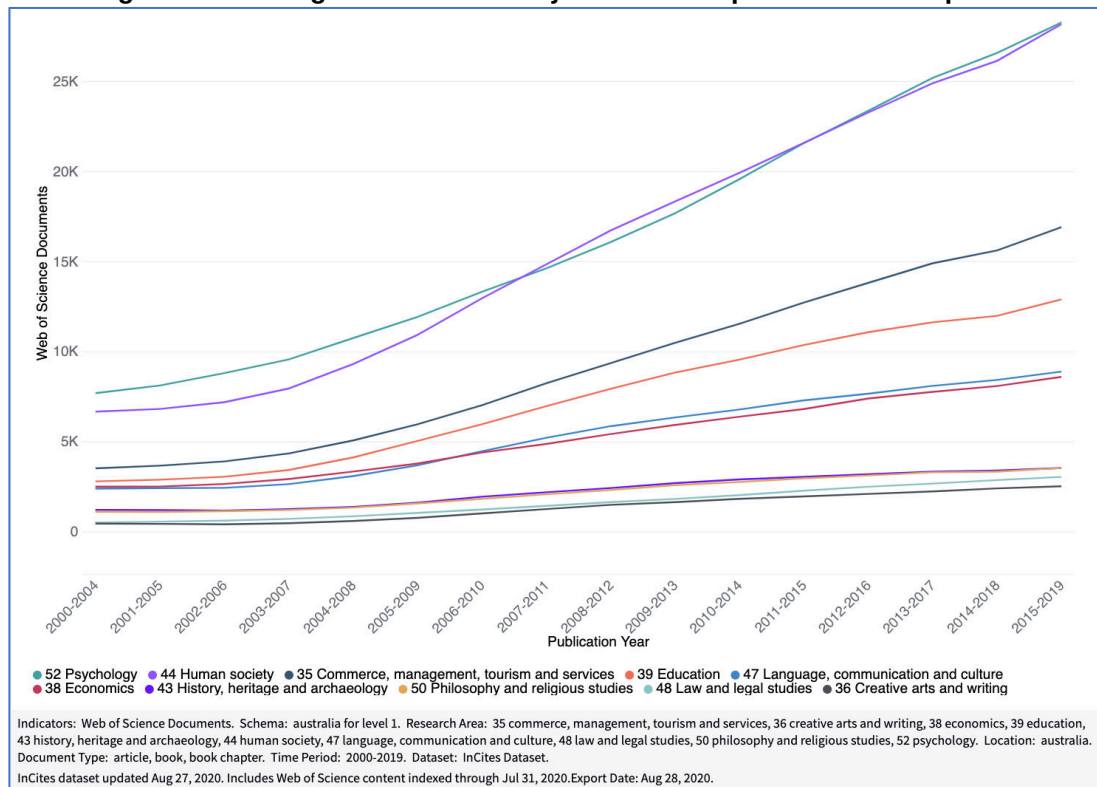
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Figure 80 shows the five-yearly trend increase in research output for the 10 STEM disciplines over the 2000-2019 period (articles, books and book chapters). The growth is particularly marked in 4 categories: health sciences, biomedical and clinical sciences, agricultural and food sciences, and engineering.

**Figure 80: Trend growth in university research output – STEM disciplines**

Source: Clarivate Analytics InCites web of science database.

Figure 81 shows the trend growth in research output for the HASS disciplines.

**Figure 81: Trend growth in university research output – HASS disciplines**

Source: Clarivate Analytics InCites web of science database.

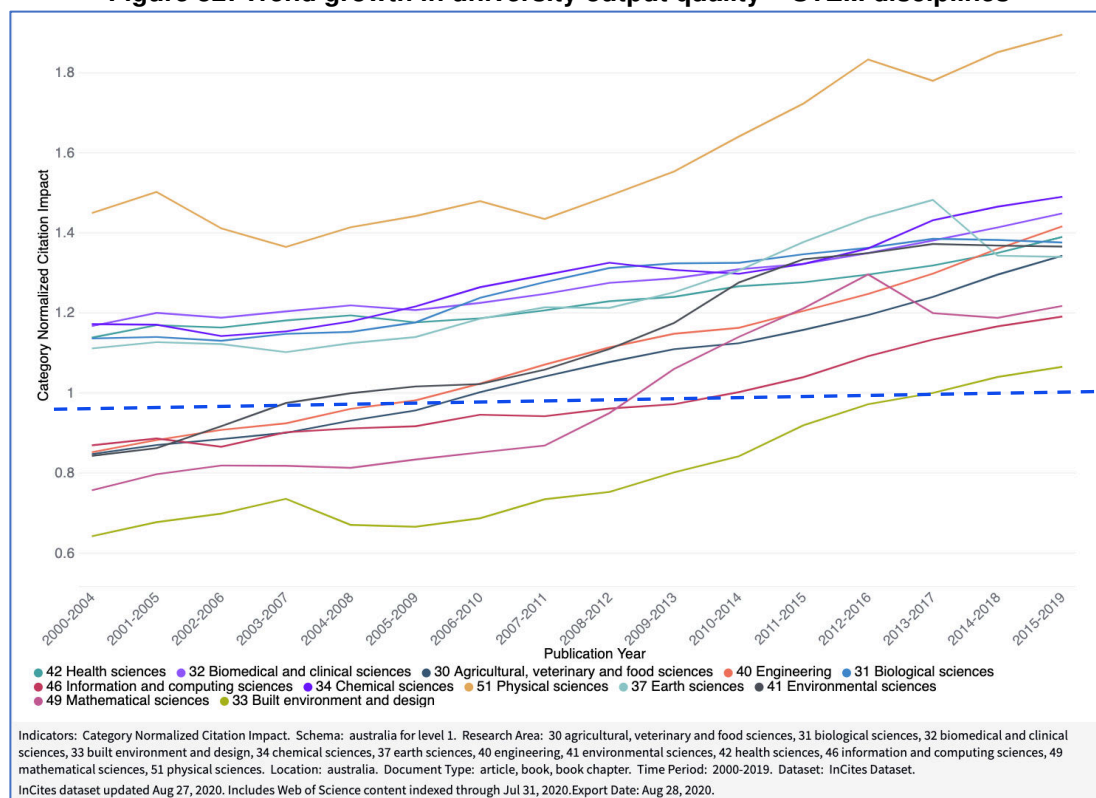
Output growth has been strongest in psychology and studies in human society.

### 4.10.3 Research quality

While the *quantity* of research has been increasing rapidly, the same may not be said for *research quality*. However, the movement of quality is uneven between the STEM and HASS disciplines.

Drawing on the Clarivate InCites *Category Normalised Citation Impact* (CNCI)<sup>53</sup> measure, Figure 82 shows the five-yearly trend movements in research quality for the STEM disciplines, for two-digit fields.

**Figure 82: Trend growth in university output quality – STEM disciplines**



The InCites data shows that there has been substantial growth in research quality in the technologically oriented (STEM) disciplines. This provides a reasonable basis for capturing research, development and innovation opportunities in the industries for the future. But the current meagre research investments must be increased substantially to seize these opportunities over the longer term.

Continuing investment in STEM cannot rely on the opaque, and largely discretionary, transfer of "teaching surpluses" to research. Opportunity capture requires specific and targeted investment from research funding Councils through channels outlined in the recent UTS occasional paper *Challenges for Australian Research and Innovation* (Howard 2020).

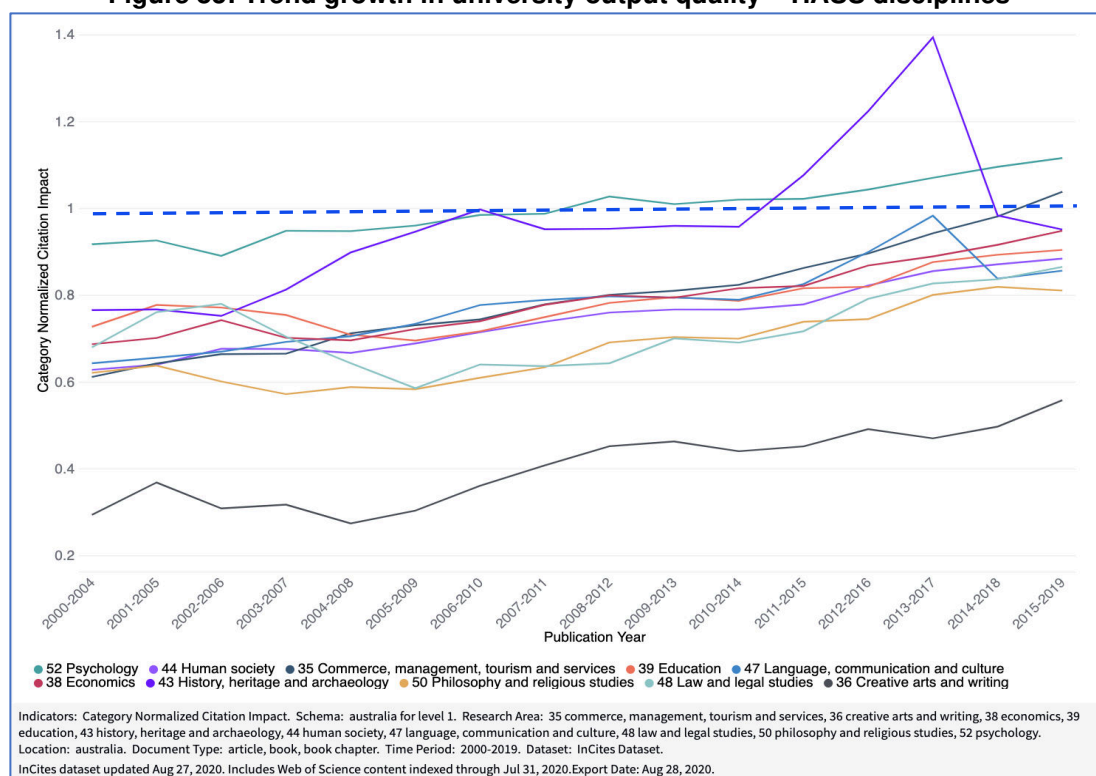
<sup>53</sup> The Category Normalized Citation Impact (CNCI) is an unbiased indicator of impact irrespective of age, subject focus of document type. Therefore, it allows comparisons between entities of different sizes and different subject mixes. A CNCI of one represents performance at par with world average; values above one are considered above average. A CNCI of 2 is considered twice the world average.

The CNCI of a document is calculated by dividing an actual citation count by an expected citation rate for documents with the same document type, year of publication, and subject area. When a document is assigned to more than one subject area, the harmonic average is used. The CNCI of a set of documents is the average of the CNCI values for all of the documents in the set. See [https://clarivate.libguides.com/incites\\_ba/understanding-indicators](https://clarivate.libguides.com/incites_ba/understanding-indicators)



In Figure 83 the InCites data shows that Australian research quality in most HASS disciplines is disappointing - except for Psychology and History and archaeology. Research quality in commerce, management and tourism and services is particularly disappointing in the light of the increased volume of research output. Management capacity and capability is an essential element in building and sustaining the businesses that will drive and deliver commercial value in the industries of the future.

**Figure 83: Trend growth in university output quality – HASS disciplines**



The research quality data for HASS suggest that the unified national system of higher education may be failing in a situation where most university staff are employed and paid for teaching but are also required to commit a proportion of their time to research. A substantial amount of research is being produced, but most is of relatively low quality in terms of its standing in research impact measures – CNCI below 1.0 across most research fields.

Reorienting the balance between teaching and research along a road to research excellence and relevance is addressed in chapter 10.6 on page 221.

## 4.11 The professionalisation of management and administration

From the first decade of this century, university education was set on a rapid growth trajectory. But the management, financial, and institutional capacity to handle this growth was weak and heavily resistant to change. The governance system in place was fragile and did not address the risks inherent in sustaining the growth trajectory and how shocks to the system could be handled. Accordingly, the adjustment processes since the onset of the COVID-19 pandemic have been more painful than they might have been.

The professionalisation of management in universities is urgently required as the *business* of higher education expands.

#### 4.11.1 A need for change

University management has been a bit like a "black box," and unlike public administration (and later public management) had not been considered worthy of serious attention around reform and realignment. Several universities were fortunate enough to be led by Vice-Chancellors who had participated in the public management reforms of the 1990s<sup>54</sup>. But most universities had been led by career academics with limited experience in running large and financially complex organisations.

Management in universities reflects a combination of tradition and learning-by-doing. University academic staff enter management roles with little experience in management of complex organisations. Bringing people in from the private sector has not always worked well.

Public universities work within their state/territory statutes to develop strategies, structures, processes and systems to achieve mission, goals and objectives determined by *governing boards (councils/senates)*. But they vary widely in how they organise internally between their businesses and assign functions to "business units" – whether termed faculties, schools, divisions, colleges, centres and institutes.

More significantly, there is little consistency in the size of corporate (head office) functions, or the size and responsibilities of support and back-office functions (marketing and communications, Finance, HRM, IT). Trends show that these support roles have grown at a much faster rate than research and teaching roles. Unlike direct service responsibilities, there is no market (demand) oriented constraint on this growth. The link between corporate service and back-office growth is often only casually linked to the capacity to bring in additional revenue.

Consultants have endeavoured to fill the gap, but the prescriptions generally lack analytical depth and validation through investigation and research in a higher education context. There has been little effort to accumulate knowledge through the many consultancy reviews and reports on university management performance.

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*Unlike the business and broader public sector, there are no textbooks or practice guides to assist university leaders and governing councils on managing and operating an Australian university.*

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It is well known among general management scholars that as the *scale* of the core value-creating activity of an organisation grows, there is pressure for greater *specialisation of occupational function* in support roles. There has been a growing separation of roles in universities relating to generating revenue (academic roles)

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<sup>54</sup> Notably Griffith/Melbourne and QUT.

and roles providing administrative and corporate support. Accordingly, the *scope* of university management activity has been extended by creating more roles for professionals with business, financial, personnel, technical, and other specialisations.

These specialisations relate to a range of business support activities such as planning and budgeting, human resource management, marketing and public relations, information technology, procurement and tendering, financial and asset management, repairs and maintenance, internal and external reporting general senior executive support. This growth can go unchecked and can occur faster than the increase in direct value-adding activities (as teaching and research)<sup>55</sup>.

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*The upshot of an unchecked expansion in business support activity is that an organisation develops its own internal momentum and ends up spending a large amount of time doing business with itself.*

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This internal business focus can occur notwithstanding the progressive automation of support roles through artificial intelligence, machine learning, and cloud-based and platform technologies' widespread availability. People in organisations can always find new, or interesting, things to do – but which may add little to creating value for the organisation or its stakeholders.

Of course, with rapidly growing revenues and substantial asset portfolios, financial management becomes a specialisation that requires considerable financial knowledge and experience. Outsourcing this task to advisers and investment bankers can have disastrous consequences (e.g., universities working with Lehman Brothers in 2008). It is also essential that a rapid growth in revenue is managed sustainably and in a way that secures the future of an organisation.

#### 4.11.2 Growth patterns

It may have been that an awareness of staffing gaps and deficiencies led to an over-reaction in the recruitment of management professionals as the sector grew rapidly in response to the 2009 *Transforming Australia's higher education system* initiatives (Australia. Minister for Education Employment and Workplace Relations 2009).

In 2019 the number of FTE staff in Australian universities stood at 112,705 (excluding casuals), increasing by 43,142 from the 69,563 recorded in 2000<sup>56</sup>. *But the staff growth differed widely across operating unit categories.* That is, over the period 2000 to 2019:

- Staff in *academic* areas *declined* as a proportion of total staff from 65.5% to 60.2%

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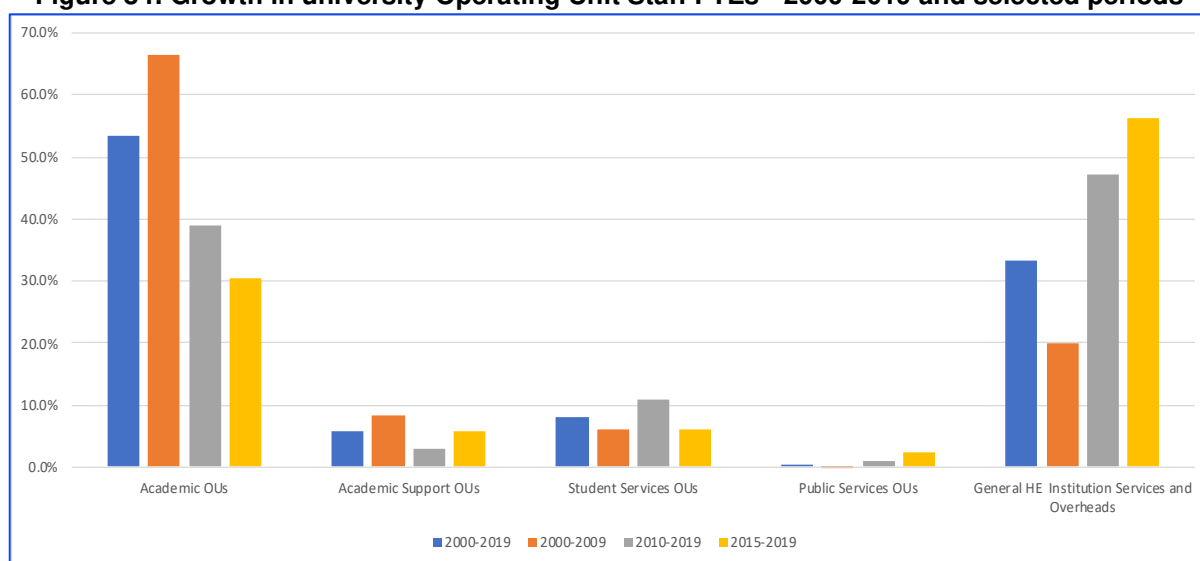
<sup>55</sup> Increasing scale also allows people in revenue generating roles concentrate on revenue producing work and assign administrative and office services functions to support personnel – such as budgeting and financial reporting, administrative tasks, completing returns and reports. But this does not always occur as revenue generating budgets are squeezed to make room for growth in corporate functions.

<sup>56</sup> In 1991 FTE staff totalled 65,768, having increased by 3,794 to the 2000 figure of 69,563. Staffing numbers fell between 1996 and 1999.

- Academic support staff *also declined* from 12.3% to 9.9%
- Staff engaged in *student services* increased from 2.7% to 4.8% (which may be linked to the growth in international students)
- Most noticeably, the proportion of staff engaged in *General Services and Overheads* increased from 19% to 24.4%<sup>57</sup>

Figure 84 shows that these growth patterns occurred at different times during the period, with *academic staff growth* concentrated in the first decade (2000-2009) and overhead growth concentrated in the second decade 2010-2019. Increase in staff engaged in the delivery of *General Services and Overheads* was strongest in the 2015-2019 period (5,473 FTEs). This growth could have been required for recruiting international students and the opportunities for non-academic service expansion.

**Figure 84: Growth in university Operating Unit Staff FTEs - 2000-2019 and selected periods**

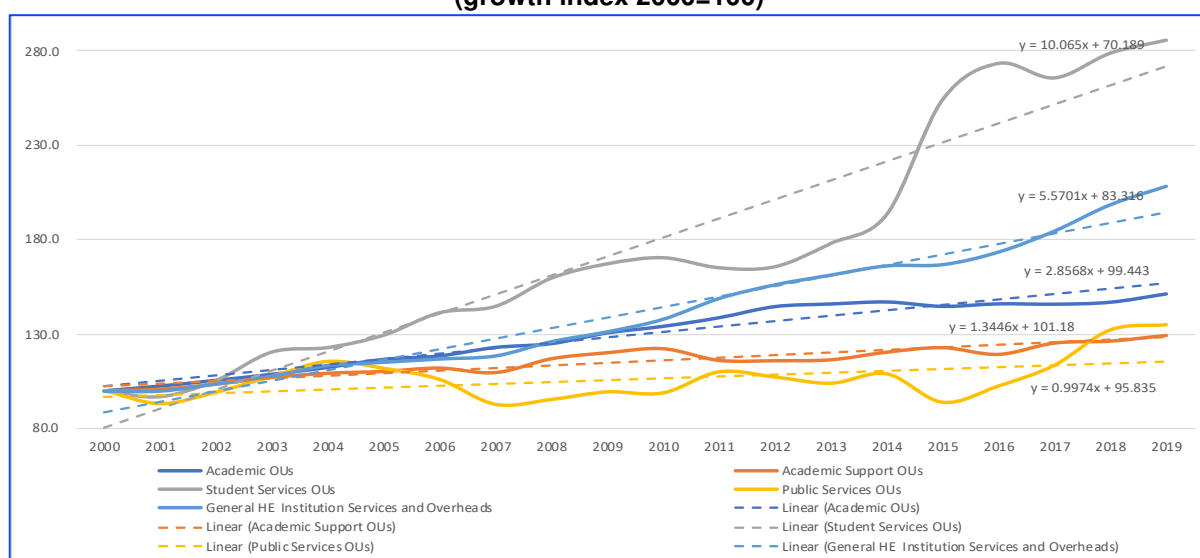


Source: DESE Staffing data. Calculations by Author

More specifically, Figure 85 below shows staff in Academic Operating Units increasing at an average annual rate of 2.9% over the 2000-2019 period, Academic Support by 1.3%, Student Services staff by 10.1% and General Services and Overheads staff by 5.6% - *more than double the growth of staff in Academic Operating Units*.

<sup>57</sup> These proportions vary widely within universities across the sector.

**Figure 85: Trend Increases for FTE Staff growth in university operating units 2000-2019  
(growth index 2000=100)**



Source: DESE Staffing data. Calculations by Author

In 2019 total FTE staff, *including casuals*, stood at 137,578, an increase of 55,235 from 82,233 in 2000. The proportion of casuals in total employment increased from 15.4% in 2000 to 18.1% in 2019. In 1992 the proportion of casuals was 9.9% - almost half the current number.

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*In many respects, the university sector's rapid growth has been underpinned by the growth of casual staff.*

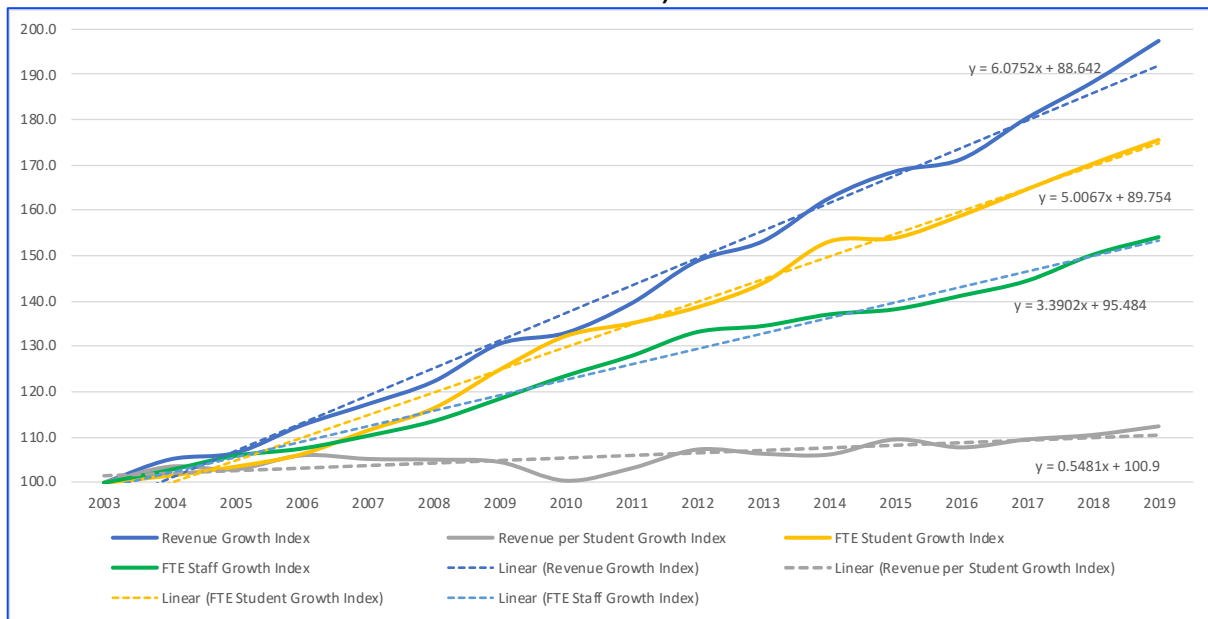
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### 4.11.3 Staffing trends in relation to revenues

Figure 86 shows the growth in total university revenues, growth in FTE staff, and growth in revenues per FTE staff member over 2003-2019<sup>58</sup>. It shows that over the period revenues have grown at an average rate of 6.1%, total staff have increased at an average annual rate of 5.0%, students by 3.4% and revenue per student has increased by only 0.5%. This helps to explain why there has been pressure on constraining staff costs. Unfortunately, the burden of restraint has fallen mostly on academic staff costs.

<sup>58</sup> Disaggregated data did not become available until 2003.

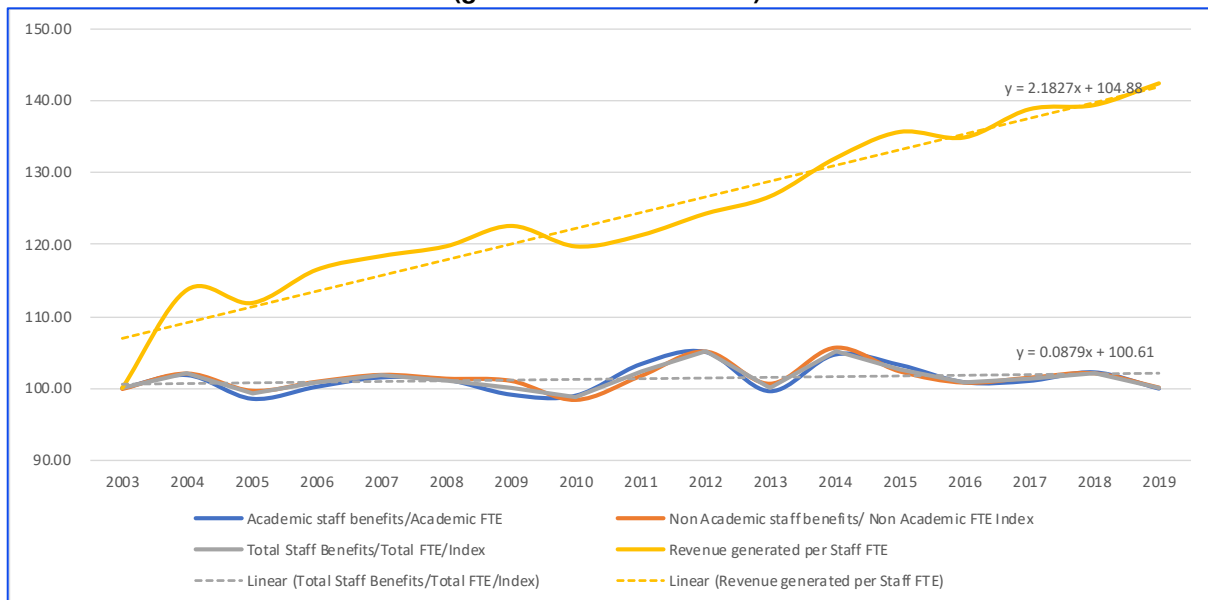
**Figure 86: Growth in revenues, FTE staff, students and revenues per student (growth index 2003=100)**



Source: DESE Staffing data. Calculations by Author

Figure 87 indicates that from 2003, revenues *per staff FTE* have increased at an annual rate of 2.2%, but this increase in revenue has been reflected in only a minimal growth in *benefits per staff FTE* which has grown at a rate of 0.1%. Academic benefits per staff FTE fell sharply in 2013, increased in 2014 with the beginning of the international student boom, but have fallen away since.

**Figure 87: Growth in academic and non-academic staff benefits and growth in revenue per FTE (growth index 2003=100)**

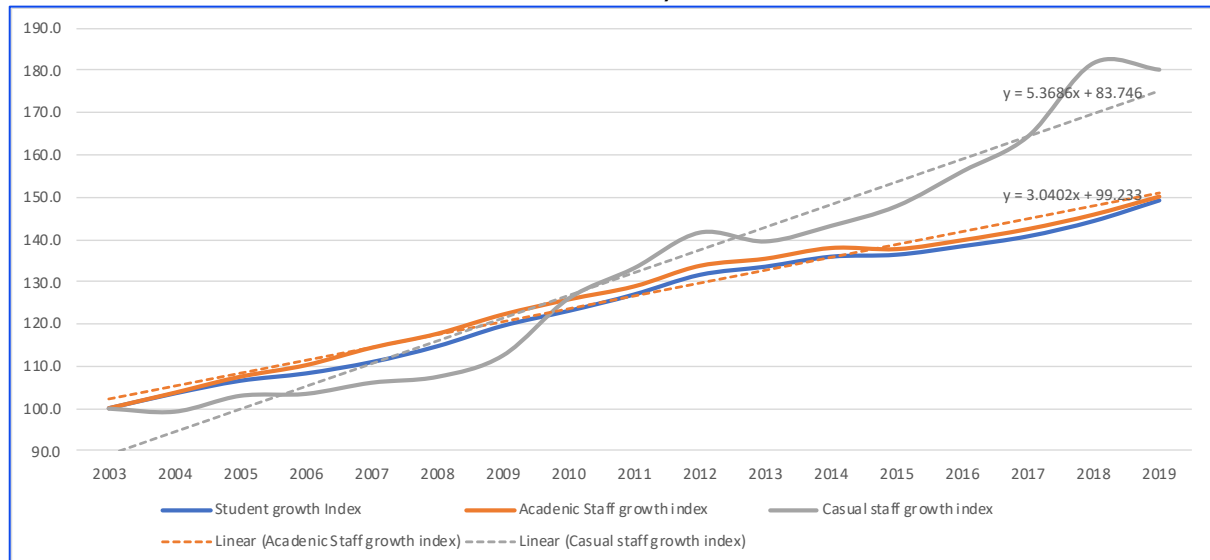


Source: DESE Staffing data. Calculations by Author

While *revenue per staff FTE* has grown substantially, the benefits of this revenue growth do not appear to have flowed through to staff remuneration. As suggested in chapter 3, a substantial proportion of increased revenues has been applied to investment in property and financial assets.

Figure 88 provides a profile of relative growth in students, academic staff and casual staff. It shows that academic staff and student growth have been on a similar trajectory over the 2003-2019 period. However, there has been a much faster growth rate in casual staff at various times over the period and particularly 2010-2012; 2014-2018.

**Figure 88: Relative growth in students, academic staff and casual staff (growth index 2000=100)**



Source: DESE Staffing data. Calculations by Author

Figure 88 suggests that casual staff have been engaged more than disproportionately when resources are flowing more freely and terminated when resources are constrained – for example, in 2013 and 2018 and 2019. It is widely appreciated that the burden of university expenditure cuts in response to COVID has been in staff terminations, including voluntary redundancies and non-renewal casual appointments.

#### 4.11.4 A need for benchmarks

It cannot be denied that the corporate university requires professional management capability. But without competitive market pressures, there is an argument for tighter benchmarking of the growth of corporate costs – nationally and internationally. Many public corporations set a benchmark of 20% as the proportion of corporate and support costs to total revenue.

Professional services firms set a benchmark of revenue allocation broadly as follows:

- one third service delivery costs (covering staff costs, related on-costs, and materials)
- one-third marketing, professional development, and business support costs (Finance, HR, IT, Legal)
- one third for corporate costs (costs of maintaining and operating the business as a corporate entity, including the cost of the CEO, and a provision for corporate profit).



The appropriateness of this three-way split, or any other allocation of revenue, for universities should be the subject of discussion and debate. There is a widely held view that the corporate costs and business support costs in universities are excessive. Still, the data available do not allow an informed perspective to be derived.

The issue is much more complicated than copying what goes on in a market-oriented and highly profitable professional services firm. It might be more appropriate, for example, for corporate costs to be set closer to a fifth of revenue.

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*Lack of credible benchmarks as well as Inappropriately construed intersectoral comparisons can do a lot of damage to the trust that the community places in higher education.*

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Responsibility for benchmarking would fall within the remit of an appropriately titled *Higher education system governance* organisation.

## 4.12 The expanding university role in economic development

The role of higher education in economic development is very much part of contemporary regional economic development narrative that stems from innovation systems thinking and the shift from the industrial to the knowledge-based economy.

In the absence of an Australian government industrial strategy, leading universities have taken an active role in forming and promoting innovation "clusters" and *localised innovation ecosystems* across metropolitan areas and districts. State and territory governments have also taken an active role in this approach.

Universities have advocated the importance of research as a driver of innovation and economic development and have used the argument for more money for research investment. However, they have been less aggressive in the advocacy of universities of the providers of *talent* (through education) in the ecosystem context.

Nonetheless, education, *not* economic development, has been the primary motivation for setting up universities in cities and regions. Outer suburban campuses and regional campuses on large acreages as *education communities* well outside of town with little economic interaction with the local businesses<sup>59</sup>.

The more enterprising universities have used their largely unused land asset for commercial purposes including the location of extensive health facilities (hospitals and clinics) and technology businesses on the premise that these organisations will have better opportunities to access capability and collaborate in research and connect with undergraduates and postgraduate students to meet future employment requirements.

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<sup>59</sup> For example, UNE is 2.7 km from Armidale, CSU is 6 km from Wagga city, 5 km from Orange, 2 km to Bathurst, 4.7 km to Port Macquarie and 78 km to Taree; Federation University is 10 km to Ballarat; SCU is 3.6 km to Lismore; USQ is 6.8 km to Toowoomba, CQU is 7 km to Rockhampton, and JCU is 13 km to Townsville; UTas is 4 km to Hobart; CDU is 12.8 km from Darwin.

Despite the formation of regional universities, the delivery of higher education to small cities and towns is expensive. With small populations to draw from for students, it is not likely to be viable without significant government subsidy. In small cities and towns, regional universities may also compete with study centres established by metropolitan universities<sup>60</sup>. Only a few regional universities have leveraged their property assets to attract health and technology businesses and establish viable innovation hubs<sup>61</sup>.

It follows that regional universities' rhetoric in delivering regional *education* needs to regional communities and providing economic development outcomes through this channel should be taken with care. To be sure, where courses are available regional universities have an essential role in educating local students for locally available jobs and retaining people in the community. This is particularly important in the fields of health and education.

At the same time, however, regional universities have built their student base by establishing very significant online learning businesses (e.g., UNE, CSU, SCU, CQU). These universities maintain learning centres in capital city CBDs<sup>62</sup>.

The more significant economic development impact of regional higher education is through the channel of expenditure by their employees on local consumption of goods and services, university purchases of supplies and services, and building and construction activities. Regional universities have also sought to recruit international students to live on campus.

Regional universities have developed a role in community engagement through research and advice. Whilst important, unless these activities are supported by external income, their costs increase the burden on university finances. Community engagement is to be applauded, but the commercial reality is that it must benefit the university – either through more students or more research income or government grants. Alternatively, government support may be provided through targeted investment programs to support value-adding economic and socio-cultural development projects<sup>63</sup>.

Regional universities have also been seeking to contribute to economic development through innovation and incubation hubs. There is some impressive capability<sup>64</sup>. But the future will require building scale across the higher education sector with collaborations between regional universities and/or collaborations between regional and metropolitan universities. At the moment, most are too small and lack an external income flow to be financially viable.

Nonetheless, without significant government support and subsidy, regional universities face a continuing structural problem due to falling student numbers and

<sup>60</sup> For example, University of Newcastle in Port Macquarie.

<sup>61</sup> For example, University of New England - <https://www.une.edu.au/about-une/faculty-of-science-agriculture-business-and-law/unebs/smartincubator>

<sup>62</sup> In Sydney, for example, CSU, CQU, UNE, and UTas maintain study centres. See <https://australianuniversities.click/new-south-wales/sydney/>

<sup>63</sup> In NSW Bushfire Relief Funds are currently being sought for innovation projects to stimulate economic development.

<sup>64</sup> For example, the Canberra Regional Innovation Network, <https://cbrin.com.au/> and the UNE SMART Region Incubator - <https://www.une.edu.au/about-une/faculty-of-science-agriculture-business-and-law/unebs/smartincubator>

the cost of education services delivery. This has both education and economic development implications.

For many years, the university lobby has paid consultants to come up with "big numbers" about the contribution of the university sector to GDP and its leadership in driving economic and industrial development. A tension has emerged between how universities approach economic and industry development strategy and how the government sees it.

Universities have developed a *de facto* industrial strategy through investing heavily in health and medical teaching and research to grow the public sector-oriented medical and health services industry. The Victorian and Queensland *state governments* actively supported this investment. This has delivered excellent results and is seen in universities and medical research institutes' capacity to develop a vaccine for COVID-19.

The *Smart state* initiative in Queensland under Premier Beattie consciously – and successfully - built from scratch a new biotech industry in a state traditionally associated with primary products and extractive industries (Queensland. Department of Innovation and Information Economy 2003, Howard Partners 2004). University research was placed at the core of economic ambition.

Similarly, in Victoria under the John Brumby *STI* initiative, The University of Melbourne, several medical research institutes, and the state government built a globally oriented biotech industry around the Bio-21 vision (Howard Partners 2006). The Australian Government was largely detached from these initiatives.

It has always been open to the Australian Government to use higher education investment to expand the Australian economy. Even now this attracts only sporadic attention, such as funding for quantum computing and space initiatives. There is likely an absence of industry champions in fields which do not yet exist and consequently limited advocacy for targeted long-term investment<sup>65</sup>.

Until recently, the Australian Government has eschewed any form of industrial strategy, but it is now developing a policy around advanced manufacturing - requiring investments in the "new industries" that centre on engineering, technology, and computing. Higher education is expected to respond to this change in direction by preparing the talented graduates to work in these priority areas.

The higher education *Job ready graduates* package represents a significant break with tradition where governments supported universities as institutions *doing good work in the service of science and society* - under their enabling legislation and business, government, and community expectations.

*The Job ready graduates package* pulls away from a commitment to "disinterested scholarship", regarding this as delivering private value and little economic benefit. Higher education is being *conscripted* into service as an instrument of an emerging government industrial policy.

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<sup>65</sup> The role of Atlantic Philanthropies in seeing biotech investments at the beginning of this century was an important lever in building the Victorian and Queensland biotech clusters.

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*In time, however, Australians will ask, "is the industrial conscription of higher education to a government agenda really what they want from their universities?"*

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Notwithstanding concepts of Triple Helix convergence (see p 122 below) there is a long way to go in clarifying the respective roles of government, higher education and industry in an industrial development strategy.

## 5 The corporate university: from the community of scholars to the business of higher education

It is somewhat counter-intuitive, but it is clear from public and political commentary that working and retired academics, governments, and many journalists don't have a good understanding of university operations, management structures, and financial frameworks. Commercial pressures from councils/senates and state government auditors have pushed universities to function as *viable and sustainable business operations* - reflected in business metrics such as operating results and margins.

Universities function within a complex framework of differing perceptions, expectations, attitudes and beliefs about their role, drawing on history and contemporary responses to government policy and international competition and engagement.

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*Universities are like the well clichéd iceberg analogy. People only see and think about the 10% of a university activity visible above the surface. The other 90% is submerged below the surface – concealed, unfathomable, and mystical.*

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Over the last 20 years, universities have sought to maintain an outward appearance of esteemed organisations engaged in the production and dissemination of knowledge, but they have been moving towards a corporate basis of operation, driven by an overarching financial discipline. They have progressed from a basis of operation where management and money were seen as outlier issues - matters handled in a distant chancellery - with academic work being the main focus of concern, to one where money, and access to it, has assumed centre stage<sup>66</sup>.

### 5.1 The evolutionary trajectory

The higher education industry has grown from its traditional beginnings around the community of science and *disinterested scholarship* into an industry required to be intimately *interested* in the economic value of the education products and services it delivers (McSherry 2001). The 2020 *Job ready graduates* package (Minister for Education 2020) emphasises this interest in terms of the contribution that higher education is expected to make in delivering the government's mantra of *jobs and growth* – nationally and in regions.

Like private organisations, public organisations operate on the basis of a "theory" or a "model". Theories involve assumptions (understandings) about mission, purpose and objectives, past and current policy contexts, stakeholders, and values and

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<sup>66</sup> Tradition is being cast aside. At The University of Sydney, the chancellery has become the [administration building](#) and appears to be much more integrated with the operations of the university

behaviours. Theories also relate to their technology and its dynamics, and about strengths and weaknesses. These assumptions are about why an organisation exists and why it should continue.

Among public organisations the theory of the university is unique: there is not one theory, but at least 7 currently in operation. These have evolved over the centuries, but over the last 30 years, in particular, the diversity of theory has extended with changes in policy contexts, stakeholder expectations, and community values.

Seven "theories" or institutional models of the university are detailed in Attachment 8, and also noted below:

### **5.1.1 The community of science model**

This oldest and most enduring perspective is that of a university being regarded as a society of scholars committed to the pursuit of knowledge through independent and unencumbered inquiry. Australian universities established between 1850 (Sydney) and 1946 (the ANU) were primarily predicated on this model. Their foundation statutes mandate their purpose as teaching, research, and service to the community.

Many Australians would have an image of a university, behind colonial sandstone walls and gothic ramparts, with students sitting in large classrooms listening to faculty members lecture on subjects such as literature or history. The faculty thinks of the imagery of Oxford/Cambridge or Edinburgh/Glasgow campuses, themselves as dons, and their students as serious scholars. This gothic architectural image really only applies to 4 actual "sandstone" universities (Sydney, Melbourne, Adelaide, and the former Hobart domain campus of the University of Tasmania).

Architecture now reflects the predominant building style of the 1960s and 1970s and more recently innovative design styles prepared by some of Australia's leading architects. Newer university buildings consistently win national awards for public architecture.

There is the further perception of researchers driven by innate curiosity exploring their idiosyncratic research interests with the end result of extending knowledge. Their performance in this regard is determined in terms of excellence evidenced by publication in scholarly books, journals or conference proceedings.

The reality is that a modern research university is a "very complex, international conglomerate of highly diverse businesses" (Duderstadt 2000). They are, in fact, conglomerates managing very large budgets with increasing amounts of discretion. But they are far more complex than most industrial corporations, undertaking many activities - some for profit, some publicly regulated, and some operating in highly contested markets.

### **5.1.2 The social contract model between science and society**

In return for public funding, universities commit to leadership in creating and applying what is universally available knowledge. This model developed during the 1990s and lies behind the concept of Mode 1 and Mode 2 knowledge creation (Gibbons,

Limoges et al. 1994, Gibbons 1998, Gibbons 1999). It provides the rationale for universities committing to industry and community engagement and the co-production of knowledge (Howard 2004).

### 5.1.3 The convergence (triple helix) model

The interests and institutions of government, industry, and universities align and converge, each taking on the other's roles. It captures the entrepreneurial university concept (Etzkowitz 1998, Leydesdorff and Etzkowitz 1998) and has been reflected in Australian policy during the 1990s that encouraged universities to be more entrepreneurial and make a greater commitment to research commercialisation. It also emphasises the importance of business commitment to research and development.

### 5.1.4 The innovation progression model

Universities are leaders in scientific discovery and technological invention that will be taken up and applied in industry as a foundation for industrial development and economic growth. This will occur through Intellectual Property Licensing and creation of start-up companies. It is also known as the "technology push" approach to economic and industrial development.

The model emphasises universities' role in research and tends to downplay universities' role in education, even though the greatest and most significant form of technology transfer occurs through access to and employment of graduates (Howard Partners 2005).

### 5.1.5 Knowledge supply chain model

Universities and industry interact mutually through interchange of people and ideas to develop and apply knowledge and technology in building the knowledge economy that delivers knowledge-intensive products and services (Howard Partners 2005, Howard Partners 2005).

It is argued that "just as the material supply chain concept has stressed the value of working with all tiers of suppliers, industry should work effectively with all tiers of the academic system" (Next Generation Manufacturing Project 1997). To sustain the benefits of knowledge transfer, the 2 institutions must recognise the value of their knowledge process and interdependencies if the barriers to historical separation and organisational culture are to be overcome.

With the emergence of the "knowledge economy" concept in the 1990s, Australian governments started taking a greater interest in what universities were doing about national and regional innovation systems. They started to appreciate that universities were important providers of talented knowledge workers, although initially governments did little to prioritise what sort of knowledge workers might be required.

The focus of *innovation systems* thinking tends to be concentrated on the supply of research. Still, it does recognise the role of universities in supplying talent and the



role of talent in innovation and industry development. There is, accordingly, an emphasis on research training through PhD programs.

### 5.1.6 The corporate model

Universities operate as corporate entities in the business of higher education based on business and financial management practices reflected in the "new public management" paradigm adopted widely throughout the public sector from the early 1990s. As corporations, university leaders manage and guide the delivery of teaching, research, and campus development more efficiently and effectively than academic staff have been able to do—power and influence, including control over money, shifts from the faculty to the chancellor.

Teaching and research proposals are assessed in terms of the financial return to the university. "Loss-making" courses are eliminated, and research is undertaken on the basis that there will be a return through publication and/or revenue streams.

### 5.1.7 The commercial model

Universities are engaged in selling the knowledge products and services for a profit (courses, Intellectual Property, contract research, courses, theatres, galleries, conference facilities, office and co-working spaces, car parking, retail, naming rights, etc.). Profits may be derived from public funds (grants) or private sources (student and other fees and charges). A university is expected to deliver a commercially acceptable operating result and retain an AA or above credit rating.

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*These 'theories' of the university go part of the way to explaining the drift towards the commercialisation of higher education and differences and diversions among mission and purpose.*

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Elements of each of these models can be identified in application across the higher education landscape and are represented in discussions about universities' current and future role. In practice, the overall trend has been towards the corporate model. Elements of the commercial model are widespread among the 5 largest universities.

Ancillary to their teaching and research roles, universities are seen as **drivers of regional economic development** - as significant forces in local economies. They are often the largest employers and purchasers of local goods and services and prepare "job ready" graduates for business, government and industry.

The step beyond the commercial model is *privatisation*, although conservative policy advocates have not seriously advocated the selling or public listing of Australian public universities. The private model is, of course, strong in the US and is emerging in Australia.

Many non-university higher education providers operating in Australia are for-profit companies (e.g., Kaplan Education) and represent competition for Australian public



universities in delivering education services. There are also the global online commercial providers that deliver education services in Australia.

## 5.2 The overarching focus on money

Discussions and policy development concerning government support for higher education inevitably revolves around the size, distribution and allocation of money. Money comes principally in Australian government payments related to effective full-time student load (EFTSL) and research income.

From the early 1970s Australian public universities relied on increasing Australian government money to support their teaching and research operations. However, since 2003, when the government suggested that universities look to other revenue sources (including research commercialisation and international education), the proportion of Australian government money in their revenue profile decreased. This placed universities under severe financial stress as they sought to educate an expanding domestic student population expected by the government.

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*The Australian Government's expectation that universities should subsidise the cost of domestic education, and later on the cost of research infrastructure, from international student revenue raised a significant moral dilemma.*

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*Public policy directives in 2003 represented a turning point in university finances and the beginning of the overarching university focus on money. This was largely a matter of necessity not choice: their funding was being reduced as they were being told by government to provide more for themselves by being better at commercialising their research and recruiting foreign students who would pay tuition fees that reflected international demand.*

In the knowledge economy and innovation policy climate of the late 1990s universities were seen as the drivers of a new era of knowledge centred economic development and growth. Universities were thought to be holding a "treasure trove" of valuable Intellectual Property waiting to be commercialised but were either not interested in securing funds from this source or not particularly good at it - lacking the knowledge, skills, and capabilities about how to do it.

A perceived shortage of venture capital was considered a major barrier to commercialisation, but the reality was that the Intellectual Property was too early for high-risk commercialisation investment (Howard Partners 2001). That conclusion still applies, but there is now a much greater availability of seed and start-up capital from various sources. Still, the availability of scale-up and expansion capital within Australia remains a problem.

The 2000 technology bubble created a policy climate of pursuing economic growth through technology start-ups and access to early-stage venture capital. Australian government and state/territory governments developed and implemented (different) policies to support start-up growth and access to publicly funded early-stage risk

capital. The Commercialising emerging technologies (COMET) and Innovation investment fund (IIF) programs that emerged from the 2000 national innovation summit were flagship initiatives (Australia. Prime Minister 2002, Australia. Prime Minister 2004).

Policymakers were looking at the much publicised success of innovation districts in the US and the UK as models for developing an Australian innovation economy. There was a steady stream of visitors to Silicon Valley – the start-up centre of the world – with its unique mix of large technology companies, defence research establishments, research universities, entrepreneurs, ingenious software engineers, and start-up venture investors.

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*The policy focus on innovation districts and regional innovation systems continues with the expectation of significant employment growth, inward investment, and exports.*

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This view of universities being able to finance their future by exploiting their boundless Intellectual Property riches remains quite pervasive among many policy commentators. The reality is that the "treasure trove" is illusory in that a very large proportion of university research is too early to be considered for commercialisation. Much more development research, investment, and risk appetite is required to capture revenue flows many years ahead. Moreover, more than half of university research is undertaken in the social sciences and humanities where research projects can be small and short term.

There have been some outstanding successes in commercialising discoveries in the medical and biological sciences, sales of equity in technology start-ups, and ingenuity in engineering and some branches of the arts and social sciences<sup>67</sup>. Royalties from multimedia and software licenses have, for example, been a very strong source of commercial income. But revenue from commissioned research and consultancy is still of little significance in the make-up of university revenue.

There was a view that Australian universities could replicate US universities' commercialisation successes, reflected at the time in the annual Association of University Technology Managers (AUTM) annual benchmarking survey. An Australian version of the survey was undertaken in 2000, first supported by the Australian Research Council and later the Department of Education, Science and Training and the Department of Industry, Science, and Technology (in its various incarnations).

While the US surveys had shown that universities could generate 3% of their income from research commercialisation, the Australian surveys indicate that the equivalent metric is less than one per cent. The Australian surveys show that commercialisation income (Licences, Assignments, Options - LOAs) and occasional "blockbuster" listings or equity sales is concentrated in the research-intensive universities.

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<sup>67</sup> The "Parenting Book" was one of University of Queensland's most successful commercial ventures - check

*Even now, universities are being pressured to do more research commercialisation, and the government seeks to uncover the barriers<sup>68</sup>. Still, the emphasis has shifted from a purely financial consideration to a broader industry growth and innovation ecosystem agenda.*

The university response to the need to generate external revenue focussed on recruiting international students in a rapidly growing international education market. The opportunity to raise revenue by increasing fees for domestic undergraduate students was largely closed by government fee regulation, with implications for education quality.

#### **The implication of government regulation of student fees**

Under current arrangements, the amount of money that universities can charge for domestic students (the price) for courses is tightly controlled by the Australian Government. Public universities can only sell their education services in the Australian higher education market at the price that the government determines.

The course price is made up of a *student* contribution (met through the higher education loan program, HELP), and a *government* contribution. The relative proportion of the student and the government contribution is determined, unilaterally, by government. In a *competitive* market price is set by demand – what users (students, research clients) are prepared to pay, having regard to their assessment of utility and value. In a *regulated* market, price is set having regard to costs of delivery and allowance for a profit.

Costs of courses relate principally to staffing, administration, marketing, and corporate support. The actual profit margin is determined by the university, reflecting a calculation of the costs to be recovered in the price and intention to cross-subsidise one course with another where there are differences in demand elasticities.

If the externally mandated price is too low to fully recover costs and deliver a satisfactory profit margin, standards and quality inevitably suffer. These standards suffer through the following cost reduction strategies: reductions in the length of time given to lectures and tutorials, limiting the availability of tutorials, increasing the size of tutorials, imposing academic recruitment and employment caps, and substituting fractional, sessional and casual employees for full time (and more senior) employees. All of these strategies are well known and have been applied across the university sector.

The impact of cost reductions can be mitigated through productivity enhancing initiatives such as the provision of extensive course materials and online resources.

The overall result of cost reduction to meet a target profit margin is that students have been, in effect, encouraged to learn on their own. Many students have been quite successful in this approach to learning. Still, many have not, reflected in increasing attrition rates and declining completion rates that have been a matter of government concern for many years.

Before the 2020 *Job ready graduate* package universities were able to make large "profits" on some courses with a significant difference between the prices they could charge and the actual delivery costs. Business courses were known to be very profitable, for example.

The surplus, or "profit", generated in this way was available to help subsidise high-cost courses, such as medicine, allocation to priority research areas and projects, and transfer to central administration for provision of student support services, marketing and student recruitment, financial management, campus development, and Executive leadership.

<sup>68</sup> The [DESE 2020-21 Budget](#) provided funds for a University Research Commercialisation Scheme to enhance the translation and commercialisation of research at Australian universities. A \$5.8 million *scoping study* will develop options for the scheme, drawing on advice from universities, industry and other experts.

It is understood that approximately 50% of the income generated from students and 30% of research income is shifted from teaching and research to non-academic support functions.

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*The impoverishment of academic operating units and the growth and prosperity of non-academic units has created a disjuncture between the university and its students.*

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The 2020 *Job ready graduate* package was introduced at a time when universities were absorbing the effects of the COVID-19 pandemic on international student income, and at the same time reaching a state of "peak demand" for domestic undergraduate university places. It also coincided with the beginnings of a digital transformation process in higher education course delivery. This has created major concerns about access to money, including requesting bail-outs from the Australian Government and access to credit lines from state governments.

The package was also introduced when universities have been looking to raise money by realising the value of land holdings and setting up "vertical" campuses in CBD locations. Recent initiatives include Tasmania and Edith Cowan universities deciding to make available their suburban campuses for housing in exchange for CBD locations. This is also a response to falling domestic undergraduate demand and creating a university model based on delivery of education services to students who prefer to have contact with universities in CBD locations and are less concerned about the quality of campus life.

This focus on money includes the lucrative overseas education market. The large majority of students enrol in profitable management and commerce courses alongside domestic students who seek qualifications that will provide entry to the professions. The 2020 reform package has shifted the payment for these courses almost entirely to students. There is also the increasing attractiveness of full fee-paying masters programs for professionals to "upskill" their qualifications.

### 5.3 The corporatisation process

Australian Universities are *public corporations* created by state parliaments<sup>69</sup>. The University of Sydney, was established in 1850, followed by The University of Melbourne in 1853, The University of Adelaide in 1874, and the University of Tasmania in 1890. Traditionally, *state* governments had made grants to universities to *support and assist* their good work. This was also the basis of support for numerous charitable organisations.

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*Initially, in a business sense, universities did not function as corporations; there were very small amounts of money involved.*

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<sup>69</sup> Except the Australian National University, which is created by Commonwealth legislation.

*Essentially, they operated as public charities, with government providing small amounts of money for operational support.*

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In 1951 the Australian Government commenced awarding scholarships based on academic merit and paid the fees of all recipients without a means test, although living allowances were means-tested. The rationale behind the scheme was focused on promoting the most capable students' participation rather than promoting broader participation in tertiary education.

The transition towards a corporate basis of operations began in earnest in the 1980s with increasing amounts of money being paid directly to universities, or indirectly through student support. The following changes stand out:

- From 1989 the government gradually re-introduced university study (abolished in 1974) through the higher education contributions scheme (HECS). Under the original HECS a \$1,800 fee was charged to all university students. Reintroduction of fees coincided with the entry of colleges of advanced education into the unified national system for publicly supported higher education.
- In 1996 the government increased HECS charges by an average of 40% and created a three-tier fee structure based on courses' perceived value. Courses considered to have the most likelihood of generating higher future income for students (e.g., law and medicine) were the most expensive. Those least likely to generate higher income (e.g., nursing and arts) were the least expensive. Adjustments in the fee structure were made in ensuing years culminating in the 2020 *Job ready graduates* package's major adjustments.
- A policy expectation that emerged in the late 1990s, led by the Australian Government Department of Education and Science and the then chief scientist, that universities should finance more of their activity through research commercialisation and take a much greater role in industry development.
- In 2003 the Australian Government's initiative *Our universities: backing Australia's future* provided \$1.5 billion over 4 years and was linked to progressive reforms in teaching, workplace productivity, governance, student financing, research, cross-sectoral collaboration and quality.
- The introduction of the "demand-driven funding system" following the Bradley Review (Bradley, Noonan et al. 2008), led to a very substantial increase in funds flowing to universities.
- The rapid growth in the international education market, which generated a very substantial growth in student numbers and income, particularly since 2013.

Higher education is now a very mature industry, with very substantial amounts of money involved. In 2019 revenues had reached \$36 billion and net assets amounted to \$61 billion (around 2% of GDP). There are numerous claims offered by the

university lobby about the broader contribution to GDP due to "multiplier" effects through the economy<sup>70</sup>.

Despite the financial and organisational growth that accompanied the increasing demand for education services, universities did not go through the formal processes of *corporatisation* as part of the broader public management reform agenda (the New Public Management – NPM)<sup>71</sup> that was set in train during the early part of the 1990s and closely linked to the government's microeconomic reform agenda. This was a global phenomenon.

Government departments, agencies, and statutory authorities were placed under new and continued pressure to deliver greater public value by being economical, efficient, and effective in managing and allocating public sector resources. This applied in the government run TAFE sector, for example. However, autonomous and independent university councils did not, in general, place similar pressure on university organisations.

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*Australia's 36 public universities managed to avoid the pain of management reform and adjustment that occurred in the broader public sector from the 1990s – with the inevitable consequence.*

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From 2013, with the introduction of an Australian government fiscal austerity regime, the government started to see universities as financially profligate and uncommitted to goals of efficient management and productivity improvement. Industry saw universities as self-serving, focusing on publishing in refereed journals, and with little concern for students and quality of outcomes. Industry was also concerned that universities had hijacked the resources that might have been available for the VET sector, including apprenticeships.

The university lobby was strong – and the TAFE and VET sector weak. As public servants, TAFE leaders were not able to advocate for more government money for TAFE. The VET sector represented, through TAFE directors Australia<sup>72</sup> and what is now the Independent tertiary education council (ITECA)<sup>73</sup> was not well organised at that time.

Government auditors pushed for the adoption of commercially oriented Accounting Standards for financial reporting and management. Since 2002 universities have been required to prepare and publish annual accounts under *Australian Accounting Standards* and *Accounting Guidance Releases* issued by the Australian Accounting Research Foundation, and *Guidelines for the Preparation of Financial Reports*

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<sup>70</sup> Economic impact assessments must be treated with a great deal of caution due to extreme assumptions underlying the methodologies.

<sup>71</sup> The "new public management" (NPM) pushed for the introduction and adoption of modern management practices drawn from an extensive body of management theory and practice that emphasised continuous improvement, process innovation, and managing for results.

<sup>72</sup> <https://tda.edu.au/>

<sup>73</sup> <https://www.iteca.edu.au/>



issued by the Department of Education, Skills and Employment (and predecessor departments)<sup>74</sup>.

State auditors-general report to state parliaments annually on financial performance, financial position, and cash flows.

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*Financial reporting and accountability requirements require universities to conduct their affairs in a business-like manner.*

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State auditors-general do not have the remit to look at university management performance<sup>75</sup>. This is a matter for university governing bodies – but they have not always done their job. With several universities now under financial pressure due to the collapse in international student revenues and facing liquidity problems, the Australian Government minister for education is taking a close interest in management performance, as the recent appointment of a KMPG audit team at Charles Sturt University would attest.

As the ultimate owners/shareholders of universities, state governments are now interested in university management and financial performance. Unions are also asking to "see the books" as part of their renegotiation of enterprise agreements. The NSW government is making \$150m available to support universities on the proviso to get their management and organisational houses in order.

The corporate model captures the role of a university as carrying out teaching and research functions in a business-like manner – that is, efficiently and effectively to create public value for stakeholders and private value for students. The model provides the basis for reporting and accounting to governments and parliaments. Reflecting this corporate understanding, accountants, economists, and industry analysts tend to regard universities as businesses in a higher education industry that is an important element in Australia's industrial structure.<sup>76</sup>

The influence on universities of the new public management (NPM) in setting out on the road towards corporatisation and commercialisation (and perhaps privatisation) is now clear. As outlined by Morphew and Eckel, these NPM influences and impacts include (Morphew and Eckel 2009):

- Requirement for higher education to demonstrate efficiency, effectiveness and value for money through business process re-engineering drives, integration into public finance and accounting systems, external quality assurance, and other accountability frameworks.
- Declining investments of public funds, costs passed to students, the requirement to do more with less (e.g., massified access at existing or reduced levels of

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<sup>74</sup> Prior to 2002 universities only reported on operating revenues and results. They did not report on financial position or cash flows.

<sup>75</sup> There is no record of a state/territory auditor-general commissioning a performance/efficiency audit of a public university.

<sup>76</sup> See for example, the recent report by IBIS world *University and Other Higher Education in Australia industry trends (2015-2020)* <https://www.ibisworld.com/au/industry/university-other-higher-education/600/>



funding), pressure to diversify funding thus reducing primary responsibility of the state for public higher education and allowing other funders to exert pressures.

- The dominance of managerial and entrepreneurial approaches that resulted in running higher education institutions like businesses.
- The privatisation of higher education activities to encourage competition.
- The development of curriculum reforms to appeal to employers and students as "customers" and "clients".
- A shift of public and private funding from basic to applied research, increased emphasis on academic/industry links, and greater concern with issues of intellectual property rights and the prioritisation of research for product development and commercialisation.

There is widespread concern within the academic community that Australian universities succumbed too easily to the NPM ethic. In particular, there is a concern that superimposing a business style corporate and commercial model on public universities causes a consequential shift in focus away from mandated public objectives. That is, the core mission of higher education, research, and engagement have become subservient to the fiscal desires of a commercially orientated entrepreneurial university.

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*Reconciling the interplay between public and corporate roles is a challenge that university councils and executive teams must continually address.*

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## 5.4 From corporatisation to commercialisation

The Australian higher education sector has evolved from a cluster of institutions actively involved in pursuing independent scholarship and teaching into Australia's third largest export industry. Higher education has nurtured the growth of a very broad range of businesses specialising in the supply of goods, services, analysis and advice, management of student and staff recruitment, lobbying, and facilitation of entry into overseas markets. Supply chains are extensive and complex.

A great deal of attention has been given to the emergence of what has been termed the "entrepreneurial university" (Sheila Slaughter 1999, Gallagher 2000, Etzkowitz 2002, Etzkowitz 2008). As Derek Bok, former President of Harvard, observed this has evolved into "selling the outputs of a university for a profit" (Bok 2003).

Australian universities are currently involved in a wide range of commercial operations, sometimes alone, but often in partnership with governments and property developers to create innovation precincts, health hubs, residential accommodation, arts and cultural facilities, and urban renewal. New organisational units have emerged, particularly around marketing, communications, public relations, and lobbying. Commercial experience in these roles is often valued much more highly than academic experience.

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*Even the terminology has changed: from Vice-Chancellors to presidents; from bursars to CFOs; from registrars to DVCs (students).*

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Vice-Chancellors and some other senior executives with commercial roles are remunerated based on broad industry benchmarks – often relating to the size of annual budgets. Several Australian universities now have annual budgets above \$2 billion, which has triggered vice-chancellors' expectations for commensurate remuneration to CEOs of similar size private corporations.

Being commercial in this context means leveraging assets and distinctive capabilities in a range of business, entrepreneurial, and philanthropic ventures that create wealth for the institution. It does not mean being motivated solely by "profit" – profit is an indicator of viability, not the end in itself. Nonetheless, universities set target operating margins and other performance metrics, and report them in annual reports. State auditors-general also report on these financial benchmarks.

Commercially valuable assets and capability cover knowledge generated and transferred by universities and the substantial holdings of land and other property, international and local brand, and reputation for credibility, integrity, and trust. Some universities are well into this strategy, sometimes through subsidiaries. Increasingly universities will collaborate with commercial partners to leverage strategic assets.

Universities also provide a range of profit-making services, including publishing (academic presses), health care (through teaching hospitals and on-campus clinics), commissioned research and development, participation in economic development activities (including technology parks and precincts), providing sporting facilities and entertainment venues. Universities also have a wide range of investments in commercial property, securities and equities.

However, it would appear that most Australian universities do not have the commercial acumen that characterises US universities' leadership to generate significant amounts of trading income. For example, they were not able to make a bookshop work for a captive market. They have allowed academic presses to wither on the vine. Australian universities *pay* national sporting teams for sponsorship to build brand and recognition; US universities generate substantial revenues *from* football, basketball and other sporting operations.

Australian universities, like many international counterparts in the UK, Canada and the US, have relied instead on a superficially easy way to make money – enrolling international students.

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*The most significant university commercial operation now is international education, which has started to overshadow the university sector's core responsibility for "public good" national education.*

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Most of the 5 largest Australian international education players have established their operations on a sound business basis, with overseas satellite campuses and longer term in-country engagement strategies. The smaller players have been more speculative, essentially relying on a student recruitment model, to supplement ongoing course and program delivery. Speculators are now licking their wounds in the COVID-19 pandemic initiated collapse of international education

Applying commercial returns for the benefit of students, alumni, the community, and the economy would be *the bargain* that delivers long term legitimacy and sustainability for the institutions. In delivering that bargain, it might be expected that universities would operate with greater transparency and accountability for their actions and performance.

This trend is already in train as the proportion of government support for universities continues to decline. Already universities are run on a business basis, and a higher education industry has emerged with characteristics very similar to other services industries. However, it would be important to avoid the regulatory failures that have occurred in those industries, particularly in health care and social assistance.

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*There are many lessons from the industrialisation of health care that can be applied in developing a regulatory framework for the higher education industry.*

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As with other public sector organisations, the government expects that university operations will be efficient and effective. It is concerned when the burdens of fiscal austerity and imperatives of productivity improvement are not being shared equitably across the public sector.

## 5.5 Financial, organisational and management implications

The broad financial, management, and organisational implications of moving towards the corporate university are canvassed below.

### 5.5.1 Changing leadership roles

Corporatisation has seen academic responsibilities shift from vice-chancellors (presidents) to "provosts". As in the United States, presidents are expected to have a major role in engaging with government, industry, and the philanthropic sector to secure university finances. The context is becoming increasingly commercial with faculties/schools/centres/institutes operating as profit centres. The organisation uses *gross operating margin* as a key performance metric in budgeting and financial reporting.

### 5.5.2 Cost recovery

Academic courses and programs are expected to pay their way from student income or industry contributions. Research centres and institutes are expected to be profitable with income from competitive research grants, Australian government or

industry supported postgraduate students, commissioned research, consultancy and contracts, and be-spoke full fee-paying postgraduate diploma courses masters programs. Institutes and centres that cannot pay their way are generally closed down very quickly.

### 5.5.3 Operating margins and credit ratings

The larger universities have AA or better credit ratings which they are motivated to keep. This means maintaining operating margins at levels acceptable to governing boards, state government auditors, and bond market financial analysts. Over the last 20 years sector-wide operating margins have been steady at around 6.0%. In 2019 the sector average was 6.0% (8.2% excluding depreciation), up from 4.3% (6.6%) in 2018.

Preserving margins over the next few years with the fall in overseas student income is an important aspect of universities' current financial strategy - as witnessed in the speed at which some universities have to cut employee benefit and administrative expenses. Many others are being more strategic, calling on their substantial holdings of cash, financial assets, and credit lines to finance potential deficits in coming years as they adjust their business models<sup>77</sup>.

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*Ironically, the emerging higher education industry operates predominantly in the public sector, with only a small private segment.*

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### 5.5.4 Competition and sustainable growth

In this corporate environment, universities compete – nationally, globally, and vigorously. In Canberra, for example, with a population of 400,000, there are 5 universities with a physical presence, a TAFE offering bachelors programs, and online providers targeting a well-educated school leaver and mature age student market.

Metropolitan based universities are setting up regional campuses and study centres all over the country, and regional universities have established satellite campuses in capital city CBDs to attract students.

Universities have traditionally competed on the basis of *eminence and prestige*. This benign competition is changing as resources become scarcer and pressures mount for sustainable growth. In the new corporate environment, universities now compete aggressively for students and research income. The basis of competition has shifted to contemporary marketing techniques, including brand, reputation, perception, an "offer" of an enjoyable campus experience, prospects of a future career, and more recently, opportunities to create a start-up business.

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<sup>77</sup> This approach is taken by well-resourced privately held corporations impacted by fluctuations in end user demand where they wish to retain valuable human capital and are largely immune from demands of institutional investors to maintain a steady dividend flow.

Sustainable growth has been historically determined by student numbers ("Student Load") and research income. With potentially declining student numbers, universities are now looking to other areas for growth, including leveraging their substantial property portfolios to build stronger relationships and generate income flows from both the public and private sectors in areas such as housing and urban development, shopping precincts, and science parks.

### 5.5.5 The 2020 higher education *Job ready graduates* package

The 2020 higher education job ready graduate package has as its essence a "decoupling" of teaching from research. Australian government support for education will be only for education purposes. "Profits" on teaching will not be available for allocation to research activity.

It has also become apparent in the 2020 *Job ready graduates* package, and other recent initiatives, that the Australian Government is not keen for universities (or any other organisation for that matter) to be earning "profits" from the grants it provides to support what it sees as administrative extravagance, including extravagant executive remuneration.

This perception is reflected in increasing specification and conditions in funding agreements for the way funds are applied and more complex approval processes, greater controls, and comprehensive reporting and acquittal requirements.

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*Gone are the days where grants were made as a reward for altruistic effort or for doing a good job. Grants are now, in effect, service contracts.*

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Of course, politically driven grants for election purposes and job generation, such as sports infrastructure grants, are the exceptions that prove the rule.

## 5.6 Corporatisation is complete: the tension between mission and money<sup>78</sup>

The pressure on university finances and the adoption of new public management principles means that the higher education system's corporatisation is complete. Public higher education institutions are run as "businesses" in a higher education industry where revenues account for approximately 2% of GDP.

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*Universities are required to behave, financially, just like any other business organisation. They are expected to work to a target*

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<sup>78</sup> Published in Pearls and Irritations Public Policy Journal, 29 October 2020, <https://johnmenadue.com/the-tension-between-mission-and-money-in-our-universities/>

*operating margin (which appears to be around 6% annually), indicating financial viability and helping retain their AA credit ratings.*

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As their revenues have grown there has been a trend towards internal specialisations with an increasing professional disconnect between corporate managers, administrators and academics. There is roughly a 50:50 split between these roles across the system, although corporate and administration roles are growing more quickly. Vice-Chancellors (Presidents) and senior executives (Vice-Presidents) have been rewarded with remuneration packages of similar-sized private organisations, creating community disquiet.

This focus on financial drivers may work against achieving high standards in the mission of teaching and learning. In particular, universities have been criticised for becoming disconnected from their students. Some universities have tried to redress this with specific "student experience" strategies.

Australian higher education institutions constitute a growing and economically significant industry. As an industry grows, it tends to segment into components that focus on specific market sectors that reflect the structure of demand, distinctive capability, and strategies to respond to that demand. A few higher education organisations have progressed some way in this direction, but in the absence of policy guidance or incentive. Segmentation is constrained by the straitjacket of the rules-driven unified national system.

There is no clear policy differentiation between research universities, technology universities, comprehensive universities, regional universities, private and not for profit universities, or non-university higher education providers. Policy follows a "one-size-fits-all" approach. However, differentiation would provide for greater diversity of education service offering and student choice.

With only 2 exceptions, since 2003 every university has generated a cash surplus on operations which has been used to buy property, plant and equipment and invest in financial assets. Property investment has filled a gap created by the withdrawal of Australian government capital funding, particularly around research infrastructure.

The 2020 *Job ready graduates package* is fundamentally about money. The government is reducing the amount of money going to higher education, as is also happening in Canada and the US. The government is also creating a clear separation between its funding for education and research.

## 5.7 The way forward

Despite a drop in government funding, the higher education industry will continue to grow, but differently. New "products" will be supported (such as short courses), and online education will expand as content and technology advances. These developments will encourage further segmentation of the industry as disruptive influences take shape.

New business models are emerging in the US, supported by private equity capital, that focus on the corporate higher education market.

The growing abundance of new approaches and players will lead to more affordable and convenient options. This is a familiar theme that disruptive innovation has fashioned in numerous other fields.

Australian higher education policy has a role to encourage and support the growth and development of specific market segments in a *Diversified National System* which will *complement* the disruptive forces that are underway.

For these reasons, Australian higher education must not only be profitable for its survival, but it must also define and address its specific mission. It must also be fair and equitable. Achieving this will require a fundamental transformation of the higher education system into a framework where money is the *enabler* of system performance – not the driver.

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*The current narrow debate about university funding must shift to a broader engagement with the community about developing a system of higher education that underpins a modern civil society, supports economic development, and enables the growth of the new industries that will provide the jobs of the future.*

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But there can be no turning back from the corporate university: the pressure is possibly in the other direction – perhaps towards privatisation in some of the very profitable institutions. The immediate challenge is to make the system work for the benefit of students, staff, industry, government and the broader community.



## 6 Internationalisation and globalisation: dilemmas and trade-offs

Higher education is a global business. It is also increasingly being regarded as a *tradable commodity*<sup>79</sup>. GATS and WTO are working to diminish and eliminate barriers to trade, subject to international law.

International or global universities tend to be the most research-intensive universities, seeking movement up the global rankings, globally connected and focussed on international collaborations. Other universities have tended to focus more on their local metropolitan, regional, or rural markets.

Australia has 5 universities operating on a global context at scale. They are constrained in further development through the “one-size-fits-all” regulatory framework.

Many of the lesser research-intensive universities tend to approach international engagement from a targeted perspective where there are strong mutual synergies. Several smaller universities have tended to approach international engagement from a transactional, student recruitment, perspective, relying on student recruitment agents.<sup>80</sup>

### 6.1 Trends

A recent OECD report covering international study (OECD 2020) and covered in the Financial Times (Hale 2020) confirmed that a global trend towards international education has been building for the past few decades. The report indicates that the number of international students globally has gone from 2 million in 1998 to 5.3 million in 2017 and is growing at an annual rate of 5-6% a year<sup>81</sup>. The report points out:

- In countries like Australia, Canada, the UK and the US, international students make up a growing export segment, that often has important local effects
- Rising wealth in emerging economies has further prompted children of the growing middle classes to seek educational opportunities abroad – with access enabled by cheaper flights, the rise of the internet, and the English language’s cultural dominance
- International students tend to get charged more. The countries where the gap between domestic and international students are highest are Sweden, Canada and Australia (in these countries, the difference is on average \$13,900 for a course of study)

<sup>79</sup> See “Higher education: a public good or a commodity for trade?: Commitment to higher education or commitment of higher education to trade” [https://search-proquest-com.ezproxy.lib.uts.edu.au/docview/204139072?accountid=17095&rfr\\_id=info%3Axi%2Fsid%3Aprimo](https://search-proquest-com.ezproxy.lib.uts.edu.au/docview/204139072?accountid=17095&rfr_id=info%3Axi%2Fsid%3Aprimo)

<sup>80</sup> See *The international business of higher education – A managerial perspective on the internationalisation of UK universities, Strategy and the internationalisation of universities*

<sup>81</sup> <https://ftalphaville.ft.com/2019/09/11/1568193574000/Educational-exports--the-story-so-far/#myft.notification:daily-email:content>

- There is now an entire ecosystem of companies and supply chains that sustains this nascent export economy, anchored around universities and scarcely talked about outside specialist circles.

The UK has announced that it is relaxing work rules for overseas students, making it easier for them to get a job after graduating. The UK government's broader strategy aims to increase international student numbers by around a third, to 600,000, over the next decade. The Australian Government is under a similar pressure to increase the number of after graduation student visas.

The international activities of higher educational institutions have not only expanded in volume and scope, but also in complexity. They are becoming "global" businesses. In many cases, the proportion of "offshore" based international students exceeds 50% of total international students. These reflect the presence of offshore campuses and teaching agreements with overseas universities based on partnership agreements endorsed by national governments.

The implications of these trends are, potentially:

- Global universities are not only global in terms of student numbers, but they are also global in terms of research and industry engagement. They are the largest in terms of research income and global research rankings.
- They tend to be less interested in the broad domestic student market; they tend to focus on students with very high ATARs who can learn by themselves.
- Global businesses need to compete on an equal footing with international competitors. The current university regulatory environment, particularly control over student fees, may work against effective competition.
- Global universities may shift more of their student operations to overseas campuses; they are already collaborating in international locations on research – Europe, UK, US, China – Clarivate Data shows this.
- Global universities deliver a large proportion of management and commerce courses – which receives meagre government contribution; domestic students are already paying a very high proportion of course fees. It is only a small step for full fee-paying students at the Australian universities with a strong international focus
- The emerging global universities are paralleling Australian manufacturing's resurgence where Australian companies, including Bluescope and Visy, have achieved success by locating production capacity overseas to serve international markets.
- The model of bringing overseas residents to study in Australia through student recruitment strategies to contribute to the growth of the Australian economy may have a limited future.

## 6.2 Globalisation strategies

Consistent with international rankings, many universities have been adopting a mission to become international and global businesses. The mission has been driven through several strategies:

- Appointment of talented vice-chancellors (presidents) with a strong academic leadership, business, and global outlook
- Assigning deputy/pro vice-chancellors with specific international responsibilities
- Commitment to lifting research quality and performance
- Active participation in the international research and higher education market
- Increasing commitment to borrowing to finance expansion of facilities and campus development (where borrowing costs have been relatively low)
- Establishing offshore satellite campuses
- Entering into long term teaching partnerships with overseas universities endorsed by host governments

From the financial data in this study, it would appear that most of the research-intensive universities had achieved success in their globalisation strategies in terms of status in international rankings. (Monash, Melbourne, Sydney, UNSW, UQ and ANU). Several technology, commuter, and regional universities have also pursued effective global strategies – particularly Macquarie, UTS, Wollongong, RMIT, Deakin, and QUT. Some universities have a very large proportion of international students based in overseas locations. In some cases, numbers of international students offshore is close to half of all international students.

Expansion of higher education has moved a long way from the early “student recruitment” approaches centred on achieving scale in pre-existing course offerings. However, some universities still take this approach.

Australian government commitment to international higher education was canvassed in the *2003 Our universities white paper* (Australia. Minister for Education Science and Training 2003). Unfortunately, the paper seems to muddle national education and research objectives with economic development objectives in education exports. There was a presumption that the latter would cross-subsidise the former, but the consequence of declining Australian government support was probably not foreseen.

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*This study argues for greater clarity between national education objectives, economic/industry objectives and regional development/innovation objectives.*

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From the 2013 budget the Australian Government has embraced international higher education to effectively avoid its financial responsibilities for supporting Australians to obtain the academic and professional qualifications essential for careers in a knowledge-based service-oriented economy.

Moreover, the Australian Government’s withdrawal from an active science, research and innovation strategy, and encouraging universities to cross-subsidise research

from international student revenue, allowed university research to further concentrate in health and medical research, which whilst nationally important, passed over the need for national research commitments in other areas, and particularly in engineering, information and computing sciences, and technology.

The international education trajectory was interrupted by the global coronavirus crisis in early 2020, which has reduced the expected income from international fee-paying students. The extent and the true impact of the shock on the industry over the long term is uncertain, but there is little doubt about an immediate effect on operating margins and cash flows.

In the aftermath of the onset of the crisis, universities have been giving priority to restoring operating margins (average of 6.0% across the industry in 2019; 8.2% excluding depreciation) by freezing, or reducing, staff numbers and cutting employee benefits (pay) and by holding or deferring expenditure on building developments. They are also making a more significant commitment to online delivery of courses and programs. These actions are essential for maintaining their AA international credit ratings which keeps borrowing costs low.

Those universities that have been most strategic in pursuing a globalisation strategy appear, based on the financial analysis in this book, to be financially secure, with substantial portfolios of long-term financial assets, substantial cash holdings, and established credit lines with their bankers. Therefore, they are better positioned to withstand the current shock through their financial strength and more prudent financial investment strategies. They do not seem to have a similar exposure to financial derivatives as they did with Lehman Brothers' collapse in 2008.

Although many universities have very thin liquidity ratios, in most cases these were influenced by some very high levels of provisions in areas such as long service and annual leave rather than exposure to short term borrowings<sup>82</sup>. Substantial holdings of long term financial assets improves liquidity perceptions.

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*Universities that have been less strategic in their international student attraction approaches and lack the cash flows, investment buffer, financial strength, and security are being significantly challenged.*

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The COVID-19 pandemic has raised concerns about the precariousness of the financial position in *smaller universities*, particularly those that have grown through more speculative approaches to international education. Many large-scale campus developments in regional Australia have been made on an expectation of increasing overseas student numbers. Several universities are experiencing potential liquidity problems which may portend insolvency if there is insufficient financial asset backing.

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<sup>82</sup> Universities have been encouraging staff to use accumulated leave entitlements; some have placed limits on how much can be accrued.

Given the Australian Government no longer provides any significant capital funding, and at least some Commonwealth supported places (CSPs) are funded below what universities calculate as the real cost, the loss of international students could have a direct domestic consequence on capital investment that has not been mentioned a great deal in the debate about the impact of the coronavirus pandemic on the sector.

### 6.3 The pursuit of international rankings

The most recent global rankings place 7 universities within the top 100 across the 3 major ranking systems, as indicated in Table 13. Six universities rank in the top 100 of the 3 systems.

**Table 13: Global rankings for Australian universities**

University	QS Global Rank <sup>83</sup>	THE Global Rank <sup>84</sup>	ARWU <sup>85</sup>
Australian National University (ANU)	31	59	67
Monash University	55	64	85
University of Melbourne	41	31	35
University of New South Wales (UNSW)	44	67	74
University of Queensland (UQ)	46	62	54
University of Sydney	40	51	74
University of Western Australia (UWA)	92	139	85

<https://www.topuniversities.com/university-rankings-articles/world-university-rankings/top-universities-australia-2021>

The Leiden<sup>86</sup> ranking system provides a different perspective which ranks technology universities quite highly. Only UTS is ranked within the top 100 (55) in the proportion of publications belonging in the top 10% of their field. This suggests a highly strategic approach to research, and that having a practical teaching approach, as technology universities do, is not inconsistent with doing world leading research.

There is a concern among Australian vice-chancellors and higher education commentators that global rankings are distorting university student recruitment strategies, research priorities, and research allocation. But universities continue to chase rankings<sup>87</sup>. They also chase rankings in sub-categories as universities under 50, for example. It becomes a matter of finding the ranking system that suits a strategic purpose.

For 5 of the universities that rank under 100 across the 3 systems, there appears to be some correlation with revenue growth trajectories and ranking position, as indicated in Figure 89 below. ANU is shown with slower revenue growth (after the GFC hit in 2008) but remains in the top 100, and growth at UWA has been flat.

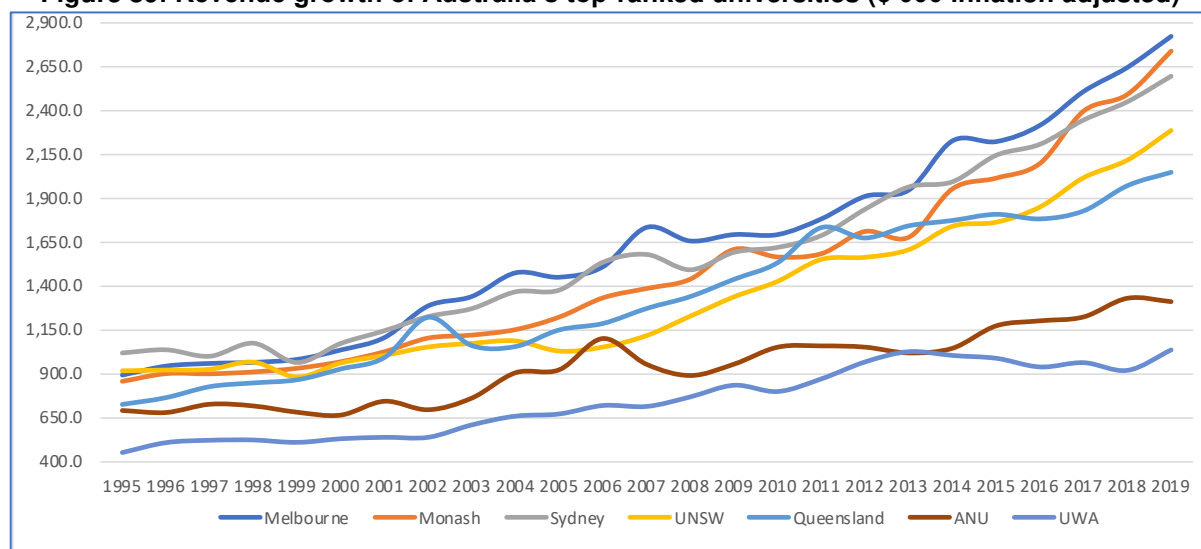
<sup>83</sup> <https://www.topuniversities.com/university-rankings/world-university-rankings/2021>

<sup>84</sup> [https://www.timeshighereducation.com/world-university-rankings/2021/world-ranking#/page/0/length/25/sort\\_by/rank/sort\\_order/asc/cols/stats](https://www.timeshighereducation.com/world-university-rankings/2021/world-ranking#/page/0/length/25/sort_by/rank/sort_order/asc/cols/stats)

<sup>85</sup> <http://www.shanghairanking.com/ARWU2020.html>

<sup>86</sup> <https://www.leidenranking.com/ranking/2020/list>

<sup>87</sup> <https://www.smh.com.au/national/global-rankings-are-distorting-universities-decisions-says-anu-chief-20201111-p56do9.html>

**Figure 89: Revenue growth of Australia's top-ranked universities (\$'000 inflation adjusted)**

*In other words, revenue growth and size of revenues appears to be closely connected with international rankings.*

These 5 universities are also Australia's largest in terms of student numbers, including international students. Monash has 83,560 students, Melbourne 68,174, Sydney 62,507, and UNSW 62,507. International students in these universities make up 41.6% of the student body. RMIT is also large with 69,282 students.

Out of all of this, there is a magic formula that goes along the following lines:

The revenues from international education contribute to building scale in research through income to recruit and pay for eminent staff to undertake high-quality research, and to purchase necessary buildings and facilities to deliver those research and education outcomes, which will in turn lift status in global rankings, in order to attract more international students.

## 6.4 Consequences of the commitment to internationalisation

There is a consequence of the pursuit of ratings determined largely by research performance: universities have tended to focus less on meeting their students' actual education needs. As one vice-chancellor had commented in an interview for a previous project (Howard 2015):

Students are disengaging with the physical campus. ... they're watching more and more lectures online, streamed and so on. They might come in the first few weeks of the semester, but actually we've seen a drop off in that. They might come at the end of the semester to get some tips about the exam or something like that, but it's become more transactional. And that's a result of a number of pressures and factors, technology, the need for them to work and so on.

But from the university end, as we focus more on research and rankings and status symbols that are essential to our survival...because without a ranking you're not going to attract international students and so on...



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*The neglect of students has not gone unnoticed in public commentary.*

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With the direct revenues flowing from international higher education (\$9.8 billion in 2019), an economic development objective has entered the mix, through the national and regional contribution to employment, incomes and growth – almost independently of education and research objectives. Based on questionable input-output methodologies, some calculations put the value of this international higher education industry in the region of \$35-\$40 billion and a claim that it has been Australia's third-largest export.

Over time the business of higher education has become clouded and confused – externally by business, government, economic development agencies, and the community, and internally by corporate and executive leaders, academic staff and the growing numbers of professional support staff. There is now no clear consensus of what the business of a university is, and what it is for.

The roots of confusion set in 20 years ago with growing reference to the concept of the “entrepreneurial university” (Slaughter and Leslie 1999, Gallagher 2000) and the expectation that universities could sell more of their research output for a profit (starting with much-touted prospects for research commercialisation). They are now selling a considerable proportion of the education capacity to international students for a profit. This has not worked out well to maintain and improve the fundamental business of delivering a world-class national higher education system that meets diverse needs and requirements.

There is a view that universities have evolved into something different from what they used to be due to superimposing *a money making international business model* onto a domestic one with a long standing national mission badly in need of renewal, creating strategic confusion. *It has become a commodity industry* in the tradition of Australia's large commodity oriented industries (mining, agriculture, manufacturing).

Simultaneously, several of the larger international players have developed quite separate and distinct internationalisation strategies that involve creating offshore campuses, changing admission rules for foreign students, revising curricula to encourage teaching in foreign languages, or offering online courses and international internships.

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*Higher education has been acclaimed as Australia's third highest export. It is being celebrated for its contribution to economic growth, jobs, and incomes. It is not, however, being celebrated for achieving its fundamental mission of providing a world class education experience for Australians*

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This growth, and its implications were not planned by government. There is even doubt that government saw it coming. It just happened due to universities,



particularly the 5 largest, pursuing revenues from international students to establish a new line of business - which had the added benefit of offsetting the cuts in revenue from the Australian Government to pay for the costs of education of domestic students.

There is little evidence that international student income was used to pay for extending education of domestic students. Domestic student participation has been trending down, as has quality - with reduced teaching hours and engagement with students.

On the contrary, international student income has been used to extend a strategic business opportunity to grow an international education business intended to sustain Australian corporate universities in years to come. It was not used to sustain and build a higher education capability for the benefit of domestic students. Domestic students' benefit could have been smaller numbers, diversity in offerings among providers, and much better quality of education, particularly for students suffering socio-economic disadvantage.

Instead, the boom in revenues from international education has been applied to campus development and recruitment of eminent researchers to sustain the “virtuous cycle” of international student income – more researchers have more publications – higher global rankings – attracting more students. Funds have also appear to have been applied largely to the employment of staff and consultants in universities' corporate divisions to build marketing and student recruitment capability, professionalise administrative and financial management capability, and build executive teams to manage and grow this international education business.

The international education business was driven in large part by demand from China. State governments celebrated the importance of Chinese students in the Australian economic landscape in terms of the contribution to employment and growth. There has been little discussion of how international student participation would enrich the education experience of Australians.

The disappearance of Chinese students in the wake of the COVID-19 pandemic is addressed by state premiers and politicians (who own the public universities) almost entirely in terms of its devastating economic impact - the loss of jobs. Universities themselves have been able to mitigate the financial effects by cutting staff, reducing “discretionary” expenditure, and postponing capital expenditures. This has a further “job” impact.

In the current climate, Australian public universities' ultimate objective, as public corporations, is to retain cash flows and operating margins. This comes from the playbook of any other industrial or service corporation facing a disruption in demand. But there is a reason to think that the adjustment will be disruptive and transformative over the longer term.

## 6.5 An alternative narrative

An alternative narrative could be that the COVID-19 event has been the culmination of disruptive forces building up in the system for some time, and this might improve

the education opportunities of Australian current and future students by re-aligning the mission of the tertiary education sector to expected future national benefits – and this does not mean going from “higher education” to “higher training” or supporting short courses already available in other parts of the system.

It’s unlikely that Australia will ever see a return of the China boom in international education demand. Our accidental education export industry that undermined the integrity of our universities may well have peaked too. That’s not necessarily a bad thing, even if it does come at a cost.

The international education industry is global, and the successful players must be fully engaged. There is an argument that to compete successfully in this market, Australian universities must be freed from regulations designed to ensure access and equity in higher education for domestic students. After all, for many commentators, it is all about jobs.

Host countries will be looking for partnerships and collaborations. They will want to move away from the transactional model of student recruitment and reliance on “education agents”. As in other industries, international higher education will see more pressure and incentives to locate “in-country”. Already universities have many controlled entities operating in this space.

## 6.6 Choices to be made

Higher education institutions and government policy is confronted with a binary choice:

1. Do we allow, and even encourage, our higher education institutions to compete in the international student education industry with the principal objective of generating export income, jobs, and regional employment? Higher education has a predominantly industry and national economic development focus.

Or

2. Do we insist that our publicly owned higher education institutions prioritise addressing the 21<sup>st</sup> century educational needs and requirements of a stable potential student cohort and manage and resource this appropriately to deliver a diverse portfolio of educational experiences and outcomes for students, industry and the community?

This choice reflects the dilemma identified at the start of the book – the intertwining of higher education *industry* objectives and higher education *system* objectives. Until now, the answer would have been “both” in our “unified” national system. All institutions would have to fit the national model. But that answer is no longer tenable: while the national economy objectives of higher education are clear enough to state/territory politicians, the much pathway towards diversification is beginning to progress.

This pathway towards a *diversified* national system would see the accelerated development of a variety in institutional categories and forms that would allow for:

- The further development and growth of global education *and research* intuitions, playing out on the international stage. Education and research would have an international dimension reinforcing the already established international student and research profiles of the 5 largest universities.
- A specialised advanced engineering and technology institutional format targeted at developing the technological skills and capabilities essential for the new industries in the digital economy. These institutions would be closely integrated with national and state industrial strategies and innovation policies<sup>88</sup>.
- A more traditional comprehensive university format that targets domestic students' education and research needs (school leavers and mature age) and that addresses the talent, research, and development needs of businesses with their place-based innovation ecosystems.
- A format that focuses specifically on regional development and growth.
- Specialised non-university higher education institutions in design, the arts, and creative practice would be encouraged.

A diversified system would address the specific, but diverse system ecologies of cities and regions across the country and issues associated with economic *and cultural* development, decentralisation, and the adverse effects of socio-economic disadvantage.

These thematic profiles are developed further in chapter 8. However, progress is constrained by the current rules based and control oriented unified national system. More particularly, several cross-cutting themes emerge from the *Job ready graduates* package that could influence the direction towards diversification – some palatable, and others less so:

- The essential design element in the *Job ready graduates* package is establishing and applying standard costs for courses, which are covered by government and student contributions, with no provision for a “surplus” that can be applied either to research, or improving teaching quality, and/or introducing difference and diversity. Providers have pointed out that more courses will run at a loss or discontinued if enrolment numbers do not reach critical threshold levels.
- The wealthier universities may seek to differentiate their courses by offering value elements paid for by funds generated in other university activities to attract the high achieving students. The less well-off providers will be constrained in this endeavour.
- While the research-intensive universities will continue to have better access to external research funds, universities that have relied heavily on internally generated funds (teaching surpluses) to drive research will become more constrained in their research capability. Some of these universities will trend towards *teaching focussed* institutions concentrating on professional and technical education.

<sup>88</sup> For example, the nomination of the UTS vice-chancellor as the NSW innovation project champion NSW Innovation and Productivity Council (2020). Let's Collaborate: Using SMEs to drive innovation. Sydney, NSW Treasury.

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*Research should not disappear in teaching focussed institutions: it should focus on observation, investigation and analysis, drawing on experience, practice, and reflection, to develop and improve professional practice and understanding of phenomena. Outcomes would be published in professional practice journals rather than internationally rated peer reviewed scholarly journals.*

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The scope for developing this diversified national system is canvassed in the remaining chapters of this book.

## 7 The unified national system: a massive systems failure

Reference is often made to a *unified national higher education system* in Australia. It is usually a reference to public universities created as independent statutory corporations by state/territory legislation<sup>89</sup> or, a little more broadly, to higher education providers that receive Australian government per capita payments to support student tuition costs (Commonwealth supported places) under the *Higher Education Support Act 2003*. A listing of providers that receive Commonwealth payments is at Attachment A.

Even more broadly, the system covers 183 higher education providers regulated by the *Tertiary education quality and standards agency* (TEQSA) that classifies providers as self-accrediting authorities (SAA) or non-self-accrediting<sup>90</sup>. There are 40 Australian universities classified as SAAs.

The system has grown haphazardly and become increasingly complex *without* a governance framework to drive mission (purpose), management and organisational processes, and develop the knowledge, expertise and skills of people who work within it. Governance, such as it is, is driven ostensibly through the terms and conditions of Australian government financial assistance and support, and an ever-widening application of Australian and state government laws, regulations, rules, and controls to university activities.

*With this increasing regulatory overload, the higher education system is suffering from a massive systems failure<sup>91</sup>. There have been failures of mission, processes, and investment in people. Failure has arisen, in large part, from the absence of an effective governance framework.*

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*The absence of a governance framework has become a matter of grave concern for the future of higher education and the need for a diversified system that meets students' distinctive needs and requirements, employers, industry, and the broader community.*

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### 7.1 System attributes

In addition to the 183 providers and the surfeit of legislation, rules, and controls, the Australian higher education system consists multiple funding agencies, numerous regulators (in addition to TEQSA), auditors, lobby organisations, staff associations (unions) that negotiate employment terms and conditions, professional accreditation bodies, bankers and financial advisers, property consultants and developers,

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<sup>89</sup> Except the ANU which is created under a Commonwealth statute

<sup>90</sup> <https://www.teqsa.gov.au/national-register>

<sup>91</sup> The overload phenomenon parallels the concern with *overloaded government* that began to receive attention in the public administration literature in the early 1980s Howard, J. H. (1983). "Perspectives on "Overloaded Government"." *Australian Journal of Public Administration* XLIII(4): 332-403.

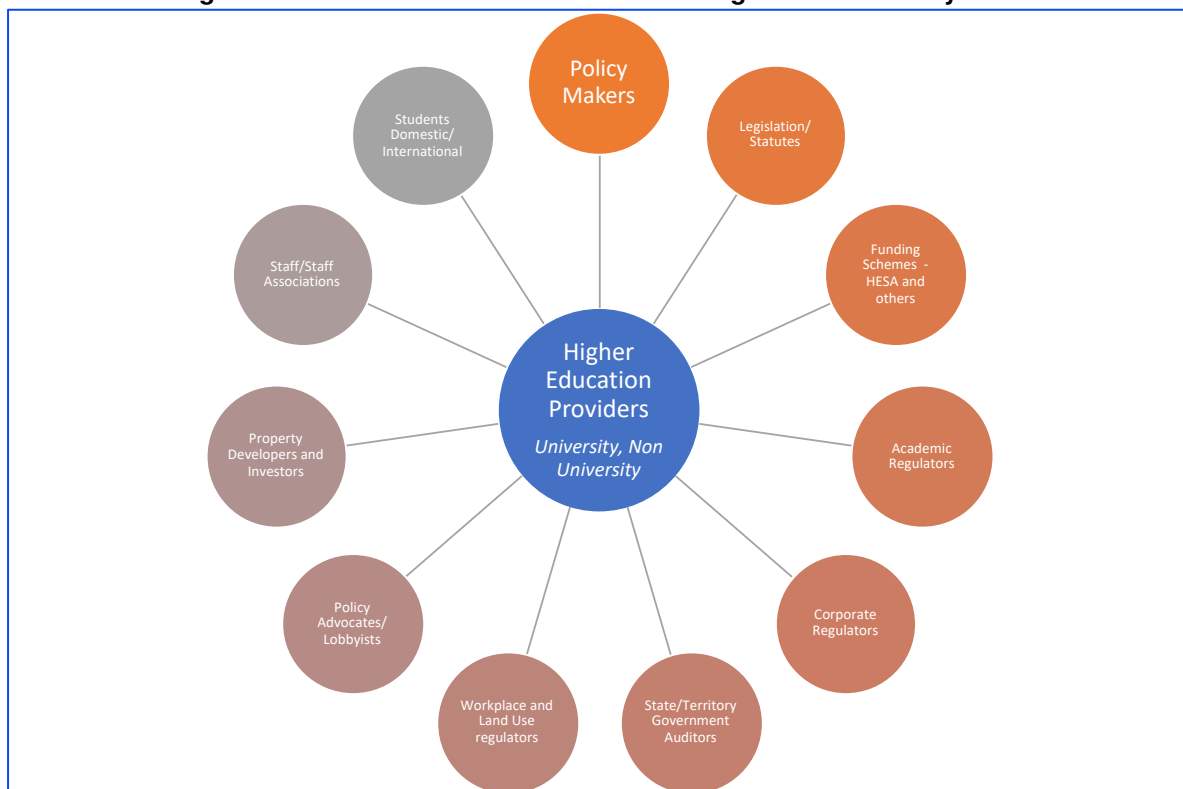
journalists and policy commentators, 130,000 staff members and, of course, the 1.6 million students currently in the system receiving an education.

*This multiplicity of regulatory involvement and oversight makes the higher education system a very complex operation, as represented in Figure 90 below.*

The system operates on a premise of "one-size-fits-all" approach with uniform regulations applying to all institutions. This works against innovation and developing a *diversified* system that would address students, employers, and industry segments' diverse education needs and requirements as the economy itself becomes more diversified and complex.

In 2019 the public university component of the system generated \$36 billion in revenues and held over \$60 billion in net assets. The component occupies a special place in the Australian institutional framework: while universities are public organisations, they are not generally regarded as part of the state - as is the case with most other public organisations (e.g., Australia Post). They report directly to parliaments rather than through a responsible and accountable minister.

**Figure 90: The Australian unified national higher education system**



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Unlike the *national innovation system*, which has been a focus of attention with the emergence of the knowledge economy, there is little understanding of how the higher education system operates, how it is governed, and what might be done to make it perform more efficiently and effectively in a way that best meets national and regional expectations.

Each year, up until 2017, the Australia government released a *National innovation system report*. This has been superseded by an Interactive [Australian innovation](#)

[system monitor](#) that explores the impact of innovation on business, industry and national performance. The monitor also outlines challenges and future opportunities for Australian innovation. There has been a recent review and report on the National rural innovation system, which led to the creation of several "light touch" governance institutions.

Despite the complexity of the higher education system, as indicated in Figure 90, there is an absence of policy and governance leadership that would set the system's direction and priorities over the medium to longer term to address education, economic, social, and regional development objectives. The default position is that the Australian Government minister for education has this role: many would see this concentration of power and responsibility as excessively narrow.

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*The higher education system lacks a coherent policy and governance framework*

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The DESE maintains comprehensive student and staff data in the [higher education information management system](#) and consolidated financial reports in an annual [Finance publication](#) with information compiled from annual financial reports prepared by Australian universities as at 31 December each year<sup>92</sup>. DESE does not provide a commentary on the data.

Policy development and announcements tend to be piecemeal, one-off, and disconnected a longer term narrative. The focus of policy is fundamentally about providing money (or taking it away) and for providers to follow funding rules and conditions relating to disconnected aspects of education delivery.

## 7.2 System elements

As reflected in Figure 90 the higher education system has multiple elements, each with their own roles, responsibilities, and ways of operating. This chapter provides an overview of the characteristics of each element and provides a basis for addressing growth opportunities in the next chapter. It points to the evolution of some elements, which helps explain the complexity and inconsistencies built into the system and contribute to system failure.

### 7.2.1 Policy agencies

Responsibility for higher education policy advice, implementation and review has had an unstable history in terms of its relationship and interaction with other policy areas. Current responsibility rests with the Department of Education, Skills, and Employment (DESE) formed under the *Administrative arrangements order* of 5 December 2019 (effective from 1 February 2020).

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<sup>92</sup> The Tables presented comprise Adjusted statement of financial performance, Adjusted statement of financial position, Adjusted changes in equity and comprehensive income and Adjusted statement of cash flows for each higher education provider.



Like many Australian government agencies, DESE reflects a complex and unstable evolution of policy roles and responsibilities with frequent reallocation of functions and responsibilities to ministerial portfolios. Its origins date back to the 1960s in the education division and office of education located in the Prime Minister's Department.

DESE's predecessor *education* departments have been<sup>93</sup>:

1. Department of Education and Science (13 December 1966 – 19 December 1972)
2. Department of Education (19 December 1972 – 11 March 1983)
3. Department of Education and Youth Affairs (11 March 1983 – 13 December 1984)
4. Department of Education (13 December 1984 – 24 July 1987)
5. Department of Employment, Education and Training (DEET) (24 July 1987 – 11 March 1996)
6. Department of Employment, Education, Training and Youth Affairs (DEETYA) (11 March 1996 – 21 October 1998)
7. Department of Education, Training and Youth Affairs (DETYA) (21 October 1998 – 26 November 2001)
8. Department of Education, Science and Training (DEST) (26 November 2001 – 3 December 2007)
9. Department of Education, Employment and Workplace Relations (DEEWR) (3 December 2007 – 18 September 2013)
10. Department of Education (18 September 2013 – 23 December 2014)
11. Department of Education and Training (23 December 2014 – 29 May 2019)
12. Department of Education (29 May 2019 – 1 February 2020)
13. Department of Education, Skills and Employment (1 February 2020 -)

This chronology indicates that education policy roles and responsibility have been linked at various times with employment, training, science, youth affairs, and workplace relations<sup>94</sup>. Policy roles in relation to research have shifted at various times between education and industry, science and technology and a dedicated science department. These shifts have been controversial – particularly in relation to the perceived policy emphasis on education or industry outcomes.

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*Historically, the strongest education policy links are with employment - pointing to the long standing importance of employment and jobs in the Australian Government's higher education agenda.*

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To guide system development in earlier times, an *Australian universities commission* operated from 1959 to 1977, when a *Tertiary education commission* was established

<sup>93</sup> Department of Education, Skills and Employment - Wikipedia.

[https://en.wikipedia.org/wiki/Department\\_of\\_Education,\\_Skills\\_and\\_Employment](https://en.wikipedia.org/wiki/Department_of_Education,_Skills_and_Employment)

<sup>94</sup> There has been a similarly disruptive evolution of employment, jobs, employment, and small business responsibilities.

to take on the additional functions of the *Commission on advanced education* (1972-1977) and the *Technical and further education commission* (1975-1977).

The *Tertiary education commission* was responsible for providing advice to the minister regarding the Australian Government "financial assistance" grants to universities and other continuing education institutions. The commission was abolished on 1 July 1988, with its responsibilities passing to the Department of Employment, Education and Training (DEST).

The *National Board of Employment, Education, and Training* (NBEET) was created as a statutory body in July 1988, under the *Employment, Education and Training Act 1988*, to provide coordinated, independent advice to the minister on matters relating to employment, youth affairs, education, training, and research. NBEET was abolished in June 1996, but a *Higher Education Council* was retained as an independent body reporting directly to the minister. At the same time, the *Australian Research Council* (ARC) was restructured as an independent body.

The abolition of NBEET removed a significant source of independent and expert advice regarding Australia's higher education system's financing and evolution. Universities Australia (then the AVCC) sought to fill the gap by publishing regular policy statements about the goals and needs of higher education, independent of the government and the government bureaucracies.

Over ensuing years Universities Australia became quite an active policy advocate and lobby organisation to the point of instigating aggressive public relations and media campaigns. Other higher education segments did not become as politically active.

The Department of the Parliamentary Library, in an e-brief published in 2000 (updated in 2003)<sup>95</sup> commented:

Since the Commonwealth assumed responsibility for funding higher education in 1974, responsibility for the allocation and administration of grants gradually shifted from statutory commissions representing the sector to the Minister and the Department. While this development has often been criticised by stakeholders in the sector, it has nevertheless continued under both Labor and Coalition governments as they try to ensure that higher education policy and funding requirements remain consistent with their overall social and economic objectives.

Ministerial and departmental authority over policy became entrenched with the passage of the *Higher Education Funding Act 1988* (HEFA), which enabled the establishment of the unified national system.

Within the higher education policy milieu DESE is influenced by many "policy" portfolios, including Prime Minister and Cabinet, The Treasury, and Department of Finance. Expenditure policy options are controlled by the Expenditure Review Committee of Cabinet which had, until recently, a primary objective of eliminating the

<sup>95</sup> Higher Education Funding Policy – Parliament of Australia.  
[https://www.aph.gov.au/About\\_Parliament/Parliamentary\\_Departments/Parliamentary\\_Library/Publications\\_Archive/archive/hefunding](https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/Publications_Archive/archive/hefunding)

Commonwealth budget deficit. This fiscal imperative created an environment of policy uncertainty and short term commitment to announced plans and strategies.

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*Higher education policies and decisions come through as budget announcements rather than carefully construed long term plans and strategies.*

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The states largely disengaged from higher education policy with the transfer of funding responsibility to the Commonwealth in 1974. They have not provided any significant level of funding since. They are now taking a belated interest in higher education with an appreciation of the role of talent in advancing economic development, and particularly the development of regional innovation ecosystems.

The lack of continuity and weakness in the institutional base for higher education policy has provided an environment for aggressive policy advocacy and lobbying by higher education interests. It has allowed universities to go their own way in establishing their corporate operating frameworks to suit their interests rather than a national interest.

Higher education policy development, implementation, and review does not reflect, outwardly at least, an environment of partnership and collaboration directed towards a long term future.

## 7.2.2 Higher education providers

The Tertiary education quality standards agency (TEQSA) has over 180 higher education providers in Australia on its register. Of these, 40 are self-accrediting Australian universities, 2 are overseas self-accrediting overseas universities, and one is a self-accrediting Australian university of specialisation.

### **Universities**

Universities are variously regarded as:

- *Public corporations* created by state parliaments, subject to state *public finance and audit acts* and annual reports (statutory bodies) acts.
- *Charities*, with income tax exemption and gift deductible status. The public universities are registered charities that bring them within the *Australian charities and not-for-profits commission* (ACNC).
- *Trading corporation* potentially brings them under the *Corporations Act* within the regulatory remit of the Australian Securities and Investments Commission (ASIC)<sup>96</sup>.

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<sup>96</sup> The Commonwealth has held the view that universities are "trading corporations" and under Section 51xx of the Constitution and therefore subject to Commonwealth corporations law as "constitutional" corporations. The corporations power was the rationale that the Commonwealth advanced in setting up Tertiary education quality and standards agency (TEQSA) under the Bradley reforms without referral of constitutional powers from the states. The universities did not contest this takeover as funding was about to flow under the demand driven funding system.

### ***Non-university higher education providers***

The TESQA national register includes 140 higher education providers not categorised as universities. Ninety providers are authorised to enrol students who will be eligible to receive FEE-HELP payments.

### **7.2.3 Funding schemes**

The higher education system is funded through multiple funding sources (buckets). The principal scheme is the *Higher Education Support Act 2003*. There are numerous other funding schemes that reflect the objectives of the funding organisations. Most schemes are managed by Australian government agencies and involve program and project funding. Funding amounts can be substantial as well as very small.

Universities are often eligible to receive funding from a broader range of grant programs that address specific purposes relevant to the agency's mission. There is a view that universities are likely to be independent, objective, and expert in government undertaking projects.

Universities also generate revenue from delivery of be-spoke education programs for government agencies and corporations.

Universities may also tap into funding schemes that are not explicitly related to higher education – for example, social policy programs and more recently city deals to finance university-industry-government collaborative infrastructure.

### **7.2.4 Regulators**

The higher education system has a highly distributed infrastructure of regulatory arrangements covering ministers, higher education providers, government authorities and agencies, corporate regulators, and professional accreditation bodies, all focussing on different aspects of the system.

### ***The Minister and Department of Education Skills and Employment***

The Commonwealth Minister for Education is the only authority that can grant a provider the right to use "university" in its title.

Higher education providers must report on a very wide range of indicators, including student attainment, attrition rates, course completions, completion times, participation by disadvantaged, low socio-economic groups and regionally based students, skills in demand and graduate employment outcomes. Data is reported in a great deal of detail in DESE on-line publications, where performance can be tracked.

Financial incentives are increasingly built into funding formulae to motivate improved performance. This trend will likely continue as the government pushes specific outcome requirements - for example, in the 2020 *Job ready graduate* package. Recent government actions also include placing a time limit for Commonwealth supported student to complete a qualification.

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*The government has recently extended higher education institutions' scope to specifically address regional and remote access through the regional universities centres (RUC) initiative.*

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RUCs are operated by community organisations – not universities. They can be identified, however, as *Regional Universities Campuses*<sup>97</sup>.

### **Academic regulators**

Traditionally, universities have been regarded as "self-regulating" under the provisions of their enabling legislation. This staunch academic independence has now been modified with greater Australian government involvement in the regulatory framework.

Over the last 15 years as funding levels have grown, the Australian Government has taken over responsibility for:

- Accreditation and establishment of higher education institutions, including universities
- Teaching and syllabus arrangements, including quality control of teaching and degree offerings
- Reporting and accountability regimes for higher education institutions, including rules relating to finance, teaching quality and other academic activities.

An outline of the regulatory regime follows.

- **University councils**

The states/territories created universities as highly autonomous and independent statutory bodies largely following the British Newman model (Turner 1996). Glyn Davis, former vice-chancellor of The University of Melbourne, has outlined how the idea of an Australian University evolved (Davis 2017).

Australian universities have highly independent governing boards (Councils, Senates), with the power to make their own statutes (rules or bylaws) with the force of law. The state governor must approve these. Governing boards generally have a majority of external appointees and a minority of government appointees. In 2011 NSW legislated for universities to adopt standard provisions on university council appointments "allowing greater flexibility in their size and composition".<sup>98</sup>

The development and implementation of university strategy is ultimately the responsibility of governing bodies, operating under their statutes, *without national guidance*, except for detailed rules and regulations relating to funding instruments. Governing bodies receive and endorse university strategies and plans prepared by

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<sup>97</sup> For example, the [Taree Universities Campus](#).

<sup>98</sup> [University Governing Bodies Act 2011](#).

vice-chancellors. *There is little consistency across universities concerning the scope, coverage, and detail contained in these plans.*

Australian government concern over the governance of individual institutions in 2004 led to the inclusion in the *Higher Education Support Act 2003*, a section covering governance protocols – intended to operate as conditions for funding. Conformance with the protocols was seen as unchallenging ("tick a box") process, and they were withdrawn in 2008. The withdrawal was against the background of a Labor policy position of wanting to end government interference in universities' internal management and reduce compliance and reporting.

Universities had accepted and implemented the protocols but opposed any further prescriptive requirements that added costs and compliance requirements seen to be inconsistent with the potential benefits. In their submission to a review of the protocols in 2007 university chancellors and vice-chancellors argued that it was not wise to apply a one-size-fits-all governance model (that extends into management areas) when the stated object of the government was to promote diversity.

There are no provisions for the Australian Government or a state government to sack a university council for financial mismanagement. Action may require a royal commission, as in Tasmania in 1955 in the context of the Orr case (Pybus)<sup>99</sup>. The Australian Government and state parliaments have established committees to inquire into and report on university management and finance from time to time.

Nonetheless, independence and autonomy is being progressively constrained through other means.

- **University academic boards**

Australian public universities are, under their statutes, self-accrediting institutions. Academic regulation has traditionally come within the remit of an academic board, established under provisions of their statutes and rules agreed by a council.

Academic roles and responsibilities cover academic standards, support for teaching, scholarship and research, and coordinating faculties and other academic units. Quality and Standards are now monitored and endorsed by the *Tertiary education quality and standards authority* (TEQSA) – see below.

Academic boards generally report directly to vice-chancellors and councils.

- **The Tertiary education and standards authority (TESQA)**

TEQSA is an independent statutory agency, with powers ceded to the Australian Government by the states in 2011, has a responsibility for accreditation and establishment of higher education institutions, teaching and syllabus arrangements, including quality control of teaching and degree offerings, and reporting and accountability relating to finance, teaching quality, and other academic activities.

TEQSA registers higher education providers—including universities—and re-registers them every 7 years. TESQA does not provide financial oversight or detailed

<sup>99</sup> <https://www.jstor.org/stable/20633761?seq=1>



monitoring, but it does provide a snapshot of selected key financial metrics across the Australian higher education sector. Data are sourced from TEQSA's data collections (TEQSA 2018).

Regulation of vocational education and training (VET) institutions falls under the Australian skills quality agency (ASQA). While there is a link to TEQSA through the *Australian qualifications framework* (AQF), their separate existence and operation perpetuates an unnecessary institutional demarcation between academic and occupational learning.

- ***Australian qualifications framework (AQF)***

The AQF is the national policy for regulated qualifications in Australian education and training (Australian Qualifications Framework Council 2013). It incorporates the qualifications from each education and training sector into a single national structure. It encompasses higher education, vocational education and training, and schools.

The AQF defines the relative complexity and depth of achievement and the autonomy required of graduates to demonstrate that achievement over 10 levels. Levels are defined in terms of learning outcomes criteria, with level 1 having the lowest complexity and level 10 the highest. DESE manages, maintains, and promotes the AQF in consultation with the states and territories. Expert consultative bodies advise ministers on AQF policy matters.

The AQF was reviewed in 2019 (Noonan 2019). The government has accepted the recommendations, including forming a new governance body, accountable to the relevant council of Australian governments (COAG) committee. The committee is to sort through all implementation details.

The Australian Government has created a temporary higher education undergraduate certificate to cover funding for higher education short courses and micro-credentials (Fowler 2020).

### ***Professional accreditation bodies***

In several discipline areas, graduates' employment in a given field depends on accreditation by a professional association or a statutory board or council. Professional certification can be either regulated or non-regulated. Governments regulate some professions to assure public safety and designate authority for bodies to accredit professions. Professional associations may establish an accreditation function in unregulated occupations as part of their broader professional services and operations<sup>100</sup>.

Accreditation bodies include, for example

- Health and medical councils and boards – 15 in total
- Veterinary boards
- Legal practitioners councils

<sup>100</sup> For example, a Chartered Management Consultant, bestowed by the *Institute of management consultants in Australia*. There are no regulations covering who can refer to themselves as an "economist" – it is an entirely free market.



- Institute of chartered accountants, Australian society of accountants
- Engineers Australia
- Institute of architects
- Pharmaceutical association
- Australian computer society

### **Corporate Regulators**

- ***Australian charities and not-for-profits commission (ACNC)***

*Australian Charities and Not-for-profits Commission* regulates governance arrangements and practices, and fundraising activities of registered charities. Many universities would regard the submission of their annual report and financial statements as their only obligation. Potentially, ACNC could take a greater interest in the governance of universities.

- ***Australian securities and investments commission (ASIC)***

The Australian Government has held the view that universities are "trading corporations" and under Section 51(xx) of the Constitution and therefore subject to Australian corporations law as "constitutional" corporations<sup>101</sup>. However, universities' status as trading corporations, and thus potential subjects of federal regulation, is by no means certain – having not been fully tested by the High Court.

Universities have multiple incorporated sub-entities already overseen by ASIC, even though the parent head may not. From time to time there is regulatory interest in university involvement in controlled and non-controlled entities. This can include involvement in high-risk start-up companies.

There are also governance concerns and dilemmas in many areas relating to for-profit controlled entities. For example, a university might demand dividends be paid by its 'for profit' entity. Part of this entities' activities could be Australian government funded and externally partnered for entry/foundational studies for international students.

### **State/territory regulators**

Universities are also subject to the provisions and reporting requirements of a wide range of state/territory legislation and regulation instruments in work health and safety, consumer protection, anti-corruption, ombudsmen, state records, and copyright. They must register on the Australian Government *register of institutions and courses for overseas students* (CRICOS) to teach overseas students on student visas in Australia.

States and local government are responsible for regulating and controlling land use, which significantly impacts higher education provider building programs, particularly where a change of use is sought in development applications.

<sup>101</sup> The corporations power was the rationale that the Commonwealth advanced in setting up Tertiary Education Quality and Standards Agency (TEQSA) under the Bradley Reforms without referral of constitutional powers from the states. The universities did not contest this takeover as funding was about to flow under the demand driven funding system.

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*This multiple Australian government-state-professional regulatory framework means that universities' effective governance and regulation can potentially fall through the cracks.*

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### 7.2.5 Auditors reporting to state/territory parliaments

Responsibility for financial oversight and monitoring comes within the purview of state auditors-general. They report annually to state parliaments on audited financial statements. They may comment on compliance with certain laws, regulations and government directives, financial prudence, probity and waste, and recommend operational improvements. Auditors-general do not appear to have embraced *performance audits* of universities.

The auditors-general for NSW, Victoria, and Queensland also present detailed oversight reports to their respective state parliaments. Individual university annual reports, usually tabled in April or May following the end of the previous financial year, contain a wealth of information about strategies, plans and achievements, and detailed notes to the financial statements. However, there is no arrangement for these reports to be presented to the Commonwealth parliament for review and comment.

The Department of Education, Skills, and Employment publishes an aggregation of financial reports late in the year following publication. The aggregation does not include commentary or interpretation of the financial data. The 2019 consolidation was published in late November.

### 7.2.6 Policy advocates

Lobby organisations and industry groupings are significant players in the Australian higher education system. They have sophisticated policy research, advocacy and public relations capability and exert substantial influence in policy development, implementation and review, and broad public opinion – although not always in the way intended.

The key organisations are:

- *Universities Australia*<sup>102</sup>, the *Group of eight*<sup>103</sup>, the *Innovative research universities*<sup>104</sup>, the *Australian technology network*<sup>105</sup>, and the *Regional universities network*<sup>106</sup>. Not all universities are a member of an advocacy group.
- *Independent higher education Australia* (IHEA) represents the majority of Australia's registered and accredited independent higher education providers<sup>107</sup>

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<sup>102</sup> <https://www.universitiesaustralia.edu.au/>

<sup>103</sup> <https://go8.edu.au/>

<sup>104</sup> <https://www.iru.edu.au/>

<sup>105</sup> <https://www.iru.edu.au/>

<sup>106</sup> <https://www.run.edu.au/>

<sup>107</sup> <https://iheau.edu.au/>

- The *National tertiary education union* (NTEU) performs a strong policy advocacy role on behalf of its members.

University academics are strong advocates for policy stability, more funding, and selective (incremental) change. There are several university-based think tanks that advocate strongly on behalf of a university position<sup>108</sup>. There are also private think tanks and journalists with a more aggressive approach to universities and how they are run.

It is essentially a corporatist and uncritical framework – with big government, big university lobbies, and big unions involved. It lacks the characteristics of a broad representative role involving the multiple stakeholders and the more general interests of business and the community. It tends to be inward looking with a focus, essentially, on preserving the *status quo* – whilst recognising that there may be some scope for modification.

Education journalists and policy commentators tend to be uncritical in their assessments. The present state of affairs largely suits bankers, financial advisers, and consultants.

### 7.2.7 Property developers and investors

With the growing interest of universities in urban renewal (Perry and Wiewel 2005), property developers have a big interest and involvement in the higher education system, deriving from their interest in land use and the potential for investment in new buildings and facilities. They invest collaboratively in campus expansion. Many involve leveraged finance deals through investment banks and developers.

Universities offer security and good returns on investment for investors.

## 7.3 Evolution of the current governance framework

The governance of the higher education system, such as it is, has become centralised under the Minister for Education. The concentration reflects a movement along a spectrum of institutional governance arrangements: consensus driven, rules driven, and command driven.

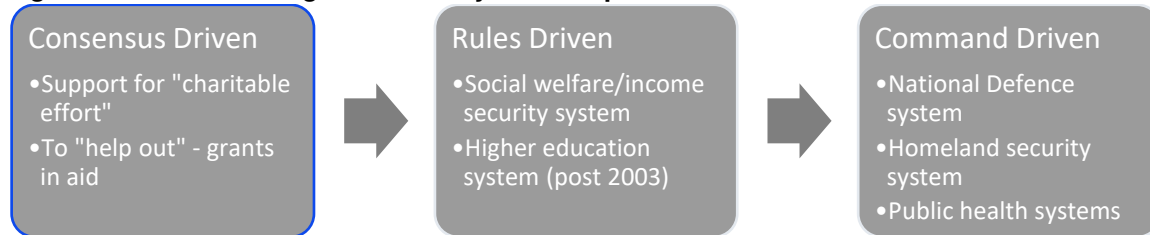
- Consensus is delivered through network arrangements and or transactional relationships in a market-type environment
- Rules are delivered through legislation and terms and conditions set out in funding arrangements
- Command is driven through authority vested in ministers' roles, statutory officeholders, and public servants with ministerial delegations.

Over the last 20 years, as the scale and scope of public resources provided has increased, the governance system for higher education has been moving from consensus to control. This is a characteristic of modern public administration. With increasing public sector resourcing levels, systems governance tends to move from

<sup>108</sup> For example, the [Melbourne Centre for the Study of Higher Education](#), Andrew Norton at the [ANU](#)

the cooperative/collaborative, through legal/rules driven through to direct command/control. The trend is represented in Figure 91.

**Figure 91: Evolution of governance systems in public administration**



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This movement is seen in the changing focus of social policy and environmental policy as Australian government regulatory interest increases, and resourcing expands. Governments move from a motivation to "helping out", to setting rules about what will be funded (and will not be), and finally to exerting detailed control in a way that amounts to *de facto* government ownership. The transition follows 3 broad phases:

### Phase 1: Helping out

When levels of financial commitment to organisations are comparatively modest, policy focuses on providing support for organisations considered to be "doing a good job" leaving the recipient organisation with broad discretion about how funds are used and allocated. After all, they know their business and their clients. Funding is akin to a "grant in aid". Accountability is achieved through formal acquittal processes.

This is how it started with universities. The *Australian universities commission* was set up in 1942 to deal with grants and subsidies to Australian universities, regulate university enrolments, and implement the *Commonwealth reconstruction training scheme* (CRTS).

After the war, in recognition of the increased demand for teachers for the baby boom generation and the importance of higher education in national economic growth, the Commonwealth took an increased role in financing higher education from the states. By 1948 there were 32,000 students enrolled, under the impetus of CRTS. By 1960 there were 53,000 students in 10 universities. In the 1960s and 1970s, 9 more universities were established.

In the interests of economy and efficiency (good administration), processes and procedures were developed to guide organisations in working towards purposes, goals and outcomes. These may be written into grant conditions together with monitoring and reporting processes.

### Phase 2: Follow the rules

The social policy experience tells us that as levels of government and support and assistance increase, and organisations become more dependent on public funding for their operations and financial viability (such as in aged care and disability) interest and scrutiny over how funds are used also increases—government interest shifts towards achieving outcomes and results that it considers desirable.

Rules are set to ensure consistency and uniformity in funding across different organisations until they all start to look the same. Regulations regarding standards and quality are developed and implemented, although not necessarily well enforced. This occurred with Commonwealth financial assistance for aged care facilities and is happening with the NDIS.

Financial assistance delivery evolves into a complex rules-based system driven not by strategic aims and objectives but by regulations and standards that link to funding terms and conditions. The aim is to ensure that funding is allocated only to the purposes intended and defined. With increasing amounts of public funding many recipient organisations develop into profitable businesses, and an industry is created.

Functions that organisations once delivered, and which may have been the reason for their establishment, but which do not receive funding, are often dropped. This is what happened to community creches: casual community care centres are now very hard to find. People start falling through the cracks because they are "outside" eligibility rules.

### **Phase 3: Submit to controls**

Governments want to exert a high level of *control* over how institutions within the system are governed and managed in a context of substantial financial resource commitments. Governments will tend to move faster where they see problems in these areas. They also move to introduce a detailed range of compliance and performance metrics.

The governance system may develop into a detailed command/control system with increasing government and ministers' powers and authority. This is likely to happen where there is extensive evidence or risk of inappropriate application of funds.

This desire for control plays through the evolution of Australia's contested federal framework where a centralised coercive system has replaced consensus based cooperative federalism with increasing control being exercised by the Commonwealth over an ever widening range of functions. Together with its defence and external affairs powers, the Commonwealth's superior direct and indirect taxation powers have enabled this massive transfer of functional responsibility from the states to the Commonwealth.

The Commonwealth role in the regulation of universities, and of higher education generally, has been underpinned by specific federal legislative capacity conferred by provisions of the Constitution such as s 51(xxiiiA), which allows it to legislate for 'the provision of ... benefits to students', the corporations power under s 51(xx) and, to a lesser extent the implied nationhood power, the external affairs power (s 51(xxix)) and the taxation power (s 51(ii)) (Williams and Pillai 2011). The authors point to comments by Professor Greg Craven that -

... the Commonwealth's incursion into the field of higher education is largely an 'unintended consequence of the failure of the financial settlement under the Constitution, which left the Commonwealth flush with funds, and the states with insufficient revenue to meet their policy obligations, including those posed by universities'.

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*The governance of the higher education system through the rules driven approach is expensive, burdensome, and inefficient.*

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The Australian Government does not have the power to direct and control the management of universities. Many have advocated that the Australian Government take full control of universities on efficiency grounds: pushing them fully to the command and control end of the governance system spectrum. Others would argue that this is entirely the wrong way to go, exacerbating the current "one-size-fits-all" approach.

An Australian government "takeover" of higher education would be an extremely hazardous endeavour. It would be seen as an equivalent to bank nationalisation. However, the states have not taken initiatives to organise their higher education institutions to create diversity, such as state *university systems*, as is the case in the USA.

A better approach would be to give more time and attention to ensure that governance instruments are designed to achieve national, state and regional education objectives more efficiently and effectively.

## 7.4 Exercising the instruments for governance

In most public organisations the principal instrument of governance is direction, command, and control under the authority of a sovereign power (the Crown), or specific legislation that creates a statutory authority or public corporation, with an independent governing board. It may create an independent statutory officer, under more general legislation, with specific powers and delegations.

State governments have powers to direct universities, subject to their enabling legislation (and their ability to amend). The Australian Government only has directive powers in relation to the ANU. As noted in section 7.3 above, the Australian Government may have powers to direct universities concerning international security matters - a matter being played out at the moment.

State governments ceded power to the Australian Government in relation to quality standards exercised under TEQSA. The Australian Government is also exerting greater control through its stewardship of the *Australian qualifications framework* (AQF).

The Australian Government's principal governance instrument is the power over money - the ability to make "grants of *financial assistance*" on terms and conditions that it determines. The principal instrument in relation to higher education is the *Higher Education Support Act 2003* which provides the framework for making grants to higher education providers and students. It is supplemented by an increasingly complex system of rules relating to how funds can be applied.

The Australian Government also provides financial assistance to universities specifically through the *Australian research council*. There are numerous other government funding sources from across Australian government portfolios and



agencies and state governments, that can be accessed by universities. The larger ones include the National health and medical research council, the Rural research and development corporations. Many of the grants from these sources contain governance requirements as conditions of grant. These requirements are not well coordinated.

Apart from making grants, there is a limited range of instruments available to the Australian Government to influence university decision making and resource allocation (Howard 2017).

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*The Australian Government does not invest in the higher education system. It provides money, with conditions attached. Conditions are becoming increasingly stringent. Financial assistance is a very blunt and clumsy instrument for achieving national outcomes.*

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The responsibility and accountability arrangements for ensuring that the funding meets objectives and delivers public value are weak. This "funding" orientation of national higher education policy limits the capacity to deliver a national strategic focus and then follow through with resource allocation decisions.

That is, the *objectives* of the *Higher Education Support Act 2003* are set out as *to support* the higher education system, the distinctive purposes of universities, to *strengthen* Australia's knowledge base, and to *enhance* the contribution of Australia's research capabilities to national economic development, international competitiveness and the attainment of social goals. However, the *instruments* provided in the Act for achieving these objectives are limited to providing grants and other payments to higher education providers and financial assistance to students (usually in the form of loans).

In other words, the government provides financial assistance and support for higher education institutions to implement the Act's objectives largely in a way that *they* determine.

The Australian Government has been extending its rules based approach to constrain, and direct, how institutions interpret and deliver Australian government objectives - particularly concerning applied research and skills (job ready graduates). It is trying to do this in the rigid structure of the unified national system.

This approach is neither efficient nor effective. A better approach may be to design new institutions that specifically address Australian government research and employment objectives and fund them accordingly.

## 7.5 Strengths and weaknesses in the current governance framework

The development and implementation of a university strategy is fundamentally the responsibility for university governing bodies, operating autonomously and independently under their statutes, to address their own missions, goals, and



priorities. The Australian Government cannot intervene in the development of strategy or endorse it. Many would argue that this is the way it should be.

After all, the Australian Government only contributes between a half and a third of university operating costs. As mentioned in earlier chapters, universities generate income from other sources, including domestic and international student fees, financial investments, related entities, development projects, and a comprehensive range of fees and charges. They operate as complex corporate entities with many having annual budgets above \$2 billion.

To ensure that the universities meet their obligations for delivering national higher education objectives, a complex rules-based system has emerged to ensure responsibility, accountability and compliance with funding intent. This follows a pattern in other areas of public policy. Independence and autonomy is constrained within a corral of guidelines, directions and conditions set out in funding agreements.

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*An excess of guidelines, directions and conditions inevitably gives rise to a focus on process, reporting, and compliance. The most recent example of this rules based approach, and the accompanying complexity, is contained in the Job ready graduates package.*

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Australian higher education policy is driven by funding rules rather than national strategy, leaving wide open the scope for interpretation concerning what policy and strategy is, and debates about what it should be.

With these multiple and often conflicting missions and purposes, there is little clarity among industry, business and the broader community about what universities are expected to do and achieve - over and above educating students and undertaking research. Even in these 2 missions there is little clarity about the form of education or research that should be delivered. Policy guidance, such as it is, can be inconsistent and conflicting.

Universities require strong guidance on what government (at all levels), industry and the community wants in the context of a national higher education system in delivering economic, industry and social outcomes in an economy built on the generation and application of knowledge. The present Australian government has failed to provide leadership in providing this guidance.

An underlying problem is that the Australian approach to higher education policy has never addressed the higher education system's governance, management, and organisational aspects.

With a focus on funding programs and short-term commitment (rarely more than 3 years), there is little room to seriously address longer-term missions or achieving strategic goals. This is in contrast to a true managerial approach where *mission and strategy come first*, which, in turn, provides the basis for consideration of the investments required. It is only with an agreed plan that consideration of how

investments will be made, and who will make them, makes sense. Investments may be financed through commitments between public, private and university sectors.

Of course, investors may balk at investing in desired projects on the grounds of cost, risk, and return. These disciplines are sometimes applied in public policy contexts, but the discipline should be used more widely. Behaviours may change if granting agencies see themselves as *investors* rather than custodians of buckets of money. It is an approach that is adopted widely in the rural research and development corporations.

Over the last 20 years, as pointed out in chapter 3, many higher education providers have become quite wealthy, and policy tensions have emerged between providers and government. Apart from academic standards, the government worries about public value, accountability, and commitment to national policy priorities from a group of highly independent and autonomous public bodies.

Simultaneously, the sector is continually making representations (publicly) for more money in a time of severe fiscal austerity and where other public organisations are expected to exercise financial restraint and transform their operations and finances. The sector has not handled its public communications at all well.

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*There is a clear public policy concern, reflected in recent policy actions and public commentary that the 180 or so higher education providers have failed to transform into an efficient and productive system integral to the development and growth of the knowledge economy.*

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Many universities' responses to the recent financially austere policy actions and the COVID-19 pandemic have been principally in the form of severe staff reductions and cuts to capital programs. These might not have been as painful if the sector had delivered greater performance gains over the last 5 years – and been more prudent in managing the risks associated with the boom in overseas student income.

It has been a major shortcoming in the business of higher education that few universities appear to make a financial distinction (publicly at least) between their domestic and international businesses. The financial risk pressures of the international business should not be allowed to impact the domestic one, particularly if the international business falters or fails. However, unfortunately, a large part of the domestic business for many universities has not been viable without some cross-subsidy from the international side.

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*The appropriateness of an Australian government expectation that a university's international business should subsidise their domestic business is being called into question.*

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The absence of a robust governance framework has meant that university income growth proceeds have not been shared equitably among staff. Growth proceeds appear to have gone disproportionately to corporate executives and corporate support staff at the expense of academic (service delivery) staff. This reflects a more general governance trend where growth has required corporations to be run on an increasingly professional management basis.

## 7.6 A vision for collaborative system governance

The higher education system does not have a consistent or coherent governance framework. System governance has emerged haphazardly as the resources available for higher education have increased, and interest in public value extends.

System governance is concerned with setting mission (purpose), goals, and objectives, and ensuring that scarce resources are used efficiently, effectively and appropriately. System governance sets the framework and parameters for how entities within the system decide what to do and how to do it.

Unlike many economic systems, the higher education system is not driven by market forces – the intersection of demand and supply with participants having all the information required to make rational decisions and resources to pay for, or provide, services. The “market” contains numerous interventions designed to deliver public benefit - some reinforcing and others contradictory to demand or supply considerations. *There is substantial scope for system failure.*

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*From a national policy perspective, the higher education system is complex and requires guidance and leadership (governance) to achieve the outcomes that the community expects.*

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In particular, the higher education system lacks a robust, practical, and effective framework for system *collaboration* and *communication* between suppliers and consumers. Effective collaboration is much more than communicating and sharing knowledge and information as part of an ongoing conversation. Whilst this is an important aspect of collaboration, genuine outcomes oriented collaboration is generally understood to involve a commitment to work together to achieve an agreed purpose or end result.

It follows that system collaboration needs a “structure” just as “any biological organism beyond the amoeba needs structure” (Drucker 1994). It also follows that to achieve tangible results in collaboration, some form of organisation and project management framework is required.

It is possible to think of an evolutionary progression of structure regarding increasing expectations among participants and resource providers of roles, responsibilities, accountabilities and performance. This progression starts from networks through to more formalised association, negotiated strategic alliances, and finally legally incorporated entities to undertake complex and resource intensive projects. Policy

agencies do not seem to like this independence, as evidenced in the abolition of the Tertiary education commission.

Unfortunately, the governance framework of the Australian higher education system has gone the other way. It exhibits none of these characteristics of the progression outlined above. It has evolved from a system providing support to organisations "doing good", to a rules-based system, to one of effective command and control. This is not a good omen for the development of a diversified national system. To establish a governance system that is fit for purpose, it is essential to develop a strong case for change. The elements that should be included in building that case are outlined below.

## 7.7 Developing the case for a higher education governance body

The governance of the higher education system at the national level is daunting. It is constrained by its administrative and controlling focus and lacks strategic orientation and capacity to respond to major economic change and social imperatives. It is characterised by massive system failures.

The initially permissive system of governance emerged into a rules-based and control based regime. Paradoxically, it has also led to unconstrained and risky growth in an embedded "closed" system model. This is unhealthy for the future growth and development of higher education.

In an ideal world, the availability of public funds to support higher education should be based on partnership and trust developed over a longer term lead time with transparent processes, agreed outcomes, accountabilities, and reporting arrangements. Often, there is indecent haste in trying to get money out the door, spend it as quickly as possible, and make provision for change and readjustment that will inevitably impact on the way higher education is organised and delivered.

From time to time, proposals are made to re-establish a new *Higher education commission* to provide oversight of university governance, finance, and the development and implementation of a national higher education strategy. The case for such a body has not always been made clear – over and above the role of a minister and advisers in a department of education. The case can now be made around a requirement for effective system governance.

A governance organisation would address *system failure* by setting the framework and parameters for how entities within the system decide what to do and how to do it and how students and industry would access it. It should be collaborative and cooperative, that addresses the unique characteristics of entities within the system. It should draw away from the one-size-fits-all rules based system and control framework currently in place.

The priority task would be to set a longer term strategy and articulate priorities for growth for *a sustainable higher education system that delivers education outcomes, and a higher education industry that generates exports and creates jobs.*

The commission would advise on the creation of a *diversified system* that acknowledges the different (and complementary) roles of different provider categories and the need to develop different funding and investment approaches tailored to specific outcomes within and between categories.

There are several examples of Australian industries that are well led with a clear strategy for growth. Higher education has an opportunity to lead the way as an innovative education and industrial sector responding to the pressures of disruption and transformation. This is addressed in the next chapter.

## 8 The higher education industry growth life-cycle: from rationalisation to disruption

This chapter addresses the complex interactions between 2 institutional constructs:

- A higher education *system*, that aims to deliver education outcomes for students, businesses, government, and the (knowledge) economy, and
- A higher education *industry*, that focuses on the delivery of national and regional employment, incomes, and economic growth.

The 2 concepts are intertwined, like a double helix, but also differ in important respects. In particular, the higher education industry emerged and evolved without specifically addressing the education component. A discussion of the emergence of higher education as an industry is provided in Attachment 8.

In a general sense, an industry is defined by a pattern of ownership, the intensity of competition and the economic power of industry participants. More specifically, however, industry structure involves the organisation of participating businesses and their relationship to one another, their strategic competitive advantages, market shares, sustainable rates of growth, costs and profitability, pricing power and tactics, and other marketing practices. It concerns organisations' perceptions, their products and services by buyers, other businesses, and government agencies (Howard 2004).

The Australian higher education industry *has emerged from within the public sector* – but with little policy guidance or national strategy. There is a broad community understanding that higher education is about teaching, research, and community engagement. Still, the community perception of the operating model has progressed little from the “community of scholars” view of the middle ages.

As discussed in chapter 5, the higher education model has evolved, almost stealthily, into a *business of higher education* undertaken in a highly sophisticated financial environment where universities operate as conglomerates managing huge budgets.

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*Universities are far more complex than most industrial corporations, undertaking many activities - some for profit, some publicly regulated, and some operating in highly contested markets.*

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National higher education policy has not kept pace with this complexity, with the result that Australia does not have a clearly articulated national higher education strategy. Policy development is characterised by the culmination of disconnected actions over many years that reflect the elements of *policy on the run*, with partial solutions, incomplete coverage (e.g., connecting academic and vocational streams), and an absence of vision from our leaders about what they want from an industry that they have created.

## 8.1 Features and characteristics

Academics and some education policymakers tend not to think of higher education as an industry, notwithstanding the often-quoted metric that “education is Australia’s third largest export industry”. The metric refers to “education related travel services” published by the Department of Foreign Affairs and Trade which, in 2018-19, amounted to an *estimated* \$37.6 billion (2.0% of GDP)<sup>109</sup>. Higher education is estimated to contribute around 60% of this total and VET 28%. The basis for this calculation is opaque and depends on a very wide range of assumptions. Rigorous testing of assumptions could mean that the contribution is somewhat less.

The reality is that the international higher education industry is competitive, complex, and expensive to operate in; it is also subject to a very high level of risk and probably not for the faint hearted. However, typical of Australia’s approach to international trade and commerce, there has been a tendency by economic policymakers and advisers to regard it as a “commodity” industry with little regard to those risks. There have been elements of a “cargo cult” attitude, particularly in state/territory governments, about the fortunes that can be made and the economic development contribution.

Until very recently, the Australian Government would appear to have been largely ambivalent to the evolution of this higher education industry – sometimes praising the contribution of higher education to exports and sometimes attacking it for being too reliant on some markets – a criticism not made of agriculture, mining or manufacturing industries. State and local governments particularly have welcomed the contribution of higher education to state and regional development generally without qualification.

At the end of 2019, the public component of the higher education industry reported:

- Annual revenues of \$36 billion and net assets of \$61 billion
- Property assets of \$55 billion and non-current financial asset holdings amounting to \$12 billion
- Investment income of just under \$2 billion
- Long term borrowings of \$6.4 billion, having almost doubled from \$3.4 billion at the end of 2014

The public higher education industry is currently highly concentrated, with one-third of the asset value held by just 5 universities (Melbourne, Sydney, Queensland, UNSW, and Monash). *These big universities generated half of the total increase in university revenue of \$5 billion between 2015-2019.* They had a combined operating result of \$908m in 2019, representing 42% of the sector total.

<sup>109</sup> Of this estimate, international student fees amounted to approximately \$9 billion in 2019; the estimate also includes calculations of what students spend in Australia (food, accommodation, transport, etc.) paid for from the money they bring into the country, discounted by some calculation of the addition to domestic demand created by the wages and salaries they earn while in Australia.



The big 5 universities also dominate in the international education field. In 2019 they generated 45% of total international student income (\$9.8 billion), which contributed 35% to their operating revenues (compared to the rest of the sector of 25%)<sup>110</sup>.

The growing reliance of the larger universities on international fee-paying students has distorted the sector's growth and direction, particularly over the last 5 years. The collapse of the international student market in the 2020 COVID-19 pandemic has forced many universities to seek government support to compensate for the very high risks they have taken in building an international student business.

Government has shown little inclination to provide financial support for international higher education, taking the view that the industry should be able to sort the COVID-19 problem out itself. It follows that the sector itself may be required to embark on a fundamental realignment of strategy involving rationalisation, restructure, and innovation.

The perception that higher education is an industry that creates and sells services in a lucrative international marketplace, and in so doing makes a significant contribution to national income and employment, has begun to eclipse the social and cultural objectives of higher education as a "public good" (Pringle and Huisman, 2011). Paradoxically, the perception of the robust economic contribution has been advanced aggressively by the sector itself.

This industrial perception is associated with several other policy expectations of higher education, including that it should:

- Commit resources to "useful" research and seek its commercialisation
- Engage with industry to generate research income (and in the process, contribute to business R&D outcomes)
- Deliver social equity outcomes
- Focus on the employability of graduates
- Contribute to regional economic development.

This growing instrumental view of higher education has had the effect of shifting attention from it being considered a "public", or even a "quasi-public", good to it being regarded as a "private good". But the movement towards "private good" status for some courses (management, commerce, law, for example) has not been associated with a deregulation of domestic fees or a significant increase in the number of formally accredited providers.

While Australian regulatory agencies exert tight control over the number, standards and quality of Australian providers (see chapter 7), there is a growing number of international online providers entering the market offering a range of new and alternate models for individual and corporate learning. These new providers and models have the potential to exert a substantial disruptive influence on Australian higher education.

<sup>110</sup> The proportions for each of the Big 5 were: Sydney 40.3%, Monash 36.6%, UNSW 33.0%, Queensland 32.7%, and Melbourne 31.5%.

At the moment Australian higher education institutions (predominantly universities) compete vigorously in multiple markets for students, research income, faculty members, and for money under a wide range of government competitive “funding programs”. The competition is increasingly aggressive and global. Of course, institutions collaborate when there are clearly beneficial outcomes for all parties.

The evolutionary logic and rationale for this competitive ethos is that as the number of providers grows, competition will increase, leading to higher quality, greater efficiency, innovation, and more differentiation and choice. There will be winners and losers in this scenario, but the most efficient and effective providers will win out. However, there are downsides – in particular:

- The “integrated relationship” between students and academics could breakdown with each party having distinct, if not opposing interests
- Asymmetry of interests may promote passive learning and standardisation, in the characterisation of “digital diploma mills” (Noble 2001)
- Academic privilege in prestigious institutions will be further entrenched (Naidoo, 2008).

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*A higher education industry is emerging in Australia in much the same way as in other parts of the world. But a key policy issue concerns the extent to which it is going in the right direction, and the regulators are keeping up.*

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To date, progress in the creation of a sustainable higher education industry has been only partial. There is further work to be done to achieve outcomes in relation to teaching quality, greater efficiency, innovation, more differentiation, greater diversity in institutional forms, and choice while preserving the fundamental mission and purpose of public higher education.

The impact of the COVID-19 pandemic shock on the higher education industry (as communicated through Universities Australia) is that revenues are likely to shrink by 13% in 2020 (\$4.6 billion) due to the collapse in income from the international student market. There are also parallel concerns associated with a fall in domestic student demand. COVID-19 exacerbated a liquidity crisis that first became apparent in 2019.

This “shock” has the potential to transform the industry fundamentally. To date, responses and reactions from the industry have largely been directed towards protecting and embedding the *status quo* and presupposing a continuing evolutionary growth path. This assumption is likely to be ill-founded as the industry becomes disrupted through demand changes and supply opportunities around digital technologies.

## 8.2 The higher education industry growth life cycle

The higher education industry has experienced rapid growth, and over the last 5 years has been in a “bubble” situation with an extraordinary increase in revenues from international students. Like bubbles in other industries, it encouraged both hubris and complacency in an expectation that the growth pattern would continue. It obscured underlying weaknesses in domestic demand and university strategies and problems with overloaded management and administrative inefficiencies.

### 8.2.1 Background

The mission and purpose of higher education system is currently confused and conflicted. Governments have sought to address this by introducing a range of performance targets (e.g., graduate outcomes, research quality, socio-economic targets, etc.) as well as an extensive range of reporting and compliance requirements as conditions for receiving financial assistance (particularly under the *Higher Education Support Act 2003*) and being allocated Commonwealth supported places (CSPs).

The higher education industry has become a wealthy and powerful lobby for its own interests, particularly in promoting its research and economic development credentials and seeing off the VET sector’s challenges for a greater share of resources for tertiary education. But it took its eye off its key constituencies: domestic students and their parents; employers in industries that require educated and technically trained “blue-collar” graduates; and the broader community which provides its social licence to operate.

There is little political or public sympathy towards universities in dealing with their present financial challenges. The industry has largely ignored the emerging competition from non-university providers and the growing impact of digital technologies. In this context, the industry is on the cusp of a major disruption and transformation.

The purpose of this part of the chapter is to provide a framework to address the challenges facing the higher education industry and canvass options to get it back on track. This leads into the next part which addresses a range of policy options for consideration by policymakers.

### 8.2.2 The Michael Porter framework

In a highly influential analysis, Harvard economist Michael Porter proposed that an industry grows through a life cycle of introduction, growth, maturity, and decline. The stages are defined by inflection points in the rate of growth in industry revenues and follow an “S” curve reflecting innovations, preferences, and changes in demand for products and services (Porter, 1980). He identifies these points in 4 stages:

1. A broad flat, introductory stage of growth which reflects supplier, investor, and purchaser/buyer inertia
2. A rapid growth occurring as buyers rush into the market once products/services are seen as desirable and have gained acceptance

3. A maturity stage, where penetration to potential buyers has been reached, causing rapid growth to level off at an underlying rate of growth
4. Growth tapers off as substitutes appear and/or buyer demand shifts to alternative forms of supply.

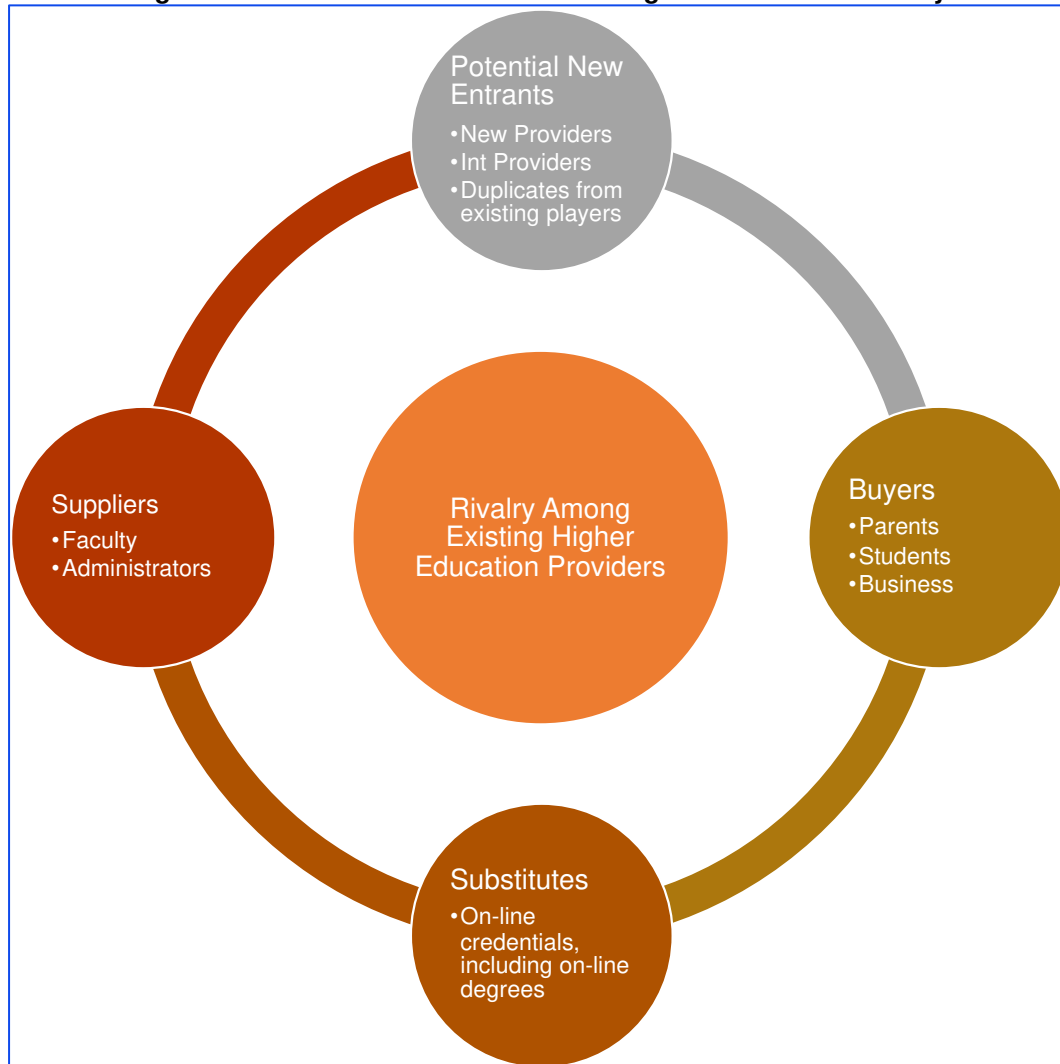
As an industry goes through the cycle, the nature of competition shifts, and industry structures reconfigure. Arguably, Australian higher education is in the third stage and is now entering the fourth.

As growth tapers off industries look to rationalisation, restructure, and innovation to potentially start a new cycle. Rationalisation involves looking at the sustainability of the current growth trajectory and making efficiency and productivity adjustments, whilst restructure may involve a concentration of suppliers through merger and acquisition. Innovation may mean looking at ways to use existing assets in new ways and modification of business models.

Porter suggests that instead of assuming a continuing path of evolutionary growth, there is a need to look *beneath* the cycle to identify *the drivers of change* and how they operate. His widely applied strategic framework of *competitive forces* provides a useful starting point (Porter, 2008) is listed below:

- Threat of New Entrants
- Bargaining Power of Suppliers
- Bargaining Power of Buyers
- Threat of Substitutes
- Rivalry Among Existing higher education Institutions

These forces are represented in an adaptation of the well-known “Five Forces” framework in Figure 92, adapted for the higher education industry.

**Figure 92: Porter's "five forces" in the higher education industry**

Source: Pringle and Huisman, 2011, Understanding Universities in Ontario, Canada: An Industry Analysis Using Porter's Five Forces Framework (Pringle and Huisman 2011).

Porter suggests that industries evolve because some forces come into motion that create incentives or pressures for change (Porter 1980, Bok 2003, Productivity Commission 2017).<sup>111</sup> Porter notes:

Every industry begins with an initial structure – the entry barriers, the buyers and supplier power, and so on, when the industry comes into existence. This structure is usually (though not always) a far cry from the configuration the industry will take later in its development. The initial structure results from a combination of the industry's underlying technical characteristics, the initial constraints of small industry size, and the skills and resources of the early entrants.

The evolutionary processes work to push an industry towards its potential structure, which is rarely known completely in advance. Embedded the structure are the underlying technologies (ways of working), service characteristics, and nature of present and potential buyers. The range of structures an industry might achieve

<sup>111</sup> Porter proposes the analytic device of the "Five Competitive Forces" to address and analyse the evolution and status of an industry structure. These are: the entry of new competitors, the threat of substitutes, the bargaining power of buyers, the bargaining power of suppliers, and the rivalry among existing competitors

depends on the direction and success of demand, marketing, innovations and overall strategy (Porter 1980).

### 8.2.3 Australian context

Thirty years ago, Australian higher education was bedding down the “Dawkins” university reforms for a *Unified national system of higher education* (Dawkins, 1988)<sup>112</sup>. The reforms were aimed at enhancing the “quality, diversity and equity of access” to education. The reforms enabled -

- *Introduction of new entrants* - the conversion of all *Colleges of advanced education* (CAEs) into universities, a structural change that was, and remains the subject of much controversy. While the designation of institutes of technology as universities has worked well, several of the newly designated universities possibly remain unviable over the longer term<sup>113</sup>
- *Introduction of new buyers* – by the introduction of income-contingent loans for tuition costs through the *Higher education contributions scheme* (HECS) which made higher education more affordable. The growth in the service-oriented knowledge economy in the 1990s stimulated demand for university education
- *Increase in suppliers* – new faculty increased as staff at CAEs adopted titles of professors and were able to supervise PhDs. Supply also increased through government subsidy, and extension of full fee for service models
- *Increased rivalry* - traditional universities were forced to compete for research funds with the newly designated universities.

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*Instead of extending diversity into the system, the 1988 structural changes introduced uniformity as institutions sought to look alike.*

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There were at this early stage few potential new entrants or substitutes. This is now changing with growth in the non-university higher education sector and the emergence of substitutes, such as global online degrees and non-university qualifications becoming more highly valued.

Demand for higher education continued to rise along the “S” curve - until 2014.

## 8.3 Towards peak demand

From a student demand perspective, there are indications that the industry has matured and is on the cusp of significant change:

- The growth in Australian *domestic* demand for university places appears to have peaked in 2014

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<sup>112</sup> Dawkins, John. & Australia. Department of Employment, Education and Training. (1987). Higher education: a policy discussion paper. Canberra: Aust. Govt. Pub. Service

<sup>113</sup> The Dawkins reforms included the use of various metrics to assess and rate academic research inputs, for example, generating income from external research grants, use of objective ratings of the “quality” of research output, determined by looking at the “impact factor” of journals in which they publish.

- Over the 5 years 2014-2018 domestic demand for university places has increased by only 5%, compared to 38.1% for international places. The change in demand is not, however, evenly spread
- International student revenue was applied to substantial infrastructure investments – making up for the decline in Australian government infrastructure support from 2013
- The shift from domestic to international demand was accommodated largely within existing university structures and systems. The collapse in international demand in 2020, and international revenues, has forced many universities to revisit their structures and systems.

The peaking of demand commenced before the re-introduction of enrolment caps in the 2017 budget. The impact on demand with the increase in places announced in the 2020 *Job ready graduates* package, and the 2020-21 budget which announced more places for higher education short courses, is by no means clear, particularly in the light of the education alternatives and the cost.

Declining domestic and international demand in 2020 has generated a severe financial problem for these older institutions. But it would not be appropriate for government (taxpayers) to compensate these universities for disinterested and/or poor domestic marketing strategies.

Australian demographics are such that there is little scope for expanding domestic demand, except with a possible bubble coming through as the *Costello baby bonus*<sup>114</sup> cohort comes of age<sup>114</sup>. Notwithstanding, the Australian domestic higher education market is small, stable, and more contested across a range of non-higher education providers and the VET sector.

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*There is now a threshold question whether Australia can support 39 overtly similar public universities, and a growing private and non-government sector. This question has created pressure for rationalisation and restructure to protect operating margins and cash flows.*

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Australian domestic demand for university places would appear to have reached maturity in 2014, with only limited growth after that, creating pressures for rationalisation and restructuring. Over the 5 years 2014-2019 domestic demand for university places has increased by only 5%, compared to 50% for international. The overall increase amounted to 17.2% in student numbers. The change in demand is not, however, evenly spread across institutions.

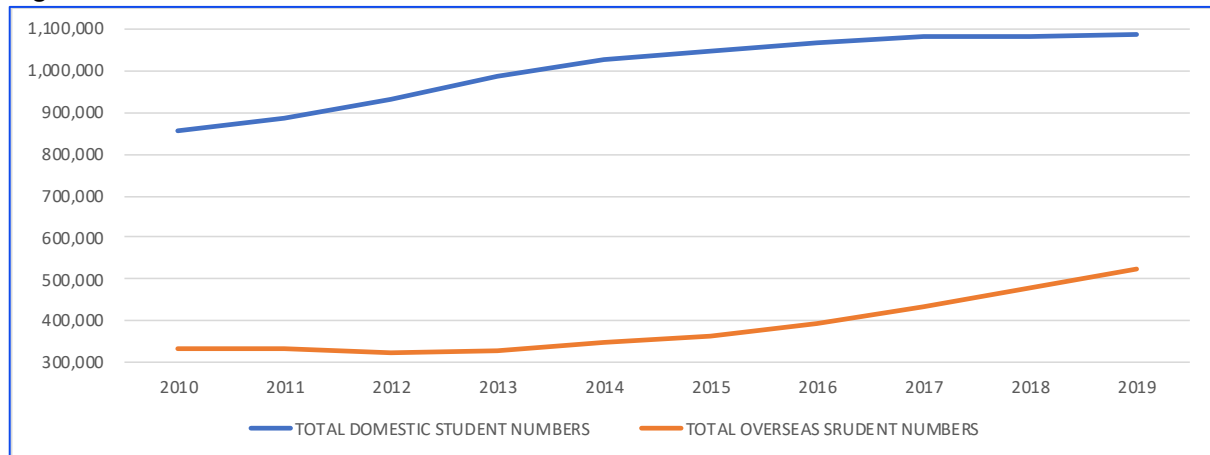
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<sup>114</sup> According to Deloitte Access Economics, by 2030 there will be 360,000 Australians turning 18 years old each year – a staggering 20 per cent increase from the current level of 300,000 (<https://www.afr.com/politics/peter-costellos-baby-bonus-generation-grows-up-20170831-qy7wfg>). The first of the “bubble” turned 18 in 2021 and in 2024 10,000 young people will come of age <https://www.uahigheredition.com.au/baby-bonus-university-funding-as-the-costello-babies-come-of-age/>. However, 2020 enrolment data are reported not to show this effect, with enrolments down.



In 2019 total domestic student *numbers* amounted to 1,087,850, compared to international student number of 521,948, giving a total student population of 1,609,798. Trends from 2010 are shown in Figure 93.

**Figure 93: Domestic and International student numbers 2010-2019**

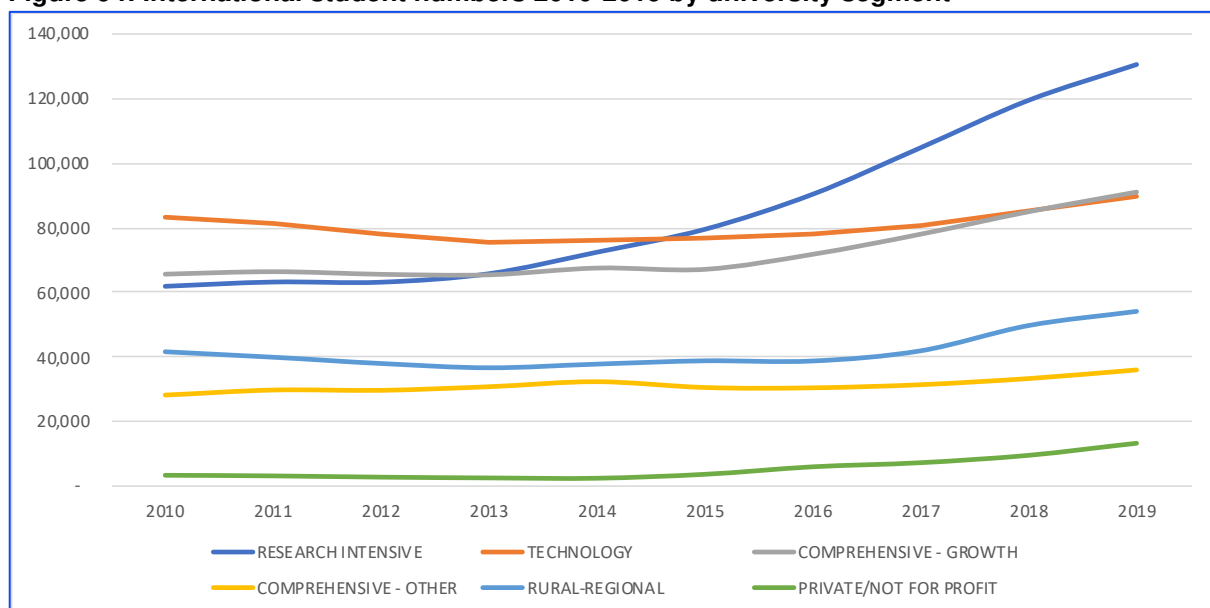


Source: DESE Student Data. Calculations by Author

The small increase in domestic demand since 2014 has been concentrated in the universities in the outer metropolitan areas of Sydney and Melbourne, the technology universities, some of the regional universities, and in the private/not-for-profit segment. These institutions have been aggressive domestic marketers and more digitally active in their marketing strategies. The market share of the research-intensive universities has dropped from 18.8% in 2010 to 16.4% in 2019, while the private/not-for-profit segment has increased from 3.5% to 4.8%.

The peaking of domestic demand has been more than offset by the increase in overseas demand from 2014. Overseas student demand is highly concentrated in the research-intensive universities, compensating for weakening domestic demand. This is shown in Figure 94.

**Figure 94: International student numbers 2010-2019 by university segment**



Source: DESE Student Data. Calculations by Author

Overseas student market share in the research-intensive universities increased from 21% in 2010 to 30.8% in 2019 and the private/not for profit share has increased from 1.2% to 3.1% (due in large part to the growth of Torrens University). The technology universities' share has dropped from 28.4% to 21.2%, and the comprehensive-other segment has dropped from 9.7% to 8.5%. These growth patterns and changes in market share have implications for university financial performance.

## 8.4 Adjustment and rationalisation

As industries mature there is pressure for adjustment and rationalisation within businesses and across the industry to build sales through strategy and innovation, and maintain margins by reducing costs, specialisation, introduction of new technology, and entering niche markets.

To a limited extent rationalisation has been taking place under the radar as the higher education industry segments into categories of its own volition. There has, however, been very little in the way of restructuring due to the straitjacket of the unified national system. Higher education policy should not stand in the way of an industry segmentation through an unwavering commitment to the continuation of the “one-size-fits-all” rules based and control oriented governance approach currently in place.

The pressure for rationalisation and restructure was temporarily lifted in 2014 with the boom in international demand for Australian education services, particularly from China. Overall demand from this source, together with India, continued to increase until 2020 when it was interrupted by the coronavirus crisis and a serious breakdown in Australian diplomatic relations with China.

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*Overseas demand is expected to recover, but the scope, scale, direction, and timeframe is uncertain. The crisis has restored the pressure for rationalisation and restructure that emerged before 2014.*

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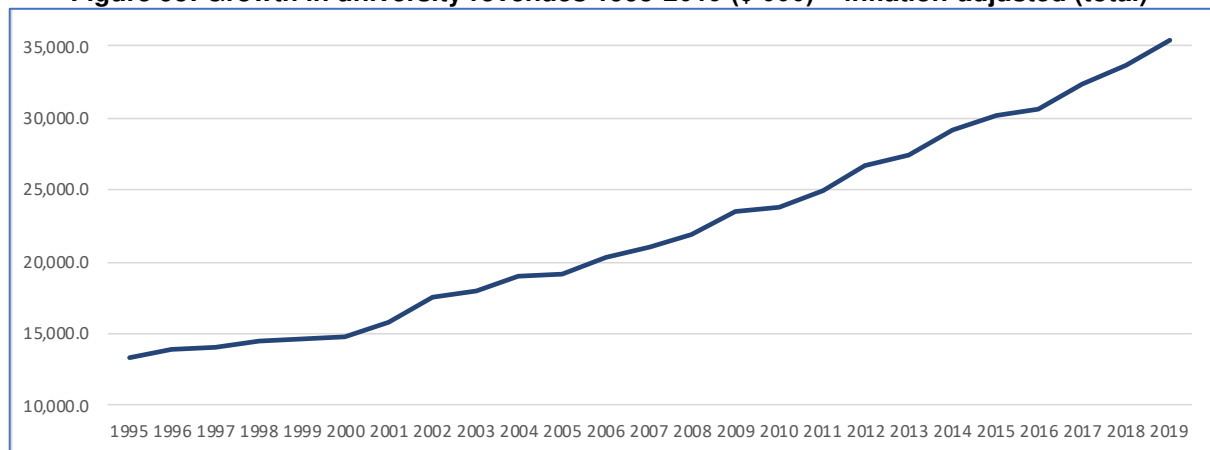
The pressure for rationalisation might also be deferred with an increase in the demand for sub-degree and short course qualifications from workers losing their jobs during the economic downturn that started in March 2020, and a more general rise in unemployment as unskilled workers look to acquire professional knowledge and qualifications for new and emerging technology intensive industries. Jobs in industries such as international tourism and hospitality will take many years to recover.

In April 2020 the government provided support for universities to deliver short courses with reduced fees, but in NSW these were competing with public TAFE, offering free courses paid for by the NSW government. Several universities have been stimulating demand by allowing entry at the end of secondary school year 11 rather than year 12. While these events might sustain demand for a short time, the

pressure for rationalisation, restructure, and innovation is growing stronger as the industry enters the next stage of the life-cycle.

The growth in revenues for the Australian higher education industry between 1995 and 2019 is shown in Figure 95. There are major inflection points in 2002 with rapid growth starting to occur, in 2009 with the announcement of the demand-driven funding system, and in 2016 where growth in international student revenues outpaces the levelling of domestic revenues.

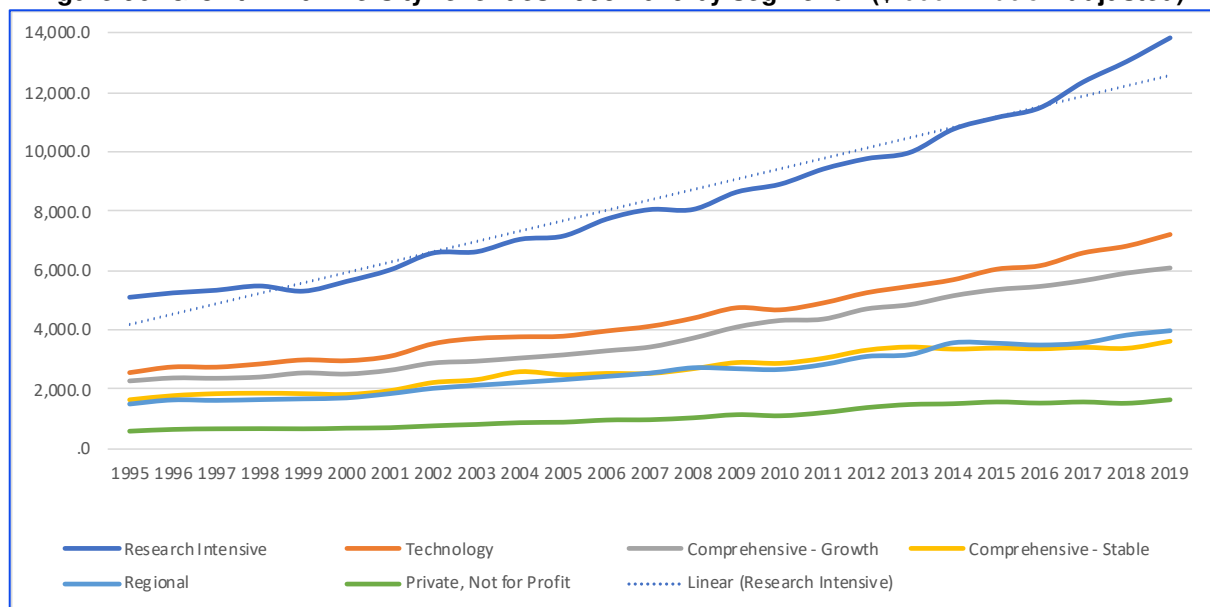
**Figure 95: Growth in university revenues 1995-2019 (\$'000) – inflation-adjusted (total)**



Source: University Annual Financial Statements

The growth among university segments is indicated in Figure 96.

**Figure 96: Growth in university revenues 1995-2019 by segment – (\$'000 inflation-adjusted)**



Source: University Annual Financial Statements. Author Calculations

The increase in international student numbers has been associated with an increase in the revenue proportion of the research-intensive universities, the private/not-for-profit universities and a decrease in other categories, as indicated in Table 14.

**Table 14: Proportion of revenue – selected years**

	1999	2004	2009	2014	2019
Research-intensive	36.5%	37.2%	36.8%	36.9%	38.9%
Technology	17.1%	16.9%	17.4%	16.5%	16.8%

Comprehensive-growth	21.6%	20.8%	20.7%	20.9%	20.9%
Comprehensive-other	12.0%	11.9%	12.0%	11.4%	10.1%
Regional	11.5%	11.7%	11.4%	12.2%	11.2%
Not for Profit	1.3%	1.4%	1.7%	2.2%	2.1%

Source: University Annual Financial Statements. Author Calculations

The trajectory in Figure 95 could not, in all reality, be expected to continue on the growth path represented. Falling domestic demand, reflected in 2019 enrolments, and indications of possible further declines in 2020, place incredible expectations about international demand growth<sup>115</sup>. From an economic perspective, there would have been inevitable resource and capacity constraints if the trajectory continued - for example, low-cost housing, economic and social infrastructure, and all the pressures associated with increased immigration.

COVID-19 has changed that. Universities Australia has forecast a drop in total university revenues of \$4.6 billion (a drop of 13%) starting in 2020. This could be a major inflection point, indeed a shock, in Porter's life-cycle framework. The coronavirus impact may well be exacerbated by the *Job ready graduates* package's impact and the expanding range of alternatives to higher education delivered by public universities.

The dual impacts the Coronavirus and the *Job ready graduates* package are likely to be reflected in changing demand patterns (domestically and internationally), declining revenues, and challenges to the way the industry has operated. These will prompt higher education institutions and the industry more broadly to look to rationalisation, restructure and innovation. Some of these trends are in train with the emerging market segmentation of the industry.

There have been many attempts during 2020 to forecast revenue trends over the short term (2-3 years), medium term (5-7 years), and longer term (10 years – to 2030). These include leading forecasters from the *Melbourne centre for the study of higher education* (CSHE).

Many of the projections rely on an assumption of a return to “business as usual”. Such an assumption is fraught given the concerns among the community about the cost and quality of the higher education experience, access and equity issues for low SES students, the apparent profligacy of university management, the perception of extravagant spending on campus development, and the possibility that domestic demand will shift to non-university higher education and TAFE providers.

Even if these concerns are unfounded, the higher education industry has a job to do in building the trust in the community as it moves away from the model of the “community of scholars” to the corporate university as addressed in chapter 5.

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*It can be fairly certain that a pathway to growth from 2021 will not be “business as usual”. It would reflect outcomes of rationalisation, restructure, and innovation strategies.*

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<sup>115</sup> There are reports of domestic demand increase due to expectations of rising unemployment.

Approaches to rationalisation are addressed below, and issues in restructure, disruption, and innovation follow.

## 8.5 Rationalisation as a response to peak demand

The requirement for rationalisation draws on the impact of 4 factors that have played out since 2014, and exacerbated since 2018:

1. Falling demand from domestic students
2. Falling demand from international students
3. Falling levels of research income – associated with (2) above but more generally, falling industry and government support for research
4. Changing student and employer preferences – impacted by digital native students and employer opinions on work-effective graduates; the future of any 'education product', price, delivery, work/learning integration; a significant body of students willing to accept more remote/blended teaching with some customised face to face mentoring

It is most unlikely that all of these revenue sources will recover – at least in the short term.

Drawing on experience in other industries, and the Porter Five Forces Framework (Figure 92) above, rationalisation in the higher education industry could come from several dimensions.

### 8.5.1 Supplier (university) responses

Supplier responses will range from a perception that the demand conditions have changed forever, and there is a need for strategic realignment, to an expectation that things will recover and return to normal. All that is needed is for government to help see it through<sup>116</sup>. These responses in higher education can be grouped into several dimensions.

#### *Strategic responses*

The larger, more financially robust, and strategically oriented universities will look to reposition and recover as market demand changes and adjust their business models accordingly. They are likely to create differentiated offerings to both domestic and international students, employers, and governments.

PA Consulting reported recently in *Times higher education* that institutions that excel in planning, communication and problem solving are primed to respond to global challenges by improving the way they work (PA Consulting 2020). Even before the crisis, uncertain funding, competition and globalisation created “a compelling argument” for institutions to become more adaptive, agile, and responsive to change.

<sup>116</sup> Indeed, there is a perception that universities and some old style TAFEs are behaving like old fashioned department stores offering a multiple range and variety of '3-year products' across multiple fields of education to a shrinking market. The impact of COVID-19 on stimulating on-line demand and carving out new ground in retail is such that traditional stores will not recover market share. The analogy is drawn with face to face modes of teaching for post school education providers. While it is the case that some providers are reducing the number of faculties and reducing the number of courses, the trend is not widespread.

This approach became more important in developing ways to manage through and after the crisis.

Universities will need to discover the learning capabilities and qualities they believe will be valued by students, employers, and entrepreneurs across existing and new industries - and why. Warren Bebbington, former vice-chancellor, University of Adelaide, has commented recently that the 2020 pandemic experience signals a pivotal opportunity for a transformation in universities, critically through narrowing and sharpening a distinctive mission and aims for each campus (Bebbington 2021)

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*Universities will need to move from a supply-oriented commodity model to one that genuinely focuses on demand.*

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*Universities will need to accept that they are in the experience business.* They will have to take a genuine interest in their students and potential employers and focus on the skills they require for working in a changing economy. The comprehensive (growth) and technology universities are well down the track on this.

Already universities have been competing based on “the student experience”, moving from marketing of a pleasure-seeking experience of campus life to creating the experience of establishing an entrepreneurial business or a start-up. Several universities, and particularly the technology universities, have invested heavily in the entrepreneurial domain.

### ***Tactical responses***

The larger, *less strategically oriented* operations may take a “slash and burn” approach and look for more government subsidy. This playbook is currently being followed by several research-intensive universities heavily exposed to the international education market. There is a regular stream of reports in the *Campus review* about staff cuts and redundancies. Of course, as with other large corporations, the crisis is also an opportunity to do what had been on the drawing board for quite some time.

These universities have been the most vocal about the pending doom and gloom. Still, they may be highly resistant to change – such as an expectation that by continuing to go to international student fairs students will come back for face to face learning. They are looking to provide lower value offerings (cheaper products), such as certificates in competition with the VET sector. This approach is unlikely to be cost effective or sustainable.

Several universities have announced staff reductions but have not specified where. There is a concern that reductions will be in casual academic appointments – not in the non-academic support areas that grew rapidly between 2014 and 2018.

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*It may take some time to realise that the market has changed, and the old business models are no longer appropriate.*

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There would appear to be, based on employment data extracted for this book, substantial scope for efficiency and productivity gains particularly in “back office” and “head office” (corporate) functions in many universities. There may also be scope to scale back the range of offerings (courses), abolish business units (faculties) and close campuses in small cities and towns. Some universities have already been through this process.

### ***Specialisation and niche offerings***

Some institutions, particularly the smaller ones, might adopt a strategy to develop global niche positions focusing on one or perhaps 2 education and research fields. The struggling research performers may seek approval to become teaching only institutions or seek mergers with larger operators in the same area.

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*Many small universities around the world are globally recognised for the quality and standing in their teaching and research.*

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Rural based universities might seek to become known, globally, as agricultural universities, for example.

### ***Pressure for government bailout***

Some providers might look to government bailouts. However, government appetite for industry bailouts is not strong in the light of the manufacturing industry’s experience and lobbying from other industries. Generalised industry assistance merely postpones the inevitable restructure. Governments are more inclined to provide resources for restructuring, rationalisation, and innovation.

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*Government assistance may come with tight strings attached, including requirements to restructure and merge to build scale and critical mass.*

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## **8.5.2 Buyer (student) response**

For many years universities and the university lobby promoted a view that a university education was the best way for students to achieve economic, financial and social success. This would come by attaining a qualification that would enable entry into a profession – from medicine and allied health to teaching, engineering, architecture, information technology, law, accounting, and finance. These are



essentially “knowledge-based” professions. Academic qualifications imposed a “barrier to entry”<sup>117</sup>.

With pressure from industry associations, such as accounting, the means to acquire professional qualifications had for several years been shifting from the vocational education sector to the university sector. Teaching and nursing shifted from state-owned teachers colleges and schools of nursing to CAEs and then to universities. In the process, entry to these professions became more knowledge-based.

With the unrestricted entry to university courses, announced in 2008, and commenced in earnest in 2012, and the increasing supply of graduates that followed, students became aware from parents, career advisers, their peers, and their own inquiries that there was an oversupply of “qualified” professionals. Students had to be very convinced about the ability to stand out from the crowd – and many have. They also have become aware of a mounting debt burden in deferred loan liabilities.

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*Students have become concerned about the very high debt they have acquired under HECS-HELP and its potential impact on their borrowing capacity when they enter the housing market.*

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There are still many professions that do not require a professional university qualification for entry. However, many professions require far-reaching *technical training*. This has predominated in what is still called the blue-collar “trades” sector but is now more widespread in new digital technology areas (white-collar) where employers value more highly technical qualifications rather than academic qualifications.

Buyers will be looking to develop new skills and knowledge and retrain in the requirements associated with the recovery. For example, these may be in the new manufacturing, which has become very high tech and will continue to increase its digital technology orientation.

Buyers will be looking for alternatives in non-university higher education and VET providers. The public and private TAFE sectors have responded to this reality and have been drawing students away from universities.

Australian students also make decisions as either school leavers or mature age students to enrol in overseas universities. The international education market works both ways as many Australian students enrol in universities in China, USA, UK, Italy and Japan<sup>118</sup>.

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<sup>117</sup> Many practice-based professions have tried to put barriers to entry in place, with limited success. There is no academic qualification that places a barrier to being a manager, a public servant, or policy adviser, for example. Management consulting as a profession, has complete freedom of entry. Skills are learned on the job, through practice. Learning in the social sciences and humanities builds capability in the “soft skills” that are increasingly recognised as a basis for career entry and advancement.

<sup>118</sup> The Australian Universities International Directors’ Forum reports that in 2019 there were 52,170 study abroad “experiences”. The majority, 36,575 were undertaken by undergraduate students. There were 8,220 postgraduate coursework students and 7,380 postgraduate research students. <https://monitor.icef.com/2019/12/australian-students-studying-abroad-more-than-ever-before/>. Not included are Australian students enrolling directly with overseas institutions. The latest Universities UK data identifies 2,125 Australian students at UK universities <https://www.universitiesuk.ac.uk/International/Pages/intl-student-recruitment-data.aspx#hesa>

### 8.5.3 Potential new entrants

The non-university higher education sector currently accounts for 15% of student enrolments. Many institutions are highly regarded and are growing their student intake—a complete list is in Attachment 1.

### 8.5.4 Substitutes

The growing importance of online and multi-modal delivery has become apparent during the COVID-19 crisis. They offer advantages in terms of convenience, time, and application, although poorly developed technologies held development back in the early stages. The technologies are now improving, and faster broadband and wider bandwidth is facilitating connectivity.

The government has supported community providers' growth through community-based university education centres in rural and regional areas, where higher education participation is currently very low.

It is understood that mature age students tend to be attracted to new technologies. This is a segment that will need to be targeted as the relative size of the 16-24 cohort diminishes. It is also understood that students do well online if there is local mentoring and support which is the logic behind the Regional University education model.

### 8.5.5 Rivalry

Rivalry will grow as the student market contracts, domestically and internationally. Domestic rivalry will be among a larger number of active suppliers and internationally through competition with the UK, US and Canada.

If the government reduces its regulatory oversight and financing, institutions will be forced to search for new and innovative ways to connect to new students in new places. This may involve:

- Rivalry among regional universities for access to CSPs allocated to community education centres
- Simplification of the complex articulation arrangements between TAFEs and universities
- Leveraging partnerships with TAFE providers to establish distinctiveness in the integration of academic and occupational learning.

International rivalry will be reflected in the ability to enter into long term strategic partnerships with governments and institutions based on online delivery using sophisticated digital technologies and high-value internships and practicums.

The processes of rationalisation and restructuring will play out in coming years, and as indicated above, change is occurring. Public policy has a key role in facilitating and supporting change where beneficial outcomes for students and stakeholders are apparent. As indicated, a trend towards specialisation and segmentation is evident.

## 8.6 Mergers and acquisitions

By US comparisons, Australian universities are small in relation to student numbers and research income. While the US has multi-campus federated “state system” universities, there is still a need to address questions and issues often raised in public discussion -

- Do we need all these separately constituted high-cost medical faculties, agricultural faculties, engineering faculties? Decisions to set up a new university campus, medical school, or faculty are often made on political/election grounds rather than an academic business case, or consideration of alternatives.
- Australia’s research performance appears to suffer from a lack of scale.<sup>119</sup>
- Success will mean building scale economies, efficiency and market reach, and highly specialised niche operations.
- With declining student numbers and research income, some comprehensive Australian universities are considered subscale in many academic areas. Specialisation in niche areas is an alternative to amalgamation.

Mergers rarely deliver the results intended. This is addressed in the attached discussion of mergers (Attachment 6), drawing on local government and corporate experience. There is a need to think more carefully about cooperation and collaboration. What may work for merged research capability may not work for teaching or engagement with local economies and communities<sup>120</sup>.

## 8.7 Innovation

In addition to rationalisation, responses to a smoothing out of industry demand can initiate innovation and restructure. The structure of the unified national system, established under the Dawkins Reforms of 1988, has, to date, been remarkably stable, notwithstanding the progressive addition of more rules and centralised controls. This invites disruption. In the following paragraphs several disruptive influences are outlined.

### 8.7.1 New delivery models

Disruption of an industry, and particularly digital disruption is characterised by the emergence of new business models, new entrants, and changed preferences of buyers.

It has been argued that businesses continue to be disappointed with the graduate offerings from traditionally structured and financially stretched higher education institutions. With disappointment increasing as the digital revolution advances, businesses are taking the initiative in developing their own solutions.

<sup>119</sup> Evidence for this observation was provided in the Expert Opinion Survey conducted for the Review of the Rural Innovation System Howard Partners (2018). Review of the performance and impact of Australia’s Rural Innovation System. Canberra, Howard Partners.

<sup>120</sup> In South Australian the Labor state opposition made an election policy announcement about merging 3 local units in SA. see <https://www.abc.net.au/news/2020-10-31/sa-labor-election-promise-university-merger-commission/12834964>

## Online learning

Businesses are encouraging their employees to participate in the growing number of online learning platforms – many of which have been formed around collaborations among universities looking to the future. They include [Coursera](#)<sup>121</sup>, [Udemy](#), [edX](#)<sup>122</sup>, [Skillshare](#), and [FutureLearn](#)<sup>123</sup>. FutureLearn currently offers 24 online courses delivered by Australian universities including a bachelor of arts at Newcastle University<sup>124</sup>.

The expanding scope of international online learning is described as follows (Horn 2020):

### Online learning delivery

Online learning has also led to the creation of numerous organisations and offerings that support businesses and employees in skills and talent development. They include, for example, [Pluralsight](#), [LinkedIn Learning](#) (built on the acquisition of [Lynda.com](#)), [Learn@Forbes](#), and [Udacity](#). All help employers re-skill the workforce across multiple areas, often in specialised or cutting-edge fields.

A further element of the disruption is the emergence of start-ups like [Guild Education](#) and [InStride](#), which have emerged as *intermediaries or brokers* to allow companies to work with higher education institutions to offer learning as an employee benefit. [Degreed](#) has emerged to measure and help assess the learning and skills inside an organisation. Coding and engineering boot camps like [General Assembly](#) and [Galvanise](#), and other so-called last-mile education providers (many of which offer blended or fully online programs), are increasingly working directly with enterprises<sup>125</sup>.

Universities like [Arizona State](#), [Bellevue](#), [Southern New Hampshire](#), and [Ashford](#), as well as schools like [Ultimate Medical Academy](#), are partnering directly with companies such as [Starbucks](#) and [Walmart](#) to offer “bespoke” education to employees.

<https://management-reporting.blogspot.com/2020/01/education-disrupted.html#ref5>

In Australia conservative, process oriented, slow moving, and risk averse academic boards can frustrate innovation in online learning. More agile accredited non-university providers will undoubtedly move in to fill this space.

## Corporate learning

In the face of rapid technological change in automation and artificial intelligence, recruiting and retaining talented employees at all levels in industry and government is a major challenge. Talent is a critical differentiator in a “hypercompetitive” national and global business environment.

Companies argue that they can no longer afford to wait for the current higher education system to supply the workers they hope will help shape their future — the need is said to be too acute and too urgent. They regard many higher-education institutions as “being in denial”<sup>126</sup>. The *status quo* that existed in the industrial

<sup>121</sup> Australian Partners include Macquarie, Melbourne, Sydney, UWA, UNSW, and Atlassian

<sup>122</sup> Australian Partners include ANU, UQ, Adelaide, Curtin,

<sup>123</sup> Australian Partners include Griffith, Melbourne, Monash, Murdoch, Newcastle, QUT, RMIT, UNSW, Wollongong. FutureLearn is a private company jointly owned by the Open university and SEEK group. It partners with universities and cultural and education organisations including the British council, the British library, the British museum, and the National film and television school.

<sup>124</sup> See <https://www.futurelearn.com/search?q=australian+universities>

<sup>125</sup> For further discussion, see Management reporting: education, disrupted. <https://management-reporting.blogspot.com/2020/01/education-disrupted.html>

<sup>126</sup> These concerns were expressed in a project for the Australian council of the learned academies on the [Skills for Innovation](#) in 2017.

economy and the early years of the knowledge economy, where the links between companies and the educational institutions that fed them were predictable and “good enough”, is no longer tenable. Companies are expecting much more.

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*Amazon, for example, regards the weakest link in its talent acquisition value chain as the education that colleges and universities provide.*

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The information that employees and contractors in companies like Amazon need to know is changing rapidly: building curricula through internal accreditation (traditional academic boards and faculty) and external accrediting regulatory processes is now considered to be too cumbersome<sup>127</sup>. In July 2019, Amazon announced that it would spend \$US700 million over 6 years on postsecondary job training for 100,000 of its soon-to-be 300,000 workers (Horn 2020).

For now, Amazon says it intends to outsource that training to traditional colleges and universities. But once Amazon has begun to provide the bridge for that training, it's not hard to imagine that it will be well positioned to create that training itself — without the “middleman” of colleges and universities — in the future

Amazon's retraining programs will include:

- *Amazon technical academy*, which equips non-technical employees with the skills to transition into software engineering careers
- *Associate2Tech*, which trains fulfilment centre associates to move into technical roles.
- *Machine learning university*, which offers employees with tech backgrounds the opportunity to access machine learning skills
- *Amazon career choice*, a pre-paid tuition program designed to train fulfilment centre associates in high-demand occupations of their choice
- *Amazon apprenticeship*, a Department of Labor certified program that offers paid intensive classroom training and on-the-job apprenticeships with Amazon.
- *AWS training and certification*, which provide employees with courses to build practical AWS cloud knowledge<sup>128</sup>

It will be interesting to see how many technology companies follow the Amazon lead. It has been said that while Amazon's competitors will keep a close eye on its training moves, the higher education industry should keep an even closer eye, given that “those moves may herald a total transformation in the landscape of learning, from postsecondary education through retirement” (Horn 2020).

Amazon's announcement shouldn't have been a surprise. The need for better-trained talent is clear in companies across the globe, and Amazon is taking a somewhat predictable path. That is, Amazon's efforts resemble what we've seen happening in other technology arenas

<sup>127</sup> In Australia, accreditation of national training packages is considered by industry to be excessively slow.

<sup>128</sup> According to a CNBC report at <https://www.cnbc.com/2019/07/11/amazon-plans-to-spend-700-million-to-retrain-a-third-of-its-workforce-in-new-skills-wsj.html>

for decades, bearing out Clayton Christensen's theory of interdependence and modularity (Horn 2020).

The Amazon initiative appears different from the much-heralded Deloitte university that started in 2011, and which other consulting firms followed. While this model bought “the best thought leaders together, fostered conversation, and set out to build cutting-edge capabilities”, it did not offer university degrees or certificates.

The abundance of new approaches and players has led to far more affordable and convenient options - a familiar theme that disruptive innovation has fashioned in numerous other fields. In the case of learning and talent development, such offerings can allow companies and government organisations to make more significant investments in their greatest asset: their employees.

The theory tells us that in the early years of a new paradigm, product and service providers must integrate across all the unpredictable and performance-defining elements of the value chain to succeed.

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*In a service-oriented knowledge economy, education is being recognised as a critical element in the value chain.*

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In Australia industry still appears to be at the stage of lobbying universities and government to provide the solution. This is unlikely to achieve fundamental change in the system.

### **Community learning**

In November 2018 the Australian Government commenced funding *Regional university centres* to improve access to tertiary education for regional and remote students. Centres support students who wish to stay in their local community and study online with any Australian university. The government allocates a small number of *Commonwealth supported places* (CSPs) to each centre.

Centres are operated by community based not-for-profit organisations with university partners. Australian government funding is provided to contribute to the costs of:

- Infrastructure including study spaces, break out areas, video conferencing, computing facilities and high-speed internet access
- Administrative and academic support services such as developing writing and researching skills, managing administrative processes
- Student support services, including pastoral support, study advice and assisting with accessing student services.

There are currently 25 centres that have received funding for a total investment of \$53.2m. A further \$21m was provided in the 2020 *Job ready graduates* package. Centre partners include both universities and VET providers.



Regional university centres effectively operate as “franchises” that aggregate course offerings from several established regional universities. They have a critical role in addressing regional socio-economic disadvantage.

#### The Taree Universities Campus Initiative

The Taree Universities Campus was launched in September 2020. Its establishment is based on the premise that Australians are well provided with access to higher education in the capital cities and the larger regional cities. But they are very poorly served in rural and remote areas. This is largely an untapped market, as the established university model is not set up to deliver to it. For example, the NSW MidCoast community misses out on access to higher education:

- Less than 10% of the population aged 15 years and over has a Bachelor or higher degree - compared with the average of 22.0% for Australia. MidCoast is a retirement centre, with a significant proportion of former teachers and public servants. This grouping provides a potential resource for tutoring and mentoring in a community-based delivery model.
- For those in the 15-34 year age group the proportion with a Bachelor's degree or above is 15.5% compared to 39.2% for Australia
- Of the total students enrolling in university from the MidCoast of NSW, for example, less than 18% of students complete their study: In fact, completion rates are decreasing, and there is an increasing dropout rate. Only 1.2% of MidCoast residents are attending a university compared with 5% across Australia.

The 2019 Productivity Commission research paper, *The Demand Driven University System: A Mixed Report Card* (Australia. Productivity Commission 2019) highlighted the finding that school students who live more than 40 kilometres from a university campus are considerably less likely to go to university than school students who live in closer proximity.

Research suggests that regional campuses and hubs offset distance disadvantage by extending the range of courses available locally by utilising online technology combined with an on-campus experience. But these hubs tend to be unviable if delivered under a university cost structure. Innovative, community based, and community owned entities offer alternatives.

Participating universities are expected to pay for the costs of course delivery, including tutorials. There is an expectation that the local government and the broader community will contribute to establishing regional university centres by making available buildings and contributing to the cost of administrative and financial services.

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*The regional universities centres model can provide an important bridge between the delivery of online and distance education with the formality and expense of operating an established physical campus.*

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The model can potentially increase flexibility in education delivery, lower the costs of delivery by the removal of a range of university incurred overheads, allow for experimentation in cross-university course design, and facilitate pathways programs and articulation between the VET and university sectors.

### Service learning

Service-learning is emerging as a teaching and learning strategy that integrates community service with instruction and reflection to enrich the learning experience,



teach civic responsibility, and strengthen communities. It must be grounded in a wide range of solid, reciprocal, partnerships (Jacoby & Associates, 2003).

It is an approach that complements student “internships” that are incorporated into curricula as well as practicums that are required in health and education programs.

In Australia, several universities have introduced *capstone* projects or courses, which have the purpose of helping students synthesise their learning, demonstrate their development of graduate capabilities, successfully negotiate the transition to their next career stage, and enabling the institution to assess final graduate capabilities<sup>129</sup>.

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*Service learning has the potential to build the social skills associated with workplace skills that employers seek.*

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## 8.8 Extending into new business areas

In 2019 universities generated an average operating margin of around 6%, up from 4.3% in 2018. This takes into account government grants, international student income, other revenue, and costs. From a corporate perspective, this would be insufficient to maintain ongoing operating capability, quite apart from financing any growth and expansion.

Unless new strategies can be developed and instituted, other revenue sources found, and cost structures redesigned, universities are on a declining growth trajectory, as discussed in the industry growth analysis in the earlier part of this chapter.

The sector was in decline after the 2013 Budget. Growth returned with the massive increase in international student income starting in 2014, which boosted operating budgets and surpluses that were applied to property investments and building strong financial asset portfolios. This came to a rapid halt with the 2020 COVID-19 “shock”.

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*With a small domestic student market, universities saw opportunities to deliver a more significant commercial return by entering the growing international higher education market. Firstly, as a sideline business and then with greater strategic intent.*

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For 5 Australian universities, international education has become a *core business* to capture opportunities in the global higher education market. It has remained ancillary for many others as they concentrate on the high growth urban fringes of the major capital cities.

State governments and the university lobby have celebrated international student income in terms of its contribution to Australia’s exports. The rapid growth in

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<sup>129</sup> Assessing by Capstone Project, UNSW Teaching Staff Gateway. <https://teaching.unsw.edu.au/capstone-project>

international students was not seen by many as having a bubble's characteristics. It also seems that not all universities weighed the prospects of increased revenue with the *full costs* of generating it and the risks involved<sup>130</sup>. Only a few universities in Australia addressed the *risks* of a speculative or overzealous commitment.

The international higher education market enabled the internationally focussed larger universities to make a lot of money and generate substantial wealth. That market collapsed in early 2020, with the sector said to be losing an estimated 50% of its business – that is, revenues down from \$10 billion to \$5 billion. Demand is expected to return, but not at the same level.

Of course, in the COVID context, universities could scale back their operations, and modify expectations of operating surpluses to finance less ambitious capital programs and expand financial investment portfolios. This is already in play for many universities, particularly those highly exposed to the international student market. But a decline in domestic demand has already set in.

From another angle, innovative university boards (councils, senates) and executives have been looking beyond student numbers and research income to generate commercial returns – that is, “selling their services for a profit, as Dereck Bok has documented in *Universities in the Marketplace* (Bok 2003).

There was a much earlier take-off in the US and Canada for this commercial orientation as state or provincial governments began defunding their universities. This pressure will be felt increasingly in Australia as the Australian Government continues to experience severe fiscal challenges.

Universities have a wide choice of options to generate revenues to support their missions and core functions – in much the same way as local governments, other statutory authorities, and charities have done by diversifying their income-generating options. For example, rate pegging legislation in NSW has forced local governments to look for alternative revenue sources. They have included commercial ventures, property developments, and merchandising. Some councils have an objective to be rate-free.

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*The scope of university commercial services extends from the commercialisation of research, contract teaching, and commissioned research and consultancy through to investments in start-ups and related entities, merchandising, naming rights, endorsements, and property development.*

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Twenty years ago, Australian universities were not good at this – and had poor skills to do it, along with strong academic pushback. Over the ensuing years, many

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<sup>130</sup> A significant element of the costs involved in delivering international education include appointing staff to do the teaching (generally casuals) and the corporate costs associated with student recruitment, pastoral support and in-country liaison. Risk management would have meant that people appointed to these roles would have been on fixed term contracts or casuals. With the disappearance of the students, it should have come as no surprise that people in these roles would become redundant.

university councils and Vice-Chancellors have become much more commercially adept at generating commercial income streams.

If expectations about the long term global growth of international higher education are valid, the income losses could be short term if the right adjustments are made. But it cannot be certain that income from international students will recover to the record levels reported in 2019. There are risks that there may be fewer students leaving China and other nations to study overseas and that competition from other nations will become increasingly intense. Australian universities with offshore campuses may be better placed.

Universities that have been pursuing active campus development strategies in partnership with developers and state governments and industry to diversify income streams and build external engagement may also be insulated to some extent from the shock. Many have been very active in large scale precinct and innovation district initiatives. The most recently announced is the \$695m Edith Cowan CBD Campus<sup>131</sup>. Similar initiatives are underway in Newcastle, Ultimo, and Westmead.

Unlike businesses in the corporate world, universities have limited options to diversify into new lines of business. Australian universities lack access to other sources of funds as in other countries, in the form of public and privately funded research and development programs. In their manifestations as constitutional trading corporations or state-owned public organisations, universities do not appear to be attractive for philanthropy outside medical research.

Over the last few years, several universities have become significant property developers, leveraging their property asset base to generate income streams either on their own behalf or in collaboration with state governments and private developers. The process has created iconic buildings – for example, in Newcastle, ECU in Perth, and Western Sydney at Bankstown.

Several regional and outer metropolitan universities have sought relocation in CBDs to capture international students and graduate students in management and commerce working in CBD offices (e.g., UNE offers law at Paramatta). But the vision of the entrepreneurial university active in the commercial marketplace (Bok 2003) generating substantial financial returns, is some way off.

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<sup>131</sup> See <https://www.citycampus.ecu.edu.au/>



## 9 Towards a diversified national higher education system: a proposed framework

As industries grow, they segment into areas of specialisation and capability. This happened in agriculture, manufacturing, transportation, and energy. Rightly or wrongly, universities have already moved from the “extensive” craft-based model of scholarship to an “intensive” model of higher education as an industry with universities as businesses operating in a range of domains. But like manufacturing, the transformation has not been well managed from a policy or institutional perspective in what is a highly complex and rigid system.

As higher education moves into the second quarter of the 21<sup>st</sup> century, several forces will be at work:

- Transformation
- Diversification
- Segmentation and categorisation of delivery models
- Differentiation of roles
- An increasing focus on delivery and outcomes

These are addressed in turn.

### 9.1 Transformation

There is a widely held view that higher education institutions will undergo a far-reaching transformation in the years ahead - due to technological change, reductions in government support mechanisms, and changing patterns of demand. However, many of these predictions, set out in the numerous variations of this scenario, can be highly speculative and technologically deterministic.

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*But there is little doubt that higher education will, to a greater or lesser extent, be subject to transformative change – but the direction and impact is far from certain.*

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#### 9.1.1 Impact of digital technologies

Digital technologies have transformed media, retail, entertainment and many other industries, and inroads are now being made into higher education, as discussed in chapter 4. However, there is some complacency arising from a view within the academic community that higher education has largely avoided the pressure of digital disruption due to the power of ‘prestige’ that the higher education marketplace enjoys and an embedded notion of quality.

According to Clayton Christensen, universities that survive today’s disruptive challenges will be those that recognise and credit their strengths while innovating with optimism. “University communities that commit to real innovation, to changing

their DNA from the inside out, may find extraordinary rewards. The key is to understand and build upon their past achievements while being forward-looking” (Christensen and Eyring 2011).

Campuses will remain, it is argued, but digital technologies will transform the way education is delivered and accessed, and the way ‘value’ is created by higher education providers, public and private alike. Some baseline issues will need to be addressed, such as:

- The extent to which the global technology companies that offer “education as a platform” will grow to dominate the system and what will be the national interest tests of universities that collaborate with them
- The trade-offs between students’ preferences for learning/lifestyle and lifelong credential-accumulation in either low cost dull commodity offerings, or high cost/prestige global education markets offering mixed mode education (online and face to face education/business-networking) leveraging off existing prestige ‘brands’ - Harvard, Stanford, Oxford, for example.

Some, but by no means all, of these issues are raised in the paragraphs that follow.

### 9.1.2 Changing expectations

In the last few years, students have focused on outcomes, including lifelong income, and the steady improvement of low-cost online learning technology. In the UK and US, the income differential for university education is evaporating, and there is more significant take up of online learning.

Traditionally, universities have committed to following standards set by the highly ranked research institutions, especially Harvard, MIT, Oxford and Cambridge. That strategy of emulation has proven highly successful in attracting students and more research income. But as the level of student contributions have climbed so too has the number of students for whom a university education is too expensive.

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*As costs increase, online programs become an increasingly attractive choice. The adoption of technological innovations in online delivery will be incentivised by the urgent need to make education more affordable.*

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It is envisaged that considerably fewer academics may be required in the technological future as the cost pressure of increasing salaries and workplace conditions on tuition fees will be eased. In Australia and the UK, the domestic enrolments in prestigious universities are levelling off, and students are looking for other options.

These trends are illustrated by the formation of “FutureLearn”, a social learning platform established by the UK’s Open University and SEEK Ltd in 2012. In 2020 it had more than 6 million students from over 200 countries, 175 UK and international

university and non-university partners including from Australia. FutureLearn, and other platform providers, are becoming embedded in the higher education system.

### Online learning is finding its feet after a stuttering start

Nick Morrison, Forbes, 8 December 2016

After a stuttering start, online learning is finding its feet with the launch of a new range of degree programs.

Social learning platform FutureLearn revealed today that it is partnering with a leading university to launch online-only postgraduate degrees.

Heralded as the first time a MOOC (massive open online course) provider has offered several fully online degrees entirely on its platform, it will also give students the opportunity to take short taster courses before committing to a degree.

FutureLearn will team up with Australia's Deakin University to offer degrees in cybersecurity, information technology, financial planning, humanitarian and development action, property, and diabetes education from early next year.

Deakin vice-chancellor Professor Jane den Hollander said the move would give students a streamlined education and allow the university to reach a global audience.

"Now more than ever, it is incumbent on universities to provide broadening, global experiences for their students. "In a troubled world where borders seem to be closing, we need more learners engaging with peers around the world. Deakin believes this can be achieved effectively through digital education at scale. These degrees are only the start."

FutureLearn, owned by the UK's distance learning specialists the Open University, already has a global reach for its online courses. Around three-quarters of its students come from outside the UK.

Students will be able to enrol for a free two-week taster course. If they decide to continue and enrol in one of the 6 postgraduate programs, it will cost \$A2,600.

Online learning has had a chequered history since it burst onto the scene. Far from transforming higher education, MOOCs and other online courses have so far played only a marginal role, dogged by low completion rates.

The new initiative aims to address the high drop-out rate by running distinct cohorts of students. Instead of students taking the course in their own time, they will start in groups and be encouraged to complete it at the same pace as the rest of the cohort.

"Learning with a global cohort of students who are actively contributing and engaged through our approach to social learning will deliver a rich experience for learners that we think will add a new dimension to this type of postgraduate study," said Simon Nelson, CEO of FutureLearn.

Whether that will mean more seeing it through to the end remains to be seen, but it does suggest that course providers are increasingly looking to transfer more of the approach seen in conventional education.

And it comes hot on the heels of other developments indicating online learning providers may be adapting to how students learn, rather than aiming to create a new paradigm.

Last month, Oxford University announced that it was partnering with edX to offer its first MOOC, an economics course.

And earlier this year, FutureLearn teamed up with Leeds University in the UK to offer MOOCs that could give students credit towards a degree.

However, the link between online learning and formal qualifications is far from assured, despite the millions of students involved.

But while the progress of online learning has not been as smooth as some anticipated, today's announcement suggests that what were once faltering steps are becoming more sure-footed.

<https://www.forbes.com/sites/nickmorrison/2016/12/08/online-learning-is-finding-its-feet-after-stuttering-start/#678610f83e0b>

Some commentators have suggested that devices will replace faculty by 2030. Although perhaps far-fetched, there will be reliable e-learning options from numerous providers on multiple platforms, and students will select the ones most compatible with their preferred learning style.

### 9.1.3 Changing demand for academic credentials

With the increasing impact of automation and AI across the higher education industry, the scope of professional jobs needing "proof of entry level" academic and/or technical ability is, potentially, in decline - as intelligent machines can do the jobs that higher education has prepared students to do. Professions will be challenged to extend the scope of knowledge-based service offering and capability around technological innovation [as is happening in engineering, architecture, design].

The massive increase in the availability of knowledge online and the mass expansion of access to higher education from both public and private providers (nationally and



globally) provides a wide range of options and alternatives to access knowledge and acquire competencies.

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*With millennials spending an average of only 2 years in a job (meaning they will likely hold 15-20 different jobs over the course of their working lives), they will look for easy return to higher education for skill-specific capability without wanting to commit to formal qualification programs.*

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This, and the growth of online programs, could be a catalyst to revolutionise the way higher education is delivered. There has been an emergence of “tailored” learning options for those with busy lives, starting or growing a business, and free modules for those who want to try before committing to study.

People working in the growing ‘platform’ and ‘gig’ economy are continually looking for new skills and upgrades. As mentioned above, this is already occurring as reflected in low completion rates for university and TAFE qualifications. People are tending to enrol for subjects only and modules to acquire specific capability.

#### **9.1.4 Falling government support**

The recently announced cuts to university funding by the Australian Government cannot be seen as a temporary or transitory issue, and no amount of public lobbying or campaigning will change a government’s resolve to share the burden of fiscal restraint and exercise greater control over higher education expenditure (Howard 1983).

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*In the shorter-term, with reducing government support, higher education institutions will be compelled to introduce efficiencies and look for productivity improvement*

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But in the medium to longer term, institutions will look to creating leaner business models as competition increases for staff, students, funding and partners. They will likely move into new business areas and establish income generating enterprises that leverage capability, brand, reputation, and generate substantial revenue streams.

Public universities will continue to be run like corporations, while seeking (struggling) to maintain the freedom of inquiry and academic rigour that their long-term reputation depends on. State TAFEs, currently run through state government budgets, will be encouraged to corporatise into public organisations that can compete with universities and private providers. They will be encouraged to build up financial reserves for future expansion and development – and compete more vigorously with universities.

## 9.2 Diversification

Many universities are positioning/differentiating around the student experience and entering into an ever-increasing portfolio of business activities to broaden and *diversify* the revenue base. They will offer much more than formal learning – education and training in entrepreneurship, such as becoming leaders in ‘cluster’ development, engines of industrial innovation, and industrial and regional policy instruments.

Market forces will require that higher education providers clearly define their distinctive contribution to the catalogue of “choice” available to students. Providers will be either very local, plugged into a powerful societal and economic network of regionally defined business, industry and cultural hubs, or they will be international brands, recognised as the “go to” organisations for the creation and dissemination of knowledge and for seeking solutions to global problems.

The system will also see more specialised providers. Such providers are currently limited to certain discipline areas in the UK, such as the arts, law, and business. Still, they are ripe for significant expansion into areas such as science, engineering and technology, perhaps sponsored by huge corporates.

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*There will likely be new entrants into the higher education sector, including global corporates, and there is even some inevitability of “The Google University”.*

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It is now appreciated that education delivery can be flexible, portable and not tied to place, and this development will continue. However, technology will not dissolve a need for higher education providers to exist in some physical form. There will always be significant numbers of students who want to “go” to university, to be part of a community of learners, educators and scholars exploring, disassembling and co-creating knowledge.

Thus, place-based education will not disappear entirely; as well as being places of learning, campuses are places for socialisation, where adolescents mature into adults through interaction with others before they embark on careers.

However, campuses will continue to evolve from their ‘ivory tower’ legacy, and potentially expand their role as ‘public spaces’ for industry and community interaction and sites for innovation precincts and clusters. Moreover, in many parts of the world, campuses are a focus for urban renewal, social housing, and regional industry development. Collaboration with state planning and infrastructure agencies will see this continue (Rodin 2007).

## 9.3 Segmentation framework

The unified national system of the “Dawkins” vision is now 30 years old. Even at that time, there were concerns about the one-size-fits-all approach. This unified approach fails to stimulate *difference* and *innovation* in education services delivery.

Not all the universities play on the same field. The 5 largest institutions have choices not open to the others, but the sector is treated as a single undifferentiated industry for regulatory purposes. A different policy focus would address how individual universities could play to their strengths - but the dominance of the current rules driven unified national system has proved a binding constraint on specialisation.

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*The unified national system's current operational reality already suggests that the framework is weakening, with the attention being given to the “special place” of regional universities and the emergence of separate funding streams for education and research.*

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There is a need to think again about diversification of the system to better meet the broadly defined education needs of society. This diversification may involve aligning with elements of the proposed *Provider category standards* (Coaldrake 2019).<sup>132</sup> Government would work with providers to develop missions and strategies that would drive funding arrangements for research, teaching, and service to industry and the community.

Now is not the time for “root and branch” structural change. But the current higher education system model is under pressure as discussed in earlier chapters. Policy should consider the evolution of existing financial, student and research profiles, strengths and distinctiveness, and encourage and support that evolution through clearly defined and differentiated university strategies.

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*Segmentation occurs as demand diversifies with multiple expectations about what the role of a business is. That is, multiple clients, multiple outcomes, multiple ways of service delivery.*

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One scenario could be along the lines: the higher education system should grow and transform around several distinct, but connected, provider categories each with strong, distinctive capabilities, catering to specific market segments. Many of these segments have already started to “self-select”.

The path towards segmentation and diversification should be further encouraged by the following strategies:

1. Encouraging and supporting the emergence of the 6 *established research-intensive universities* at scale. These include the “big 5” and the ANU.
2. Building national capability and capacity in the *technology universities* in information technology, engineering, and management. The collaboration framework of the Australian technology network should be strongly supported.

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<sup>132</sup> The standards are described in more detail on page 190 below.

3. Encouraging the further development of research and teaching in the *growing outer metropolitan comprehensive universities*, adjacent to hospitals and medical research institutes and embedded in regional clusters/innovation ecosystems.
4. Encouraging universities in the slow growth areas of large cities to build specialisations for niche markets and withdraw from areas where there is low, and declining demand and losses are substantial. Amalgamations should be considered where practicable.
5. Assign a specific charter for *regional universities* to support regional economic development and fund accordingly. Priority should be given to education and research in the rural industries covering rural production, processing, distribution and participation in global value chains (Howard Partners 2018). In addition, encourage and fund on a consistent basis -
  - participation in regional innovation hubs and preparation of smart specialisation strategies
  - assign a special responsibility to support younger age cohorts into higher education within a region
  - strengthen the regional campus centre model with more CSPs to give strength in negotiations with regional provider universities
6. Encourage the growth of non-university higher education institutions to address specific education needs in disciplines not driven by research scholarship, such as in the arts and creative practice.
7. Establish public TAFE reform to enable its effective participation in a national *tertiary* education system.

This segmentation goes a little further than the Coaldrake provider categories. It departs from an incremental change to the *status quo* preferred by the university lobbies, which amounted to an effective “no-change needed” position. The impact of the COVID-19 disruption and the *Job ready graduates* package call for a more substantial shift in higher education segments' structure.

An indicative strategic profile of higher education institutions in a diversified national system is represented in Table 15 below. For this book it is necessarily brief, but it is intended to provide a basis for considering funding and other regulatory arrangements that would be fit for purpose.

**Table 15: Strategic profile for a diversified national higher education system**

Segment	Distinctiveness	Competitive advantage	Opportunities
Research intensive university	Global rankings, global focus in medical research, and research and teaching in the social sciences and humanities, the visual and performing arts Very high proportion of postgraduate students	Global reputation, international networks, strengths in medical and clinical research Valuable knowledge assets in libraries, archives, collections, cultural facilities	Ever increasing demand for health solutions - drugs and vaccines, surgical procedures, diagnostics, etc National and international centres and hubs for art, music, drama, literature

Segment	Distinctiveness	Competitive advantage	Opportunities
Technology university	Specialisations and strong linkages between engineering, technology, design and management - a critical requirement for the industries of the future	Strength in capability in the established technology oriented universities Unique link between technology, design and management	The industries of the future are calling for an ever increasing capability in digital technologies In technology, design and management around digital disruption
Comprehensive university - growth	Professional education for professionals in fast growing outer urban and large regional centres	Universities are already strategically located in outer metropolitan growth areas Close connection with local industry and communities	Growing innovation hubs and districts and collaborations with established and emerging technology businesses
Comprehensive university - stable	Established reputations and attractive location	Well-developed campuses and facilities Legacy investments in knowledge assets – libraries, collections, etc	Look for national and global niches in areas of strong capability
Regional university	Located in areas of regional importance Focus on rural and regional issues	Local and regional connections by faculty Regionally “embedded” Potentially good relations with local business and community	Build international reputations for regional teaching and research in all aspects of rural industry value added
Regional hubs and study centres	Unique model for supporting students in regional areas who are required, for studying by distance education	Community owned and operated, creating high commitment Lower infrastructure and operational cost	Build strong regional community engagement and appreciation of the value of higher education
Private and not for profit universities	Important distinctive role that reflects cultures of private enterprise and the role of NFPs	Private and not-for-profit institutions offer variety and choice for students, particularly in specialised areas and offering broader student experience	Opportunity for students seeking more than formal tuition, for example, to build networks nationally and internationally
Specialised university colleges	High performing providers operating in highly specialised and focussed areas such as agriculture, the natural environment, rural health, and Indigenous research and education	Colleges can work at a relatively small scale but can develop global niches in particular areas of capability. Can operate away from the pressures for academic publication	Build and retain a national and international focus in essential aspects of higher education. Collaborate with government and industry in lifting Australia’s creative profile
Specialised Institutes of higher education	Focus on delivering courses and programs for the visual and performing arts, including music, theatre, design, art and creative practice	Australia’s relatively small creative and cultural sector can allow close contact with professional bodies to develop courses and programs, Can operate away from the pressure for scholarly publication	Design and deliver courses, with close industry involvement, to meet education and training relevant to 21 <sup>st</sup> century jobs, particularly in technology areas
Overseas universities in Australia	Essential to encourage universities with an international reputation to locate in Australia.	Few international providers are operating at scale in Australia	Opportunity to expose students to international perspectives in fields such as innovation, management
Technical and further education institutions	Preparation of people for the workforce with essential vocational skills	Many universities and TAFEs are closely located, and some share campuses, providing a basis for greater interpersonal collaboration	Blended learning with university collaborations with TAFE as integration of academic and occupational learning

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It is emphasised that the strategic profile outlined above is indicative only and can serve as a basis for further discussion and debate. It may also provide a framework for the amendment and implementation of the proposed Australian qualifications framework (Noonan 2019).

## 9.4 Differentiated roles in teaching, research, and engagement

Outlined in Table 16 is a draft schematic that addresses the potential specialisations and capabilities in the core functions of teaching, research, and engagement. *The*

*delineation of roles does not advocate that any segment would be designated as “teaching only”.*

Research and engagement specialisations would be closely related to the knowledge requirements of each segment.

**Table 16: Potential specialisations and capabilities in higher education segments**

Segment	Teaching	Research	Engagement with industry and the community
Research intensive university	Closely related to research areas Priority in post-grad research degrees – PhDs, Masters Targeted at high achievers who can learn on their own Strong commitment to social sciences and humanities	High priority Global focus, international rankings in mind Strong medical and clinical Basic, fundamental research New Knowledge Investigator driven	Closely related to research and teaching areas – e.g., medicine. Engagement with Health Organisations and MRIs Global engagement
Technology university	To provide the talent for the new industries of tomorrow Industrial PhDs Coursework Masters Emphasis on internships	High Priority National focus Emphasis on engineering and technology, design Collaboration with industry Applied research Problem-solving with industry	Strong engagement in areas of advanced manufacturing and other high technology industries Mandate to revitalise the Australian manufacturing sector Drive industrial strategies and innovation districts, precincts and hubs
Comprehensive university - growth	In areas of growing demand for university educated personnel – e.g., health services and teaching, and for careers in commerce and the law General engineering, science and liberal arts education programs to deliver both specific professional knowledge and soft skills	Research related to teaching roles Applied research Problem-solving focus Research integrated across disciplines Collaborative across institutions and industry	Strong engagement with industry, particularly SMEs Strong engagement with NFP community organisations in health and community services. Service learning
Comprehensive university - stable	Focus on areas of unique capability and specialisation	Areas where a strong reputation is established Select, limited number of fields where capability is strong	Engagement built on established relationships in areas of specialisation – such as the law, finance, and engineering
Regional university	In areas relevant to regional development and growth – rural production, environment, rural and indigenous health Distance education for growth sectors – e.g., for health and education	Rural and regional development issues Applied and problem solving	Close links with regional businesses, government agencies, community
Regional hubs and study centres	Mentoring, tutorials and pastoral support for students studying by distance	Research not part of charter	Strong engagement with regional businesses and NFPs
Private and not for profit universities	In areas of specialisation and demonstrated return	Research to support teaching and building staff capability	Connections with sponsors, donors, and business
Specialised university colleges	Strongly practice oriented in industries with a strong public sector orientation	Research to inform professional practice	Close engagement with practitioners, including advice and extension
Specialised institutes of higher education	Strongly practice oriented in the creative and cultural sectors	Research to inform understanding of practice	Strong engagement with arts and cultural institutions
Overseas universities in Australia	Focus on international curricula and pathways for students wanting to study overseas	Strong connections with international research projects and programs	Strong connections with global corporations

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## 9.5 Implementation and delivery

It is now appreciated that education delivery can be flexible, portable and not tied to place, and this development will continue. However, technology will not dissolve a need for higher education providers to exist in some physical form. There will always be significant numbers of students who want to “go” to university, to be part of a community of learners, educators and scholars exploring, disassembling and co-creating knowledge.

Thus, place-based education will not disappear entirely. As well as being places of learning, campuses are places for socialisation, where adolescents mature into adults through interaction with others before they embark on careers. They are also places for innovation and connections between higher education teaching and research and industry in *innovation ecosystems*. Campuses facilitate formation of life-long connections and associations with colleagues in industry, commerce, and society<sup>133</sup>.

Campuses will, however, continue to evolve from their ‘ivory tower’ legacy, and potentially expand their role as ‘public spaces’ for industry and community interaction and sites for innovation precincts and clusters. Moreover, in many parts of the world, campuses are a focus for urban renewal, social housing, and regional industry development. Collaboration with state planning and infrastructure agencies will see this continue.

### 9.5.1 Research intensive universities

This sector is already dominated by the “Big 5” research intensive universities and affiliated research institutes<sup>134</sup> and the ANU, that are already ranked in the top 100 universities. The primary focus would be on delivering high quality research that raises Australia’s profile in the top 100 global rankings. They would be globally competitive in both research and teaching. Domestic fees would be deregulated to coincide with fees charged to international students.

The following arrangements could be considered:

- Universities could negotiate with the government not to contribute to the cost of courses in return for freedom to set fee levels internally in response to market demand. Students could take out a loan to a maximum level set under the HELP arrangements.
- Courses and programs would be strongly international, and a substantial proportion of students would be postgraduate. It would be expected that courses would have elements delivered by overseas universities.
- Postgraduate education, through PhDs and coursework masters programs, would also be a very high priority. Many vocationally oriented master’s programs are already fully cost recovered.

<sup>133</sup> University support for alumni networks, including international alumni, is important in this regard. It is well established in industry and the community that “people do business with people they know”.

<sup>134</sup> UNSW, Sydney, Melbourne, Monash, Queensland



- The universities would continue with premium humanities courses, again where students are already paying substantial fees, but progressively withdraw from courses that had a specific Australian workforce training component – such as education and non-clinical areas of health.
- The universities would be charged with undertaking excellent, high-quality research that covers the 4 broad domains of scholarship: discovery, integration, application, and teaching.
- Research will continue to be funded by government, industry, international sources, and the universities themselves through trusts and endowments. Government funding will have an increasing emphasis on applied research through industry partnerships.

There would continue to be a strong focus on the competitive but potentially highly lucrative higher education market, which is subject to decreasing levels of regulation in the face of stiff international competition. Universities would separately plan, budget, and account for this business. They would be large enough to manage the downside risk of international education.

### 9.5.2 Engineering and technology universities

There are 6 universities in this category, having emerged from the state institutes of technology. They have largely “stuck to their roots”. They have an essential and growing role in building the industries of the future (Ross 2016, Howard 2020). In particular:

- Research focus would be on the development of “applicable” knowledge in these industries.
- There would be a very strong commitment to collaboration and partnership with industry.
- Student fees would be determined having regard to costs of delivery.
- Government fee contribution would have regard to the national benefit of engineering and technology graduates, reflected in the *Job ready graduates* package.
- Providers would receive specific and targeted funding from Australian government industry development agencies for specialised national research institutes and centres.
- Research centres and institutes would give priority to enrolment of domestic PhD candidates. The number of PhD scholarships would be significantly expanded.

### 9.5.3 Comprehensive universities

Essentially, the 1960s universities and ones that have made the transition from CAEs – e.g., Western Sydney University. The segment would have the following characteristics:

- Providers would concentrate on delivering *education* for domestic students in specific locations – outer suburbs, large regional centres with strong industry

development characteristics. There would be a robust *place-based orientation* to deliver talent in geographic clusters and regional innovation systems.

- The focus would be on both teaching and research, but emphasising teaching quality and industry and community engagement in the areas they are located. Fees would be regulated having regard to costs of delivery and specific education requirements.
- Research focus would be applied. There may be scope for amalgamation of some to build scale (Adelaide – Flinders, Edith Cowan-Murdoch)
- As substantial land and property owners, university councils might be motivated to work with government and industry to address urban development and growth opportunities, urban renewal, contemporary housing solutions, sustainable communities, the formation of innovation hubs, precincts and districts, and, more broadly, development of regional innovation ecosystems developed on the principles of Smart Specialisation.

The segment will play to the “charitable” status of universities. As charities, they will have to find, as elsewhere, other sources of revenue to enhance the “student experience”, for example. This will mean serious and committed engagement with the communities in which a university operates. The *Advancement* function will extend beyond a transactional “giving” strategy to partnership and mutual value creation.

This segment could include strategic sub-components directed towards priority areas – such as non-metropolitan regions focusing on economic development outcomes and outer metropolitan areas that seek to link education (talent creation) and job creation (around technology-oriented industries), and participation in global value chains.

#### 9.5.4 Regional universities

The segment would cover the 9 universities defined as regional by the Australian Government – and separated for special funding arrangements, and specific regional development focus, as announced in the *Job ready graduates* package.

The regional university category could include autonomous satellite campuses of comprehensive universities where a strong commitment has been made to regional engagement.

#### 9.5.5 Regional university centres

Regional university centres support distance and remote delivery programs offered by the regional universities by providing technology, mentoring, and collaborative learning spaces. The centres are provided with a limited number of CSPs, which is intended to encourage university participation.

Support would continue for the 25 regional university education campuses, with scope for expansion.

### 9.5.6 Private and not for profit universities

These currently include ACU, Notre Dame, Torrens, Bond, and others that may emerge from other categories.

Private and not for profit providers can offer unique capabilities in the emerging areas of corporate learning.

### 9.5.7 Specialised university colleges

University colleges would be high performing self-accrediting higher education providers (under the new provider category standards) operating across regional and rural areas, particularly in agriculture, the natural environment, rural health, and Indigenous research and education.

Colleges would be expected to have formal teaching and research collaborations with comprehensive universities. The main focus would be education, not research, although they might undertake targeted research in specialised areas.

### 9.5.8 Specialised institutes of higher education

As defined by the provider category standards, these would focus on delivering courses and programs for the professions, in design, and the creative and performing arts. There would be an expectation of very strong industry linkages and co-funding with the private and public sector (particularly the national cultural institutions)

This segment can grow by expanding its offer of specialised, bespoke, responsive, agile, and innovative education solutions.

Specialised Institutes would have a national focus to build scale and specialisation. They would, for example, include NIDA, the Film and TV School. However, they need a much higher profile in the system and recognition of their major contribution to the higher education fabric. It would be expected that colleges would have a national focus and link with state based organisations.

TAFE institutes and many VET organisations are already essential providers in this segment as non-university higher education providers. Their roles should be clarified as specialised institutes of higher education.

### 9.5.9 Overseas universities in Australia

Overseas universities currently operating in Australia include Carnegie Mellon, NYU, and HBS. More overseas universities should be encouraged to establish Australian campuses with the objective of building a strong international component in the Australian higher education system for domestic students

## 9.6 Strengthening the integration of academic and occupational learning

The contemporary “knowledge economy”, characterised by the intensive application and use of knowledge in all aspects of economic output, has placed very high expectations on higher education to educate and train the “knowledge workers” who work and grow businesses in a highly services oriented industrial structure. Specifically, higher education is now seen as a significant driver of industry and regional economic development performance (OECD, 2008b, OECD, 2008a).

Due to changing occupational profile, the current skills in demand require both VET training and university education responses. Universities have a particular responsibility to educate the people who will hold professional and leadership roles in the knowledge-intensive service industries that constitute 80 per cent of the Australian economy.

The Bradley Review (Bradley, Noonan et al. 2008) pointed out that in a knowledge-based service economy the traditional institutional divisions of role and function between universities, technical and further education institutions, and post-compulsory secondary education colleges and schools are becoming blurred.

The Review suggested that the education, skills and training requirements in the new economy differ markedly from those which applied in the old economy where some students went to a VET institution to get an industry recognised qualification and others went to university to get an education.

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*The 2008 Bradley Review Report suggested it is no longer helpful to see stark contrasts between higher education and VET in the level and types of qualifications they deliver.*

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Bradley noted that traditionally higher education has concentrated on delivering longer study programs with a strong general education element and adaptable skills largely for professional occupations. In contrast, VET has focused on more immediate vocational outcomes in trades and paraprofessional occupations. However, these differences are shifting.

The Bradley Review concluded that for successful and sustained adoption and application of new ideas, practices, and technology, business, government and non-government organisations require university graduates with an appreciation of practice, and technicians with an appreciation of theory. Current and future employers and employees need both education and competency skills (Bradley, Noonan et al. 2008)

The Bradley Review suggested that there had been some convergence—with growth in the vocational and professional focus of higher education, and VET responding to industry demands for higher-level skills by re-focusing on middle-level and advanced training. However, in submissions to the Review, there was strong support from

*universities, public VET providers, and state governments* for continued differentiation in VET and higher education roles.

By contrast, employers argued in their submissions for an integrated post-secondary skills environment where the differences between the sectors do not restrict the capacity of individuals to move between them. They suggested that the distinction between higher education and vocational and technical education is eroding in the minds of employers and employees. Businesses and industry associations continually reaffirm this view in policy papers and op-eds - particularly the *Australian industry group* (AiGroup 2020).

The Bradley Review Report did not address structural change in the tertiary sector or how a higher education system could be aligned with economic, community and regional development objectives. However, it did note that various efforts to strengthen the connections between higher education and VET have been made in Australia over the previous twenty-five years, with limited success, due to structural rigidities and differences in curriculum, pedagogy and assessment.

The Bradley Review considered that a better interface between higher education and VET was an imperative and vital for a fully effective tertiary system. Little has happened to change that conclusion.

In the Policy Paper that followed the Bradley Review, *Transforming Australia's higher education system* (Australia. Minister for Education Employment and Workplace Relations 2009) the Australian Government indicated that it would like to see the changing higher education environment deliver new models of educational delivery through partnerships and collaborations between universities, as well as with VET and other adult education providers. Progress has, however, been slow.

Many VET institutions have achieved global recognition, such as the Academy for Interactive Entertainment based in Canberra's northern suburbs<sup>135</sup>. Several others operate in a global market for animation, games, and virtual reality.

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*The VET system should not be “absorbed” or amalgamated into the higher education system, but their unique contribution in blended learning must be recognised and profiled.*

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## 9.7 Uncertainty and the 2020 Job ready graduates package

The present government has provided an uncertain future for the higher education system by introducing the *Job ready graduates* package. Further discussion of the package and its impacts are provided in Attachment 6.

The *Job ready graduates package* was introduced at a time where demand for domestic university places has been falling and is likely to continue in that direction as “buyer” and “supplier” alternatives become available and more accessible – for

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<sup>135</sup> See <https://aie.edu.au/>

example, high-quality TAFE that has developed in Victoria and the range of global online platforms.

So, turning universities into vocational training institutions appears to have an element of a short term “policy fix”, and could end in disappointment. We have to have faith in the resilience of universities to focus on what a university is really all about. A great deal of excellent material has been written on this since the release of the *Job ready graduates package* 19 June 2020 and published in journals such as *Campus review*<sup>136</sup>, *Times higher education*<sup>137</sup>, *Campus morning mail*<sup>138</sup> and *Higher education commentary from Carlton*<sup>139</sup>.

The timing of the package has also been poor. The government has unsettled institutions already reeling from the loss of international revenue and introduced job-focused degrees' rhetoric while cutting income to engineering and science. It has been said to resemble the Dawkins solution in the late 1980s – taking existing funding and reshaping it to fit a new set of policy parameters. In both cases, the policy aims to increase the number of students in the system without spending more.

The government has laid bare its intention, however, to widen the split between higher education providers that are research-intensive, and the others who are experiencing pressure in maintaining their ‘competitive’ research profiles. This attrition process may see the bottom third of present universities no longer being categorised as universities under the provider category standards. This approach does nothing to build and sustain higher education diversity.

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*Rethinking higher education sees a better alternative in building and sustaining a diversified higher education system. This will involve a continuing evolution towards a new system framework and goals as outlined in this chapter.*

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## 9.8 Continuing evolution in the diversified and dynamic national system

In the shorter-term universities will be compelled to introduce efficiencies and look for productivity improvement, but in the medium to longer term institutions will create leaner business models in a broader higher education industry as competition increases for staff, students, funding and partners. They will likely move into new business areas and establish income generating enterprises that leverage capability, brand, reputation, and can generate strong revenue streams.

Working around this and other possible frameworks has to take account of the following:

- Ensuring that higher education is supported and valued by the community.

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<sup>136</sup> <https://www.campusreview.com.au/>

<sup>137</sup> <https://www.timeshighereducation.com/>

<sup>138</sup> <https://campusmorningmail.com.au/>

<sup>139</sup> <https://andrewnorton.net.au/>

- How to set and regulate fees across the categories, including differences.
- The number, scope and scale of research universities that Australia afford to support.
- Finding a better way of investing in research including a balance between investigator-driven and mission-driven research that meets higher education, government and community expectations.
- The organisational and governance arrangements for research investment.

There are, of course, other scenarios, but the one outlined in this chapter could set a foundation for developing a higher education system *and* an industrial strategy that takes Australia well into the future.



## 10 The challenges ahead

The higher education system doesn't have a lot of friends in the business and broader community. It has tended to operate in an echo chamber with little connection and interaction with the mainstream media on the challenges facing Australian higher education. Its portrayal in commodity terms as Australia's 3<sup>rd</sup> largest export industry, contributing \$40 billion to the economy, doesn't help in creating an understanding of its central role in Australia's economic and socio-cultural fabric. People in business and the community can be generally unaware of how a university is governed, managed, organised, or operated.

A university is shaped by and evolves with its environment. Many of Australia's universities are complex public corporations of highly diverse businesses, managing huge budgets and more complex than most industrial corporations. They undertake many activities - some for profit, some publicly regulated, and some operating in highly contested markets (Duderstadt 2000).

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*Universities deliver national, state, and regional benefits in teaching, research and engagement, but struggle to receive insufficient public funding to deliver these outcomes.*

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Governments expect universities to cross-subsidise public benefit activities from commercial revenues – including proceeds from research commercialisation and international education.

Comments provided to recent articles and op-eds in the education press about the university funding crisis have generally been very negative and unsupportive of the problems being encountered. For example, Elizabeth Farrelly, a columnist in the *Sydney morning herald*, captured some of this perception in her column on 18 April 2020 in addressing the implications of the response to the coronavirus crisis:

Big business will suffer too, it's true. But I'm not sorry for the universities, though I'm among their casualties. Their willing self-transformation from genuine educational institutions into greedy, profit-chasing corporations that raise fees, lower standards and pour billions into huge new buildings to attract fee-paying "international" students while refusing to divest themselves of fossil-fuel investments make this a long-warranted correction.

Higher education has an image problem and an inferior public relations strategy. It comes across as "rent-seeking" and overplays both its wish to be seen as a charity and its economic contribution – at the expense of talking up its vital national "public good" education and economic development roles.

Higher education's economic contribution cannot be achieved unless working in concert with all other industries. It is part of, not outside the national economic system. Higher education does not drive economic development, but it is a crucial participant.

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*For higher education to flourish as a system and as an industry, it must make every effort to be part of the broader socio-cultural and industrial structure.*

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Governments have a role in this regard to lead in the development of a strategy and policy for Australia's higher education system that sets goals and targets, provides guidance on the way it operates, and invests in building and extending teaching and research capacity. Policy must treasure the national, state, and regional benefit contribution the system makes for all Australians in the continuing evolution of the digital economy and the advancement and application of knowledge.

Higher education also has a critical role in lifting opportunities for people of low socio-economic status, people living in regional Australia, and people from families where members have never participated in higher education. However, higher education's corporatisation had created a significant risk that people in these categories will continue to be left behind. Unless universities step up to the mark, the pace at which alternative suppliers are stepping in will accelerate.

## 10.1 The burning platform

The higher education system cannot survive as it is. It is excessively complex, rules driven, and policy is control oriented. The system pushes uniformity and stands in the way of building diversity and innovation.

Within institutions there is currently an unhealthy focus of controlling costs to meet financial objectives. The largest single cost category is employee remuneration. Over the last decade, staff remuneration has been held in check – despite massive revenue growth. As businesses have learned elsewhere, cutting into staff “costs” dissipates the fundamental strategic asset that the organisation has access to – the knowledge, skills and experience of their employees.

Despite the winding down of the *Education investment fund* in 2013, universities have generated substantial cash surpluses through revenues from international education and limiting growth in permanent academic employment. Surpluses have been applied to purchase of property, plant, and equipment and investment in financial assets to underpin anticipated future expansion and growth.

This strategy unravelled in early 2020 with the collapse of the international student market and international education revenues. Operational cash surpluses in 2019 were similar to 2018 (\$4.19 billion in total) although they are expected to fall in 2020. Financial strategies, informed by auditors and ratings agencies, will not let universities go into negative cash flow<sup>140</sup>. Expenditure cuts are likely to penetrate very deeply over the next few years.

During 2020 universities announced deferment or de-commitment of capital programs that have relied on operating cash surpluses, and unwind the staff

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<sup>140</sup> Only **one** university recorded a net cash outflow in 2019 – the Batchelor Institute of Indigenous Tertiary Education.

increases that have occurred since 2014 to handle the more substantial teaching commitment arising from international students (mainly corporate support staff and casuals – e.g., tutors). They will also be compelled to pull back on the expanded student recruitment/marketing commitment.

This decimation of sales and marketing functions is occurring across Australian industry. It is a function that is easily automated with advanced technologies, artificial intelligence, and digital platforms. The skills that will be in demand into the future will be those critical to universities' core business – teaching and research – and the capacity to extend and diversify operations that leverage the university's strategic assets to generate new sources of revenue.

## 10.2 Rethinking the vision for higher education

The time will come when people go looking for the national vision for higher education and its contribution to a civil society that values fairness, diversity, and tolerance to a broad range of views and opinions. Universities have traditionally been *places* for debates over ideas, ideals, and reconciliation. It can be expected that people will look again for universities' role in Australia's socio-cultural fabric, with the contributions to non-material aspects of quality of life and well-being.

Fortunately, through their traditions of scholarship and independent inquiry, universities may prove to be far more resilient than public policy pronouncements prescribe. Academic boards are not easy to push around.

Australia has a small market for most things, including higher education. The market is crowded with 39 universities and over 130 non-university higher education providers. Demand is unstable due to an increasing range of study options and delivery alternatives. Still, we may be confident that the international education business will grow over the medium to longer term – but in a way that may be more ordered and less speculative than in the past. But the future of domestic demand is less assured.

Higher education governing bodies and leaders face a dilemma: should they persist with chasing the potential loss-making goal of domestic education built around achieving personal, economic, and social purpose; should they embrace the Australian Government's higher education training agenda; or should they embrace the commercial track of universities as businesses in a global higher education industry? Perhaps it is a combination of all 3 – but the way that the mix comes together will differ among institutions.

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*The future is not path-dependent - extrapolating what has gone before and responding to periodic shocks and discontinuities. The future is in innovation and transformation of universities into modern, financially viable, and goal-oriented not-for-profit businesses delivering high quality and sustainable learning experiences.*

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There is a broad academic and community consensus that “learning is for life” will become even more valued into the future. In this paradigm, higher education will build and retain *learning communities* with feeder groups, students, stakeholders, and alumni. It will be around partnership and continuity and re-establish the critical roles of universities in society – as well as in the economy.

But governing councils and auditors will insist that the “learning for life” strategy must deliver a financial benefit to the university – or be paid for by participants or other external sources. To do otherwise would threaten the economic viability of the institution.

### 10.3 Public policy focus

In 1988 Australia set up a *Unified national system of higher education*. The purpose was to develop the system as an export industry in keeping with national goals at the time. The system was called upon to improve the skill levels of the country’s workforce and earn foreign exchange by providing educational services to overseas students, thus contributing to economic development. This was reinforced with the policy paper *Our universities: backing Australia’s future* (Australia. Minister for Education Science and Training 2003).

With hindsight, it may have been a mistake to mix national education goals with economic and export purposes. Arguably, this latter, economic development objective, was not well thought through. The current and expected future export earnings of higher education have come to dominate policy discussion in states and territories, ironically overshadowing the critical importance of building, maintaining and adequately resourcing a domestic higher education system.

As argued throughout this book, the one-size-fits-all characteristic of the unified national system has worked against building diversity and encouraging innovation to address the needs and requirements of different segments in the system. *Rethinking Australian higher education* argues for the development of a *diversified national system*.

The following paragraphs canvass several areas where public policy will interact with the future direction of higher education.

#### 10.3.1 Higher education policy

Development of policy in this domain should address:

- Full commitment to supporting domestic students, particularly in high priority areas such as equity, skills development, in medical and health sciences (where universities have made a very strong and very worthwhile commitment already) and building knowledge and technologies to support Australia’s transition to new forms of growth (information technology and engineering (which they have been weak on)).

- The approach should be cross-disciplinary – recognising students' need for a well-rounded education covering both technology and the arts and creative practice.
- Strong support for domestic and international research in areas that are important for Australia's industrial and innovation future (acknowledging of course broader purposes of research) and which will help universities in global positioning and deliver benefit to Australia.
- Helping to build on the excellent global standing achieved in medical research, particularly in the universities moving to global status.
- Policies that target growth and development in leading technology universities to build the industries of the future.
- More generous support for international staff and student exchanges
- Support will be in a total package - rather than individual small funding buckets.
- Support for mergers where the business case stacks up.

### 10.3.2 Economic policy

The economic dimension of higher education policy development should address:

- A transparent accounting and financial reporting separation between higher education international and domestic businesses. It is too murky at the moment. The international student market is a matter for university consideration of cost, risk and return - but the Australian Government should not underwrite it or be exposed to risks. However, it should be comforted that university councils will come to understand the risks and have risk management strategies in place.
- The research-intensive universities charge full fees for domestic students to help develop their businesses, but without access to Commonwealth grants scheme money. The government should not be exposed to any risk of failure and be assured that institutions have the financial strength to do this.
- An understanding and appreciation of the contribution the international higher education business makes to economic growth (around 2%) is important, but not overwhelming. Its contribution is about the same as agriculture.
- Support for universities in marketing and making international connections through the diplomatic service, Austrade, and immigration and visa responsibilities. But the international business must be viable. Some universities will need to withdraw from this market.
- Consistency in policy between states and territories.

### 10.3.3 Regional policy

Regional policy aspects of higher education should incorporate consideration of:

- Working with universities to build domestic growth, including ensuring that people in rural areas have access to university education, for example, through continued commitment to regional university centres.

- Targeting growth and development in technology universities to build the industries of the future in regions.
- Supporting the larger non-metropolitan universities (Deakin, Newcastle, Wollongong, JCU) to build their medical and health sciences, manufacturing, and other specialities relevant to their region.
- Support for regional universities to develop capabilities in health sciences (not expensive medical schools), agriculture and the environment.
- Work with the regional and rural universities to support the regional development roles they are expected to perform.
- Developing knowledge and practice to supporting regional university participation in regional innovation systems and development and delivery of regional smart specialisation strategies with reference to international work in this area (Barzotto, Corradini et al. 2019, Kyriakou 2019, Papamichail, Rosiello et al. 2019, Beer, McKenzie et al. 2020, Farinha, Santos et al. 2020).

#### 10.3.4 Social policy

There is a significant social policy dimension relating to access, equity, and fairness in the availability and delivery of higher education.

#### 10.3.5 Arts, cultural, and creative industries policy

The arts, cultural and creative industries aspects of higher education are often overlooked. But the connection between universities and cultural institutions has been, and continues to be strong (Howard Partners 2007). The development of policy should address:

- Support for the development of the nation's creative industries – a significant growth area with the integration of creative practice with technology.
- Targeted support for non-university higher education providers in this area.
- Strengthening links between higher education institutions and national/state cultural institutions should be encouraged.

### 10.4 Adapting to change

The university business model is changing – they are becoming much more business-like (corporate) and commercial in operation.

The ideal-typical model of the “community of scholars” has been under challenge. Still, it can be incorporated in the corporate university design where there is strong leadership, vision and foresight.

Change will require change in attitudes and behaviours that will embrace movement towards a *diversified national system*, including an understanding that one segment is not superior in status to another.

The higher education lobby organisations, unions, and government will have a crucial role in laying out the pathway for change.



## 10.5 Structural adjustment assistance

Creating a *diversified higher education system for the 21<sup>st</sup> century* will require resources. To facilitate progress to the higher education system for the 21<sup>st</sup> century, a *national transition fund* should be established.

Higher education providers that wish to adjust to new delivery models in the market and delivery segments outlined in chapter 9 should be supported by government on the basis of sound business cases addressing costs, risks, and returns to students, industry and the broader community.

Business cases would address potential growth in distinctive capability and priority areas in international, national, state and regional domains. Providers should be assisted in making loss-making courses viable, and withdrawing from uneconomic ventures, such as international education.

## 10.6 The ongoing problem of research investment and performance

The current science, research and innovation (SRI) focus within universities is on funding (securing money for research, generally by individual researchers who need it to keep their jobs) rather than on results or outcomes. *It is a “bottom up” funding model rather than a top-down strategic framework.*

### 10.6.1 Outlining the problem

There are too many schemes, or “funding” buckets”. The Commonwealth *Competitive grants register*, published up until 2018, listed 135 grant arrangements recognised for additional funding under the *Research support program* (RSP). The allocation of research support program grants within universities generally lacks external transparency.

The system facilitates researchers pursuing their own research interests. This is, of course, consistent with the “investigator-initiated” funding principle followed by ARC. But too much time is wasted on chasing money that won’t be forthcoming and committing to research that doesn’t go anywhere.

Universities reward staff for research income generated – and publication. This is written into performance agreements. This sends the wrong signals about outcome and impacts. The impact metric developed by the ARC is not meaningful.

Any competent grant writer can make an application appear consistent with mandated national research priorities.

The result is generation of too much “interesting” research of moderate quality – and growth in research quality is concentrated in relatively few research fields (see separate analysis starting on page 100 above). Research effort tends to lack scale with so many universities operating independently. Collaboration, such as it is, has a “honey pot” characteristic.



The connection between the current science and research priorities and the development of Australian industry – or an industrial strategy – is at best uncertain. There is only a loose connection between what is invested under industry categories (SEOs) and national science and research priorities. Except for health and agriculture, budget allocations for research in specific industry categories are exceptionally small.

Analysis indicates that the SRI investment in universities for industries that will be important for achieving new growth sources is grossly underfunded – particularly industrial production, energy (specifically renewable energy), the environment, transport, communication and infrastructure (Howard 2020).

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*The Investigator-led model of research funding is failing to meet contemporary expectations.*

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We could do much better, and the answer is not just “handing out” more money for research. What is required is more money for strategically determined mission-led research, and an allocation model, in a way that government, universities, and industry can agree on.

## **10.6.2 Towards a solution**

The *Job ready graduates* package fee restructure/elimination of ‘teaching surplus’ provides an opportunity to rethink research and innovation funding as mission-led investment rather than investigator-led grant applications within generally broad and mostly meaningless national priorities.

There are some excellent examples around the world of how to do this. There is a need to find a more efficient way to mobilise resources to create the ‘industries of the future’. If more research was mission-driven, as through the NH&MRC and immunology, for example, we would get better results.

Mission-driven research in rural industries, funded by the bigger rural research and development corporations, like the grains RDC does well on quality. And the better performers like the cotton RDC, also have yielded good results. CSIRO still delivers a great deal of high quality research in agriculture.

Implementation of this approach is the subject of a separate paper being developed by the Acton institute for policy research and innovation.

## **10.7 Sustainable financial growth**

Financially, the larger universities suffered severely in the GFC in 2008 – eliminating an estimated \$2 billion from value. This is indicative of financial risks that universities encounter. But they have recovered and have learned from the experience. But the focus on financial resilience must not be at the expense of commitment to the mission of education.

As government support continues to decline, universities will have to become more sustainable financially through strategic focus, income generating strategies, and the exercise of competent financial management. Some universities will grow, whilst others will get smaller by pulling away from the comprehensive model and focussing on niche capabilities.

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*The exercise of strong financial discipline isn't inconsistent with the mission associated with a "community of scholars".*

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## 10.8 Reconciling mission and money

There is a big difference between being "business-like" (and accountable) in running a financially large public organisation in the interests of its students, staff and the community, and being in business to make money by exploiting customers and employees. Many universities have completely lost their way on this: universities should be run with the values of not for profit organisations and respect their charitable status - and what they were actually set up to do.

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*Over the last 10 years, universities have come across as vigorous rent-seekers and, in the process, have lost the trust of government and the community. The vast accumulation of wealth by the larger providers is very difficult to justify.*

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There is a widely held view that universities have lost sight of their students. This is reflected in the reduction in contact hours, bigger and shorter tutorials, extended use of casuals and adjuncts in teaching.

The pattern is similar to what has occurred in many other service-oriented businesses – from banking and insurance through to retail where corporate value creation has overshadowed *the primary purpose of a business, which is to create and sustain value for a customer* (Drucker 1994). Under this scenario, a *satisfactory* profit is a test of viability – not an objective.

The response to the COVID financial crisis in some universities where priority is given to maintaining operating margins - verges on the obscene. Staff and students are bearing the burden of universities' financial mismanagement and cavalier approach to risk.

But this can happen when students are seen as mere carriers of "financial contributions", or "business drivers" ("student load") that fund a university's quest for eminence and prestige through climbing up the global research rankings - or any ranking system that fits a purpose - or erecting "gold standard" buildings and facilities that are unlikely to be fully utilised and deliver an acceptable return on investment.

The higher education system must be designed to put students at the front and centre of what the system is intending to do and achieve. The system must fully

engage with students to deliver valuable student learning experiences and outcomes. This fundamental aspect of mission should come ahead of the task of making money.

While the economic contribution of international higher education is considered to be important to the economy, its pursuit should not be allowed to be seen as a commodity, like mining and agriculture, and overshadow the fundamental importance of higher education for Australians to acquire knowledge and skills for future careers, social mobility, and participation in a civil society.

## **Attachments: Background Information and Context**



# 1 Higher education providers 2019

The *Higher Education Support Act 2003* identifies 4 categories of higher education providers:

- Table A providers - approved for all Australian government grants under HESA and their students can receive all forms of assistance. Providers submit annual financial statements to DESE for inclusion in the annual Financial Performance data publication<sup>141</sup>
- Table B providers - eligible for some grants for particular purposes under HESA. Providers can offer FEE-HELP assistance to their students and are approved for National Priority places can also offer HECS-HELP assistance.
- Table C providers - eligible to offer FEE-HELP assistance
- Non university providers approved by the Minister to offer FEE-HELP assistance

**Table 17: List of Table A, B, and C higher education providers**

<b>Table A providers</b> (38)	Central Queensland University
	Charles Darwin University
	Charles Sturt University
	Curtin University of Technology
	Deakin University
	Edith Cowan University
	Federation University Australia
	Griffith University
	James Cook University
	La Trobe University
	Macquarie University
	Monash University
	Murdoch University
	Queensland University of Technology
	Royal Melbourne Institute of Technology
	Southern Cross University
	Swinburne University of Technology
	The Australian National University
	The Flinders University of South Australia
	The University of Adelaide
	The University of Melbourne
	The University of Queensland
	The University of Sydney
	The University of Western Australia
	University of Canberra
	University of Newcastle
	University of New England
	University of New South Wales
	University of South Australia
	University of Southern Queensland
	University of Tasmania
	University of Technology Sydney
	University of the Sunshine Coast
	University of Western Sydney
	University of Wollongong
	Victoria University
	Australian Catholic University
	Batchelor Institute of Indigenous Tertiary Education
<b>Table B providers</b> (4)	Bond University
	The University of Notre Dame Australia
	MCD University of Divinity
	Torrens University Australia
<b>Table C providers</b> (2)	Carnegie Mellon University, a non-profit organisation established under Pennsylvania law
	University College London, a non-profit organisation established under United Kingdom law

<sup>141</sup> <https://www.dese.gov.au/higher-education-publications/finance-publication>

**Table 18: All students by higher education institution and broad level of course, full year 2019**

State/Institution	Post Graduate Research	Other Postgraduate	Bachelor	Associate Degree	Other Undergraduate	Enabling Courses	Non-award Courses	TOTAL
<b>Table A Providers</b>								
ACU	297	5,893	25,426	8	234	0	1,338	33,196
Adelaide	2,324	5,807	19,710	0	177	92	193	28,303
ANU	2,751	9,681	13,658	7	127	15	78	26,317
Batchelor Institute		0	0	0	0	0	0	13
Canberra	525	3,305	11,545	0	293	473	127	16,268
Charles Darwin	295		7,912	116	486	1,288	< 5	12,010
Charles Sturt	449	15,456	21,555	2,363	143	2,994	445	43,430
CQU	503	9,447	13,871	323	195	2,177	417	26,933
Curtin	2,051	6,368	38,736	35	0	1,841	242	49,273
Deakin	1,904	17,523	41,157	612	np	0	895	62,213
Edith Cowan		6,981	19,345	32	399	3,045	67	30,637
Federation	263	6,712	11,130	14	235	238	104	18,717
Flinders	952		15,418	0	< 5	556	104	25,500
Griffith	1,849	9,456	36,565	0	57	298	1,328	49,553
James Cook	742	4,945	13,147	0	951	374	520	20,741
La Trobe	1,511	7,707	28,684	0	419	289	162	38,772
Macquarie	1,925	10,038	31,085	0	1,152	454	669	45,323
Melbourne	5,038	33,268	31,310	31	124	88	790	70,649
Monash	5,236	25,392	55,308	0	342	28	447	86,753
Murdoch	764	4,107	18,881	0	np	1,431	212	25,424
New England	737	6,405	15,588	8	1,130	818	233	24,919
New South Wales	4,072	20,897	36,922	0	285	299	1,579	64,054
Newcastle	1,814	5,416	24,441	9	38	3,334	374	35,426
Queensland	4,559	15,380	34,028	113	191	315	719	55,305
QUT	2,033	9,414	38,899	0	979	0	707	52,500
RMIT	2,386	15,309	49,362	3,806	763	30	1,072	72,728
South Australia	1,064	6,179	26,388	159	296	1,073	92	35,251
Southern Cross	354	5,828	11,748	552	190	1,168	175	20,015
Southern Queensland	867	4,518	15,108	1,114	206	3,096	511	25,420
Sunshine Coast	487	2,121	13,346	71	296	1,093	346	17,760
Swinburne	1,571	6,310	32,142	157	1,319	0	343	41,842
Sydney	4,936	26,358	37,265	0	126	0	1,366	70,051
Tasmania	1,654	6,229	22,681	578	4,335	929	78	36,484
UTS	2,198	10,202	32,381	0	19	993	457	46,250
Victoria	643	5,253	20,482	0	1,687	32	414	28,511
Western Australia	1,980	7,622	14,273	0	np	77	< 5	24,197
Western Sydney	1,419	7,565	37,355	40	1,936	910	220	49,445
Wollongong	1,611	8,094	23,515	0	393	461	915	34,989
<b>Total Table A Providers</b>	<b>63,764</b>	<b>351,186</b>	<b>940,367</b>	<b>10,148</b>	<b>19,523</b>	<b>30,309</b>	<b>17,739</b>	<b>1,445,172</b>
<b>Table B Providers</b>								
Bond University	215	2,618	2,131	0	187	47	903	6,101
Notre Dame Australia	386	2,356	8,420	0	8	396	161	11,727
University of Divinity	101	877	294	0	228	0	0	1,500
Torrens University Australia	42	7,094	5,469	491	4,796	0	0	17,892
<b>Total Table B Providers</b>	<b>744</b>	<b>12,945</b>	<b>16,314</b>	<b>491</b>	<b>5,219</b>	<b>443</b>	<b>1,064</b>	<b>37,220</b>
<b>Total A and B Providers</b>	<b>64,508</b>	<b>364,131</b>	<b>956,681</b>	<b>10,639</b>	<b>24,742</b>	<b>30,752</b>	<b>18,803</b>	<b>1,482,392</b>
<b>Table C and Non-University Providers</b>								
NSW	582	23,847	28,053	491	11,556	0	456	64,985
Victoria	8	13,218	12,746	236	9,094	0	55	35,368
Queensland	0	518	5,177	459	2,624	0	35	8,813
SA			1,935	222	1,609	0	37	8,489
WA	0	153	300	39	4,404	0	7	4,903
ACT	0	1,583	114	0	0	0	0	1,697
Multistate	79	1,722	608	19	723	0	0	3,151
<b>Total Table C and Non-University Providers</b>	<b>669</b>	<b>41,041</b>	<b>48,933</b>	<b>1,466</b>	<b>30,010</b>	<b>0</b>	<b>590</b>	<b>127,406</b>
<b>TOTAL - All PROVIDERS</b>	<b>66,578</b>	<b>420,199</b>	<b>1,005,614</b>	<b>12,105</b>	<b>55,151</b>	<b>30,752</b>	<b>19,399</b>	<b>1,609,798</b>

Source: <https://www.dese.gov.au/higher-education-statistics/resources/2019-section-2-all-students>



Further information on Table C and non-university higher education providers is in Table 19 below.

**Table 19: Students in private university (Table C)<sup>(a)</sup> and non-university higher education institutions and broad level of course, Full Year 2019**

State/Institution	Postgraduate Research	Other Postgraduate	Bachelor	Associate Degree	Advanced Diploma	Diploma	Non-award Courses	TOTAL
Academy of Information Technology	0	0	667	5	0	436	0	1,108
Adelaide Central School of Art	0	0	187	21	0	0	0	208
Adelaide College of Divinity	0	44	54	0	0	75	0	173
Alphacrucis College	82	602	1,037	70	0	947	0	2,738
Australasian College of Health and Wellness	0	0	192	119	0	0	0	311
Australian Academy of Music and Performing Arts	0	17	80	23	0	0	0	120
Australian College of Applied Psychology	0	1,678	2,742	38	0	419	0	4,877
Australian College of Nursing Ltd	0	1,583	0	0	0	0	0	1,583
Australian College of Theology	79	1,722	608	np	np	628	0	3,151
Australian Film, Television and Radio School	0	113	239	0	0	0	0	352
Australian Guild of Music Education Inc.	0	0	np	0	0	0	0	np
Australian Institute of Business	np	3,952	113	< 5	0	< 5	0	4,089
Australian Institute of Management Education & Training	0	1,091	0	0	0	0	0	1,091
Australian Institute of Music	0	69	1,098	0	0	86	0	1,253
Australian Institute of Professional Counsellors	0	233	283	0	0	0	0	516
Avondale College of Higher Education	45	219	890	0	0	17	6	1,177
Box Hill Institute	0	36	889	14	0	21	0	960
Campion College	0	0	86	0	0	0	0	86
Canberra Institute of Technology	0	0	114	0	0	0	0	114
Carnegie Mellon University Australia	0	202	0	0	0	0	0	202
Chisholm Institute	0	15	303	0	0	0	0	318
Christian Heritage College	0	203	419	< 5	0	np	< 5	729
Collarts	0	0	828	0	0	162	0	990
Curtin College	0	0	0	0	0	2,093	7	2,100
Deakin College	0	0	0	0	0	3,512	0	3,512
Eastern College Australia	0	84	97	0	0	14	0	195
Edith Cowan College	0	0	0	0	0	2,227	0	2,227
Endeavour College of Natural Health	0	0	4,363	0	0	0	0	4,363
Engineering Institute of Technology Pty Ltd	0	140	275	0	0	0	0	415
Excelsia College	413	324	366	< 5	0	0	np	1,111
Eynesbury	0	0	0	0	0	410	0	410
Gestalt Therapy Brisbane	0	82	0	0	0	0	0	82
Health Education & Training Institute	0	117	0	0	0	0	0	117
Higher Education Leadership Institute	0	17	0	0	0	0	0	17
Holmes Institute	0	8,375	2,727	0	0	22	0	11,124
Holmesglen Institute of TAFE	0	74	1,355	0	0	0	0	1,429
Ikon Institute of Australia	0	0	531	0	0	0	0	531
International College of Hotel Management	0	52	242	0	0	0	37	331
International College of Management, Sydney	0	577	1,155	0	0	117	158	2,007
ISN Psychology Pty Ltd	0	73	62	0	0	0	0	135
Jazz Music Institute	0	0	60	0	0	7	0	67
JMC Academy	0	13	1,846	0	0	585	0	2,444
Kaplan Business School	0	2,970	1,182	0	0	137	0	4,289
Kaplan Higher Education	0	2,999	0	0	0	113	0	3,112
Kent Institute Australia	0	0	1,452	0	0	0	0	1,452
Kings Own Institute	0	1,640	2,235	0	0	< 5	np	3,903
La Trobe Melbourne	0	0	0	0	0	1,556	0	1,556
LCI Melbourne	0	0	267	0	0	0	0	267
Le Cordon Bleu Australia	0	103	334	0	0	0	0	437
Leo Cussen Institute	0	543	0	0	0	0	0	543
Macleay College	0	0	548	0	0	120	0	668
Marcus Oldham College	0	29	54	117	0	58	0	258
Melbourne Institute of Technology	0	1,891	1,286	0	0	< 5	np	3,233
MIECAT	17	144	0	0	0	0	0	161
Monash College	0	0	0	0	0	3,748	0	3,748
Moore Theological College	18	42	208	0	61	66	0	395
Morling College	0	155	0	0	0	0	34	189
Nan Tien Institute	0	106	0	0	0	0	0	106
National Art School	0	87	528	0	0	0	0	615
National Institute of Organisation Dynamics Aust	0	28	0	0	0	0	0	28
North Metropolitan TAFE	0	0	0	35	0	42	0	77
Northern Melbourne Institute of TAFE	0	96	1,536	105	0	0	0	1,737
Perth Bible College	0	13	25	0	6	36	0	80
Photography Studies College (Melbourne)	0	13	142	0	0	0	0	155
Queensland Institute of Business and Technology	0	0	0	201	0	2,512	34	2,747
S P Jain School of Global Management	0	1,303	1,044	0	0	0	0	2,347
SAE Creative Media Institute	0	75	3,022	116	0	922	0	4,135
South Aust Institute of Business & Technology	0	0	0	0	0	1,067	0	1,067
South Metropolitan TAFE	0	0	0	< 5	0	0	0	< 5
Stotts Colleges	0	0	1,326	0	0	0	0	1,326
Study Group Australia Pty Ltd	0	0	23	0	0	317	0	340
Sydney College of Divinity	21	478	391	7	0	246	87	1,230
Sydney Institute of Business and Technology	0	0	0	0	0	504	0	504
Sydney Institute of Traditional Chinese Medicine	0	0	122	0	0	0	0	122
Tabor Adelaide	< 5	310	402	0	0	np	0	769
Tabor College NSW	0	0	np	< 5	0	13	0	103
TAFE NSW	0	0	2,072	97	0	230	0	2,399

State/Institution	Postgraduate Research	Other Postgraduate	Bachelor	Associate Degree	Advanced Diploma	Diploma	Non-award Courses	TOTAL
TAFE Queensland	0	0	52	257	0	0	0	309
TAFE SA	0	0	72	200	0	0	0	272
The Australian College of Physical Education	0	12	613	5	0	7	0	637
The Australian Institute of Theological Education	0	448	0	0	0	0	9	457
The Cairnmillar Institute	0	246	0	0	0	0	0	246
The College of Law	0	6,337	0	0	0	0	126	6,463
The National Institute of Dramatic Art	0	54	183	0	0	0	0	237
Think: Colleges Pty Ltd	0	72	1,628	7	0	626	0	2,333
Top Education Institute	< 5	735	498	0	0	90	np	1,332
Universal Business School Sydney (UBSS)	0	1,304	1,262	0	0	0	0	2,566
UOW College	0	0	0	0	np	< 5	0	556
UTS:INSEARCH	0	0	0	0	0	4,930	0	4,930
VIT (Victorian Institute of Technology)	0	1,561	1,081	0	0	0	0	2,642
Wentworth Institute	0	192	266	0	0	8	0	466
Whitehouse Institute of Design; Australia	0	< 5	np	0	0	0	0	290
William Angliss Institute of TAFE	< 5	np	783	0	0	0	0	795
<b>TOTAL</b>	<b>703</b>	<b>45,704</b>	<b>48,933</b>	<b>1,466</b>	<b>714</b>	<b>29,296</b>	<b>590</b>	<b>127,406</b>

(a) Carnegie Mellon University Australia is the only Private University (Table C).

<https://www.desse.gov.au/higher-education-statistics/resources/2019-section-13-private-universities-table-c-and-non-university-higher-education-institutions>.

## 2 Policy settings and issues

### 2.1 Policy instruments and levers

There is a limited range of public policy instruments available to the Australian Government to influence university decision making and resource allocation decisions.

The principal policy instrument is the provision of financial assistance to universities through *Australian government* grants and other specific purpose grant measures. Universities are known for their capacity to respond well to financial incentives.

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*The Australian Government does not invest in the higher education system. It provides money, with conditions attached. Conditions are becoming increasingly stringent. Financial assistance is a very blunt instrument for achieving national outcomes. Conditions can distort university missions.*

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There are numerous other sources of government funding from across Australian government agencies and state governments that can be accessed by universities. There are 135 entities on the Commonwealth grants register. This involvement is not well coordinated.

Government support contributes to between half and a third of university operating costs. Universities generate income from other sources, including domestic and international student fees and a very broad range of fees and charges which make up a considerable proportion of revenue.

Universities invest operating and cash flow surpluses in buildings, property, and financial investments. In this process several universities have become quite wealthy. Many have AA credit ratings and can borrow relatively cheaply.

With these multiple and often conflicting missions and purposes, there is little clarity among industry, business and the broader community about what universities are expected to provide - over and above educating students and undertaking research. Even in these 2 missions there is little clarity about the form of education or research that should be delivered. Policy guidance, such as it is, can be inconsistent and conflicting.

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*Universities require strong guidance on what government (at all levels), industry and the community wants in the context of a national higher education system in delivering economic, industry and social outcomes in an economy built on the generation and application of knowledge.*

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The present Australian government has failed to provide leadership in providing this guidance.

There is also a need for more guidance on university governance, leadership, organisation, and management that reflects the combination of theory and practice-based knowledge.

There are no evidence based commentaries about what drives university success – success in terms of academic performance and financial strength. This will be the next project.

## 2.2 Policy development

The origins of the present system are embedded in the unified national system that came into operation in 1989 following the release of the white paper, *Higher education: a policy statement* (Australia. Department of Employment Education and Training. and Dawkins 1988).<sup>142</sup> Many of the opportunities for genuine reform that were canvassed in the policy papers failed to reach fruition.

Over the ensuing 30 years there have been few national policy statements on higher education. Policy, such as it is, has evolved principally through annual announcements made in a “budget context” underlining the principal policy focus being about financial support and assistance – or money. Three of the major policy statements are outlined below.

### 2.2.1 *Our universities: backing Australia’s future. review of higher education in Australia (Nelson review), 2003*

This review (Australia. Minister for Education Science and Training 2003), announced by the Howard government in April 2002, incorporated a range of different reports and discussion papers. The review commenced with a discussion paper, *Higher education at the crossroads*, followed by 6 issues papers and a Productivity Commission report, *University resourcing: Australia in an International Context* (Australia. Productivity Commission. 2002).

The Report, based on the outcomes of the review process, presents the government’s blueprint for reform. It proposed increased Australian government investment of \$1.5 billion over 4 years linked to progressively introduced reforms in areas such as teaching, workplace productivity, governance, student financing, research, cross sectoral collaboration, and quality.

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*The Our universities initiative marks a starting point for an analysis of the corporatisation of Australian universities and the growth of a national higher education industry within the framework of the unified national system.*

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### 2.2.2 *Transforming Australia’s higher education system, Minister for education employment and workplace relations, 2009*

In response to the findings of the Bradley review of Australian higher education (Bradley, Noonan et al. 2008) the government proposed (Australia. Minister for Education Employment and Workplace Relations 2009) an ambitious phased 10-year reform agenda for higher education and research to boost Australia’s national productivity and performance as a knowledge-based economy.

In the 2009-2010 Budget the government adopted 2 key targets recommended by the Bradley review (Bradley, Noonan et al. 2008):

- A national target of at least 40 per cent of 25 to 34-year-olds having attained a qualification at bachelor level or above by 2025 (Bradley recommended achieving the target by 2020).
- That by 2020, 20 per cent of university enrolments at undergraduate level are for people from low socio-economic status (SES) backgrounds.

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<sup>142</sup> An excellent account of the formation of Australia’s Unified National System is provided in *No end of a lesson* Macintyre, S., G. Croucher and A. Brett (2017). *No end of a lesson : Australia’s unified national system of higher education*. See also Croucher, G. and J. Waghorne (2020). *Australian Universities: History of a Common Cause*. Sydney, UNSW Press.

The government also accepted the Bradley review's recommendation to introduce an uncapped student demand-driven system for the funding of university undergraduate places – reported as a measure to get young people off the dole queues. This was a major policy change to the allocation and funding of student places which up until then had been funded through agreements with universities on a set or capped number of places.

The overall level of achievement of the 10 year reform agenda, announced by the government in 2009, has been disappointing.

2009 Agenda Aims	Level of Achievement
1. transforming access to higher education through a major package designed to radically improve the participation of students from low socio-economic backgrounds (SES) in higher education, and enhance their learning experience	Poor
2. promoting greater diversity and quality within the tertiary sector by phasing in a new system to allocate funding based on student demand; support to encourage more students to choose teaching and nursing and to study overseas; and support for the renewal of student services and amenities	Demand based funding introduced and then removed
3. providing funding certainty and creating a more sustainable higher education sector through higher indexation of teaching and learning grants	Not achieved
4. ending historic funding cross-subsidisation by increasing funding for the full cost of university research, and enabling universities to strive for research excellence in areas of strength	Not achieved
5. upgrading university and TAFE infrastructure to meet the teaching and learning requirements of students, teachers, and researchers now and into the future	Not achieved. EIF established and then abandoned
6. establishing the Tertiary Education Quality and Standards Agency (TEQSA), which will provide the foundation for enhancing quality and accreditation in higher education	Achieved
7. reforming student income support, which will redirect assistance so that it reaches the neediest students to boost both their higher education participation and attainment	Partially achieved
8. supporting regional tertiary education provision with a review of regional loading, encouragement to explore new models of delivery and access to new structural adjustment funding for the sector	Regional loadings abolished. Regional University educations introduced
9. building stronger connectivity between the higher education and vocational education and training sectors; and	Not achieved
10. forging a new relationship between government and educators built on mutual respect, trust and agreed funding compacts	No achieved

Recommendations about improved national policy direction and guidance from the 2008 Bradley Review were never taken up.

More broadly, since 1999 there have been over 20 reviews, enquiries and policy statements emanating from the Australian Government in relation *to research*. Yet there is still a general recognition that Australian university research is underfunded. It is a parallel area of industry research where there have been over 50 policy review and development initiatives – again with a similar result: Australian commitment to R&D has been falling <sup>143</sup>.

<sup>143</sup> The scale of public inquiry and review activity is contained in a Paper prepared for Innovation and Science Australia in the context of preparing the Australia 2030 Innovation Strategy (Howard, JH, *25 Years of Reviews: The Evolution of an Australian Industry and Industry Policy*. <https://www.dropbox.com/s/od67ngdlh6521hr/25%20years%20of%20Reviews%20-%20The%20Evolution%20of%20Australian%20innovation%20and%20Industry%20Policy%20-%20Resource%20Document%20-%202010%20Sep%202018.docx?dl=0>. An extract accompanies this book as Attachment 5.

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*The result is that higher education institutions have, by default, been left to develop national higher education policy from the “bottom up”, guided by their enabling Statutes and their Strategic Plans endorsed by their governing Councils/Senates.*

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Ironically, higher education institutions are now being criticised for filling a national policy gap. The Australian Government has never been clear from what it wants from universities in their education role, although it had been moving towards “job ready” outcomes, particularly in STEM, but is less specific about the benefits of a civil society associated with a liberal education.

This fluidity in outcome contrasts with the research role where successive governments have said that they want more research commercialisation and better engagement with industry. They also want universities to engage with their regions – but are not prepared to fund it.

### **2.2.3 Review of the Demand Driven Funding System, Kemp, Norton, 2014**

The review concluded that funding arrangements did not currently support providers to compete on the quality of teaching and student experience. Fixed Australian government contributions and capped student contributions were not designed for a demand driven system. Key recommendations covered:

- Caps on the number of undergraduate bachelor level places should not be reimposed
- Maximum per CSP funding rates in engineering and health disciplines should be reviewed in the light of cost pressures
- All higher education providers should be eligible for CSPs when they and relevant courses have been approved by the Tertiary Education Quality Standards Agency
- Non-university providers accepting CSPs should do so with the same constraints as public universities – e.g., unable to offer full-fee courses to domestic undergraduates
- Sub bachelor higher education courses should be included in the demand driven system
- Caps on CSPs should be removed from postgraduate courses that have clear community benefit but offer modest financial rewards for graduates. Other postgraduate courses should be offered on an entirely full fee basis.

These recommendations have been gradually taken up over the next 6 years, including the reimposition of capped funding in 2017, and are reflected in the 2020 Reform package.

### **2.2.4 The 2020 Job-ready graduates package, Department of Education, Skills and Employment.**

On 19 June 2020 the government announced a series of policy initiatives in the Paper *Job-ready graduates: higher education reform package 2020*. The package is complex, and it has taken some time for university leaders, policy analysts and higher education journalists to work through and discern what is really involved. Changes were still being made as this book is being written.

The package -

- Reduces student fees for courses with “national benefits” and substantial “public returns” with an emphasis on vocational skills.

- Reduces overall funding per student *through elimination of the “teaching surplus”*, placing pressure on universities to achieve greater efficiency and innovate through the development of new business models for the delivery of teaching.
- Provides for a major shift in resources from metropolitan universities to the 9 regional ones.
- Abolishes the old higher education funding arrangements and creates a new “funding envelope” covering –
  - A new \$600m National Priorities Industry Linkage Fund
  - Targeted growth through differentiated allocation of CSPs among metropolitan and regional universities<sup>144</sup>
  - A new Indigenous, Regional and Low SES Attainment Fund
  - Targeted investments in local needs, such as city deals, Table B (non-university HE providers, and university colleges<sup>145</sup>
  - Realignment of the Commonwealth Grants Scheme.
- Establishes a \$705m transition fund that will be distributed to universities in such a way that ensures fairness across the sector.

## 2.3 Emerging policy directions

The current policy position is confused with several powerful lobby and advocacy groups (and some weak ones) and a government without a vision of where it wants to go beyond getting students into jobs in “national priority” vocations.

There are several flow-through impacts of the 2020 package, including:

- Elimination of the “teaching surplus” – removing the “profit” on teaching that can be applied to research, engagement, and administration.
- Motivating universities to become more efficient – through what is in effect an efficiency dividend.
- More policy complexity and confusion in the mix of public policies in the education, research, and creative/cultural areas, and in economic, industry, and regional development frameworks.
- Promoting vocationalisation and further cost shifting for training from business to students and universities.
- Potentially overemphasising and overreaching the role of universities in the delivery of technical skills.
- Devaluing the economic, industry and social importance of the humanities.
- Accelerating the push towards commercialisation.
- Rethinking approaches to research investment

There is a critical issue that concerns access, equity, and social inclusion

The Australian Government retains its focus on access and equity, but the challenges of delivering outcomes in this area are becoming increasingly fraught in a university commercial environment as the cost to students of participating in on-campus higher education continues to increase. Lower socio-economic status (SES) students are disproportionally enrolled in on-line distance education courses.

<sup>144</sup> Universities will be required to ‘bid’ competitively for new places under these arrangements.

<sup>145</sup> No details of this initiative provided in the package



There is a growing number of specific grant programs and regulatory interventions focussed on equity, including the recent *Regional Universities Centres* (RUC) initiative to lift outcomes in on-line courses. Interestingly, this initiative relies on *not-for profit community* support access and equity outcomes. Similarly, the not-for-profit Country Education Foundation aims to support low SES students participation in higher education.

The 2020 reforms are being advocated at a time where overall demand for places in public universities has been falling and is likely to continue in that direction as “buyer” and “supplier” alternatives become available and more accessible - for example, high quality private TAFE that has developed in Victoria, non-university higher education delivery, and the growing range of global on-line platforms and improvements in the technologies that underpin it. There is also shifting demand from undergraduate to post graduate coursework programs and from school leavers to mature age enrolments.

Short term fixes, which allow universities to provide subsidised short courses, essentially in competition with the TAFE/VET sector, are unlikely to be financially sustainable and move universities away from their primary education mission that is built around the traditions of scholarship and independent inquiry. Moreover, turning universities into “job creation” vocationally oriented institutions could have longer term adverse consequences regarding the role of public universities in Australia’s socioeconomic fabric.

We have to have faith in the resilience of universities to focus on what a university is really all about. It may be that in the future some universities will be larger and others smaller, specialised, and focussed on specific market segments. Above all, for public universities to survive over the long term they must commit to genuine scholarship relating to research, teaching, and engagement. This commitment to scholarship must occur within a realistic assessment of the spread of distinctive capability and competitive advantage. It must also occur within the emerging framework of the Corporate University – despite the negative connotations of the terminology. It simply means that a university must be run on a “business-like” basis.

We have to stop assuming that all universities are the same and having the same expectations of each. Universities are fundamentally different in their history, leadership, culture, and their relationships with students staff, government, industry, and the community. Although there are similarities in staffing arrangements (e.g., superannuation), not all universities can, or should, be expected to have the same policies, priorities, strategies, structures, and systems.

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*Future policy directions must place a priority on supporting universities in the development of their distinctiveness, competitive advantage, and long term sustainability, taking full account of their locations and place in the socioeconomic setting.*

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It means that some universities may decide that they see their distinctive capabilities and competitive advantage in the global research domain, and particularly in the area of medical research and links with MRIs. Others may see distinctiveness and competitive advantage in delivering professional and paraprofessional education to the growing health and education workforce, particularly in the growing outer suburban population areas of the mainland capital cities. Still others may wish to focus on education in technology and engineering for future industries, and others may concentrate on supporting regional economic development and growth.

## 2.4 The emerging business of higher education

A fundamental principle of economics is that businesses deliver scarce goods and services that people, or other businesses, want and are satisfied with. These may be in the form of manufactured products which have a service-use value, or services delivered directly to people or other organisations. *Defining that service-use value determines what the business is in – the mission, goals, and objectives – what the business has been set up to do and achieve.*

The long-standing formulation of the business of higher education, and the institutions within it, draws on the objectives of teaching, research, and more recently, engagement with industry and the community. Beyond that there is very little public understanding of a university as an institution (or organisation) - how it is governed and managed, how it is staffed and funded, how the division of work is designed and allocated, and how the management of resources is undertaken and accounted for.

In fact, modern research universities have been described as “very complex, international conglomerates of highly diverse business” (Duderstadt 2000). They manage very large budgets with a considerable amount of discretion. They are far more complex than most industrial corporations, undertaking many activities - some for profit, some publicly regulated, and some operating in highly contested markets. Some Australian universities have excelled in these areas – others not so much.

In addition to undertaking teaching and research, universities provide publishing services (academic presses), health care (through clinics and teaching hospitals), accommodation, and food and beverage services. They collaborate with businesses in research and development, participate in economic development activities (including technology parks and precincts), and provide cultural, entertainment and sporting facilities and venues. They also have a wide range of investments in commercial property, securities, and equities.

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*The concept of “the business of higher education” is not necessarily or exclusively about pursuit of a commercial outcome (profit). It is about running an organisation in a business-like way.*

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Universities were established and operated primarily as “not for profit” beneficial institutions, but a significant proportion of their activities is now directed towards achieving commercial outcomes. They are also “in the business” of delivering public expenditure programs where purpose and outcomes may not be clearly defined.

The distinction between a not-for-profit (beneficial) activity, a government activity, and a commercial (for profit) activity is important. That is:

- The purpose of a *beneficial* activity is discharged in the achievement of change – for example an educated student or new understandings in science and society in the case of a university (Drucker 1992)<sup>146</sup>. Education and research have been “core business” activities of a university, but the emphasis is changing as they come to be regarded as government activities.

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<sup>146</sup> Or a cured patient in the case of a hospital, a repaired wetland in the case of an environmental agency, and so on.

- The purpose of *government* activity is discharged when public programs are judged, or demonstrated, to be effective.<sup>147</sup> Government financial assistance to universities is a public program, and public scrutiny agencies are interested in the efficiency and effectiveness (public value) of that expenditure in delivering education and research outcomes. TAFE institutes are instruments of government, and many commentators see universities going in that direction in relation to the disposition of government resources that are provided.
- The purpose of a *commercial* activity is discharged when *customers* purchase products, pay for them, and are satisfied. It involves selling a product and/or a service for a profit – or at least an amount that will recover cost. International education is essentially a commercial activity as is campus development and a wide range of trading operations.

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*The intersections and the discharge of beneficial, commercial, and government activities in universities creates a very complex operating environment.*

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## 2.5 The Covid-19 financial shock – an opportunity to break with the past

In 2020, like most businesses do from time to time, they experienced a financial shock. Many experienced a shock in 2008. Most universities have the strength in their financial assets and resources to work this through – but there will inevitably be changes in business strategies and the way the business operate.

At the beginning of 2020 universities were vociferous in their claims of shattering revenue losses and potential financial ruin. The higher education lobby, and commentators, pundits, and a few Vice-Chancellors joined the bandwagon to request government to provide bail-out funds.

Towards the end of the year the claims of catastrophic finances became less shrill as universities would back the staffing increases, sought economies in administration, and cut capital expenditure budgets that had increase during the overseas higher education bubble,

The history of financial shocks points to a period of adjustment and rationalisation to secure the longer term sustainability of the industry and its markets. The shock also draws attention to the need look more broadly than the public university component of the national higher education system. It is an opportunity to introduce greater diversity into the range of higher education offerings in the private and non-university component.

The shock provides an opportunity to readjust and realign the higher education system from one steeped in tradition and embedded ways of working to one that meet the differing and divergent needs of students, industry, government, and the community. The straitjacket of the 1989 one-size-fits-all model of an Australian university is no longer tenable.

There is, however, an opportunity. Australian governments have supported universities strongly in health and medical research for more than 80 years, and the results of that commitment have been played out in medical devices, clinical treatments, and vaccines. But

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<sup>147</sup> This distinction is discussed by Peter Drucker in several works. He argues that the practice of management differs little across institutions in that its primary function is to achieve the results of an organisation. See Drucker, P. F. (1992). *Managing for the Future: The 1990's and Beyond*. Oxford, Butterworth Heinemann, Drucker, P. F. (1999). *Management Challenges for the 21st Century*. New York, Harper Collins..

in contrast to health and medical, universities have not been supported strongly in engineering and technology where major advances will be required for transforming the Australian economy in the post virus upturn – as well as in responses to climate change and moving the economy to zero carbon emissions.

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*Now is the time for government to make a longer term investment in science, technology, and innovation, particularly via universities and specifically through support for leading edge engineering and technology research institutes to support a resurgence in manufacturing, that might parallel the medical research institutes that sit beside (and within) universities.*

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That investment should build in capability for non-R&D innovation, requiring investment in business, social sciences, and the humanities – skills and capabilities that enable the implementation and adoption of technology breakthroughs.

The unified national system with policy based on a “one-size-fits all” approach should give way to a *diversified national system* with specifically identified market and education and research delivery segments.

Policy options in each of these segments should address the emerging strengths of segments and constraints on further growth. Policy options should be based on the opportunity to build diversity and choice into the system. The scope for implementation is addressed in the remaining parts of the book and concludes with a set of issues to address in implementation.

## 3 The Australian higher education operating environment

### 3.1 Policy leadership

There is a mismatch between statutory responsibility of state/territory governments and the funding responsibilities of the Australian Government which it assumed in full from 1974. Universities remain as public corporations created under state/territory statutes. This creates major challenges for the effective policy development and efficient operation and regulation of universities and the broader higher education and vocational and training (VET) sector.

Under the Section 51 of the Australian Constitution the Commonwealth does not have a specific power to make laws in relation to universities. However, under Section 96 the Commonwealth has power to make payments to the states on terms and conditions it thinks fit.

This means that Australian government priorities are delivered through a general financial support vehicle (*The Higher Education Support Act 2003*)<sup>148</sup> and a very broad range of short-term specific purpose criteria-based funding schemes. Numerous Australian government and state/territory government agencies provide financial support to universities.

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*The “funding” orientation of university support and assistance limits capacity to develop a national strategic focus and then follow through with resource allocation decisions.*

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From a national science, research, and innovation (SRI) policy perspective, there is a close interaction between higher education policy, research policy, innovation policy, and regional policy. Not surprisingly, with numerous ministerial portfolios, departments and agencies – Australian government and state/territory - it comes as no surprise that Australia lacks a consistent and coherent SRI policy which has been a concern to innovation policymakers and researchers for many years (Green and Howard 2015).

In 1967 the Australian Government supported the creation of Colleges of Advanced Education (CAEs) under state legislation. They were established to offer technical, agricultural and specialist paramedical qualifications. In 1974 state controlled teachers' colleges became CAEs, leading to teacher students comprising half the CAE sector. The formation of CAEs involved substantial cost shifting from the states to the Commonwealth in running teachers and agricultural colleges. State governments now require *payment from* universities for student practicums in health, medical and education courses.

CAEs were absorbed into the unified national system created in 1988.

State governments with traditional responsibilities for industry policy and strategy had largely disengaged from funding universities when the Australian Government took over funding in 1973. State governments have only recently starting to lift their commitments to the university sector – first Victoria and then Queensland. But even now, state governments only

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<sup>148</sup> <https://www.education.gov.au/higher-education-support-act-2003-and-guidelines>

contribute \$707m to university revenues (2.2%). State policy is aimed largely to leverage the Australian Government investment.

State/territory governments benefit substantially from university research carried out in their jurisdictions, from the education and training of people who work in state government agencies (Health, Education, Agriculture), from international students purchasing goods and services and joining local workforces, and the economic impact of university capital expenditures.

### 3.2 Provider category standards (PCS)

In early 2020 the Minister for Education accepted the recommendations of *higher education provider category standards* (Coaldrake 2019) review and introduced new provider categories. The categories are:

- *Institute of higher education*: All higher education providers unless they meet additional categorisation criteria.  
Providers are required to engage academic and teaching staff who are active in scholarship that informs their teaching, supported by the provider.  
The designation is intended to reduce the scope for stakeholder confusion between this specific provider category and the broad 'higher education provider' classification defined by TEQSA, which encompasses all entities that offer or confer regulated higher education awards, including universities.
- *University college*: High-performing *self-accrediting* higher education providers. The category is intended to serve as an aspirational or destination category for high quality providers and enable them to build capacity and subsequently apply to the 'Australian University' category. A key requirement of the category is that providers will have self-accrediting authority for at least 70 per cent of their courses.
- *Australian university*: Providers with 75 per cent of their self-accredited courses have been through at least one cycle of review and improvement by the provider.

The research criteria have been revised to provide more guidance and scope for TEQSA regulation including setting requirements for quality and quantity of research.

The criterion in relation to community engagement has been bolstered to include provision for civic leadership, and a new criterion has been added to recognise the importance of industry engagement in higher education, particularly in areas such as work-integrated learning and research partnerships.

A new criterion has been added to require 5 years of successful delivery of courses, supported by evidence of strong student outcomes, considering different student cohorts.

- *Overseas University in Australia*: Providers that deliver at least one overseas higher education award in Australia and its profile in Australia may be an element of its broader international offerings.

The Review referred to observations from the LH Martin Institute –

Although Australia already has a comprehensive and, many argue, diverse higher education sector, it is likely that Australia will continue to need an increased variety and range of offerings for the ever-changing world of work. It is, and will be, critical that the higher education sector is comprised of higher education providers of different sizes, locations, and missions offering differentiated, innovative, and flexible higher education options to accommodate diverse student populations and communities. Such differentiation encourages and enables students to choose institutions that best suit their educational goals and abilities, stimulates social mobility, enables the higher education sector to meet



labour market needs, and encourages competition which can help continuously lift performance of the sector.<sup>149</sup>

It is expected that while universities will continue to dominate higher education enrolments, many of the jobs and skills growth over the coming years will occur in areas spanning university, broader higher and professional education, and the vocational sector.

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*The provider category standards clear that way for non-university higher education providers to extend the diversity of the higher education system in meeting public needs and expectations.*

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The Review recommended that the higher education provider category standards must enable providers to transition to other categories and grow their course and research offerings under a guidance framework developed by the TEQSA. This is considered seen to encourage and support excellence, differentiation, and innovation.

### 3.3 Engaging with industry

Over recent years Australian universities have not increased the level of research income from industry – nationally, or internationally. However, research income generated from the private sector is a poor indicator of the extent of collaboration and cooperation.

Australia's 30+ university affiliated Medical Research Institutes engage extensively with the public health system and have been leading the development of vaccines, diagnostics, and devices. The collaboration is playing out in the current COVID-19 pandemic

The CRC program, set up in 1991, had a major role in supporting research centres with strong industry-university commitment in agriculture, environment (mainly state government as an "industry"), mining and manufacturing (engineering and ICT) and technology. But apart from that, there is no serious government, industry, or philanthropic commitment to growing research in these fields through permanent dedicated research institutes.

Universities' future will rely on better partnership with industry and a policy environment that emphasises the critical role of universities in innovation and industry development. The role of universities in promoting a just and civil society will continue, but the balance between these 2 roles requires continuous attention.

### 3.4 Changing market share

The domestic market share of universities, in terms of revenue and assets, has been changing. Monash particularly has been growing market share, but impressive results have also been shown by universities outside the major research universities and located in the outer metropolitan areas of Sydney and Melbourne and in major regional centres.

Universities in regional and rural locations, where access and equality of opportunity is a stronger objective, may require continuing and increased support to deliver quality education outcomes. Their market share has been declining. The regional university centres initiative is an example of such as strategy.

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<sup>149</sup> LH Martin Institute and the Australian Council for Educational Research. (2013). *Profiling Diversity of Australian Universities*, p.6. Retrieved from: [https://research.acer.edu.au/cgi/viewcontent.cgi?article=1035&context=higher\\_education](https://research.acer.edu.au/cgi/viewcontent.cgi?article=1035&context=higher_education).



The non-university higher education sector, currently with 15% of students, is likely to increase market share as the sector diversifies and the pressure mounts for re-establishing the link between higher education and public expectations. The new Provider Standards should facilitate this process.

### 3.5 Challenges and pressures for change

These trends will have major implications for the future growth and prosperity of the Australian higher education industry, and its contribution to the economy particularly in the areas of talent required to grow and support sustainable high technology businesses and industries.

As an industry, universities face several challenges in securing a sound financial future. They include:

- The impact of the COVID-19 virus which will influence the flow of students into Australia, and how this is foresighted and managed. It may be that universities that have established offshore satellite campus will be less impacted.
- Investing in property, plant, and equipment, and leveraging substantial real property assets in urban renewal and precinct projects
- Looking to a range of commercial ventures
- De-risking by reducing reliance in international students
- Investment in better and more sophisticated online learning to counter the next type of financial shock (after the Coronavirus pandemic) that is bound to hit the world sometime in the future.

## 4 Understanding the growth drivers

### 4.1 Students

Students are the main drivers of university finances. In a corporate world, universities *could* operate without students, in the same way a hospital might operate without patients, but it would clearly not be financially sustainable.

In 2019 there were 1,143,424 Effective Fulltime (EFT) Students at Australian Universities. Of these 1,008,720 were enrolled at public universities, having increased from 659,770 in 2005, and 100,583 at Private and other universities – an increase from 14,323 in 2005.

Also, in 2018, there were 695,130 EFT domestic students at public universities (499,203 in 2005) and 313,591 international students (169,597 in 2005). There were also 50,721 students enrolled with private and other higher education providers (up from 1,651 in 2005). Enrolments are concentrated in the fields of Society and Culture and Creative Arts. There were also 49,862 overseas students in these organisations studying predominantly in the field of Management and Commerce.

Students pay for their education in a variety of ways: through an Australian government subsidy in the form of a “Commonwealth Supported Place” (which also has a contingent loan component), direct payment of fees (particularly for private and post graduate programs), and full course fees paid by overseas students. Trends in numbers that fall in each category are shown in Table 20.

**Table 20: Forms of payment for university education**

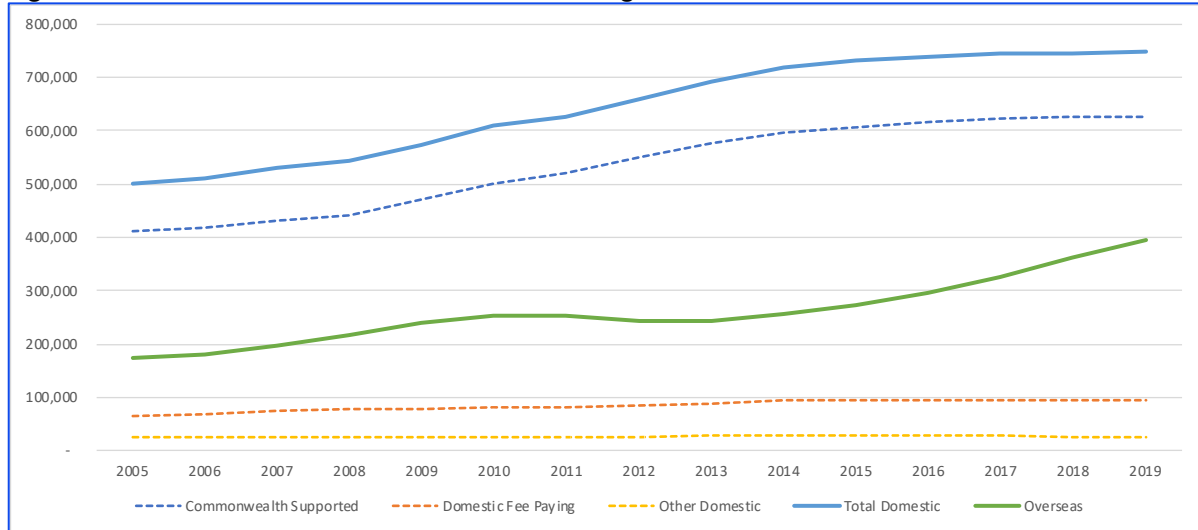
Broad Liability Status	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Commonwealth Supported	412,964	418,468	429,899	440,931	470,204	500,491	519,035	548,975	577,221	597,734	607,351	616,196	623,217	624,703	627,545
Domestic Fee Paying	63,636	68,530	74,185	76,722	78,819	82,253	82,237	84,114	88,845	94,041	95,983	96,108	95,656	94,553	95,518
OS-HELP	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Domestic	25,190	25,118	24,857	24,749	24,949	25,775	26,347	26,621	27,244	27,588	27,663	27,919	27,680	26,594	25,564
Overseas	172,292	179,812	196,950	215,448	239,076	252,939	252,362	243,385	244,351	257,874	271,381	294,393	325,710	363,453	394,798
Total	674,093	691,928	725,891	757,850	813,048	861,458	879,981	903,095	937,661	977,237	1,002,378	1,034,616	1,072,263	1,109,303	1,143,424

<https://app.powerbi.com/view?r=eyJrjoiZWYtMDRmYy00ZWY5LWlwMDAyZGxMmVhOGQxMmJhIiwidCI6ImRkMGNmZDE1LTQ1NTgtNGIxMi04YmFkLWVhMjY5ODRmYzQxNyJ9>

#### 4.1.1 Trends

Student growth over the period 2003-2019 has mainly come from international enrolments – albeit concentrated in 5 universities – as referred to above. The broad trends are shown in Figure 97 which shows a progressive increase in international students from 2013.

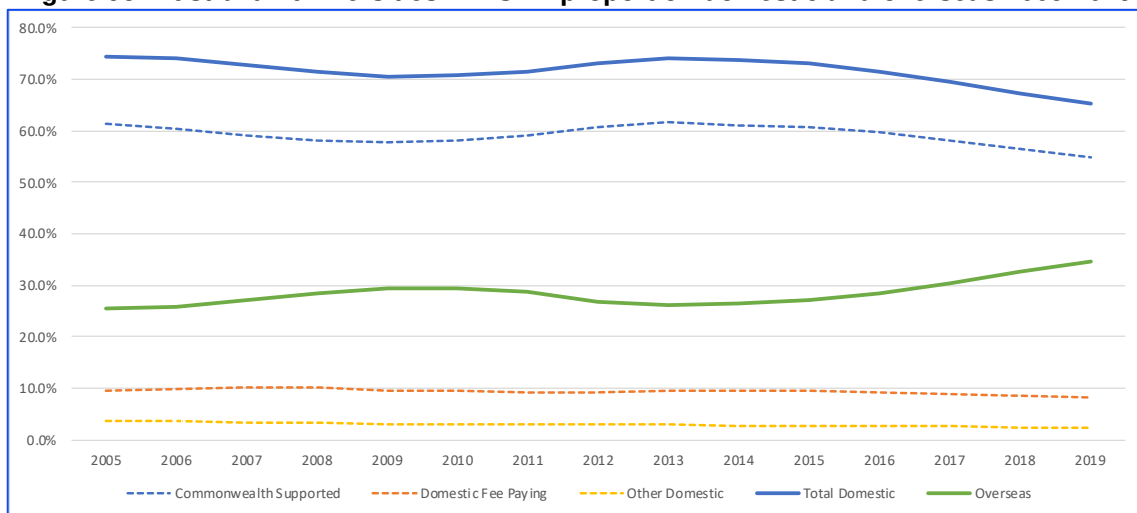
Commonwealth supported students increase markedly from 2008, when the demand drive system was announced, and universities began to “over enrol” but levelling off from 2014.

**Figure 97: Australian universities EFTSL – trend growth 2005-2019.**

Source: <https://www.education.gov.au/finance-publication>

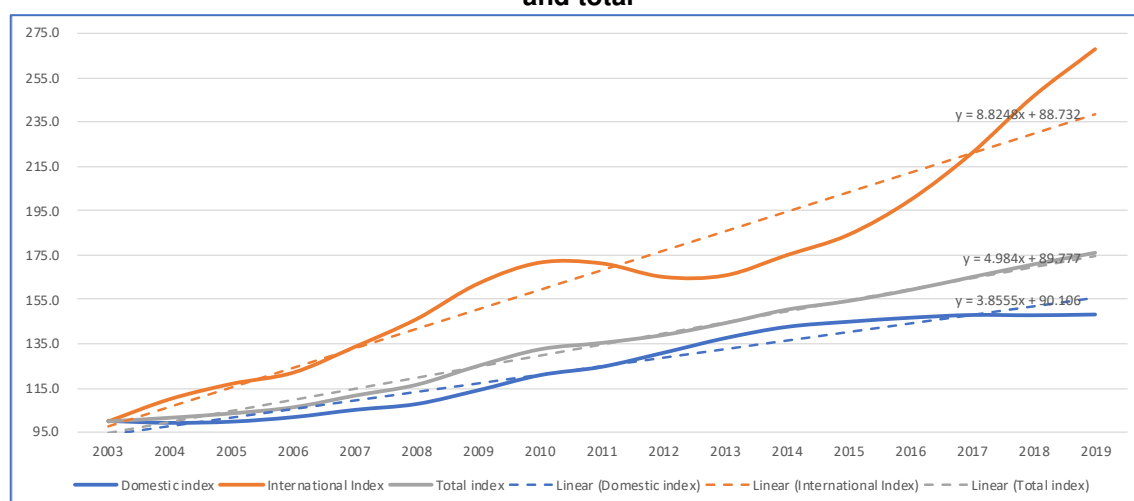
Figure 97 points to a flattening out of CSPs from 2014 and an increase in overseas students from 2013.

In 2019 the proportion of overseas students was 34.5%, having increased from 25.6% in 2005. The changing proportions are shown in Figure 98. The COVID-19 impact on international students may impact on these trends, but there are indications that overseas students will begin to return towards the end of 2020.

**Figure 98: Australian universities EFTSL – proportion domestic and overseas 2005-2019**

The overall growth trends are shown in Figure 99 below.

**Figure 99: Growth in effective fulltime student load (EFSL) 2003-2019 – domestic, international, and total**



Thus, while total student load (grey line) has increased an average annual rate of by 5.0% over the period, the international load has increased by an average of 8.3% per year, with a substantial growth since 2013. Domestic student growth has increased by an average of 3.8% per annum over the period with a substantial flattening in demand since 2014 – following the initial impetus provided by the announcement of the demand-driven funding system from 2008.

The effect of the reintroduction of enrolment caps in 2017 may be reflected in the leveling off in student load since that year, although the demand reduction appears to have started to ease *before* then. The extent to which domestic demand will pick up with the addition of new student places in the *2020 Job ready graduates package*, together with the impact on non-university higher education providers, and other tertiary education alternatives, remains to be seen.

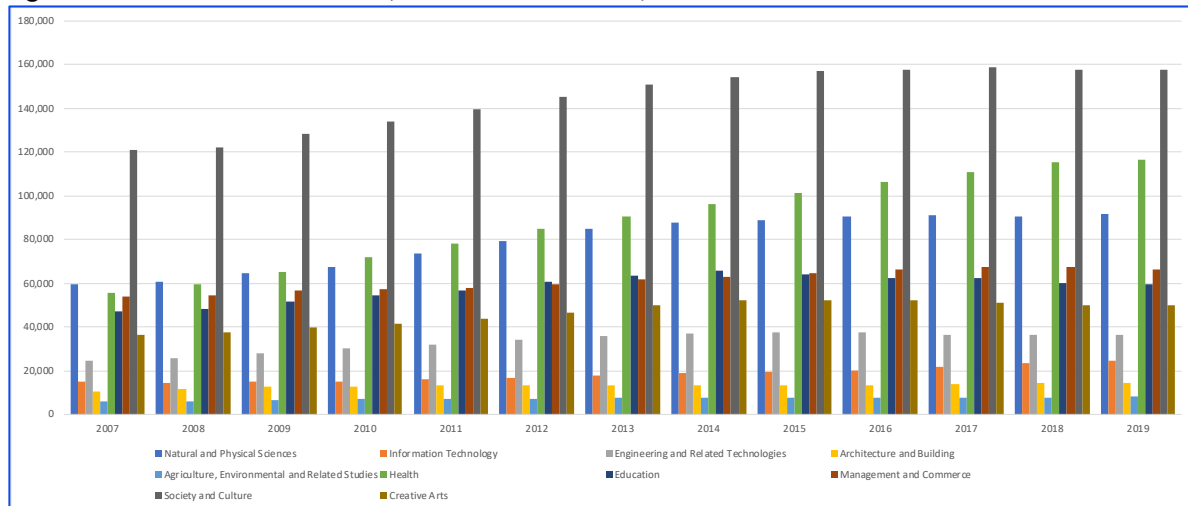
The growth the Australian public higher education sector has been underpinned by the growth in international students.

## 4.1.2 Students and what they study

### Domestic students

Figure 100 below shows that domestic students have a strong preference for courses in society and culture followed by Health. Enrolments in Health courses have more than doubled between 2007 and 2019. Courses that have attracted an increase in excess of 50% are Natural and physical sciences (52.6%), and Information technology (53.7%).

The enrolment in all courses has increased by 45.3%, with the fastest growth on 2009 (6.6%), falling to 1.6% in 2015, 1.5% in 2016, 1.1% in 2017, and 0.2% in 2018. This is hardly consistent with expected growth in knowledge and skills required to support Australia's industries of the future.

**Figure 100: Domestic students, fields of education, EFTSL 2007-2019**

Source: DESE, Actual Student Load (EFTSL) for All Students by Liability Status and Broad Discipline Group, Full Year various years

The pattern of enrolments is largely an outcome of the demand driven funding system, where *students* decide what they wanted to study without much guidance from an education industry policy that links to other areas of national industrial strategy.

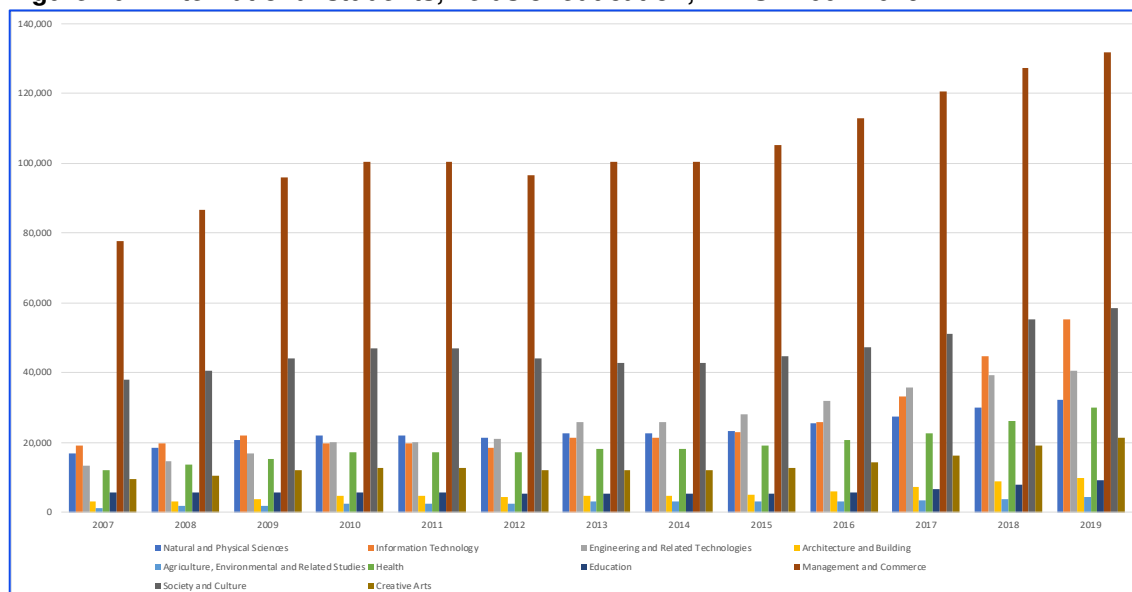
### International students

Table 21 provides a profile of all overseas students studying in Australia according to country of citizenship.

**Table 21: All overseas students by country of birth and gender, full year 2018**

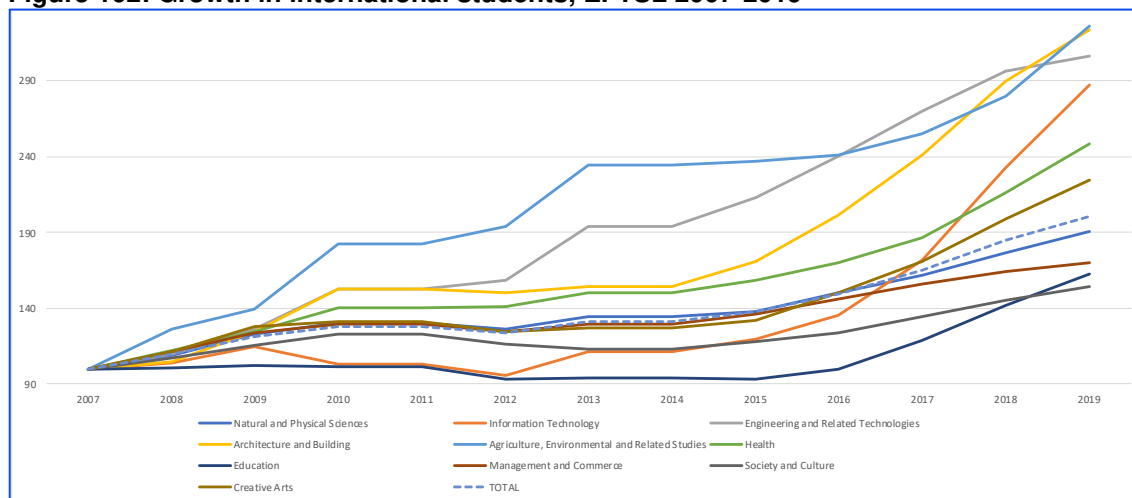
Country of Birth	Gender		TOTAL	Proportion
	Males	Females <sup>(a)</sup>		
China (excludes SARs and Taiwan Province)	73,127	89,074	162,201	33.8%
India	47,132	24,434	71,566	14.9%
Malaysia	14,856	15,845	30,701	6.4%
Nepal	15,160	12,009	27,169	5.7%
Singapore	10,303	12,302	22,605	4.7%
Vietnam	9,352	11,900	21,252	4.4%
Indonesia	6,257	6,302	12,559	2.6%
Hong Kong (SAR of China)	6,317	5,000	11,317	2.4%
Pakistan	9,809	1,243	11,052	2.3%
Sri Lanka	6,428	4,445	10,873	2.3%
<b>Other countries</b>			<b>26,287</b>	<b>5.5%</b>
<b>TOTAL</b>	<b>248,700</b>	<b>231,287</b>	<b>479,987</b>	
Total 2017	223,211	208,227	431,438	
% change on 2017	11.4%	11.1%	11.3%	

Figure 101 below confirms that Management and commerce is the preferred field of study for overseas students, followed by Society and culture. Courses are relatively cheaper to run and generate surpluses for other domestic courses.

**Figure 101: International students, fields of education, EFTSL 2007-2019**

Source: DESE, Actual Student Load (EFTSL) for All Students by Liability Status and Broad Discipline Group, Full Year various years

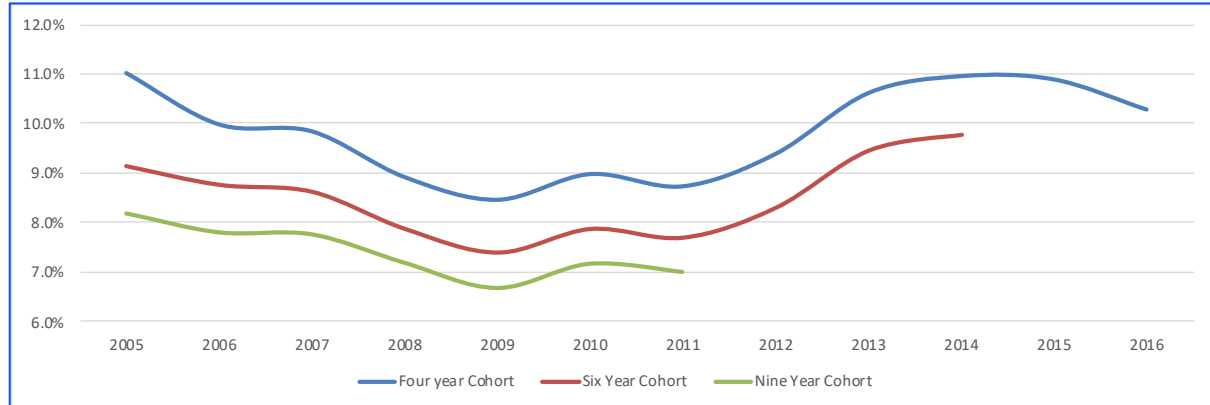
Overall, international student enrolments growth is concentrated in Engineering, Architecture and building, Information technology, Health, and Creative arts.

**Figure 102: Growth in international students, EFTSL 2007-2019**

### 4.1.3 Attrition

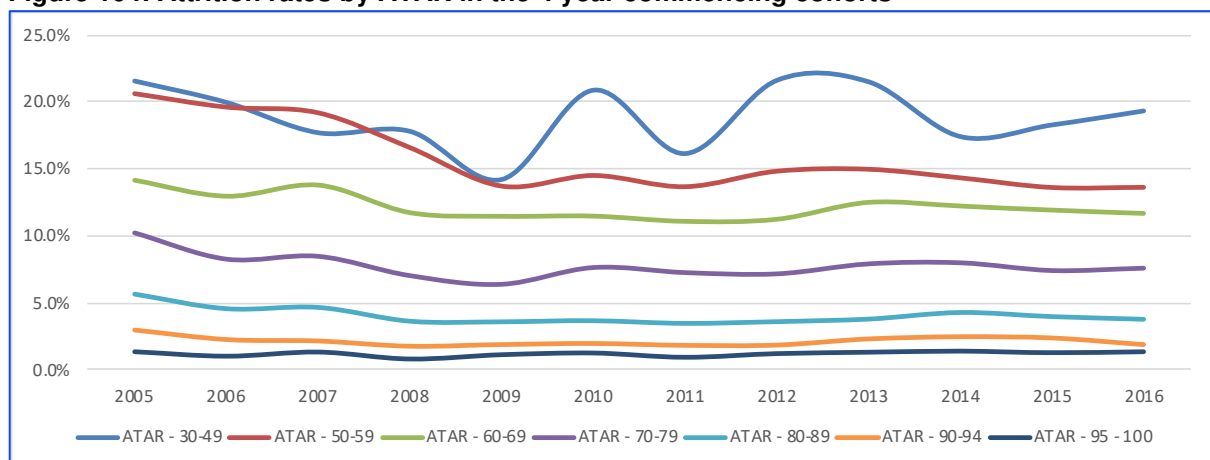
The Department of Education, Skills and Employment publishes a detailed analysis of attrition rates for students in 4, 6 and 9 year cohorts for each year over the 2005-2019 period.

Figure 103 shows that the attrition rate for the 9 year cohort (that is, students who had been enrolled for 9 years) decreased steadily from the 2005 commencement until 2009. Then it increased from the 2010 commencement and started to fall again from the 2011 commencement. The attrition rate for the 6 year cohort has increased steadily since the 2011 commencement while the 4 year cohort started to decline again from 2014.

**Figure 103: Attrition rates for domestic bachelor students at Table A and B institutions**

The fluctuations in attrition rates may suggest that students are making tougher decisions about whether to stay in higher education taking into account their prospects for successful course completion, post-graduation employment, and their long term debt liability under the *Higher education loan program (HELP)*.

Figure 104 shows that while attrition rates in the 4 year cohort have declined for students in the 50-59 ATAR range (now at 15% compared to over 20% in 2005), they have been rising in the 30-49 range since 2009 – when universities started enrolling more lower ATAR students with the removal of enrolment caps under the demand driven funding system. Again, the main focus in this strategy was on making money. Attrition rates in the higher ATARs have also fallen over the period.

**Figure 104: Attrition rates by ATAR in the 4 year commencing cohorts**

The analysis of the 4 year cohort in Figure 105 also shows that attrition for low SES students had been trending upwards since 2009 but started to fall again from 2015 when a range of equity and access measures were introduced by universities and paid for by the Australian Government. Figure 105 also shows that attrition is consistently higher than for higher SES groups.



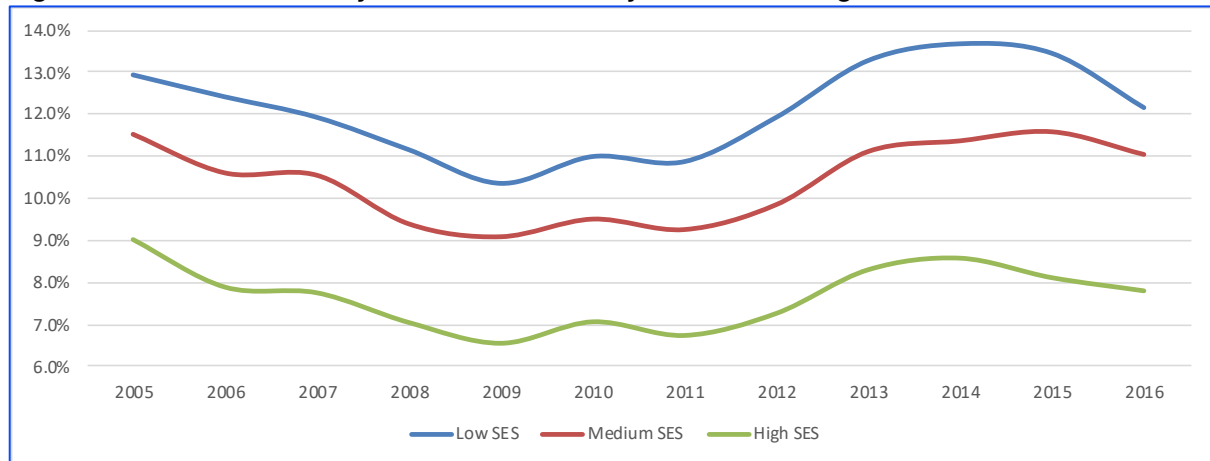
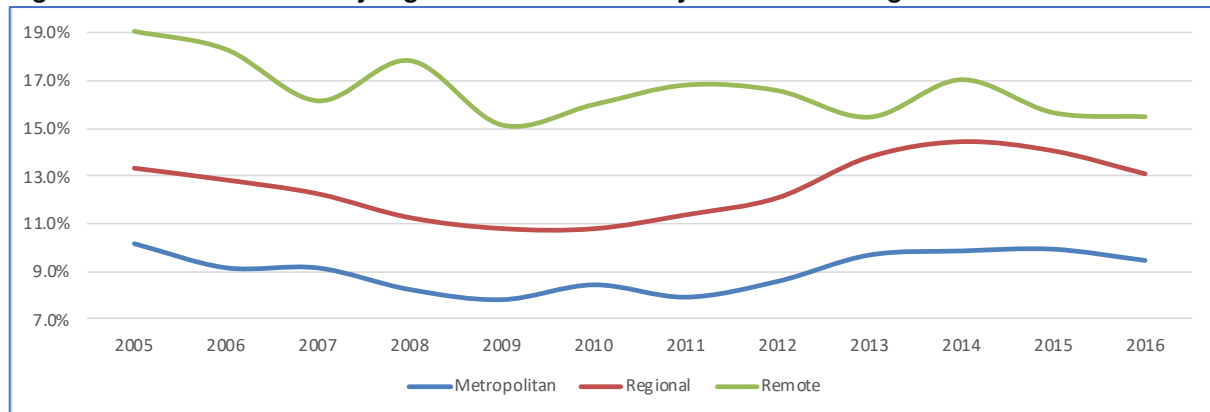
**Figure 105: Attrition rates by SES status in the 4 year commencing cohorts**

Figure 106 shows trends in attrition according to location. While attrition has increased in all location categories from the 2009 commencing cohort it has been trending down since 2014. Figure 106 also shows attrition is significantly higher in regional and remote locations.

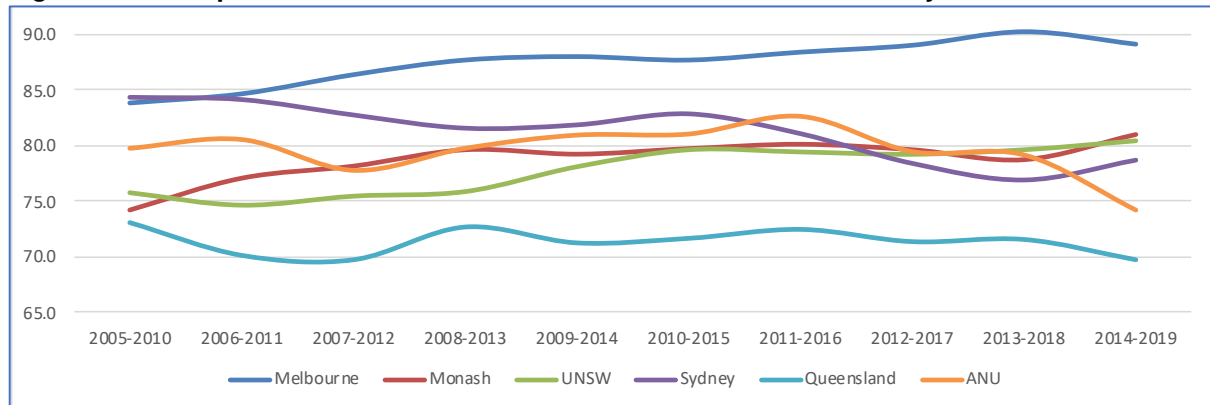
**Figure 106: Attrition rates by regional status in the 4 year commencing cohorts**

The comparatively high attrition rates for regional students is a matter of policy concern and has provided the basis for a number of initiatives for regional universities in the 2020 Job ready graduates package<sup>150</sup>.

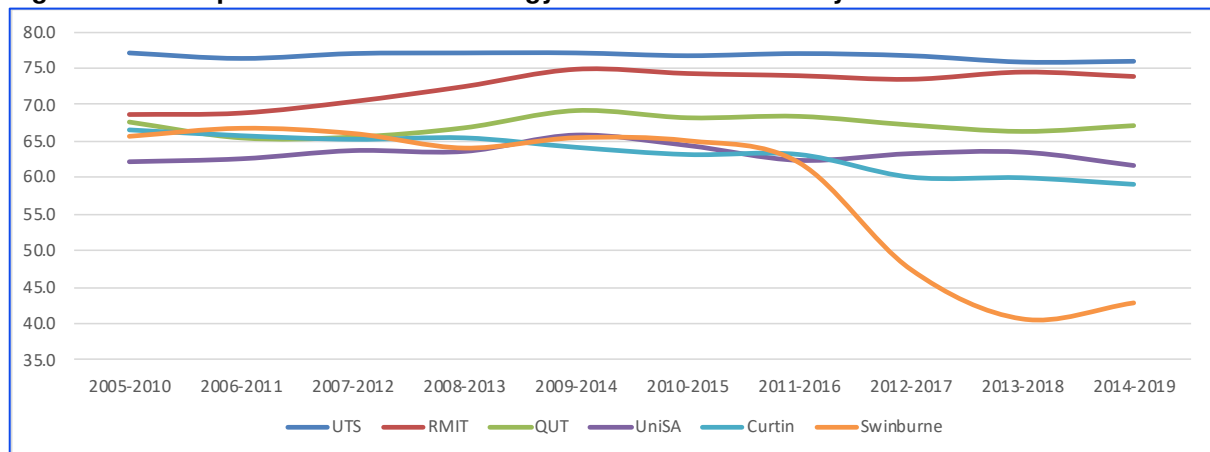
#### 4.1.4 Completion

Figure 107 shows completion rates for the research intensive universities where the 6 year cohorts range between 60-90%.

<sup>150</sup> <https://www.dese.gov.au/job-ready> and <https://www.dese.gov.au/job-ready/more-regional-opportunities>

**Figure 107: Completion rates in research intensive universities for the 6 year cohorts**

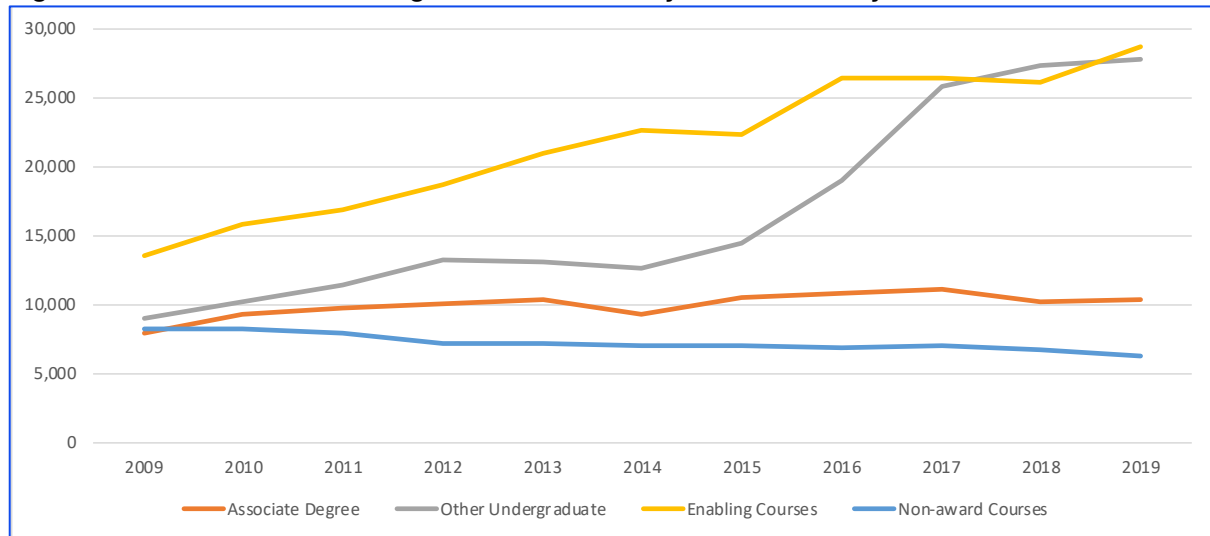
Completion rates are also high in the Technology University segment (with the exception of Swinburne university) as shown in Figure 108.

**Figure 108: Completion rates in technology universities for the 6 year cohorts**

## 4.1.5 The level of study

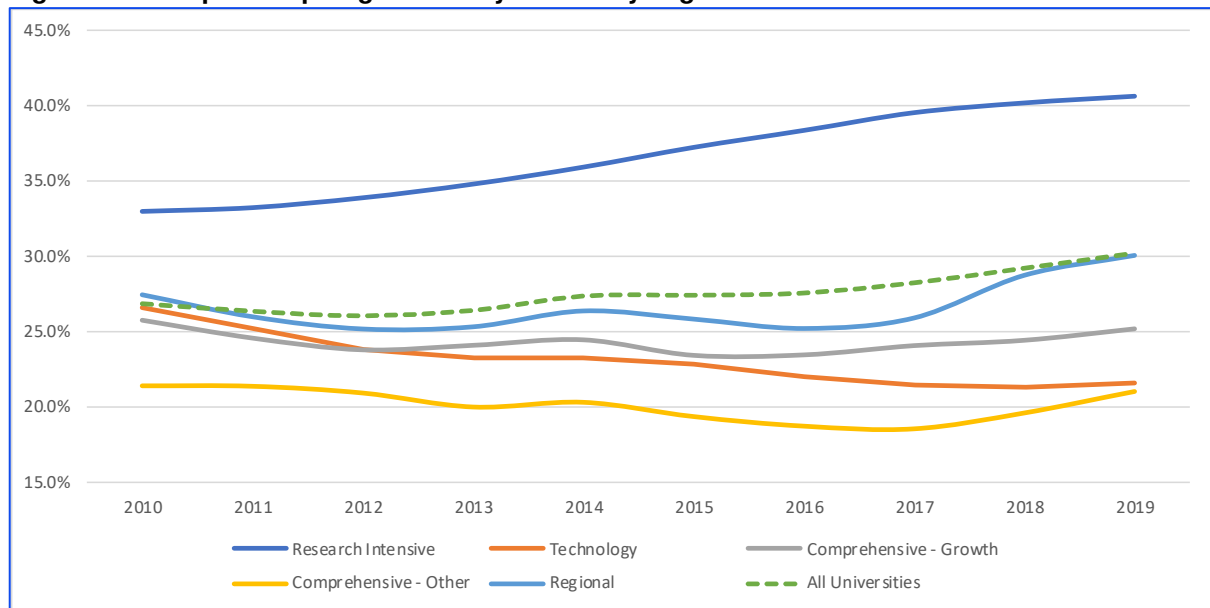
### *Undergraduate*

Consistently over the decade 70% of Australians study at bachelor level. This varies across universities. Other undergraduate courses cover Associate degrees, Enabling courses, Non-award and a broad “other” category. Over the 2009-2019 period there has been substantial growth in enabling courses and in the “other undergraduate” category, as indicated in Figure 109.

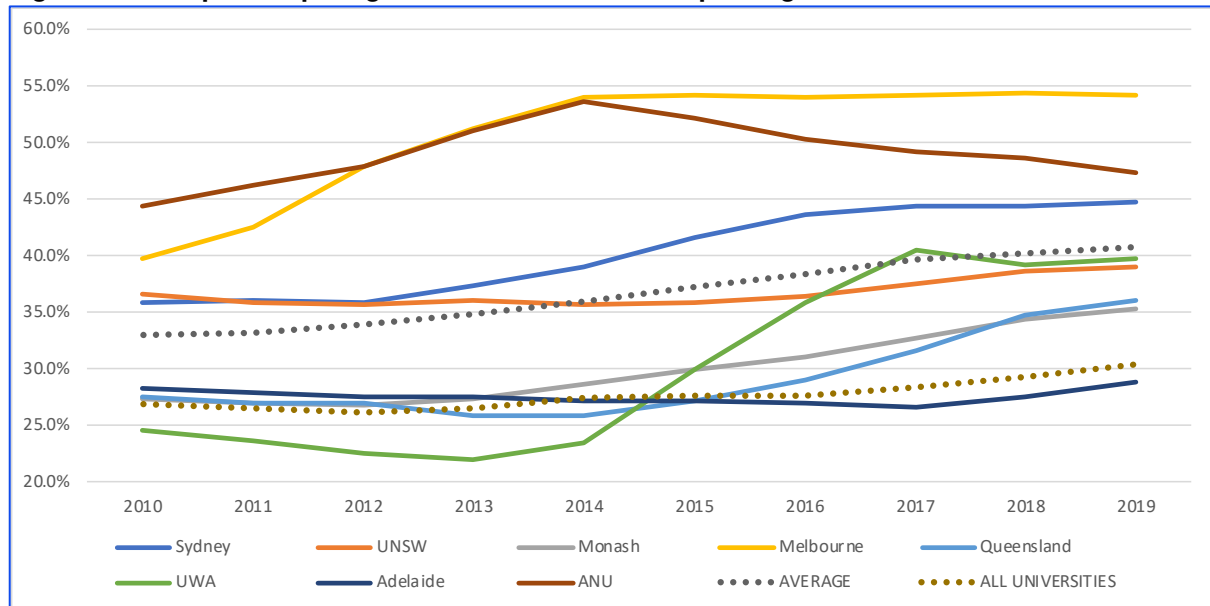
**Figure 109: Non bachelor undergraduate students by course of study 2009-2019**

## Postgraduate

Most postgraduate education is undertaken in research intensive universities, and the proportion is increasing, as shown in Figure 110.

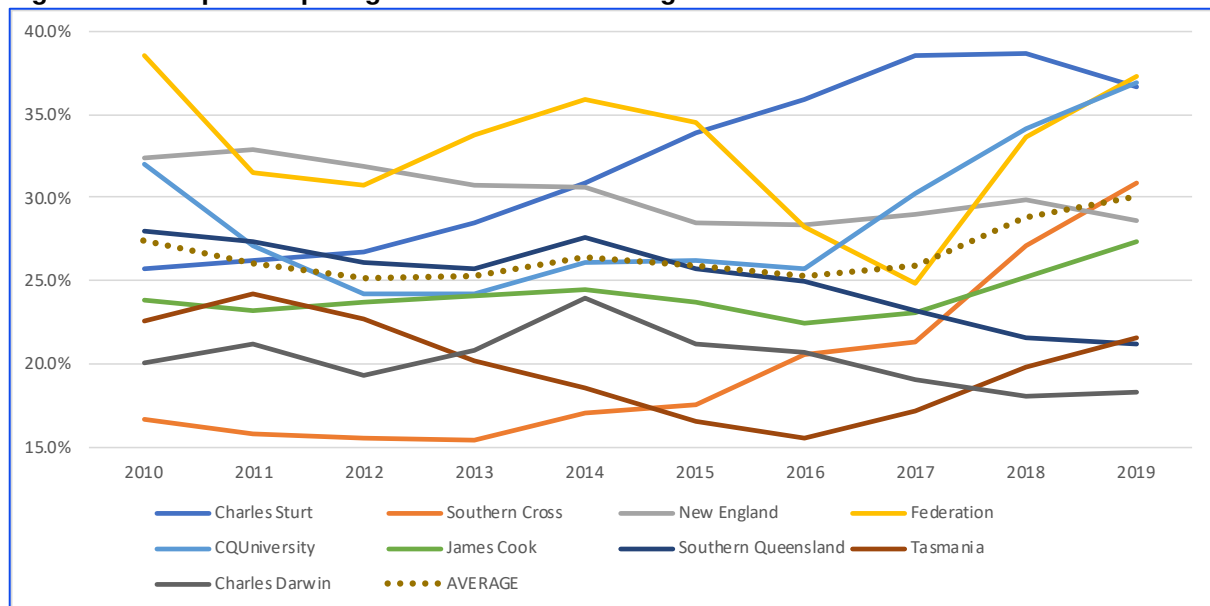
**Figure 110: Proportion postgraduate by university segment**

Melbourne is almost 55% postgraduate on account of the “Melbourne Model of university education. Sydney is 45% and ANU was 54% in 2014 but has since dropped.

**Figure 111: Proportion post graduate students in Group of Eight universities**

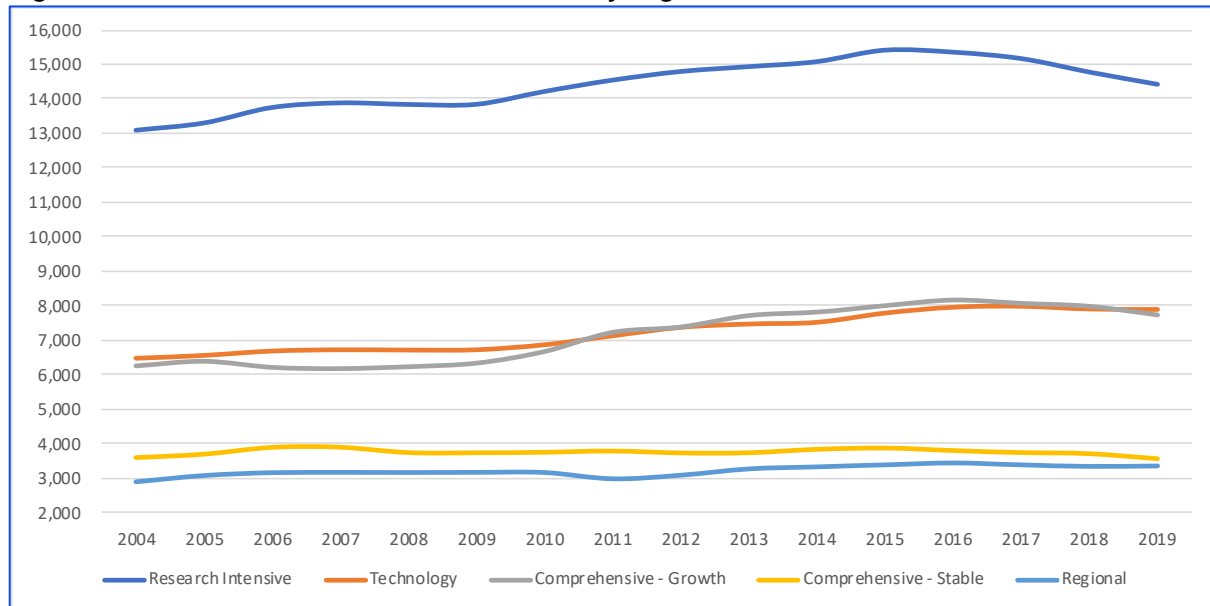
UWA seems to have gone the other way from 2014.

Post graduate proportions are also quite high in regional universities pointing to the demand for distance education through external enrolment in fields such as education and health.

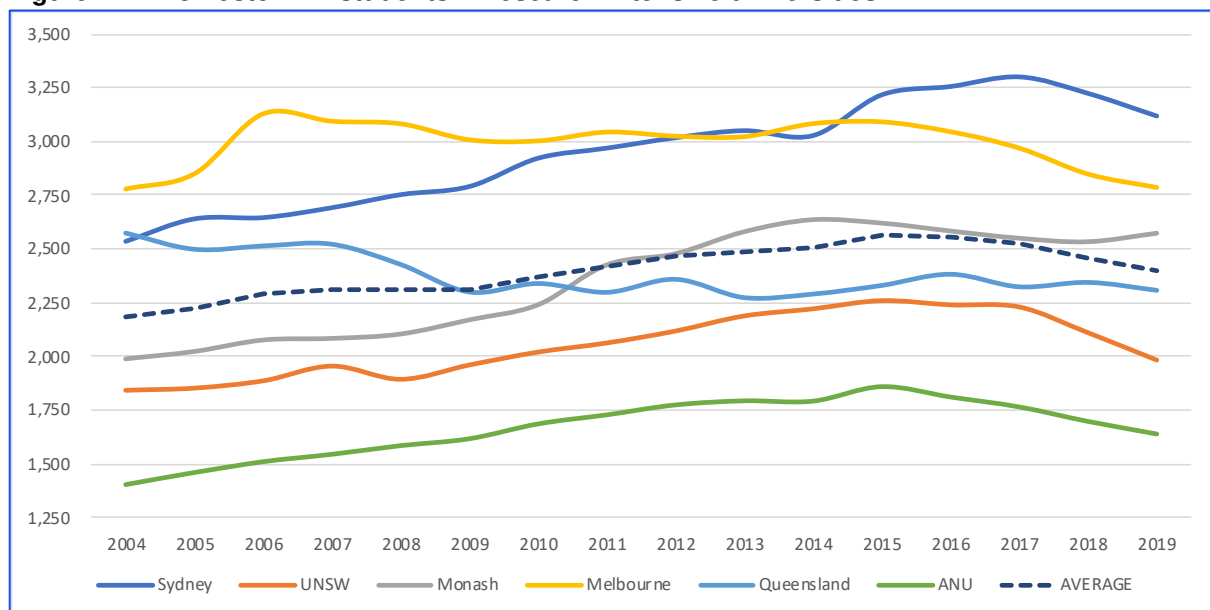
**Figure 112: Proportion post graduate students in regional universities**

### PhD programs

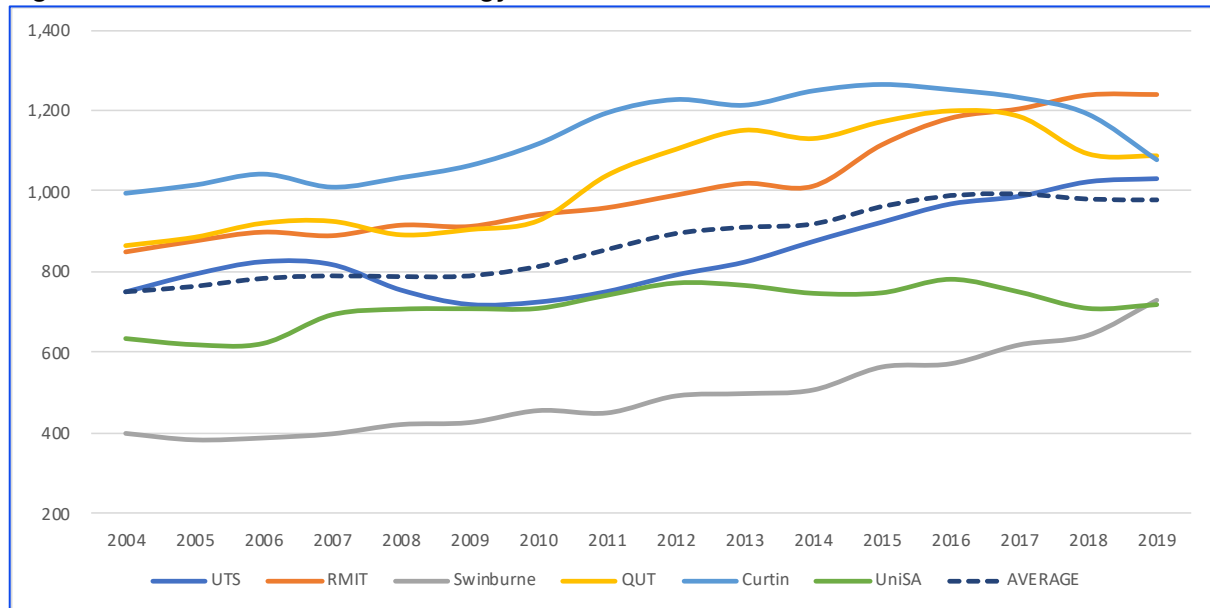
Most PhD students study at the research intensive universities, as indicated in Figure 113 showing trends over the period 2004-2019.

**Figure 113: Domestic PhD students in university segments**

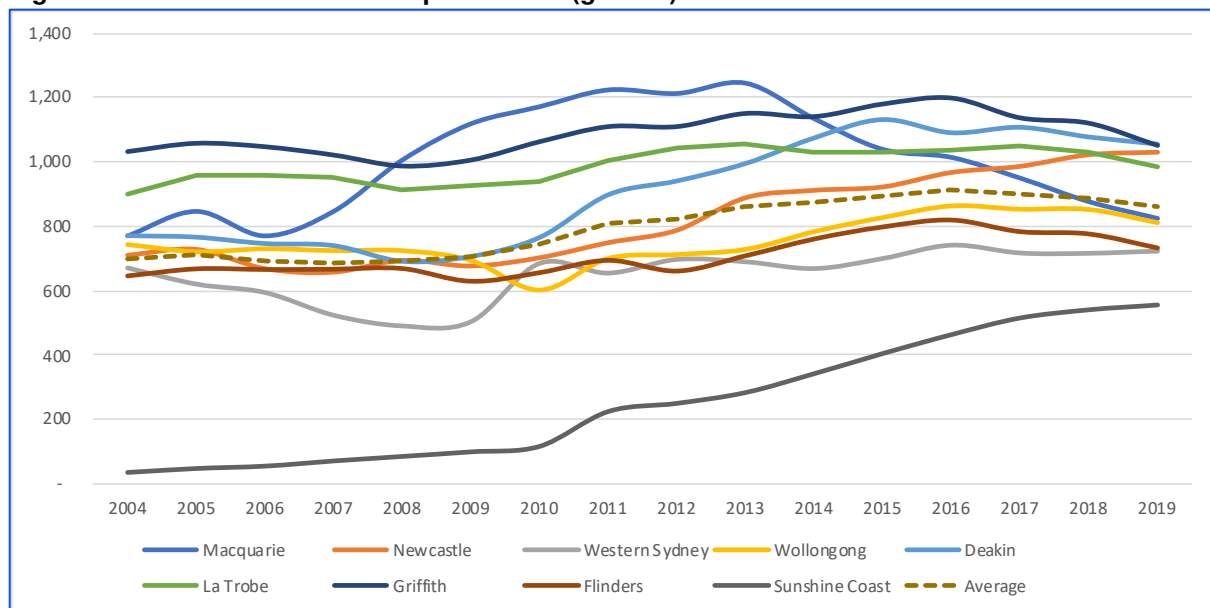
Enrolments are strongest at the research intensive universities.

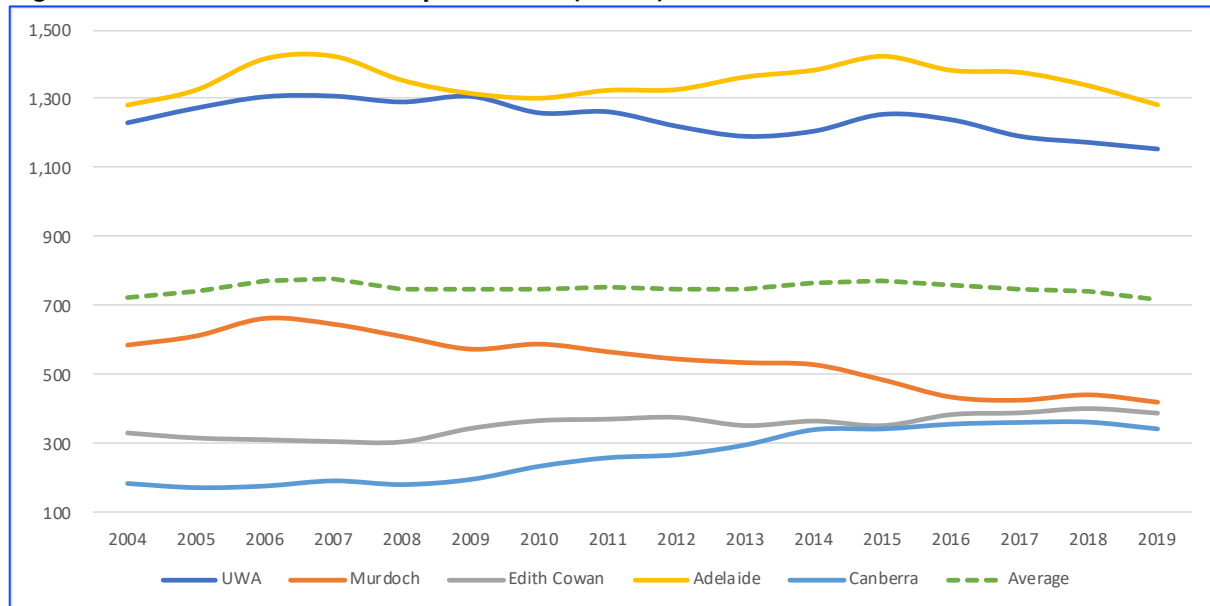
**Figure 114: Domestic PhD students in research intensive universities**

Technology universities (with the exception of Curtin) have been increasing their PhD profiles, as indicated in Figure 115.

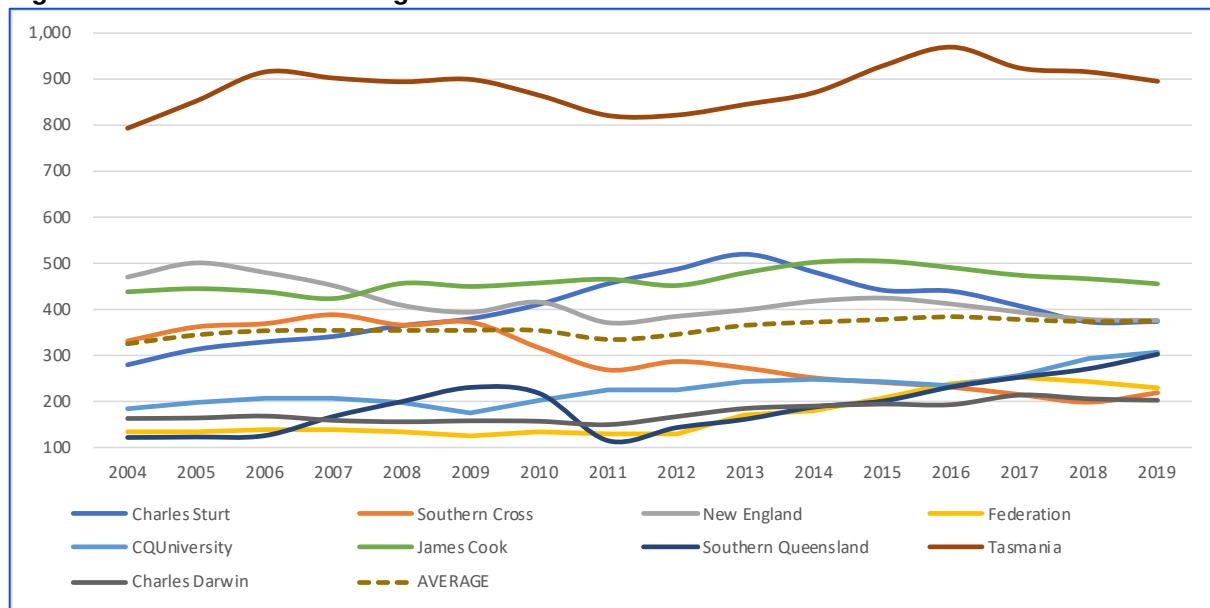
**Figure 115: PhD students in technology universities**

PhD enrolments at comprehensive (growth) universities have been faltering, with the exception of Newcastle, Western Sydney, Edith Cowan, and Sunshine Coast.

**Figure 116: PhD students in comprehensive (growth) universities**

**Figure 117: PhD students in comprehensive (stable) universities**

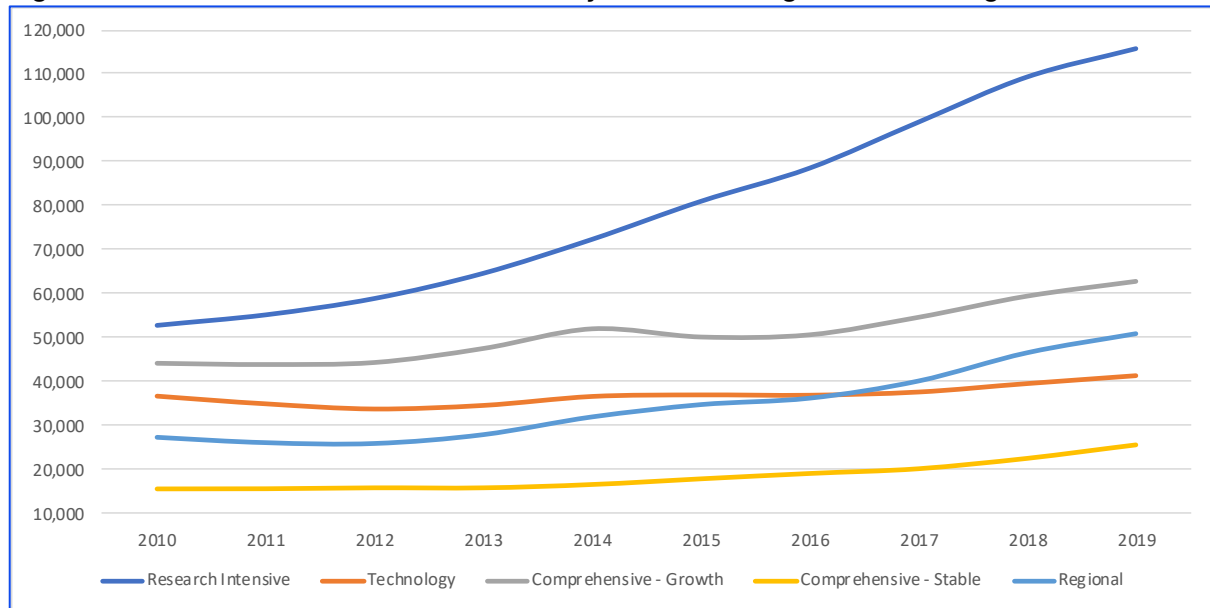
Among regional universities, Tasmania has a major commitment reflecting the university commitment to research over many decades. The commitment at James Cook is faltering. Most other regionals have a decreasing with a notable exception of Southern Queensland.

**Figure 118: PhD students in regional universities**

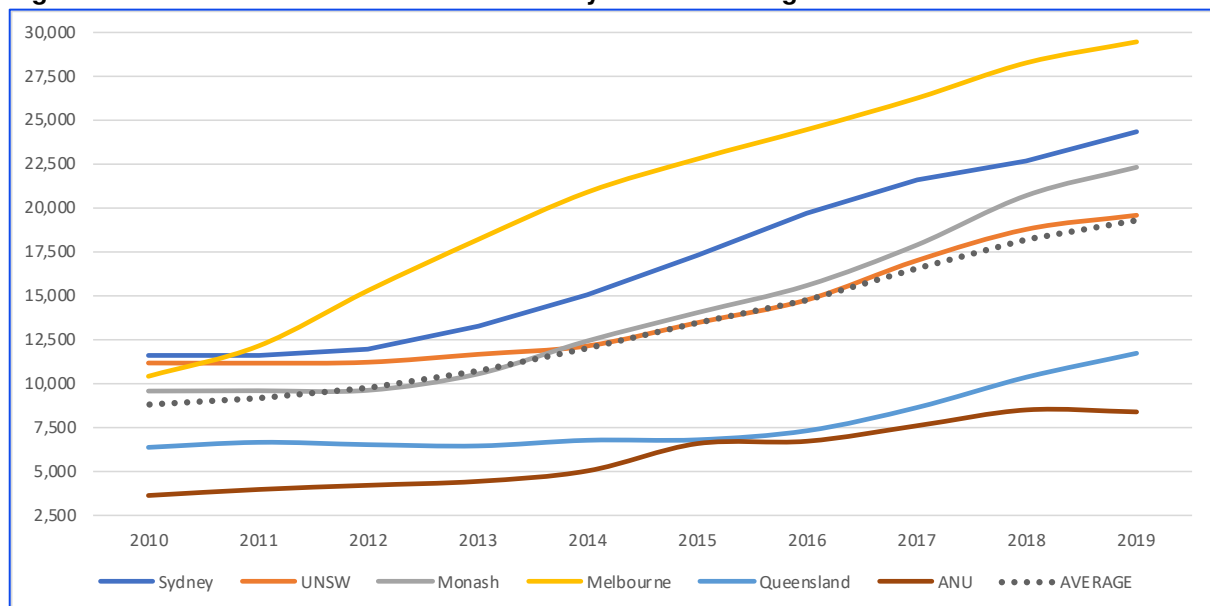
### **Masters programs**

There has been a very large increase in the numbers of students enrolled in masters programs. Figure 119 points to the trend growth, particularly in research intensive universities.



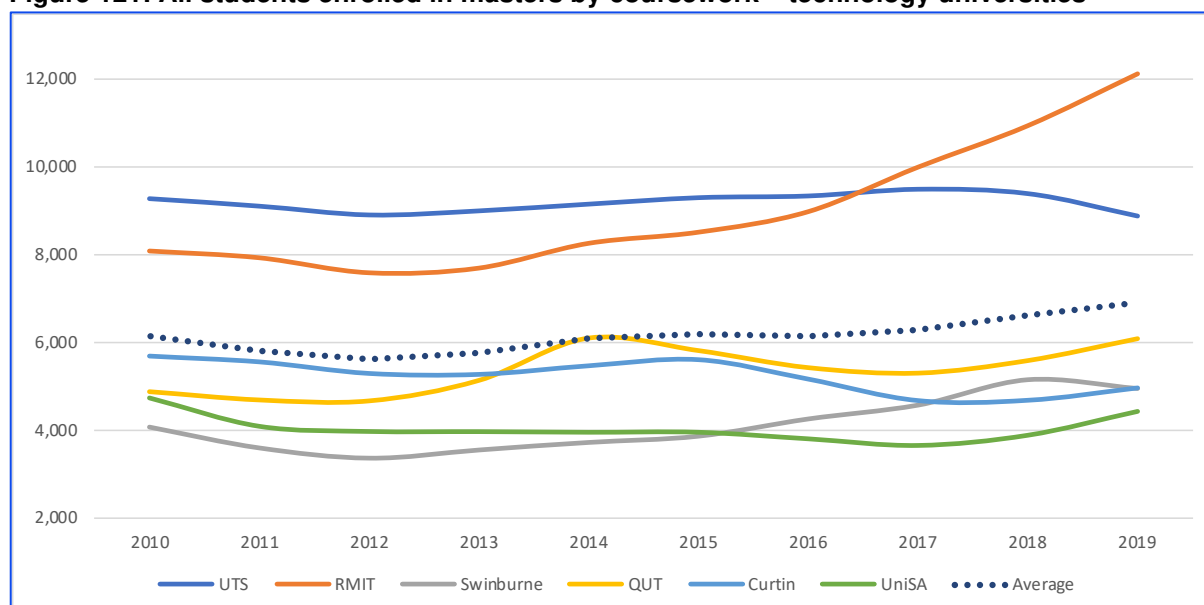
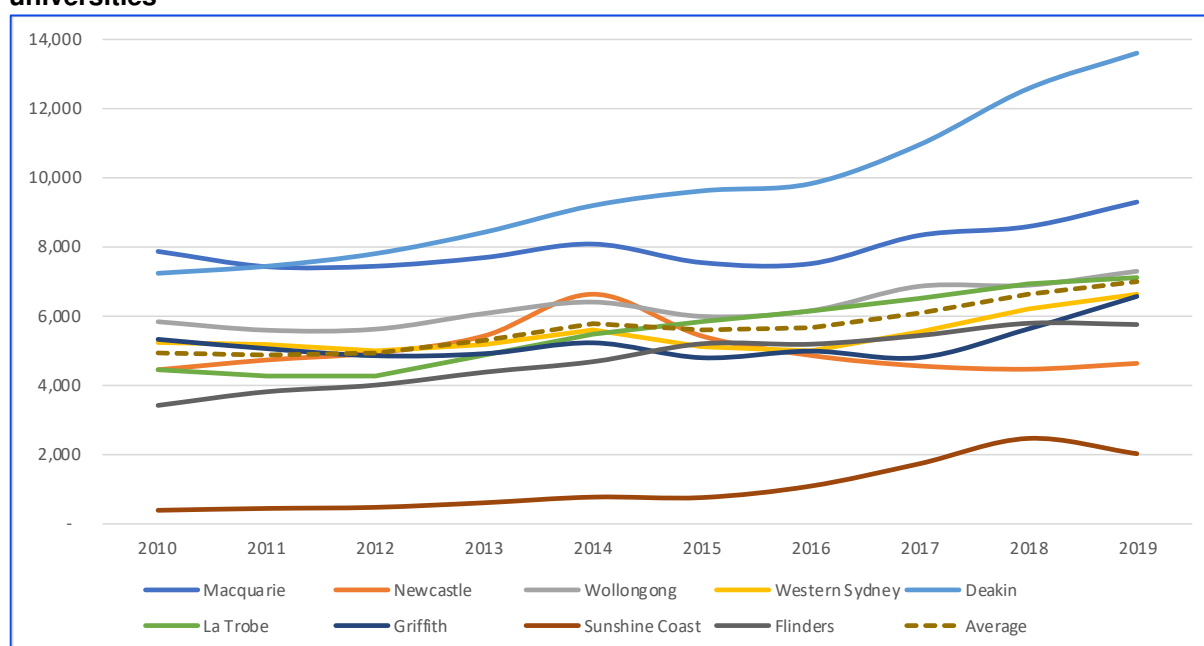
**Figure 119: All students enrolled in masters by courework degrees across segments**

Enrolments at research intensive universities are impacted by the introduction of the “Melbourne Model”<sup>151</sup> in 2008, as shown in Figure 120.

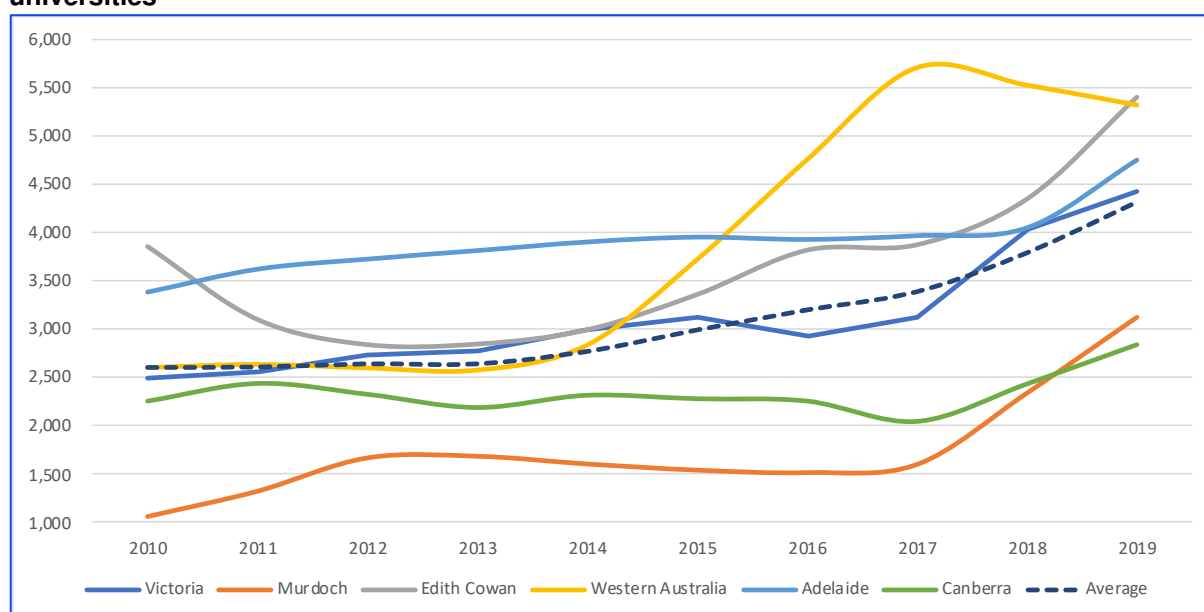
**Figure 120: All students enrolled in masters by courework degrees – research intensives**

Enrolment in masters programs has also been increasing at the technology universities, as shown in Figure 121. However, masters programs are developing traction in other universities as seen in the following charts.

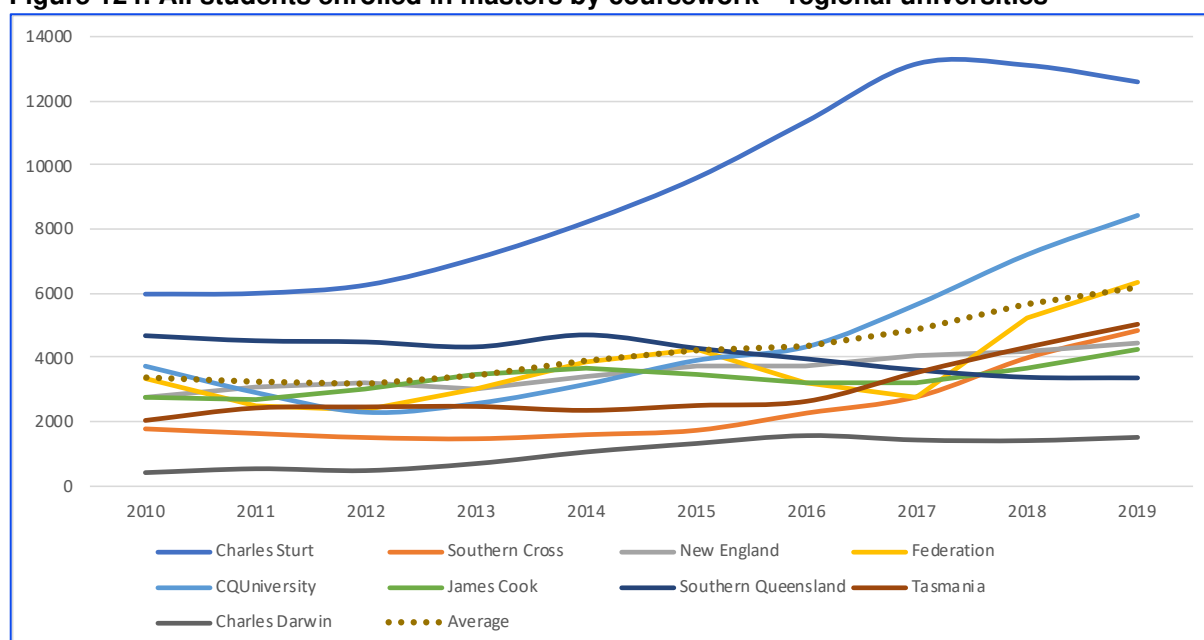
<sup>151</sup> The “Melbourne Model” is described on the University Website at <https://discover.unimelb.edu.au/about-melbourne/the-melbourne-model>

**Figure 121: All students enrolled in masters by coursework – technology universities****Figure 122: All Students enrolled in masters by coursework – comprehensive (growth) universities**

**Figure 123: All students enrolled in masters by coursework – comprehensive (stable) universities**



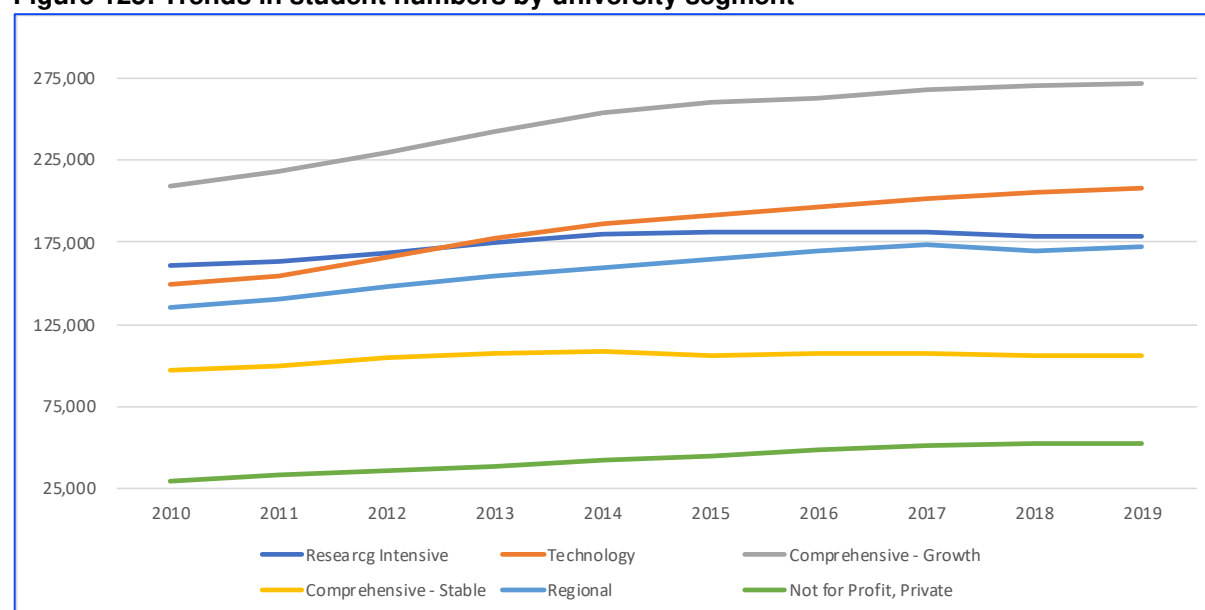
**Figure 124: All students enrolled in masters by coursework – regional universities**



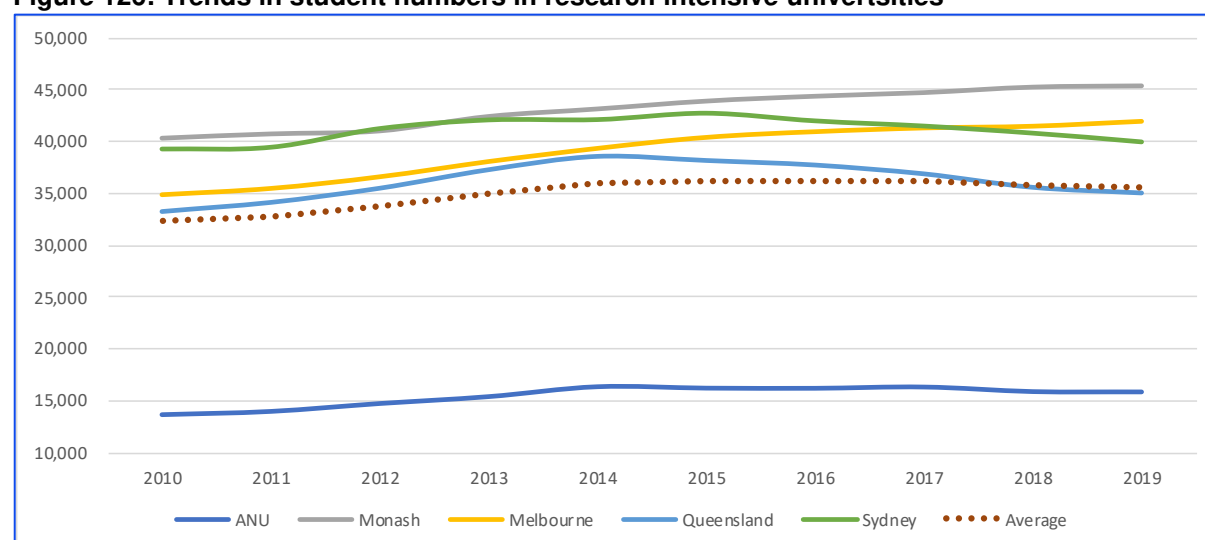
## 4.1.6 Where students study

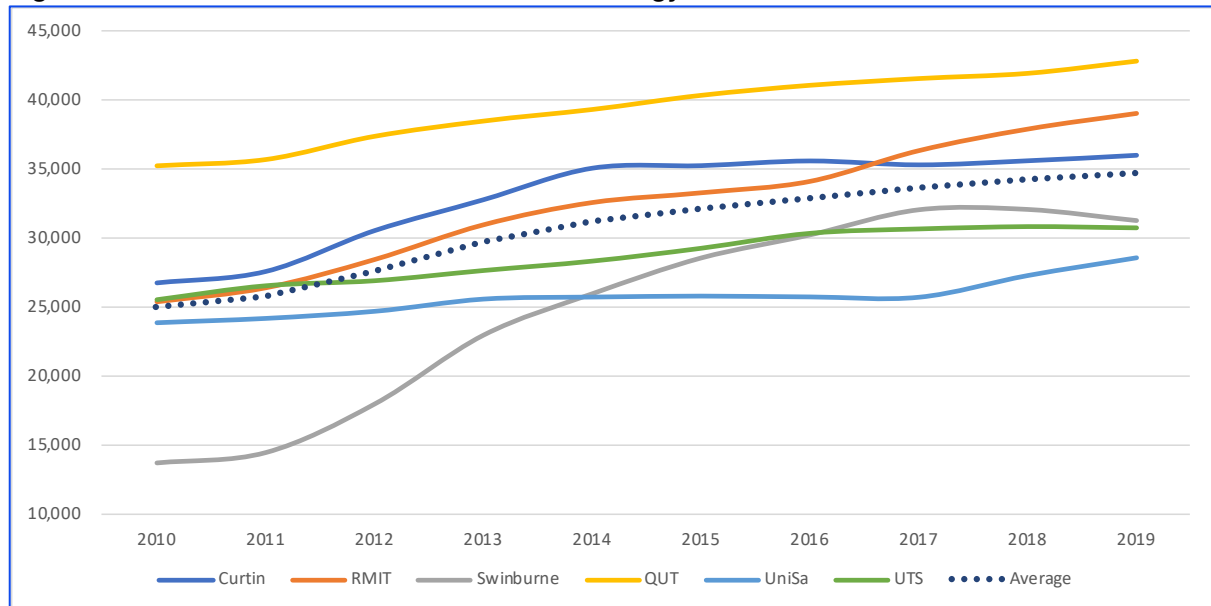
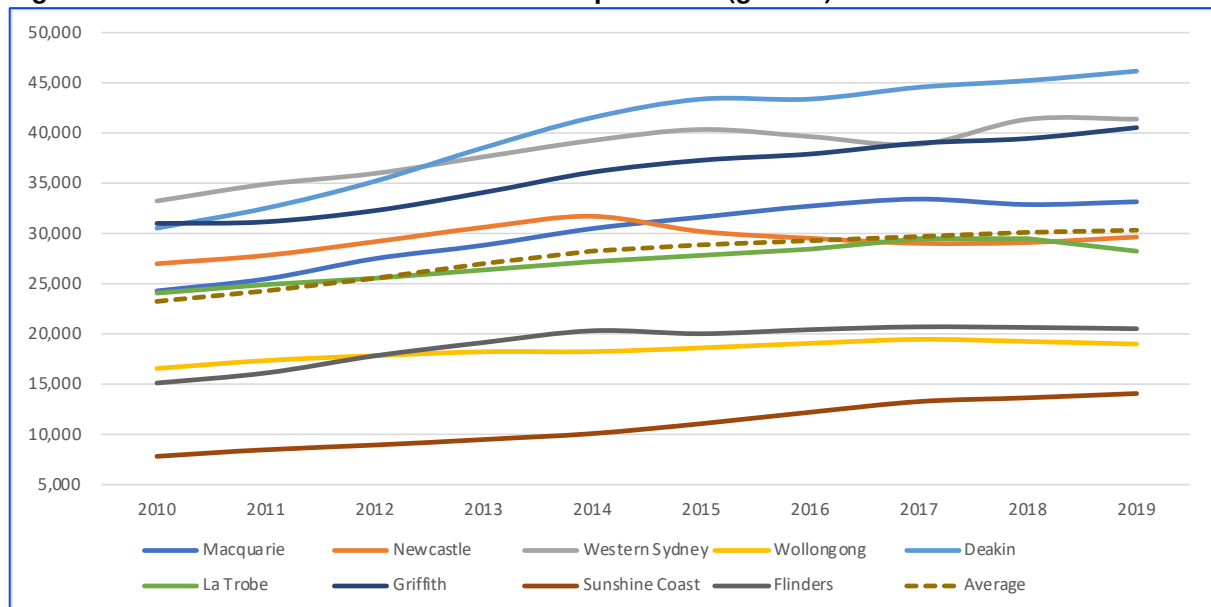
### Domestic

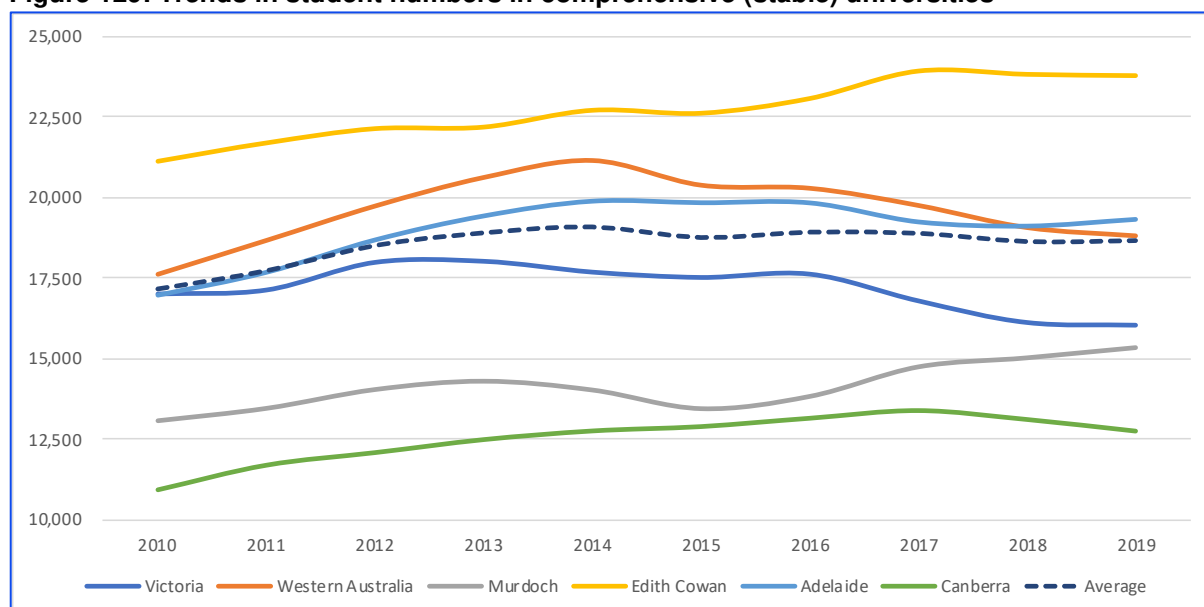
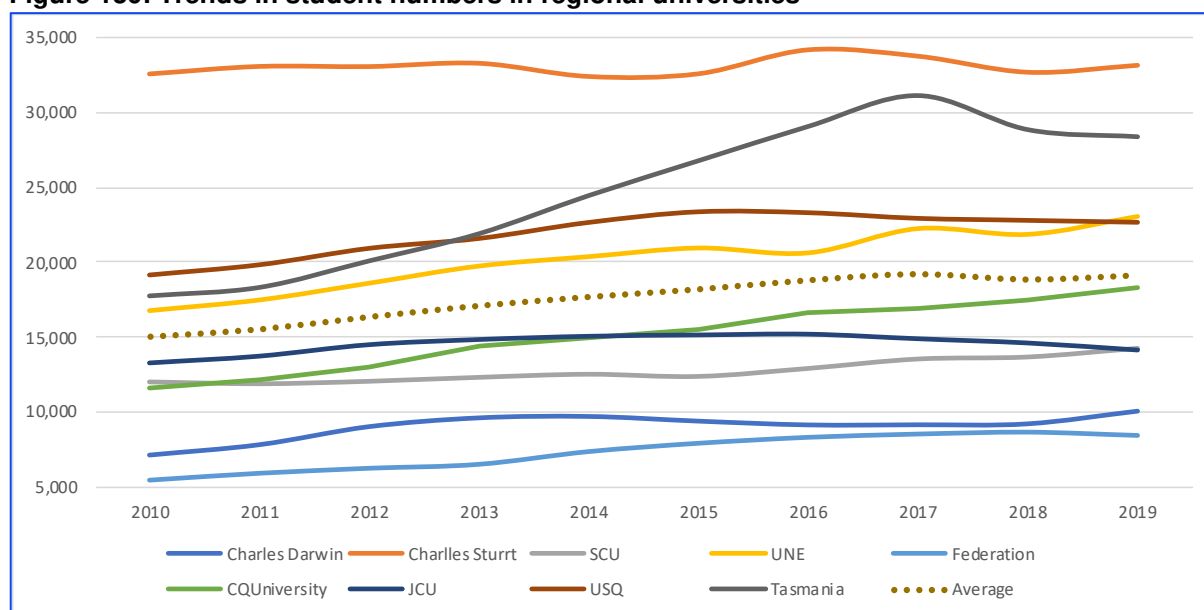
**Figure 125: Trends in student numbers by university segment**



**Figure 126: Trends in student numbers in research intensive universities**

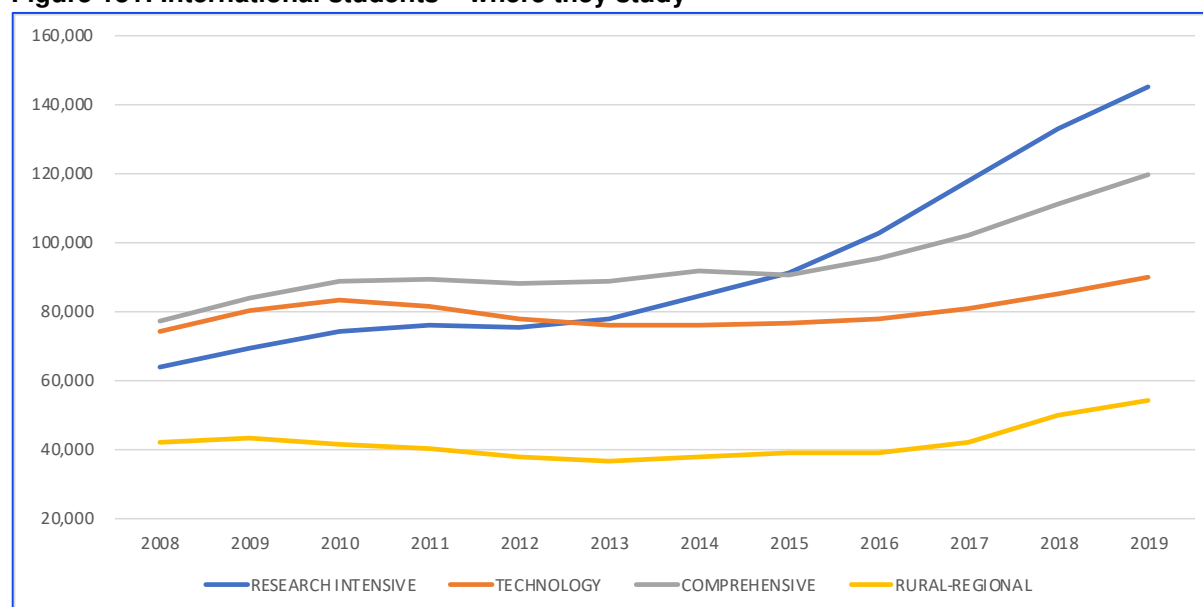


**Figure 127: Trends in student numbers in technology universities**

**Figure 128: Trends in student numbers in comprehensive (growth) universities**


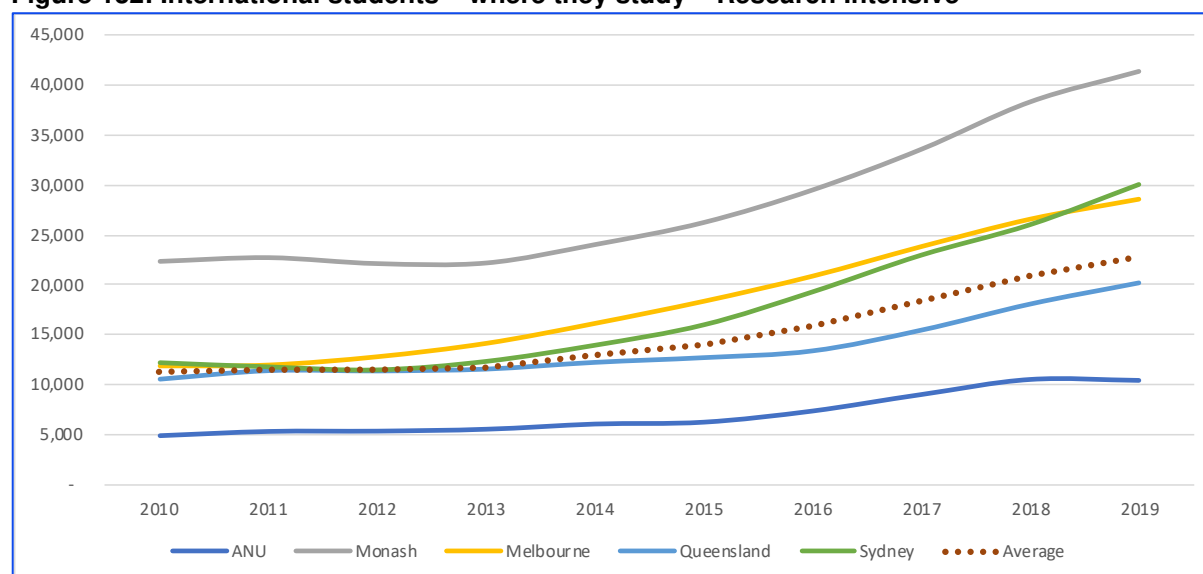
**Figure 129: Trends in student numbers in comprehensive (stable) universities****Figure 130: Trends in student numbers in regional universities**

## International

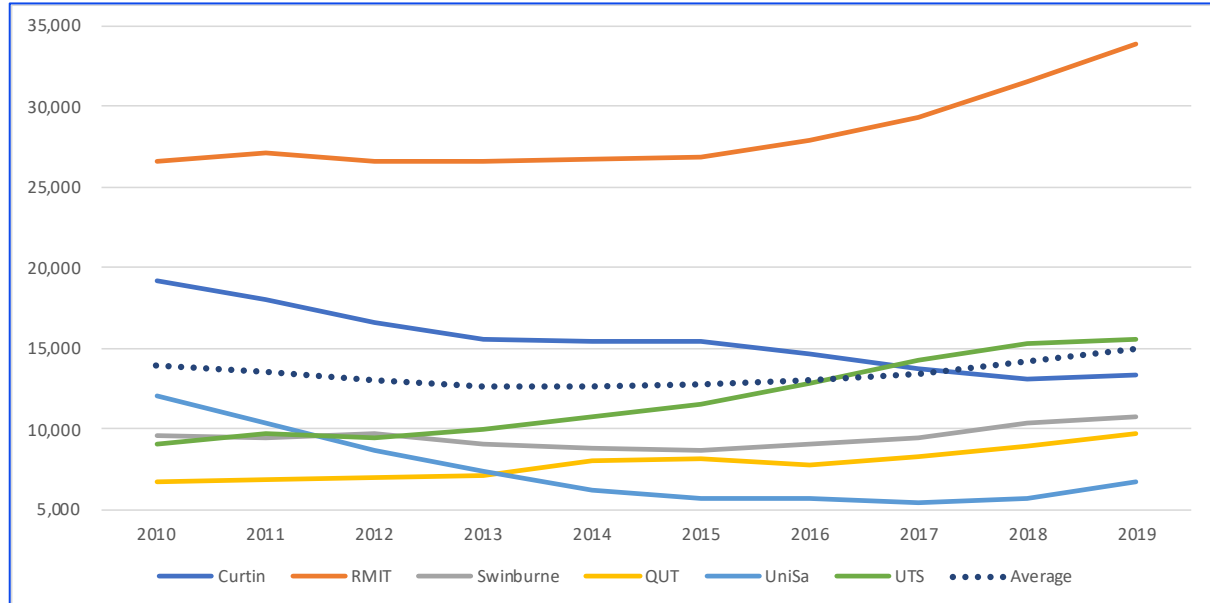
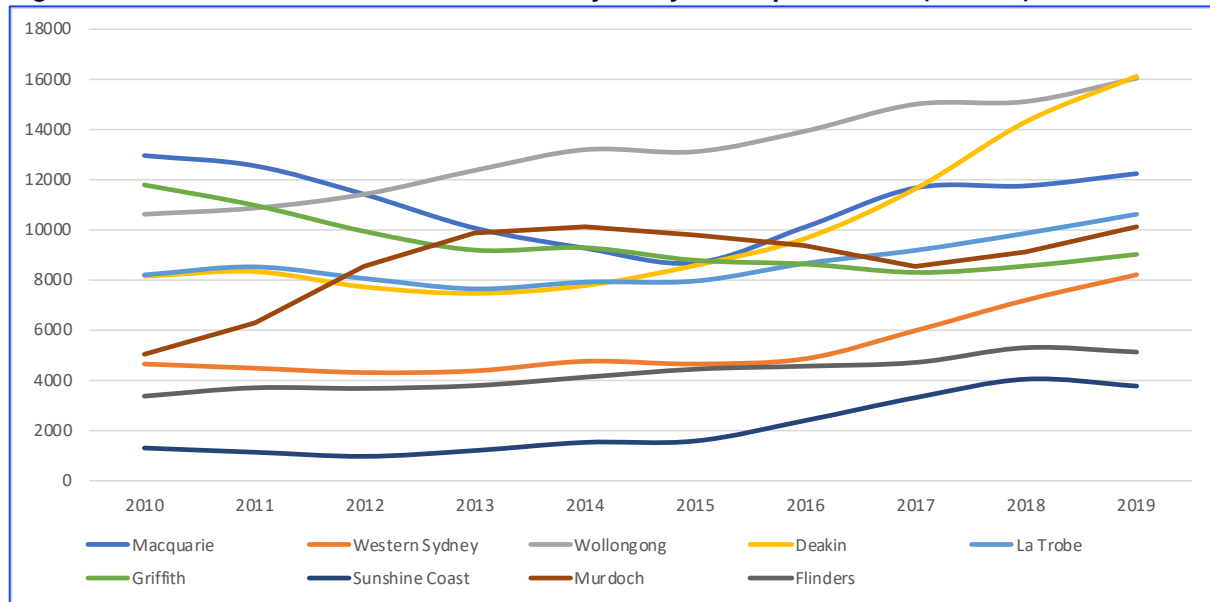
**Figure 131: International students – where they study**

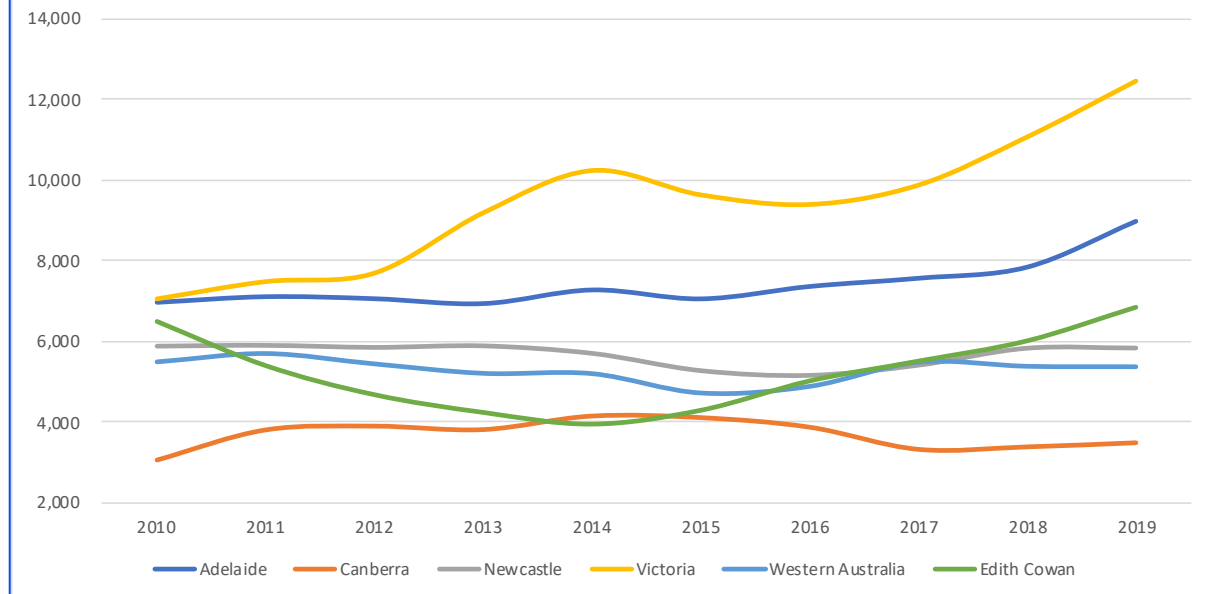
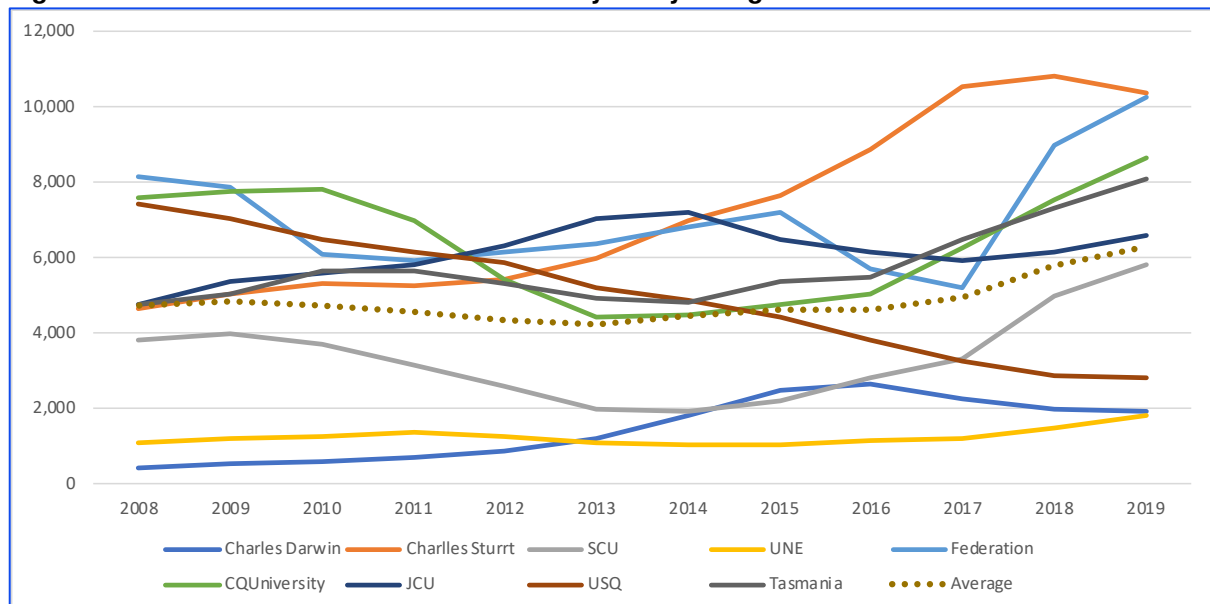


**Figure 132: International students – where they study – Research Intensive**





**Figure 133: International students – where they study - Technology universities**

**Figure 134: International students – where they study – Comprehensive (Growth) universities**


**Figure 135: International students – where they study – Comprehensive (Stable) universities****Figure 136: International students – where they study – Regional universities**

### 4.1.7 Implications

The growth of Australia's higher education system through the active recruitment of international students reflects several implicit policy decisions

- Government has allowed, and even encouraged the industry to grow through surpluses generated on international student income
- Government commitment through direct support for Australian student education has fallen dramatically.
- Australian students appear to be discouraged from entering higher education. There are many reasons, but the prospects of a high HECS debt is a major concern
- There is insufficient encouragement and support for students in regional and rural areas to participate in higher education.

The current advocacy from the University sector for Australian government support is largely misplaced: it is advocacy for support of a disintegrating system. Advocacy would be much better placed to argue for the Australian Government take accept its responsibilities for supporting the education and training of *Australian* students to prepare for the transition of the economy to a new industrial future.

#### 4.1.8 Conclusion

Universities have clearly grown through offering education to international students, principally in management and commerce. A significant proportion of international students (23%) is located offshore.

Staffing has grown in non-academic units, presumably to support growth in the international student business and other businesses that universities are engaged in – such as campus development and financial trading.

A large proportion of the staff growth since 2000 has been in casual appointments.

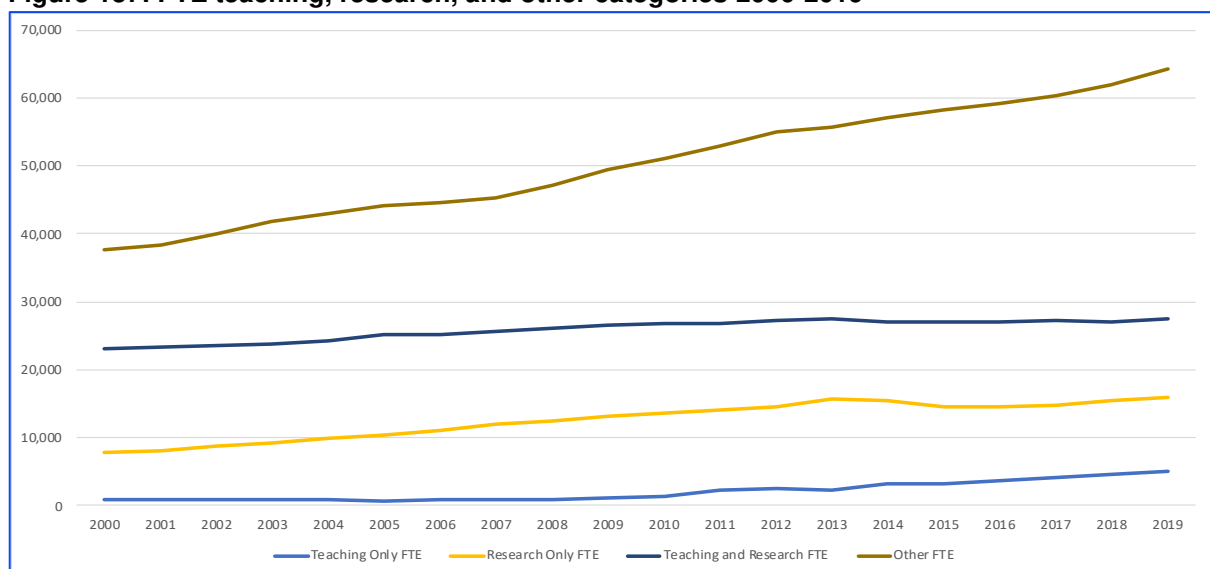
The observations suggest that the model requires refinement, with a clear separation of the domestic academic business and the commercial business, including international education. businesses.

## 4.2 Staffing

### 4.2.1 Trends

In 2019 there were 112,705 Fulltime Equivalent (FTE) staff in Australian universities, having increased by 62.1% from 69,541 in 2000 and by 23.1% from 92,950 in 2019. By contrast research and teaching staff had increased by a more modest 52.1% from 2000 and 15.9% since 2010. These trends are inculcated in Figure 137.

**Figure 137: FTE teaching, research, and other categories 2000-2019**



The fastest organisational growth category over the period from 2000 has been in the “Other” category (that is not including teaching and research) - having increased by 70.5% from 2000 and 25.6% from 2010.

Including casual staff, over the period 2000-2019, FTE staff numbers increased by 67% - with permanent academic staff increasing by 60%, and permanent non-academic staff by 64%. Casual employment increased by 95%. These trends are shown in Figure 138.

**Figure 138: University FTE Staff - academic, non-academic casual 1995-2019**

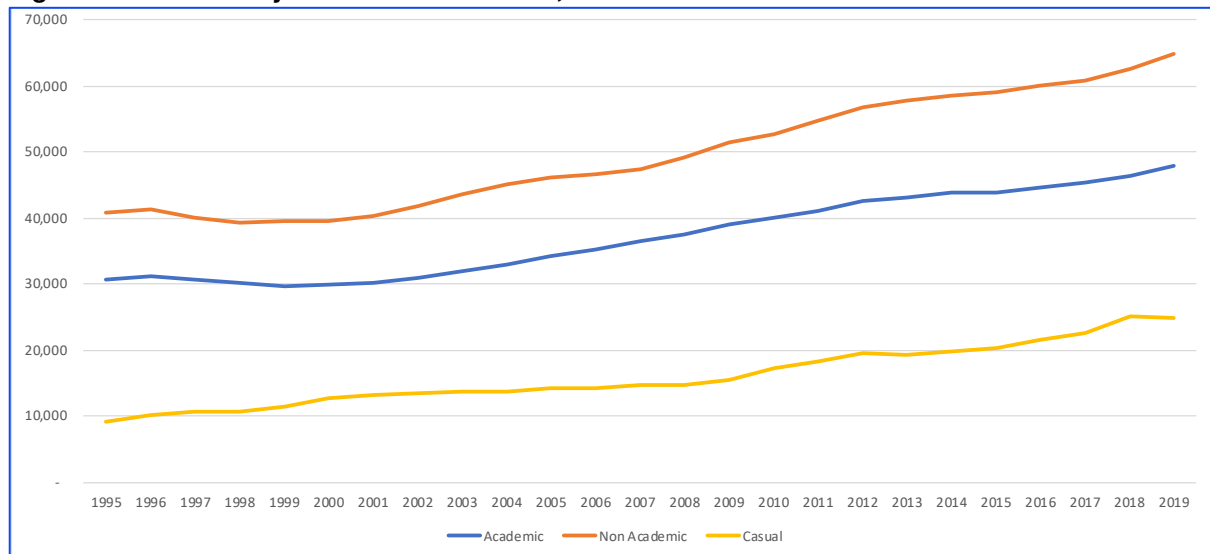
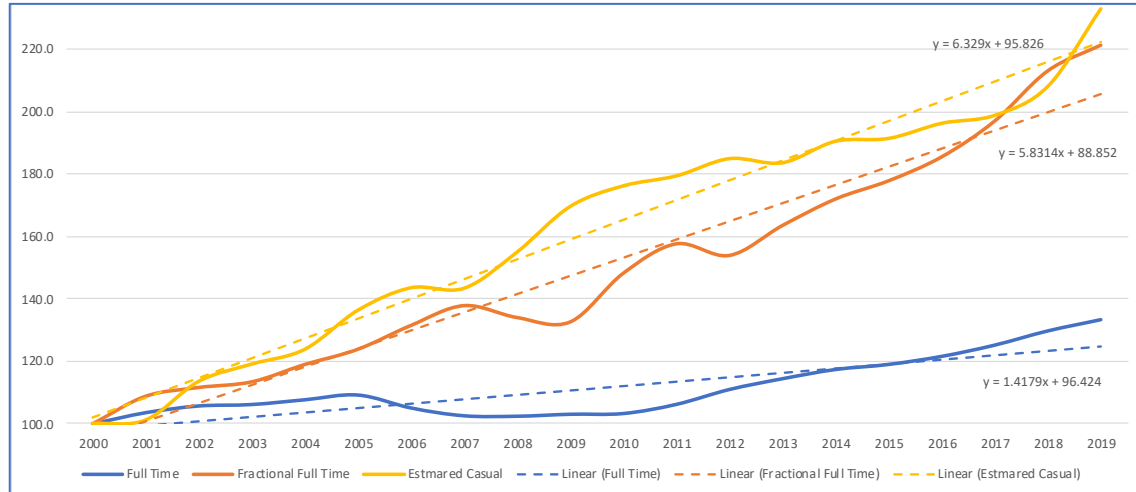


Figure 139 shows that over the period 2000-2019, the annual growth in *fulltime* employment of academic and non-academic staff has been a modest 1.4%. *Fractional full-time* employment has increased by an average of 5.8%, and casual employment by 6.4%. Growth in casual employment has been particularly strong since 2017.

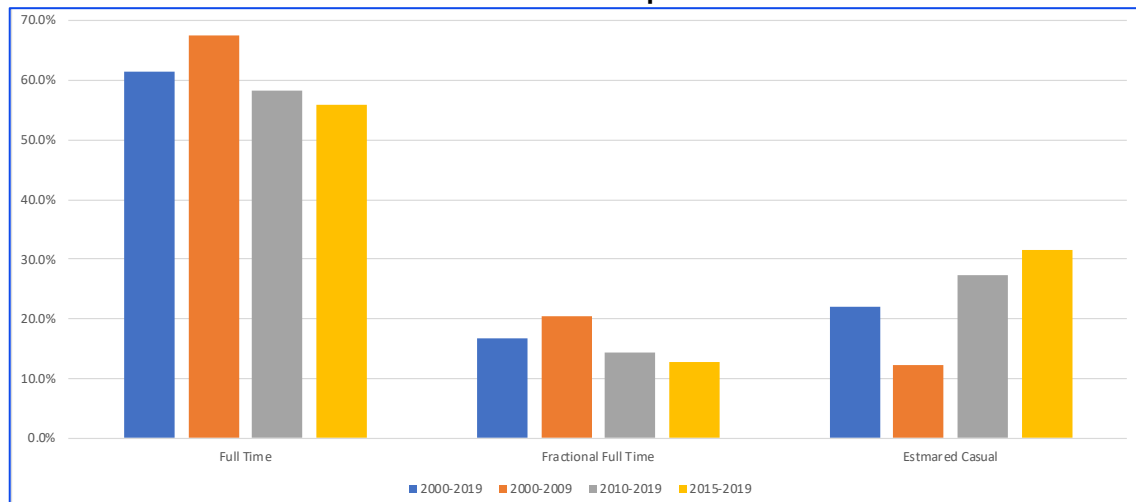
**Figure 139: growth in fulltime, fractional full-time, and casual staff FTEs 2000-2019**



The growth in full-time fractional appointments is welcomed in that it offers workplace flexibility for many employees. Universities have always employed people on a casual basis to deliver tutorials, guest lectures, specialised content, and course elements, but the extent of "casualisation" has been a cause of concern for staff associations for some time.

University staff data show that between 2015 and 2020, the period associated with the international student boom, universities increased staff by a total of 14,165 FTEs (11.4%), of which 21.4% were casuals and 55.9% were fulltime. The additions to fulltime staffing were most significant in the 2000-2009 period (67.4%). This is shown in Figure 140.

**Figure 140: Growth in university staff FTEs 2000-2019 across employment categories 2000-2019 and selected periods**



While universities are currently anguishing about the need to reduce staff in the light of the downturn in international student revenue, it should be seen as essentially unwinding the expansion that was associated with the international student boom. Proposed staff reductions above the 11.4% growth since 2015 should be seen as a much-needed response to efficiency and productivity imperatives that had been a long time in the making – the failure to make the necessary management and organisational transformations.

#### 4.2.2 Staff in organisational units

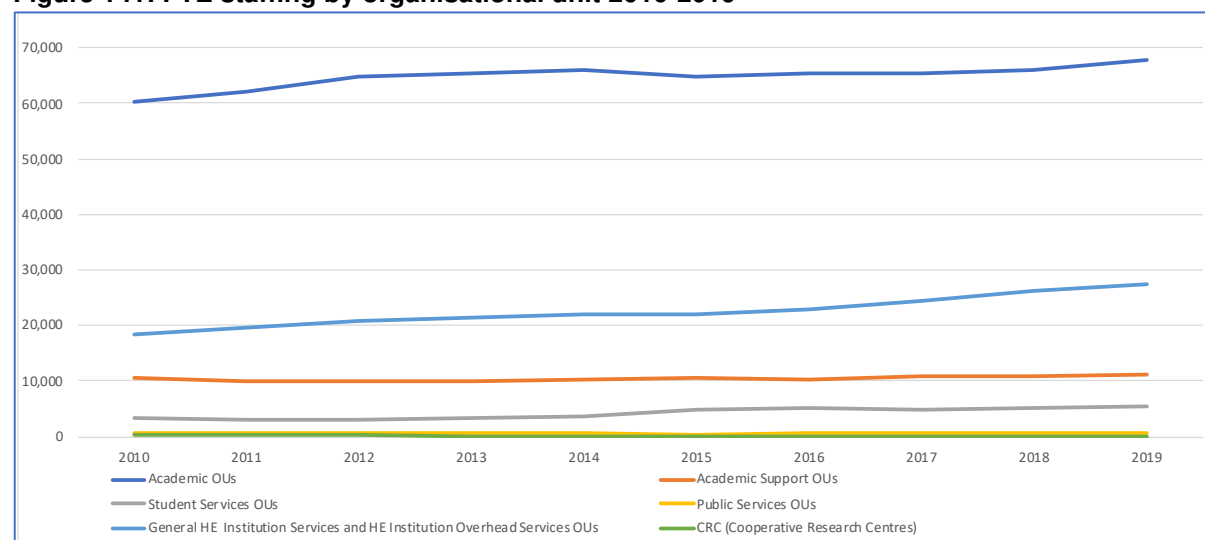
In terms of Organisational Units, academic staff increased by 12.8% over the 2010-2019 period, compared with 5.8% in Academic Support Units, 67.4% in *Student Services Units*, 37.0% in “Public Service” Units and 50% in *General Institution and Overhead Services*. Academic staff FTEs peaked in 2014 (65,943) and fell to 65,887 in 2018. This limited growth has occurred notwithstanding the massive growth in international student income from 2014.

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*The staffing data suggest that international student fees were **not** channelled into the salaries of research staff as is often claimed – but were taken up with the institutional and corporate staff costs.*

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Some of this increase may have been incurred by marketing/student recruitment and the institutional infrastructure required to service this market. The trend growth in each of these FTE categories is shown in Figure 141.

**Figure 141: FTE staffing by organisational unit 2010-2019**

During 2019 universities recruited an additional 1,980 academic staff to bring the total to 67,867. Between 2014 and 2018 General Services and Overhead staff increased by 4,276 with a further 1,289 being added in 2019. These staffing additions make the adjustment to the COVID-19 shock particularly painful.

Figure 142 shows trends in teaching staff engaged in Academic Organisational Units.

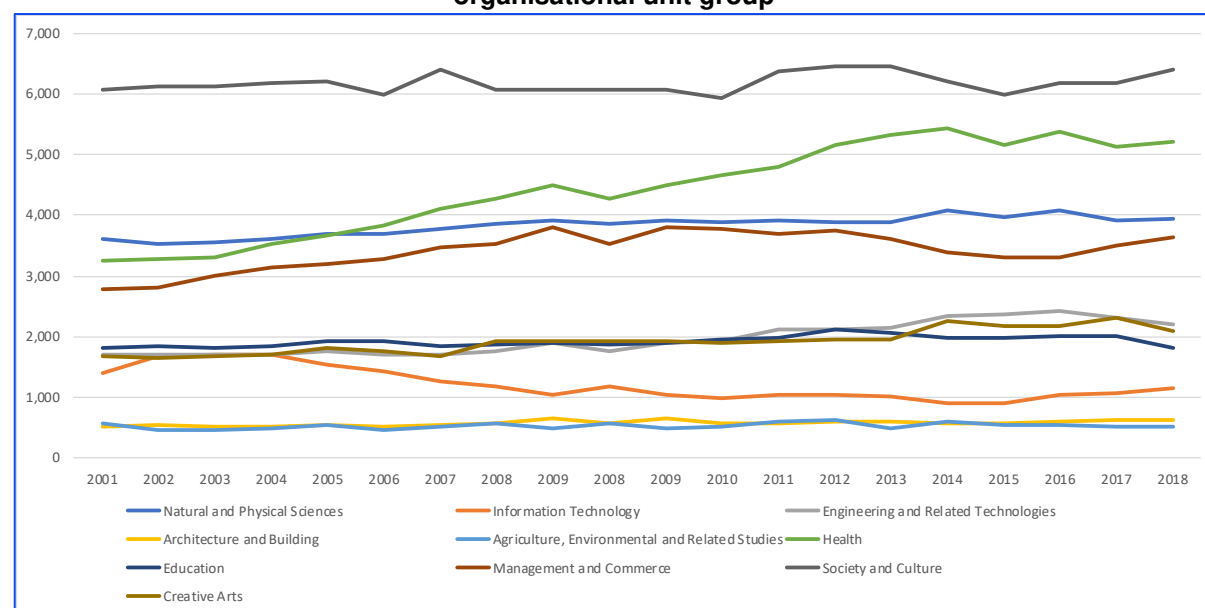
**Figure 142: staff with a teaching only or teaching and research function in an academic organisational unit group**

Figure 142 clearly indicates the increase in Health staff (green line) which is consistent with student demand in this area. The decline in staff numbers in Information Technology (orange line) is disappointing – but reflects student demand. There has been only very small staff increases in engineering (grey line) and in the natural and physical sciences (blue line). Staff numbers in management and commerce have fallen since 2009, notwithstanding the growth in international students in this area.

The proportion of staff working in academic support units has increased to 39.6% in 2018 from 35.8% in 2014 and 35.3% in 2010. Most of that growth has been in General higher education institution services and Overheads.

## 4.3 Research quality

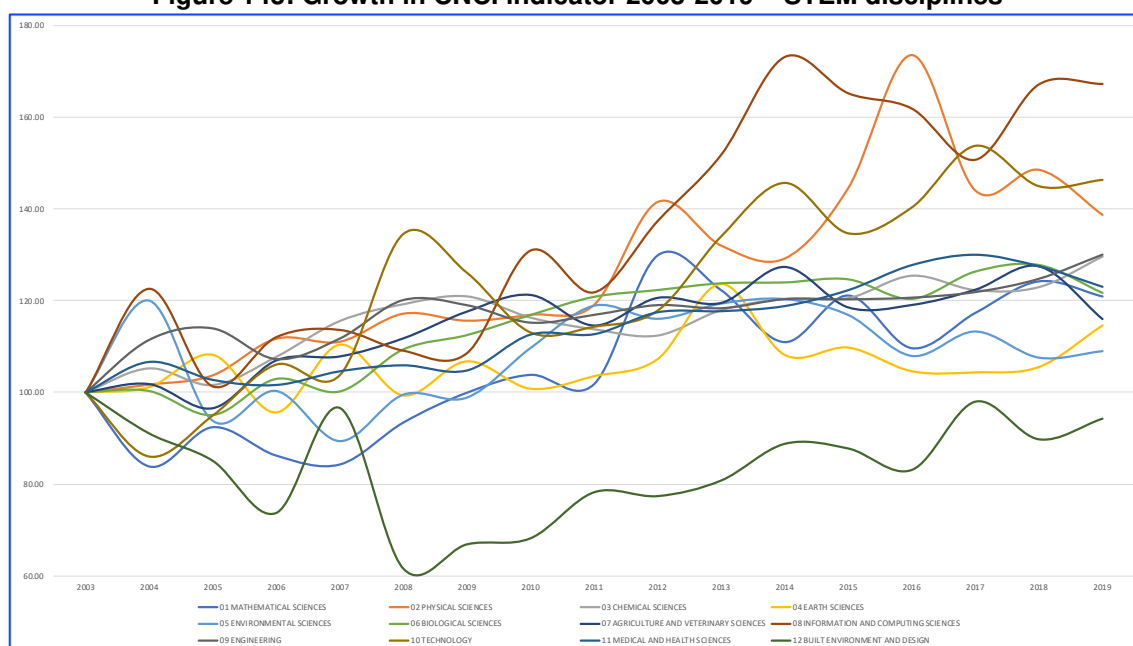
While the quantity of research has been increasing rapidly, the same may not be said for research quality. However, the movement of quality is uneven between the STEM and HASS disciplines.

### 4.3.1 STEM

Figure 143 shows the 5 yearly trend increase in quality for STEM disciplines, as indicated by the Clarivate InCites Category Normalised Citation Impact (CNCI) measure for 2-digit fields.

Figure 143 shows comparative annual movements in research quality from a base of 100 in 2003. for the STEM disciplines.

**Figure 143: Growth in CNCI indicator 2003-2019 – STEM disciplines**



The analysis clearly shows that there has been substantial upward movement in research quality in the Fields of Information and computing sciences, Technology, Physical Sciences, and Mathematics. Comparative average annual growth rates for all STEM Fields are shown below.

STEM Fields of Research	Average Annual CNCI Growth Rate	Statistical Relationship
08 Information and Computing Sciences	4.62	$Y = 4.6239x + 93.420$
10 Technology	3.65	$Y = 3.6485x + 90.526$
02 Physical Sciences	3.47	$Y = 3.4689x + 95.185$
01 Mathematical Sciences	2.42	$Y = 2.4198x + 84.259$
06 Biological Sciences	1.99	$Y = 1.9871x + 96.724$
11 Medical and Health Sciences	1.87	$Y = 1.8702x + 97.031$
07 Agriculture and Veterinary Sciences	1.51	$Y = 1.5139x + 101.04$
03 Chemical Sciences	1.43	$Y = 1.4372x + 103.04$
09 Engineering	1.19	$Y = 1.1919x + 106.43$
05 Environmental Sciences	0.88	$Y = 0.8792x + 100.37$
04 Earth Sciences	0.57	$Y = 0.574x + 100.950$
12 Built Environment and Design	0.37	$Y = 0.3739x + 80.267$

The growth in research quality in the technologically oriented sciences provides a good basis for capturing research, development, and innovation opportunities in the industries for



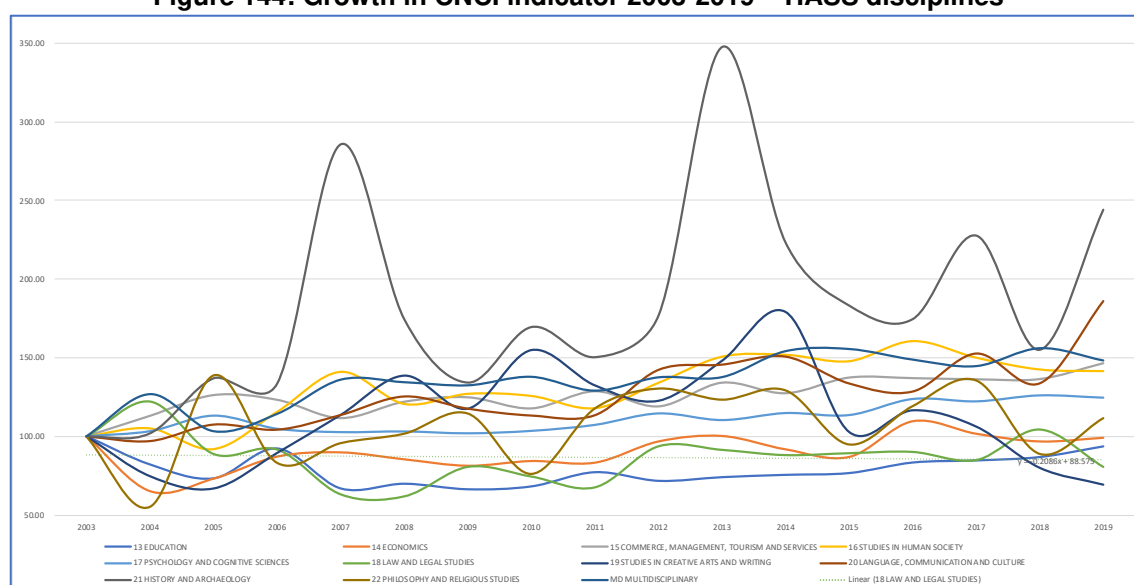
the future. But the current meagre research investments must be increased substantially to capture these opportunities.

Continuing investment cannot rely on the opaque, and largely discretionary, transfer of “teaching surpluses” to research. Opportunity capture requires specific and targeted investment from research funding Councils through channels outlined in the UTS Occasional Paper *Challenges for Australian Research and Innovation*.

### 4.3.2 HASS

According to Figure 144, the growth in research quality in most HASS disciplines has been disappointing. This is also reflected in the comparative average annual growth rate calculations shown in Figure 144.

**Figure 144: Growth in CNCI indicator 2003-2019 – HASS disciplines**



Growth in research quality has been greatest in the fields of History and Archaeology, Studies in human society, and Language, communication, and culture.

HASS Fields of Research	Average Annual CNCI Growth Rate	Statistical Relationship
21 History and Archaeology	5.99	$Y = 5.9876x + 129.67$
20 Language, Communication and Culture	3.88	$Y = 3.8785x + 92.569$
16 Studies in Human Society	3.29	$Y = 3.2971x + 101.20$
15 Commerce, Management, Tourism and Services	1.97	$Y = 1.9724x + 108.19$
22 Philosophy and Religious Studies	1.58	$Y = 1.5774x + 92.895$
17 Psychology and Cognitive Sciences	1.50	$Y = 1.5012x + 97.571$
14 Economics	1.35	$Y = 1.3499x + 77.999$
19 Studies in Creative Arts and Writing	0.66	$Y = 0.6619x + 106.56$
13 Education	0.19	$Y = 0.1944x + 77.177$
18 Law and Legal Studies	-0.21	$Y = -0.2086x + 88.575$
Multidisciplinary	1.97	$Y = 1.9724x + 108.19$

Growth in Commerce, management and tourism and services is disappointing in the light of the increased volume of research output. Management capacity and capability is an essential element in building and sustaining the businesses that will drive and deliver commercial value in the industries of the future.



## 5 The 2020 *Job-ready graduates higher education reform package*

In June 2020 the government announced a series of policy initiatives in the paper *Job-ready graduates: higher education reform package 2020*. The package is complex, and it has taken some time for university leaders, policy analysts and higher education journalists to work through the political spin discern what is really involved.

The package introduces more controls over universities, greater complexity in funding arrangements, and added policy complications. It seeks to take the higher education industry further down the track towards of “vocationalisation” and devaluing the importance of the humanities in creating the “soft skills” that are so important for innovation in industry development and growth.

The universities with strong asset bases and revenue streams will broadly continue as “business as usual”, but the poorer, rural universities will struggle and probably end up as colleges of higher education unless the merge with wealthier counterparts. There is also likely to be an expansion of high quality VET.

### 5.1 Overview

The higher education reform package has very strong *managerialist*, *economistic*, and *instrumentalist* objectives. That is, the government wants the delivery of higher education to be:

- *Agile* – Labour demands are rapidly evolving, and Australia requires a higher education system that keeps pace with the changing needs of the economy and produce graduates with the right skills at the right time.
- *Focussed* – the higher education system needs greater focus on serving students and matching graduate skills to employee needs
- *Innovative* – an education system that supports innovative forms of learning and features flexible approaches to education and training that provide tailored learning solutions to students
- *Informed* – prospective university students require timely and accurate information on career pathways and employment prospects stemming from fields of study
- *Efficient* – as a nation we need to ensure that education funding delivers efficient and effective outcomes for the national economy.

These requirements are reflected in the overall financial thrust of the package and the incentives for improved performance that are built into it. The government has had an ongoing and growing concern about productivity in the higher education sector, with particular concerns about student success and research publications (outputs) job placement and commercialisation (outcomes) and the growth in university corporate and administrative overheads (process measures).

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*From a management perspective, strong universities will see the package as an opportunity to be rewarded for their current management practices*

*and strategic directions, whilst others will see a threat and discomfort for the way things have always been done.*

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In economic terms, the package sees the usefulness of universities in terms of the value their capacity to generate public and/or private future earnings of the people they educate. In other words, universities are there to develop human capital rather than serve broader social and cultural role as *places* in a broader ecosystem of university-community interactions. Even where the role of universities in regional economies is conceded it focuses on economic development rather than their long established broad socio-cultural role.

From an instrumentalist perspective the government is coming to regard universities as *vocational and professional training* mechanisms in the service of the economy to prepare people for jobs and careers. The broader roles of universities and tertiary education have been lost along the way. The package is intended to shift ...

... our attention to **jobs of national importance, such as teaching, nursing and STEM fields, and support for regional Australia**. The sector has a fundamental role in preparing students for the future workforce and the higher education funding architecture must encourage this goal.

There is little discussion of what a future workforce might look like beyond extrapolation of current trends, and how it will differ from the present one, and in particular, one impacted by the inevitable decline in demand for Australian mineral products, the impact of climate change, and movement to a zero carbon economy.

Nonetheless the package reflects a sense of frustration in the capacity of the state TAFE Sector to deliver the vocational and technical skills that the government sees as necessary for a future workforce. States have been defunding their TAFE sectors over an extended period.

Of course, public policy and the higher education lobby has profiled university education as having a higher status than technical and further education. The Bradley policy of 40% of the workforce to have a university education has come under increasing scrutiny – in Australia and in the UK where the Blair target of 50% is being wound back.

It may be that, over time, higher education will diverge into 2 streams: one focussed on preparing students for vocations and the professions in the science, technology, engineering, design, built environment, and medical areas, and another stream committed to excellence in the traditional role of “providing an education” through a focus on the humanities, liberal arts, and the social sciences. Some of the larger institutions will be able to do both but the non-metropolitan and regional; universities may have to think about specialisation.

The package sets out to push students towards high-priority courses such as maths, teaching, science, and engineering **through price signals** - by lowering how much students pay, through the HECS-HELP loan scheme, and increasing the Australian Government contribution in priority areas.

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*The overall effect of matching the cost of course delivery with the funding available (from both students and government) is to **reduce the total of** Australian government funding.*

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The research and education components of the package are intended to be *budget neutral* over the forward estimates period, as shown in Table 22.

**Table 22: Net Budgetary impact of the higher education reform package**

	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Australian Research Council	-12.5	3.0	4.0	4.2	1.1	-0.2
Additional support for regional Australia		11.9	12.7	14.8	-7.5	31.9
More job ready graduates	-3.0	203.9	202.2	-116.6	-321.6	-35.1
	-15.5	218.8	218.9	-97.6	-328.0	-3.4

Source: Treasurer's Mid-Year Economic and Financial Outlook, Appendix A, Policy Decisions taken since 2019-20 MYEFO. p.85

A further \$11.8m has been provided to TEQSA to monitor implementation of the package.

The basis of the 2023-24 estimate is not clear, particularly in the light of potential falling demand for university places as students switch to other providers. It is possible that the government will announce a new basic research funding stream in the August Budget - but there are no signals yet.

Overall, the picture is still confused as the government has not produced a vision of where it wants to go beyond getting students into “national priority” vocations.

Many commentators have suggested that the package potentially provides an incentive for universities to lift enrolments in low cost high profit humanities disciplines. However, the logic of the package is that “profitable courses” have been eliminated. Nonetheless, the Tertiary Education Quality Standards Agency will be resourced to stop universities gaming student enrolments.

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*The reform package does not offer “new money”, but essentially reprioritises the existing higher education funding envelop, with some shifting from education funding to research.*

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Responses to the package have varied between the university leaders, higher education policy analysts, and a broader constituency which sees a fundamental change in the purpose and mission of higher education and the role of universities in society.

## 5.2 What the package does

### 5.2.1 Re-bases student and government contributions to the cost of course delivery

In this area, the package seeks to do 3 things: align funding of courses with cost of delivery; increase the focus on national interest courses; and achieve a better balance public and private benefits. DESE advises in the package (p.20) that

a range of evidence has informed the new model for funding arrangements and other considerations, notably a calculation of **private and public benefits, cost of delivery and national employment priorities**”

The basis of these calculations is *summarised* in the package, although it is difficult to read and comprehend. This has required the Minister to make continuous clarifications (e.g., SMH 6 July 2020).

In general terms, the cost of course delivery has been calculated by Deloitte Access Economics; public and private benefits have been calculated by reference to the 2016

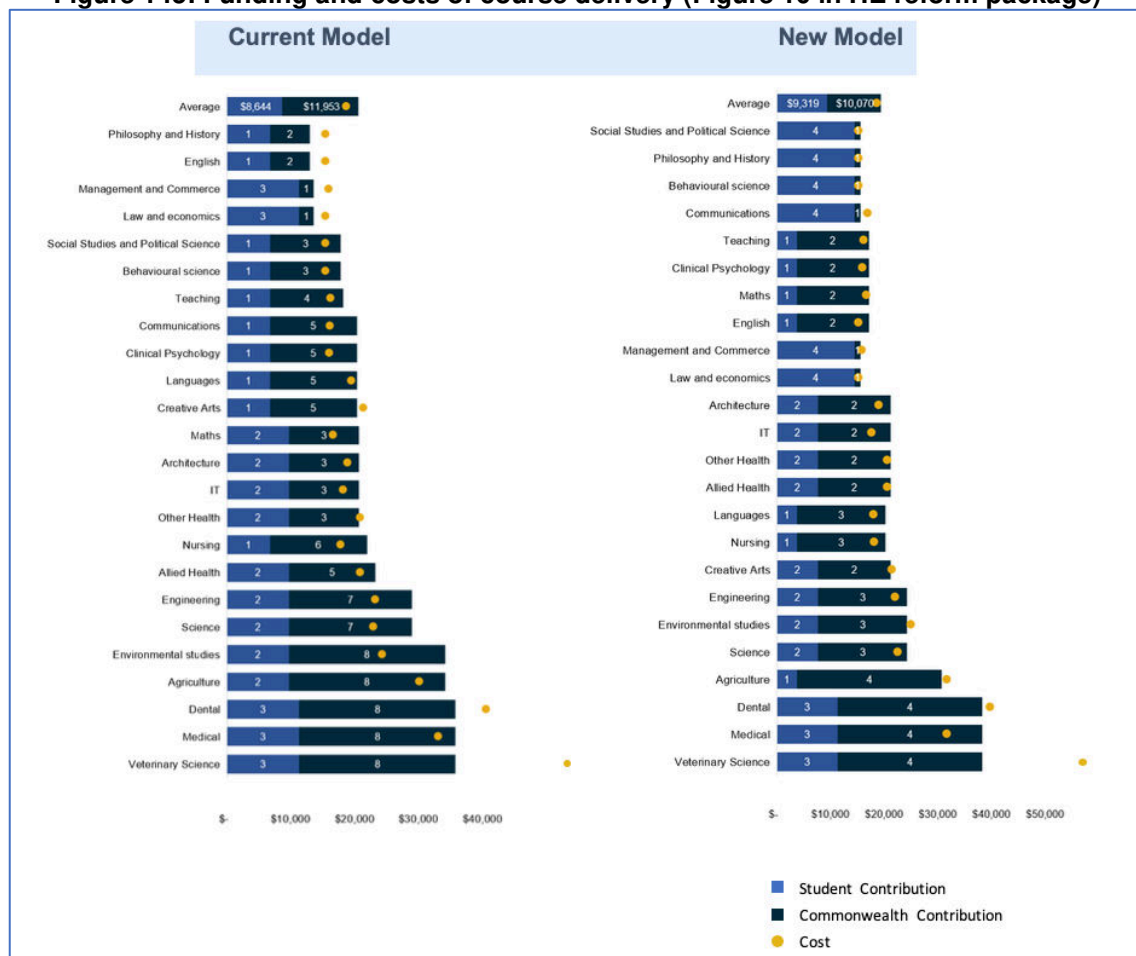
Census and data from the *Higher education management information* (HEIMS); and national employment priorities are sourced from the Department of Employment, Skills, Small and Family Business (2019) *Australian jobs: industry outlook*. The resulting contributions from students and government from 2021 are shown in Table 23.

**Table 23: Higher education reform package – student and Commonwealth contributions to course costs**

Funding cluster	Part of funding cluster	Student contribution 2021	Commonwealth Contribution 2021	Total Contribution
1. Management and commerce, arts, humanities (excluding languages), law, economics, and communications	-	\$14,500	\$1,100	\$15,600
2 Maths, IT, architecture, health, education, English, postgraduate clinical psychology, and creative arts.	Teaching, postgraduate clinical psychology, maths, English	\$3,700	\$13,500	\$17,200
	Health, architecture, information technology, creative arts	\$7,700	\$13,500	\$21,200
3 Science, engineering, environmental studies, nursing, and languages.	Nursing, languages	\$3,700	\$16,500	\$20,200
	Engineering, environmental studies, science	\$7,700	\$16,500	\$24,200
4 Agriculture, dental and veterinary science	Agriculture	\$3,700	\$27,000	\$30,700
	Medical, dental, veterinary science	\$11,300	\$27,000	\$38,300

The changes from the current funding model to the new one is shown in Figure 145 reproduced from the *Job ready graduates* package.

**Figure 145: Funding and costs of course delivery (Figure 10 in HE reform package)**



Clearly, the government is concerned that the level of surpluses on some courses may have been excessive, whilst others being more modest. This is in a context where around half of

enrolments are in management and commerce and in humanities, arts, and social science courses. Figure 145 shows (LHS) that under current funding arrangements profits are being made on most courses, with the exceptions of Philosophy and History, English, Management and Commerce, Law and Economics, Creative Arts, Dental, and Veterinary.

Under the new model (RHS), most courses are expected to break even. Losses are expected in Communication, Creative Arts, Environmental Studies, Agriculture, Dental and Veterinary Science. However, the Commonwealth contributions to Agriculture, dental and veterinary science are substantial at \$27,000 – double the amounts for many other courses.

Some courses will make small profits including teaching, clinical psychology, English, Architecture, IT, Languages, Nursing, Engineering, Science, and Medical.

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*Under the reform package the combined average level of contribution from both government and student sources drops by \$1,208 - from \$20,597 to \$19,389.*

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Unlike other recent reforms, this aggregate reduction is not being transferred to consolidated revenue to address the budget deficit but redistributed to other elements of the package.

The current fees for each field, and the new fees that will apply for future students from 2021 are indicated in Table 24.

**Table 24: HE reform package – impact of changed contributions on students and university**

Field	Current government contribution	Proposed government contribution	Difference	Current student contribution	Proposed student contribution	Difference	Total difference
Food and hospitality	\$2,237	\$1,100	-1137.0	\$11,355	\$14,500	3,145	2,008
Management and commerce	\$2,237	\$1,100	-1137	\$11,355	\$14,500	3,145	2,008
Mixed fields	\$2,237	\$1,100	-1137.0	\$11,355	\$14,500	3,145	2008
Law and economics	\$2,237	\$1,100	-1137.0	\$11,355	\$14,500	3,145	2008
Humanities	\$6,226	\$1,100	-5126	\$6,804	\$14,500	7,696	2570
English	\$6,226	\$13,500	7274.0	\$6,804	\$3,700	-3,104	4,170
Architecture and building	\$11,015	\$13,500	2485	\$9,698	\$7,700	-1,998	487
IT	\$11,015	\$13,500	2485.0	\$9,698	\$7,700	-1,998	487
Mathematics	\$11,015	\$13,500	2485	\$9,698	\$3,700	-5995	-3,513
Health	\$11,015	\$13,500	2485.00	\$9,698	\$7,700	-1,998	487
Society and culture	\$11,015	\$1,100	-9915.00	\$6,804	\$14,500	7696	-2,219
Education	\$11,462	\$13,500	2038	\$6,804	\$3,700	-3,104	-1,066
Clinical psychology	\$13,547	\$13,500	-47.0	\$6,804	\$3,700	-3,104	-3,151
Communications	\$13,547	\$1,100	-12447.0	\$6,804	\$14,500	7,696	-4,751
Languages	\$13,547	\$16,500	2953.0	\$6,804	\$3,700	-3104	-151
Creative arts	\$13,547	\$13,500	-47.0	\$6,804	\$7,700	896	849
Allied health	\$13,547	\$13,500	-47.0	\$9,698	\$7,700	-1,998	-2,045
Nursing	\$15,125	\$16,500	1375.0	\$6,804	\$3,700	-3,104	-1,729
Engineering	\$19,260	\$16,500	-2760.0	\$9,698	\$7,700	-1,998	-4,758
Science	\$19,260	\$16,500	-2760.0	\$9,698	\$7,700	-1,998	-4,758
Agriculture	\$24,446	\$27,000	2554.0	\$9,698	\$3,700	-5998	-3,444
Dental	\$24,446	\$27,000	2554.0	\$11,355	\$11,300	-55	2,499
Environmental studies	\$24,446	\$16,500	-7946	\$9,698	\$7,700	-1,998	-9,944
Medical science	\$24,446	\$16,500	-7946	\$11,355	\$7,700	-3655	-11,601
Medicine	\$24,446	\$27,000	2554	\$11,355	\$11,300	-55	2,499
Vet science	\$24,446	\$27,000	2554	\$11,355	\$11,300		

The expectation is, perhaps, that universities will respond to changed revenue signals and move away from loss making courses, which do not accord with national priorities or public benefit considerations (Communication, Creative Arts) by abandoning them, or being innovative through collaboration to achieve economies of scale across the sector: a requirement for the current 16 Agricultural Science faculties is not obvious, for example.



The net reductions in university income in relation to various courses does not mean (under the government's modelling) that those courses will lose money – with the exception of Communication, Creative Arts, Environmental Studies, Agriculture, Dental and Veterinary Science.

The overall effect is that student contributions in most courses have fallen, but have increased in Law, Management and Commerce, Communications, and in the Humanities, Arts and Social Sciences disciplines. This has created uproar in the social sciences and humanities Academies. There is also concern from commentators about the “vocationalisation” of higher education.

The package is intended to push students towards high-priority courses such as maths, teaching, science, and engineering through price signals - by lowering how much students pay, through the HECS-HELP loan scheme.

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*There has been a great deal of public debate about the change in levels of contribution - which relates less to the government's assessment of costs but more to its assessment of private/public benefit and national priority*

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There has been concern expressed about the increase in HECS-HELP for many humanities, arts, law, and other students, while the decrease in fees for students in STEM and languages welcomed. However, there is widespread scepticism that such changes will deliver significant shifts in demand for courses in different disciplines.

The VC CQU advised Y12 students -

My advice to year 12 students who are considering the career signals being sent to you by the government this week, is to ignore them ...

Block out the background noise and decide where your passions lie. Focus exclusively on how you want to make an impact in this world. The only person who gets to decide what your career and study paths looks like, is you. Don't let a room full of politicians and bureaucrats convince you against doing an arts, humanities, business, or law degree if that is where your passions lie.

There is not a politician ... on the planet who could predict employment trends over this time. So, set your own career course.

Another VC advises

Any student entering higher education should pursue their passion – it is an investment for life.

Perhaps the greatest concern is the message that the government is sending about the role of universities in relation to the Humanities, Arts, and some of the Social Sciences (HASS) disciplines.

## 5.2.2 Shift resources to regional universities

The package unashamedly redistributes \$400m in resources to regional higher education. This is reflected in the following provisions:

- Growth in the number of Commonwealth supported places for domestic students in regional Universities (3.5 per cent per annum).

- Expanded HEPP fund to provide \$500 million a year to universities for programs that support Indigenous, regional, and low SES students to get into university and to graduate.
- \$48.8 million to drive research partnerships between the 9 regional universities and larger research focused institutions, or with industry.
- Financial support in the form of a one-off \$5000 grant to assist regional students who relocate to a regional university to commence their studies.
- Creation of more regional universities centres, adding to the current total of 25.

The shift in the focus of the package to regional higher education has been welcomed by regional Vice-Chancellors. The Vice-Chancellor of UNE noted in a message to alumni:

There has been a lot of focus and debate on the fee reform elements of the package, *but most importantly for UNE* it includes a redistribution of Federal funding towards regional universities and more opportunity for regional students.

I am pleased that policy at the Federal level recognises the contribution that regional universities make to shape the regional and national workforce and recognises the need to increase higher education attainment by rural, regional, and Indigenous students.

On fee reform, it is good news that some students will be paying less for their studies, however it is disappointing that others will be paying significantly more. Existing students will not face an increase in their fees for the next three years. UNE is reviewing our scholarship programmes in light of these announcements so that we can ensure equity of opportunity.

The package provides more support for disciplines that we know we have high enrolments and a strong track record, including agriculture, teaching, nursing, the sciences, psychology, and languages. We also have a proud tradition of attracting students into the Humanities and this will continue.

Regional universities carry a civic responsibility to drive and stimulate regional economic activities and growth. The reforms support our innovative and flexible approach to working with industry to produce entrepreneurial and engaged graduates, which will in turn generate future regional sustainability.

### 5.2.3 Encourage equity and participation

The package has a strong and central focus on increasing equity and participation in higher education. This is one of the areas where there is clear new funding, which is so critical at this time when those who are already disadvantaged are facing disproportionately greater disadvantage.

But there are several other “flow through” effects of the reform package. These are addressed below.

## 5.3 Flow through impacts

### 5.3.1 Elimination of the “teaching surplus”

The effect of the package is to virtually eliminate the “profit” on teaching that can be applied to research, engagement, and administration, or to cross subsidise loss making courses. In application this means that the government is heading in a direction to fund only the “cost of teaching” through financial contributions for education. The cost of research will have to be financed from other sources.

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*There is concern that as many competitive grants schemes do cover the salary of the principal investigator, unless the investigator is a full time researcher, research commitment will be constrained.*

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The situation may actually be worse than this. Because of university budgeting procedures, only half of the income from students, *domestic and international*, actually flows to faculties and schools to cover both teaching (of domestic and international students) and faculty research.

That is, about 50 percent of income from *all* students is paid over to “university central” to support its operations. The loss of government and student contributions that supported profitable teaching courses will impact *most* on faculties that used those resources to fund research. It may also impact on faculties that have a heavy capital expenditure commitment - to the extent that investment in equipment is not financed from the university Capex Budget.

Over the last 5 years income from international students has been applied to a combination of purposes, including setting up internal competitive research investment funds, university marketing and administration, and investment in property, plant, and equipment.

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*It is sometimes overlooked that international student income largely replaced the capital funding provided under the Education investment fund (EIF) which was wound up in 2014. The Australian Government has not replaced this source.*

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International student income will return, and potentially build up capital investment pools. But the return may not be at the levels experienced up to 2019.

The wealthier universities are in a position to finance research growth from investment and commercial income. They do this with large centrally managed research growth funds.

But in less wealthy institutions research academics are continually under pressure to fund their research from external income. Some of this is poorly organised and highly transactional and speculative, particularly where a university lacks an ambitious strategic research plan. Generation of external research income is a key metric for academic staff, particularly in the smaller universities.

A substantial amount of university research is channelled through research centres and institutes notably Medical Research Institutes. University and Faculty research centres may be established if they are self-financing and sustainable. However, they do not last long if they become financially unviable: income received from competitive grant schemes is “topped up” by profitable consultancy and contract research assignments, and industry partnerships to build financial viability.

We await the government’s strategy for putting university research on a sustainable basis.

There is potentially a link between the teaching emphasis and the new higher education Provider Standards, particularly with a potential move of some universities to Institutes of higher education. The expectation of efficiency may mean pressure for amalgamation of the less financially viable institutions.

### 5.3.2 Motivating universities to become more efficient

Ministers and the broad community of commentators have been placing pressure on universities to become more efficient. The reality is that Australian universities are some of the most efficient in the world in terms of cost per student. But others may argue that costs are low because the level of service is low. There is a view that universities are disconnecting with their students:

I think actually universities have tended to withdraw from the students. So, the students are withdrawing from the university for their own reasons, and the universities are withdrawing from the students for their own reasons, and I don't think this is healthy.

Whereas I reckon you need a lot of contact with students, virtual or in person, in order to do the kinds of things that you are talking about. You need that level of knowledge of your students, case management, personal tutors, and so on. They are not just going to pick this up staring at a screen.

A partial answer is integrated learning. That is our antidote to the disengagement pressures. But as a sector I think it's a real problem. And if you then say, look, Australia's got a small population, it's got an economy that isn't sufficiently complex, it's got universities where students are disengaging, and they've become kind of factories for international students as well.

I do wonder whether the more innovative graduates are innovative despite the university rather than because of it. So, as I approach the end of my time in universities, I am sceptical actually about what we do<sup>152</sup>.

The government is motivated to call on universities to contribute a greater share the cost of delivering higher education from the returns (profits) being generated from government support that has been provided over the years, and from the profits made on business activities including international education.

There is a view that universities are, in effect, state owned public bodies (as well as public trading corporations and registered charities) that do not pay dividends as is required by other state-owned public bodies. This is in a context where, since the 2008 GFC:

- Total net assets of universities have increased by \$22.8 billion (58.0%)
- There has been a \$13.4 billion (61.3%) increase in inflation adjusted aggregate operating revenues
- Sector wide operating margins that crashed in 2008 had generally been restored by 2009. The operating margin for the sector, excluding depreciation, jumped from 6.0% in 2008 to 8.2% in 2019
- Universities earn substantial revenues from investments and for the wealthier universities income from this source is very significant: in 2019 Sydney earned \$213.5m from investments and Melbourne \$337.3m (around 12% of operating revenues).
- The larger universities have a substantial trade in financial assets. They also earn significant income from commercial operations, controlled entities, and rentals.

Clearly, the government is expecting the wealthier universities to fund more of their operating costs from their own resources, to achieve greater efficiency, and take greater responsibility for funding their research priorities from income from investment and commercial income, industry and international sources, and philanthropy.

<sup>152</sup> Interview with Professor Stephen Parker, for ACOLA SAF 10: *Securing Australia's Future - Capabilities for Australian enterprise innovation Assignment*, SAF 10.4: The role of government, industry and education and research institutions in developing innovation capabilities Key informant interviews, Canberra, 19 January 2016

The government appears to be keen to shift resources from the wealthier universities to the regional universities. This is reflected not only in the specific grants but also in the differential increases in CSPs (regional 3.5%, high growth metropolitan, 2.5% and other metropolitan by 1.0%).

### 5.3.3 Direct communication between the government and the HE Industry

In the design of the National Priorities and Industry Linkage Fund, the government has gone directly to Vice-Chancellors with an invitation to express interest. This parallels approaches in other industry sectors where ministers prefer to communicate directly with industry leaders rather than through their lobby organisations.

### 5.3.4 Overall impact

UTS Vice-Chancellor, Professor Attila Brungs, takes the view that -

While complex, the overall impact of the changes is the opportunity for additional funding and more places at Australian universities provided by the government in coming years. While the change in cluster funding reduces income to universities, if you add back in all the new separate buckets (e.g., the \$700m industry linkage fund) and growth multipliers, it represents an increase in coming years.

Most important is the return of indexation (currently 2.2 per cent) and the student growth multipliers (1-3.3 per cent depending on classification). These are critical in enabling university funding to automatically grow year after year, recognising the natural increase in costs (CPI) and student demand. Finally, there is a level of certainty as the reforms are further developed, in that universities will be protected from any potential losses over the next three years, and current students will also be protected from cost increases.

Both lifetime of learning and social impact are at the heart of UTS 2027.

## 5.4 What the package may do

### 5.4.1 Deliver policy complexity and confusion

The 2020 package adds further complexity and confusion to the mix of public policies in the education, research, and creative/cultural areas, and in economic, industry, and regional development responses. All of this with changing market conditions as the role of public higher education in occupationally oriented training comes into question, and private TAFE and global online provider platforms expand.

The confusion is indicated by the way different institutions and their lobby organisations are presenting their cases in the media.

Nonetheless, as this Narrative has pointed out, the Australian Government has very little control over universities and ability to influence their strategies - except through money. The package is very much about control using very blunt instruments.

### 5.4.2 Promote vocationalisation and cost further shifting

The training of employees to work in business and industry has traditionally been considered to be the responsibility of employers – after all, it is the owners of a business as well as employees who receive the return from building workplace knowledge and skills. Employers valued employees who had a capacity to learn and apply workplace specific knowledge. In the micro-economic reform context of the late 1980s there was a view that employers were under-investing in skills development.

In 1990, the Australian Government implemented an employer training levy, the Training Guarantee scheme, that required Australian enterprises to contribute some of their income to employee training or a government fund for the development of training programs. This had a short life: The Training Guarantee was suspended on 1 July 1994 and abolished in 1996 after much negative publicity about its impact, particularly on small business.

Nonetheless the low level of commitment of business to training has continued notwithstanding the expansion of higher education opportunities. Generally, Australian businesses will not, for some reason, commit to training new employees or upskilling their existing workforces. Of course, the large (successful) manufacturing and professional services firms have major commitments to graduate recruitment and training programs, as does the public sector.

Other firms have preferred to shift the cost of training onto the public sector. But the (state) public sector did not respond by investing in its TAFE/VET sector. Over the last few years Australian government education and employment policy has responded by ensuring that its investment in higher education was directed towards producing “job ready” graduates.

The 2020 higher education reform package has made this shift complete by largely transferring the cost of training to future employees and universities.

Moreover, 2 of the high priority job skills for universities are for jobs in the state based public sector - teaching and nursing - which was once delivered and paid for by state owned colleges. The cost was shifted to CAEs and then to universities paid for by the Australian Government. At least in these 2 areas the Australian Government is not trying to shift the cost to students – but is shifting more of the cost to universities.

### **5.4.3 Overemphasise the role of universities in the delivery of technical skills**

The package overlooks the well-established finding that jobs of national importance in the Construction and STEM area require technical and occupational learning which are delivered by TAFE institutions.

Discussions and consultations with industry over many years emphasise that the skills in demand are for technical skills requiring occupational knowledge. There is less demand for academic and theory based knowledge. University graduates in many fields need to supplement their knowledge by enrolling in TAFE Certificates and Diplomas to become employable.

The package does address this in the initiative relating to career advice and choose.

TAFE Institutes and universities are collaborating around the country in the development of blended learning programs and articulation arrangements.

The increase in the cost of degrees in communication may prompt many potential students to look at TAFE which provides education and training in the *tools* for communication. Of course, many of the tools for communication are delivered in university IT courses.

### **5.4.4 Devalue the importance of the liberal arts and humanities**

There has also been a great deal of commentary about the role of the humanities in developing the “soft skills” required for both personal development (acquiring and education) and in building a career.



Feedback from employers in work for ACOLA on the *Skills for Innovation* is that they are much more interested in these soft skills: occupational skills, which change and adapt rapidly, can be acquired on the job. But this is an investment that not all employers want to make. Technology entrepreneurs of course require important soft skills to build relationships along value chains and with customers to sell their discoveries and inventions through the businesses they have created.

There is no doubt that the Humanities, like other disciplines, have a critical role to play in Australia's progress and they will continue to be an important part of a university offering to students, including the way they interact with other academic areas to solve 'wicked' problems that our country and the world are facing.

Some universities deliberately set out to produce graduates with excellent critical thinking skills and creativity who are also highly employable and immediate contributors to the workplace – these are, of course, not mutually exclusive propositions.

Adaptability through the *acquisition of soft skills* will set the foundation for driving the adjustments to the economy and society brought about by global, climate, demographic and related challenges.

In the US the President has recently signed an executive order directing federal agencies to start hiring based on skills and competency rather than "outdated degree requirements." This is what Amazon, and the global corporates are doing (as noted earlier in the book).

#### 5.4.5 Intensify the divide between technology and the arts and creative practice

The close link between Science and Technology and the Arts and Creative Practice was a foundation of the Industrial Revolution. However, the package largely ignores this linkage by giving attention to only one side of the connection.

Innovation is not only the province of scientists, engineers, and economists; it has also captured the interest and attention of researchers in the creative, visual and performing arts. In the EU reference is often made to the 'socio-economic sciences and the humanities'.

Some periods in history have been characterised by rapid economic, social and cultural change associated with developments and breakthroughs, both in science and in the arts. However, in addition to these 'supply' factors, 'demand' factors have been at work as well. Often, changes in underlying economic, social and cultural frameworks have allowed the generation, application and adoption of new ideas.

For example, the rapid growth in production associated with the Industrial Revolution was driven in large part by increasing demand, brought about by breakthroughs in public health (which extended life expectancy), new market opportunities (created through international trade) and financial innovations (such as the limited liability company).

Two centuries later, demand stimulated by the United States Defense Department was a key driver in the 1990s 'technology boom', which subsequently spilled over into consumer electronics. That boom was made possible by the 'invention' of venture capital as an investment vehicle for financing start-up companies.

Innovation policy is increasingly concerned with innovations in design and creative practice. Around the world there is recognition of the contribution of the 'creative' industries to economic prosperity, particularly in cities and regions.



Competitive challenges are forcing traditional engineering-centred companies to transform themselves into *experience-centred* companies: design and creative practice have a critical role in that transformation. Value is created through the experience of the user rather than in possession of a tangible or functional product.

The application of artistic, cultural and creative practice — for example through multimedia applications and other software — has a major impact in all sectors: defence, mining, manufacturing, transport, retailing, wholesaling, health, community services, and government. The capacity to innovate through architecture and design and the creation of ‘aesthetic value’ are primary sources of competitive advantage in the global economy.

Sustained innovation requires a convergence of technology and the social sciences and humanities — including sociology, psychology and economics. Competition drives research into consumer behaviour, society and culture more deeply than ever. Design is seen as the ‘creative synthesis’ of the disparate functions involved in the innovation process — R&D, marketing, supply chain management, and product lifecycle management.

The package has been prepared in the same policy vacuum as the absence of a national Design and Creative Industries Policy in Australia.

#### 5.4.6 Accelerate the push to commercialisation

Universities had been under pressure to earn more of their revenue from their own sources since the early 2000s through the commercialisation of research. Research commercialisation would contribute to increasing operating revenues and, in turn, make a greater contribution to expenditure on salaries and services. That strategy had limited success, but there is now pressure for the commercialisation of teaching and learning

That may occur through be-spoke and special courses for government and industry that generate fee income outside the Commonwealth Grant funding arrangements and the oversight of academic boards. It may also promote universities to invest in business enterprises outside their core missions, including the leverage of their existing strategic assets to generate substantial returns. Property development (in partnership with government and private developers) fits into this category and many universities have become quite adept at this.

#### 5.4.7 Force the university lobby to address its massive public relations failure

It has to be conceded that the universities, through UA, have done a less than effective job at PR. Unfortunately, in some influential quarters, universities have an image of rent-seekers relying on “big numbers” to assert their importance as *drivers* of economic development. In fact, similar big numbers can be, and are, derived for other industries, such as mining and tourism, which have had more success in getting their message across.

A better approach for an industry association Like UA would be to promote the image of universities as ‘Partners in Development’ and tone down the rhetoric about its unique importance. Many industries are important to the economy and there is little mileage in asserting primacy over others.

In addition, the failure of CHASS and the Learned Academies to promote the value of the humanities and social sciences is particularly tragic. The science envy narrative was never going to work. The masters in narrative creation have been the medicos, who have consequently been rewarded with the lion’s share of research funding.

### 5.4.8 Rethink research investment

It is well known that about one half of university research is funded from “internal” sources. This includes the “teaching surplus” as well as internal investment income. However, the quality of that research has been subject to increasing question.

In the *Challenges for Australian Research and Innovation* Paper it was observed that research output from Australia Universities has soared over the last few years - principally from the Go8 and the newer Universities that have made a strategic investment to build research capability. Apart from most of the Go8 being very wealthy, they are connected with the MRIs that secure a great deal of philanthropy, and with international research networks.

But is some of the regional and rural universities research output is of very poor quality in terms of the research citation indexes. This situation is indicated from many sources, including the very small amounts that these rural universities get from the RDCs compared to Go8 and CSIRO and overseas universities.

Surveys undertaken for the Rural Innovation Performance Review indicate that research in regional and rural universities is subscale and lacks critical mass. Apart from separating teaching from research within Faculties and Schools, options for amalgamation of research functions across universities should be considered.

## 5.5 Conclusion: the next stage in the evolution of the higher education industry

The 2020 Reforms are being advocated at a time where demand for university places has been falling and is likely to continue in that direction as “buyer” and “supplier” alternatives become available and more accessible - e.g., high quality TAFE that has developed in Victoria and the range of global on-line platforms.

So, turning universities into vocational training institutions appears to have an element of a short term “policy fix”, and could end in tears. We have to have faith in the resilience of universities to focus on what a university is really all about. Much good material has been written on this since 19 June.

The timing has also been poor. The government has unsettled institutions already reeling from the loss of international revenue and introduced the rhetoric of job-focused degrees while cutting income to engineering and science. It has been said to resemble the Dawkins solution in the late 1980s – taking existing funding and reshaping it to fit a new set of policy parameters. In both cases the policy aim is to increase the number of students in the system without spending more.

It is also a contradiction that the government is expecting more students in Engineering and Technology areas but has not given any attention to developing research and knowledge transfer capability in these fields, which will in turn create jobs. It has, of course, invested much more in health and medical research which is important for capability in the fast-growing health services sector - which is of course good for Australians.

The Australian university model has evolved from one of a “community of science”, through various phases and interactions to one of “universities as businesses” in an expanding higher education industry. Since 2008 universities have gone to great lengths to demonstrate their economic significance in terms of economic impacts, delivering skills, and creating a “product” defined around job ready graduates. They have been complicit in the perceived vocationalisation of higher education.

Universities have presented themselves as businesses and have established themselves organisationally and financially in ways that parallel industrial corporations. The government has responded to this with similar expectations of industrial corporations, particularly in relation to innovation and productivity.

This invites several questions:

- Universities as businesses to what end? For profit, or ROI, that sits over the objectives of knowledge creation, transfer and adoption?
- Has the international business compromised the very nature and purpose of an Australian university?
- What is the future of universities in the economic, managerialist, and instrumentalist paradigm they now find themselves in?
- Can the multifaceted strands of higher education policy be disentangled to create a consistent and coherent platform that addresses education, research, engagement, economic and regional development, and social equity outcomes?
- Where is the grand vision for Australian higher education – beyond supporting job creation, economic growth, and being more efficient?

## 6 Will big be better: should universities be forced to merge?

As universities are experiencing financial pressure in the current economic and health crisis, there are many who propose that Australia's 39 public universities is too many, and mergers should be considered to achieve efficiency and performance gains. But realising these results may not be that easy.

Researchers at Harvard Business Review report that the failure rate of mergers and acquisitions in the corporate world is in the region of 70-90%<sup>153</sup>. McKinsey comes up with a similar finding. Would there be a similar failure rate for amalgamations in the university sector?

Proponents of mergers in the public sector (and their economist/accountant advisers), generally argue that a merged organisation will deliver greater scale and "critical mass" in operations as well as efficiency and productivity gains through redeployment of back office staff and aggregation of administrative functions. Proponents come up with potential "big numbers" in savings, albeit over an extended payback period.

This economic/accounting argument has been attractive to state governments that have wanted to force local government amalgamations. On close inspection the arguments for local government amalgamations are usually seriously flawed and gloss over other motivations – such as to rescue a financially troubled council with the financial strength of another.

In reviewing a recent local government merger proposal, it was clear that the assumptions made for the benefit calculations, and the margins for error, were such that the business value of purported paybacks would be at best marginal and at worst negative. With the benefit of hindsight, the cost of implementation was seriously underestimated and the quality-of-service delivery in the financially stronger area has been seriously diminished.

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*From a management and organisational perspective, there is little evidence to support an argument for economies of scale in administration/management. In fact, the evidence goes the other way: increased size carries greater complexity and creates significant coordination problems.*

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It might be possible to achieve economies of scale in a centralised command driven organisation (bureaucracy) run from a single location, but that is not always possible or even appropriate when thinking about running a university across diverse locations with a strong local focus. Centralisation introduces rules driven conformity, eliminates professional discretion, stifles diversity, and removes the motivation for innovation.

In the public sector, creation of larger organisations (e.g., "mega" departments) has introduced higher levels of task specialisation, more management layers, increased divisionalisation, higher remuneration levels, and lower customer/client connectivity.

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<sup>153</sup> <https://hbr.org/2011/03/the-big-idea-the-new-ma-playbook>

Technology can address this, but not always. Inevitably, saving money in government organisations comes down to cutting programs or reducing service quality.

Of course, university mergers offer opportunities for “rationalisation” of subject offerings and consistency in design and delivery – but this should not be at the cost of flexibility, agility and responsiveness to local situations and circumstances.

These observations do not necessarily amount to an argument against larger or merged universities. But the case must be made on a more robust foundation than simplistic calculations of potential efficiencies and scale economies. This case would rest on the potential for *public value* to be greater to members of the merged university, its staff, students, researchers, and stakeholders than would be if they continued as independent entities. This case must also be made around a *Business Case* that addresses matters relating to return, cost, and risk.

There are 44 universities in Australia for a population of 25 million distributed across 8 states and territories. There is one national university, 35 state/territory universities, and 6 private universities - providing one university for 581,400 people. There are also an additional 90 “other approved higher education providers” that are able to offer students government financial assistance.

In comparison, the UK has 164 universities for a population of 64.4 million (one for 390,300 people) and Canada has 96 universities for a population of 37.7 million (one for 392,700 people). The USA, with a population of 330 million has 4,298 universities, of which 1,626 are public colleges, 1,687 are private non-profit colleges, and 985 are for profit colleges, giving an overall ratio of one university for 76,100 people.

In 2019, in Australia, there were a total of 1.6 million students enrolled in the 43 universities and non-university higher education providers. Eight had an enrolment of over 50,000; 7 between 40,000 and 50,000; 6 between 30,000 and 40,000; 11 between 20,000 and 30,000; and 6 with enrolments below 20,000. Student numbers align closely with operating revenues but not so much with operating margins, return on assets or other financial performance indicators.

Large universities tend to offer a comprehensive range of courses and programs, whereas smaller operations can be highly specialised and well regarded niche payers. They can differentiate from the comprehensive providers through targeted specialisation and focus on excellence in specific aspects of teaching, research and engagement.

It is not clear from public commentary which universities would be targets for amalgamation. Student numbers would not be a satisfactory criterion on its own.

Big is not necessarily better. The smaller rural universities have set out to create value in the regions in which they are based. It cannot be assumed that if these universities became campuses of metropolitan universities that this special connection would continue. Nor can it be assumed that amalgamations of metropolitan with regional universities (in Newcastle, Wollongong, Geelong, North Queensland) would deliver greater value in teaching, research and community engagement. Metropolitan and regional universities are already collaborating through a range of partnerships and alliances.

Forced or mandated amalgamations should proceed with caution. The US state system universities might be an option, allowing greater integration across multiple state campuses. But the campuses of the US system universities still operate quite independently. Moving in this direction could be something for the universities to argue with their state governments having regard to a business case – and potential competition issues.

A better approach might be for regulators and academic boards to make it easier to offer a single qualification provided by several universities, having regard to the choices of students, their potential employers, and opportunities to start businesses. Universities within states are already collaborating in access to research funds and expensive research facilities. Biotech collaboration across Melbourne universities and research institutes shows what can be done.

Universities with fewer students, due in large part to their rural or regional location, should resist amalgamation on the grounds of the different aspects of their missions such as a focus on community engagement rather than climbing up global university ranking league tables.

University policy makers have much to learn from the local government experience. There is also much to learn from the creation of the current Big 4 global accounting firms from the previous Big 8 national firms of the 1990s. It took a very long time to recover the value lost in the mergers as they vacated the regional service delivery space. A similar loss of value would be likely to occur if rural and regional universities were forced to merge with larger metropolitan and global counterparts.

Potentially, Australia has a good mix of global research intensive, technology focussed, comprehensive (outer suburban), regional, and rural universities which provides diversity in offerings to students and researchers alike. They should be encouraged to stick to, and refine, their missions rather than being placed under pressure to look the same and to amalgamate.

Not all universities are going to be global players, and the global players might not be good at rural and regional engagement. Policy should recognise differences and provide support where good policy cases can be made.

## 7 The evolution of the university business model

There are at least 7 possible interpretations of how universities participate in the National Innovation system. All can be seen in one form or another.

### 7.1 The community of science model

To many people the image of a university, behind colonial sandstone walls and gothic ramparts, is of students sitting in large classrooms listening to faculty members lecture on subjects such as literature or history. The faculty thinks of Oxbridge, themselves as dons and their students as serious scholars. The federal government sees the university as just another R&D contractor or health provider – a supplicant for the public purse.

There is the further perception of researchers driven by innate curiosity exploring their own idiosyncratic research interests with the end result of extending knowledge. Their performance in this regard is determined in terms of excellence evidenced by publication in scholarly books, journals or conference proceedings.

The reality is that a modern research university is a “very complex, international conglomerate of highly diverse businesses” (Duderstadt 2000). They are, in fact, conglomerates managing very large budgets with increasing amounts of discretion. But they are far more complex than most industrial corporations, undertaking many activities - some for profit, some publicly regulated, and some operating in highly contested markets.

### 7.2 The social contract model

Michael Gibbons has argued that the nature and extent of engagement between society and higher education institutions depends on the terms of the prevailing social contract between them. That is, to the extent that society has a requirement for scientific knowledge there will exist a social contract between that society and the institutions that produce it (Gibbons 2003). This thesis is directed towards exploring the form and nature of that contract from the dimensions of community, market and organisational relationships. Before addressing that task in detail, it is useful to explore more fully the concept of engagement and how it impacts on institutional practice.

Gibbons notes that engagement has been discussed primarily between relatively discrete institutions, principally government, industry and universities. He argues that these institutions have formed a “more permeable system and, accordingly, engagement is now more profitably discussed in terms of processes of communicative interaction, rather than formal linkages between them”. This expansion in communicative interaction derives from the need in both government and industry to address complex problems, “the provenance of which is often far removed from the world occupied by academics” (Gibbons 2003).

Gibbons argues that the prevailing social contract between society and science has been structured primarily on the basis of knowledge creation, education and training. Universities have been established to undertake research and teaching. They are in the “business” of knowledge creation and the transfer of knowledge through education. From public funds made available, universities generate new knowledge in the form of scientific discoveries and educate people in the theories that form the basis of those discoveries who in turn



interpret and apply that knowledge in practical situations such as in corporate or public research and development activities. This is essentially a mode 1 orientation.

Under the prevailing social contract, Gibbons sees engagement as occurring primarily through communicating the results of research in academic publications and providing educated graduates to work in industry or government. Building on the mode 2 analysis, Gibbons goes further and argues that the separation between the major institutions of society have begun to break down. He argues, for example:

The once clear lines of demarcation between government, industry and the universities and the technology of industry, between basic research, applied research and product development, between careers in academe and those in industry seem no longer to apply. Instead, there is a movement across established categories, greater permeability of institutional boundaries, greater blurring of professional identities, and greater diversity of career patterns. In sum, the major institutions of society have been transgressed as institutions have crossed onto one another's terrain. In this, science has been both invading (the outcome of one way communication with society), but also invaded by countless demands from society (Gibbons 2003).

This change, it is argued, has occurred because institutional leaders, industrial managers and people generally understand the importance of science and they respond to the growing complexity of the contemporary world by drawing on the research capabilities of universities into their interests and concerns. Scientists are now seen to be more actively engaged in more open and complex systems of knowledge production (Gibbons 2003).

### 7.3 The convergence (triple helix) model

The triple helix model is based on a perception that in the context of the knowledge economy there has been a transformation in the functions of university, industry and government with each increasingly assuming the role of the other. Etzkowitz and Leydesdorff argue that:

Under certain circumstances, the university can take the role of industry, helping to form new firms in incubator facilities. Government can take the role of industry, helping to support these new developments through funding programs and changes in the regulatory environment. Industry can take the role of the university in developing training and research, often at the same high level as universities (Leydesdorff 2001).

The triple helix view is also associated with what is seen to be an institutional transformation of the research university into an *entrepreneurial university*. That is:

The entrepreneurial university is a result of the working out of an 'inner logic' of academic development that previously expanded the academic enterprise from a focus on teaching to research. The internal organisation of the Research University consists of a series of research groups that have firm-like qualities...sharing qualities with a start-up firm even before it directly engages in entrepreneurial activities (Etzkowitz and Leydesdorff 2002).

According to the triple helix view, the entrepreneurial university, with faculty and administration directly involved in translating knowledge into intellectual property and economic development, an "industrial penumbra" is created around the university. It is argued that changes within higher education are accompanied by an evolution of corporatist arrangements between academia, industry and government – with universities having a greater role in these relationships (Etzkowitz 2002).

The triple helix arguments are attractive, and have been quite influential, but are much overstated – and at times evangelical about the possibilities presented by the integrated

institutional setting. The arguments are not, however, backed up by much in the way of systematic or empirical evidence. They extend observations in a narrow range of disciplines and industry sectors (notably life sciences and information technology) into a generalisation.

The generalisations are supported by much anecdote, based on the University of California system and large US private universities that have a history of commercially oriented research. Moreover, the views have a heavy “statist” orientation, implying an important role for government, but overlook fundamental market issues relating to the sale and purchase of commercially applicable knowledge.

The actual scope and coverage of the triple helix type relationships may be much more limited than is assumed. It follows that promotion of such relationships, to the extent that this is seen as desirable by all parties, requires looking more closely at the formation, structure and maintenance of the relationships themselves. But the model does draw attention to the important role of research groups and centres within university structures which combine a focus on research excellence and generating income from commercial contracts and consultancy to support the research enterprise.

Questioning the triple helix rationalisation is not to say that universities have a limited role in industrial development: rather, that role must be seen to accommodate continuation and maintenance of institutional values and reflect the resources that have to be committed to managing relationships and negotiating agreements with entrepreneurs for commercial activity. Too little attention to these matters in the past has resulted in misunderstanding, compromise and financial loss.

The most significant weaknesses in the triple helix argument are the underestimation of the complexity in establishing strategic alliances and joint ventures and then managing them in the transaction space, and assumptions of commonality in values and attitudes relating to the purpose and conduct of research.

Research alliances are often motivated by researchers to follow basic and/or personal research interests rather than participate in working towards a commercial outcome in a genuine partnership. Universities still tend to see government funding for collaborative research as just another source of research funding. Businesses have been much more circumspect in initiating alliances with higher education institutions.

The overall impact of higher education research on business strategy is much less than is claimed. The relationships have potential and are emergent, but there are many underlying and fundamental institutional differences. Moreover, relationships are also much more complex than a simple observation of interactions would suggest. As argued above, there are complex market and organisational issues involved.

## 7.4 The innovation progression model

Science had successfully advocated a policy and set of programs built around a lead government role in the commercialisation of scientific discovery and research and development. This reflects the trend towards science-based innovation. However, it does not address, or even relate to other forms of innovation, and the domain gets confused.

Policy became focussed on what became known as ‘the innovation progression gap’.

Whilst policy has concentrated on stimulating research and development as the basis for business ventures, even to the extent of providing finance for venture creation, it has done less to support the development of management capacity and capability required to create

the customers and the markets where financial returns from the products and services associated with scientific discoveries and inventions can be realised.

In many respects, public policy interventions might be of greater significance in identifying and supporting institutional developments along the value chain, such as technology markets and effective business relationships between research institutions and businesses that will adapt and apply scientific discoveries and inventions created in a research environment. This includes strategies such as a supportive business environment and foreign direct investment.

The start-up business model is largely confined to the sciences and information and communications technology sectors. Notwithstanding the level of support for start-up initiatives, policies that encourage the growth and location in Australia of businesses that will acquire the output of those start-ups (and even the start-ups themselves) in a supply chain context through foreign direct investment policies, is largely absent. Thus, the potential for the commercialisation of research in biotechnology through new business start-ups will be limited by the absence of pharmaceutical companies to acquire the research output. Major pharmaceutical companies are scaling back their operations in Australia.

The focus on start-ups and new business creation as a basis for industrial development has been an interesting development in Australia. It is in many ways an expression of disappointment and a lack of confidence by policy makers in the capacity of existing businesses to be innovative. However, there are in all western countries too many clever ideas that could be exploited but not enough industry to exploit them – and the development costs of bringing an idea to market are immensely greater than the cost of the invention. The Sarich engine is cited as an example. Moreover, in Australia, industries are not strong in the areas where scientists are likely to make discoveries. It was almost 30 years ago that the Chair of the Australian Research Council, Professor Don Aitken, suggested that:

The exploitation of scientific discoveries requires much more money and quite different skills to the original getting of discoveries. A simplistic model of science inevitably reduces to the “science push” or “linear model” account of economic growth in which scientists make discoveries that are then developed in industry. This rarely happens. If the model worked, it would be possible to point to numerous successes - rather than the 4 or 5 that are regularly profiled at conferences and workshops.

Business organisations are now pointing out that innovation is something that *businesses* do in response to market opportunities and customer needs. Business is now questioning the amount of research funding that is being allocated to higher education institutions for potentially commercialisable research (Australian Industry Group 2003). There is a growing unease about the capacity of publicly funded research institutions to undertake research that will result in bringing products, processes and services into adoption, application and use.

## 7.5 Innovation system (supply chain) model

There has been a great deal of management research directed towards supply chain management designed to improve the effectiveness of linkages between suppliers, manufacturers, distributors and retailers. This has been applied to knowledge supply. The principles of supply chain management applied to knowledge involve:

- The knowledge process is treated as an integrated system where all tiers of potential knowledge partners are identified and included in the process.

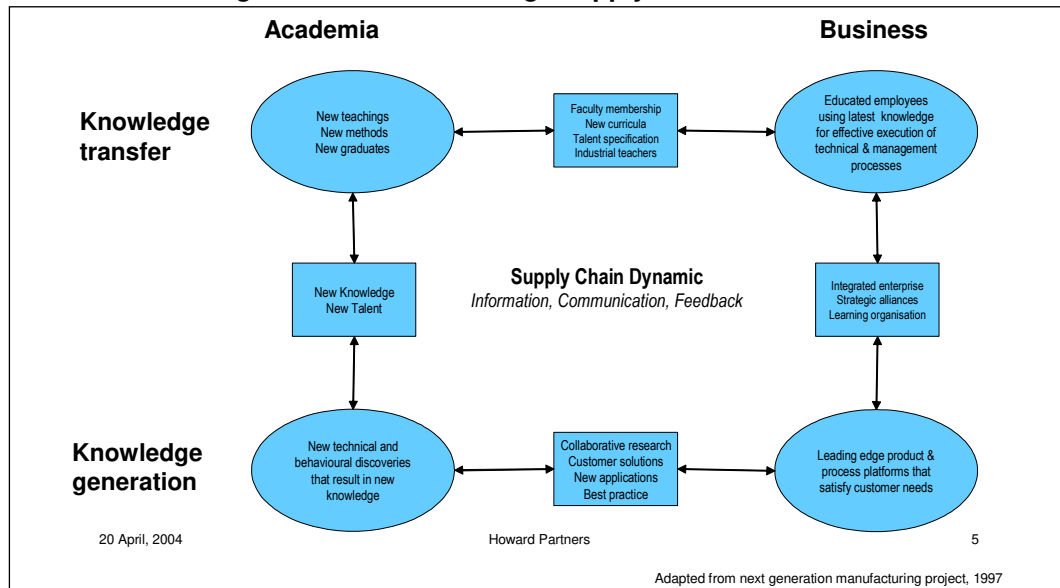
- All participants know what particular need knowledge is trying to satisfy, what specifications and form define the knowledge transfer, who the ultimate customer is and when they need to use that knowledge.
- There is a flow of communication and information among all partners so that each has all the information and specifications needed to maximise the value added to the process.
- There is quick feedback between each knowledge supplier and user on the efficiency and effectiveness of the knowledge exchange.
- Partners in the process feel that their involvement benefits both the total system as well as themselves/their organisation (Next Generation Manufacturing Project 1997).

The principles apply to:

- Existing codified knowledge located in an established knowledge base— library, web site, database.
- New skills, learning and developed through formal education and training.
- Embedded knowledge and skills through the addition of new people.
- New knowledge acquired and generated through sharing of best practices or consulting with relevant experts.
- New knowledge generated by a formal R&D process.

Just as the material supply chain concept has stressed the value of working with all tiers of suppliers, industry needs to work effectively with all tiers of the academic system. To sustain the benefits of knowledge transfer it is vital that the 2 institutions recognise the value of their knowledge process and interdependencies if the barriers to historical separation and organisational culture are to be overcome.

Recognition by industry and academia that they are part of an integrated knowledge supply chain gives a sense of mutual purpose. It also identifies and defines relative strengths and gaps in the system. The supply chain concept also plays down the distinctions between basic (discovery) and applied research. In a contemporary context businesses and universities interact as much in the areas of basic research, (particularly in the area of science based innovations) as they do in contract research and product development.

**Figure 146: The knowledge supply chain framework**

The knowledge supply chain concept is particularly appropriate for considering the flow of information about the outcomes of research between universities and industry. It also points to other dimensions and aspects of the relationship.

It has been argued that today's disconnected knowledge system parallels the non-integrated material supply chains of 10 years ago. The fact that supply chain management has been able to remove the distrust and communication barriers that existed between customers and vendors gives hope and direction for achieving similar results in the knowledge process.

A knowledge supply chain relies on communication. This is socially, not technologically driven. It involves tangible (material) knowledge and increasingly intangible (immaterial) knowledge. Moreover, the emphasis is on the sharing, rather than the transfer, of knowledge. Public research organisations have an important role to play in assisting in the development of knowledge chains.

## 7.6 Merchandising (transactions) model

Government funding cutbacks have forced universities to become more business oriented in their structure, leadership and finances.

The concept of the entrepreneurial university emerged 20 years ago around an expectation that universities could finance their future by selling their outputs for a profit. This included, but was not limited to, research outputs in the form of licenses for the use of Intellectual Property and the creation of start-up companies.

Universities perceived as the equivalent of giant department stores where students, businesses, government and the community can 'browse the shelves' to see what is on offer. It is highly transaction oriented but is a popular conception although it is decreasing in currency as on-line searches and delivery take hold.

Universities have established organisations to market and deliver consultancy services on a commercial basis. Some of the business models involved establishment of corporate entities on a professional services delivery model. Others delivered consultancy through the Technology Transfer Office, whilst others sought to coordinate the activity through the research office.

Some business models made it attractive for academics to supplement their income through an institutionally supported commercial entity. However, as performance criteria for academic staff became more focussed on scholarly output, together with pre-existing teaching and research commitments, some entities found it necessary to supplement consultancy resources with outside providers.

A substantial proportion of research contract and consultancy work flows to the university on the basis of interest and reputation of individual academics. It is pursued where it can be demonstrated and counted, as an activity that is in fact research. Research Offices like to ensure that contracts are written in a way that meets this criterion.

The income from university research contract and consultancy work is substantial and far in excess of income from technology licensing. But the size of contracts tends to be small and there are substantial university costs in administration. But staff generally resent having to make an overhead contribution off the tip of their consultancy income.

Over the last 10 years universities have become quite sophisticated property developers.

## 7.7 Commercial model

Transaction approaches to research and consultancy are giving way to the development of strategic partnerships between the university and business on a 'business to business' basis. These arrangements can be multi-faceted, longer term, and purposefully driven. They involve the input of university executives and senior executives in business. They are not generally run through a technology transfer office, although the office will be involved if there are IP issues to address.

Universities as very large businesses engaged in the production of knowledge (research) and its dissemination (through teaching and other forms of knowledge transfer).

Behave like any other large business in the production and distribution of products and services. They need to make money to offset declining funding from government. In Canada, the US and the UK there has been a continuing decline in government funding in recent years. In Australia, there can be little expectation that recent cutbacks will be restored. Universities are being asked, like all other parts of the public sector, to become more efficient. Here is little appetite to exempt universities from this.

Interactions and relationships build around alliances, partnerships and joint ventures – where there is a common and shared interest for both parties, and mutual gain. This is an emerging model.

There are also a range of non-academic avenues for universities to become entrepreneurial. Some of this starts with universities being more commercial in their on-campus business operations, including food service, other merchandising, banking and health and medical services. They are also identifying ways to utilise buildings and grounds and set prices accordingly. Some of these initiatives require significant behavioural change among university general staff,

University entrepreneurship is much more closely linked to innovation as a new breed of Vice-Chancellors look to ways they can use the assets of the university in new ways to create wealth. Many Australian universities are significant landowners and property developers, but the management of university estates lacked a business insight – or expectation. The early concept of the technology park where university staff and industry could conveniently collaborate were financially unviable. Professional property managers now run them on a commercial basis.



## 8 Knowledge production and the “industrialisation” of higher education

Extract from John H Howard, *Business, higher education and innovation: institutions for engagement in a mode 2 society*. Thesis submitted in fulfillment of requirements for PhD. The University of Sydney, 2004<sup>154</sup>.

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Industrialisation involves a substantial change in the methods and focus of production, distribution and exchange. Those changes generally involve moving from an extensive mode of production to an intensive one aided and assisted by technological invention and an environment that encourages and supports entrepreneurship (Jones 1988). For example, the agrarian revolution involved changes in methods of production that made more effective use of land; industrialisation in textile manufacturing involved moving from the putting out system to the factory system where it was possible to achieve greater coordination in the quantity and quality of output; industrialisation in steel involved capturing economies of scale associated with large capital investments.

Large-scale production also requires the input of people (managers) who can coordinate a division of labour based on specialisation of task. The division of labour relates not only to production, but also to distribution (marketing) and managing exchange relationships. These are essentially supply side issues; demand considerations have been equally, and perhaps more, important in driving industrial change. That is, increasing population, rising real incomes and changing tastes and preferences pull through the processes of industrialisation. Industrialisation is also associated with substantial change in social relations. The demands by, and for, knowledge workers in the service industries have been an important driver in expanding business education, particularly at the graduate level.

In manufacturing, the industrial revolution involved a change from a society based on agriculture to one based on automation, scientific development, division of labour, and the replacement of barter with a money exchange. There was also a change in the social relations within industry – between the owner, the employer and the employed. This was reflected in the factory and later in the multi divisional enterprise which required professional managers to establish mechanisms and procedures for planning and control.

This change was also reflected in markets where trade was established and negotiated through agents and brokers. Financial institutions also emerged to facilitate trade. However, change was not evenly distributed or impacted throughout industry: craft production still prevails in highly specialised and high value-added segments of the textiles and footwear industry for example. Industrialisation established segments and diversity.

The point being made is that industrialisation not only involves change within an industry, but it also involves an evolution of institutions that work at the interface between an industry and other industries. The industrial revolution in manufacturing was associated not only with institutional change *within* manufacturing industries, but there was also an institutional evolution *between* manufacturing industries and their financiers, suppliers, distributors, retailers and customers. This is reflected in the current interest in supply chain management, particularly in the global food industry (Howard Partners 2000).

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<sup>154</sup> Available at <http://www.howardpartners.com.au/assets/howard-phd.pdf>



These changes are occurring in higher education with the emergence large institutions (sometimes referred to as diploma mills - factories), student and research brokers, and financial innovations.

## 8.1 The academic revolution

In higher education some see an academic revolution involving a change from the creation of knowledge in a community environment that values scholarship and sharing of knowledge among a community of science, to the production of knowledge in market and/or organisational environment, where knowledge is created, propertised, valued and exchanged through market transactions and managed relationships.

But as with the industrial revolution these changes are unlikely to occur through all segments of the higher education sector. Nor will market or organisation based systems of production necessarily replace the community based framework. New institutional arrangements will inevitably emerge within and alongside existing arrangements. Industrialisation is associated less with conformity and more with diversity and segmentation in an industry.

There are many, however, who resist change and seek maintenance of a status quo and a return to traditional values and ideals of the Humboldt and Newman Models. There are others, who excited by the prospects of a greater role for universities in commercial application of discoveries and inventions, see endless possibilities for industrial development from university-sponsored start-ups. Former Vice Chancellor of Melbourne University, Alan Gilbert, has observed:

Terminal threats to traditional attitudes, practices and processes create revolutionary opportunities for bold entrepreneurs aware of the potential of new technologies and new forms of industrial organisation.

Higher education is experiencing just such a revolution at the beginning of the third millennium. It is a revolution driven by mass demand, the imperative of continuing professional education in a global knowledge economy, and the enabling consequences of revolutionary information technology and communications (Gilbert 2000).

This academic revolution needs to be understood in the context of the higher education industry and the emergence of new institutions that operate at the interface between knowledge production and knowledge application.

As with revolutions in other industries, those who create knowledge in this new academic industrial order may not necessarily be those responsible for its dissemination and application. This applies in teaching as well as research. In teaching, global providers and integrators have introduced a separation between course design, course delivery, and course assessment. In research, industrially applicable research is undertaken through research centres created as joint ventures, partnerships and strategic alliances.

Venture capital emerged as an asset class for the commercialisation of discoveries and inventions where knowledge can be captured and registered as Intellectual Property (patents, trademarks, designs, and copyright). Similarly, management capacity and capability has emerged as a skill required for ensuring successful performance in industrial research centres (Howard Partners 2003).

Education integrators, research centres, and venture capital investors represent institutions of engagement between higher education institutions and industry. These institutions allow researchers and educators to direct attention to the mission and purpose of their own

institutions without having to compromise their core purposes. They do not have to interpret market demands and expectations, for example. This is the task of engagement institutions.

It follows that pressures placed on higher education institutions, particularly by venture capital investors, to be more commercial in terms of responding to market signals is mis-directed and has the potential to inflict severe damage on their structure, routines and cultures (Bok 2003).<sup>155</sup>

Thus, the feature of industrialisation in higher education is a focus on knowledge production and the emergence of new forms of relationships between higher education institutions, industry, and more broadly, community organisations and government agencies. Relationships are seen less in terms of transfer and more in terms of market based transactions and managed relationships.

The processes of communication and interaction implied in the term transfer are still in evidence, but they are increasingly under-pinned by intermediaries (such as education integrators, technology transfer offices and venture capital investors) and organisational arrangements (such as research centres and centres of excellence).

In Australia, the industrialisation process has occurred over a 30 year period, commencing with a government decision to introduce a unified national system of higher education. Change has been slow and progressive, but culminated in May 2003, when the government introduced a range of initiatives set out in the policy paper *Our Universities: Backing Australia's Future* (Australia. Minister for Education Science and Training 2003) intended to provide a framework for change. The policy principles relate to sustainability of institutions, quality, equity and diversity. It is intended that the reforms will:

. . . establish a partially deregulated system of higher education in which individual universities are able to capitalise on their particular strengths and determine the value of their course offerings in the marketplace. There will be a renewed emphasis on teaching and learning outcomes, greater recognition of the role of regional campuses and institutions, and a framework for research in which all Commonwealth funding is either competitive or performance based.

It hasn't really happened that way, and over the next 15 years there was a succession of reviews, policy papers and budget decisions that confused education objectives with industry objectives. But an industry has emerged without government policy or oversight.

## 8.2 The industrialisation of higher education

In a general sense, an industry is defined by a pattern of ownership, the intensity of competition and the economic power of industry participants. More specifically, however, industry structure involves the organisation of participating firms and their relationship to one another, their strategic competitive advantages, market shares, sustainable rates of growth, costs and profitability, pricing power and tactics, as well as other marketing practices. It concerns the perceptions of companies, their products and services by customers, consumers, other businesses and government agencies.

<sup>155</sup> In the original, or classic, concept of venture capital, the venture capital investor performed the engagement function between science and society, working at the interface between the research and commerce. They performed a new institutional role as entrepreneur in the market for knowledge. As venture capital became dominated by a culture of funds management, this engagement role has almost disappeared. The point here is that the idea of turning scientists into businesspeople misinterprets and places at risk the institutional purposes and integrity of the research university.

The industrialisation of higher education has been associated with the emergence of new entities, the strengthening of existing ones and the disappearance of others. Strong vested interests can delay, but rarely prevent this process from working its way through. Contemporary management writers see industrialisation as involving a process of “creative destruction”.<sup>156</sup> Following patterns in other industries, some higher education institutions will emerge as multidivisional conglomerates whilst others will develop as niche players associated with high quality in a particular line of product or service. There will be others that will balance low price with basic quality.

These considerations point to the need for higher education institutions to adopt a strategic approach to developing their knowledge products and serving their markets. In this environment not all universities can, or will be, the same. Not all universities will be equally good in producing the full range of knowledge products.<sup>157</sup> This point had been made strongly in submissions to the 2002 Higher Education Review (Australian Industry Group 2002, PricewaterhouseCoopers 2002).

### 8.3 Evolution – not revolution

The industrialisation of higher education should be seen as the beginning of the evolution of an industry rather than its culmination.

According to Michael Porter “the grandfather of concepts for predicting the probable course of industry evolution is the familiar product life-cycle” based on the hypothesis that industries pass through a lifecycle of introduction, growth, maturity and decline. The stages are defined by inflection points in the rate of growth of industry revenues. The growth pattern follows an “S-shaped” curve reflecting the processes of innovation and diffusion of new product (Porter 1980).

Broadly, the flat introductory stage of industry growth reflects the difficulty in overcoming buyer and supplier inertia and gaining acceptance of the newly defined “products” and “services”. Rapid growth occurs as buyers rush into the market once the products have gained acceptance (1988). In the maturity stage, penetration of the product to potential buyers has been reached causing rapid growth to level off to an underlying rate of growth (2013). Finally, growth eventually tapers off as new substitute products appear (international education 2020). As industries go through the cycle, the nature of competition shifts and industry structures configure and reconfigure (Porter 1980).

Using Porter’s competitive forces framework (Porter 1980) it is possible to point to the prospect of substantial restructuring in the higher education industry:

- Entry of new competitors - this is occurring in Australia with non-university higher education providers accounting for 15% of the student market.
- Threat of substitutes – TAFE, on-line
- Bargaining power of buyers – students, businesses
- Bargaining power of suppliers - staff
- Rivalry among existing competitors – competition for students and research income

Individual universities will, in the new industrial climate, need to consider their positions in the light of domestic and global market considerations. In Australia the industry has started

<sup>156</sup> Reference is made to the Schumpeterian view that economic progress involves the restructuring of industries through processes of “creative destruction” Foster, R. and S. Kaplan (2001). “Creative Destruction: How can Corporations make Themselves More Like the Market.” *McKinsey Quarterly*.

<sup>157</sup> The range of knowledge products is described in chapter 7.

to undergo a segmentation process, based on a grouping of institutions with similar characteristics. These segments have become defined progressively over the last several years. Simon Marginson identified these broadly as:

- The *sandstone universities* which the universities established by the colonial governments and have a very high commitment to research (Sydney, Melbourne, Queensland, Adelaide, Western Australia, Tasmania)
- The *commuter* universities established principally in the 1960s, and located on urban fringes to service outer metropolitan populations (UNSW, Monash, Newcastle, Wollongong, Deakin, Griffith, James Cook, Murdoch)
- The *technology universities* – formed under the unified national system from state institutes of technology (UTS, RMIT, Swinburne, Victoria, QUT, UniSA, Curtin)
- Universities for the *professions* that were created from former Colleges of Advanced Education – strong focus on teaching, allied health, agriculture (Western Sydney, Southern Cross, Victoria, USQ, UCQ, Edith Cowan)

The distinctive features of each segment, in terms of product characteristics, market positioning and performance are still in the evolutionary phases. However, the future of the higher education industry will be determined by how well these segments develop to meet demand for research and education services and how delivery is resourced.

It will also depend on how each segment identifies and defines that part of the knowledge market in which it chooses to do business as well as the quality, integrity and credibility of the knowledge products and services.

Available data point to a substantial concentration in the industry, with the 8 major research universities accounting for 44 percent of the revenue. There is also a major challenge for the smaller universities to be sustainable in this emerging industrial environment.

In the process of industrialisation some traditional not for profit institutions have created private affiliates that target increasing demand for education, particularly business education, on a for profit basis. These entities are generally separate from the core institutional structures, routines and cultures of a research university and represent, in effect, separate institutions of engagement.

In terms of entry of new competitors, there has been strong growth in the private “for profit” sector of the higher education industry in Australia. In 1997 there were 49 private institutions offering 196 accredited courses at diploma, graduate diploma, graduate certificate, graduate diploma, bachelor, masters and doctorate levels. This has increased to 154. There are now .... listed in Attachment 4. They include Bond University, University of Notre Dame, the Securities Institute, the Royal College of Medical Practitioners, and several theological colleges.

By comparison, in the United States, there were at the same time 669 private, regionally accredited for-profit universities amounting to 15 percent of all institutions, accounting for 2.1 percent of all US enrolments (Richard S. Ruch 2001). Some for-profits are new, whilst others have been in operation for many years.

Strayer University was founded in 1892 in Washington DC and the DeVrey Institutes of Technology were founded in 1931. Although the for-profit model in higher education is not new, what is new is the creation of publicly traded holding companies that own and run universities in a tradition of “genteel businesses that existed even before the founding of the first American colleges” (Richard S. Ruch 2001).

The emergence of for-profit institutions has been subject to strong critique, particularly from academics in the arts and humanities. There are some defenders of change. Former academic dean and chief academic officer Richard Ruch, who has worked in 8 universities (including Michigan and Harvard) has observed that:

. . . many of the for-profit providers are doing a credible and even laudable job of addressing educational needs that are in high demand. That is not to say that these organisations are without faults or that there are not some for-profit education institutions that are substandard in quality and geared more to making profits than to providing education. Just as there is a wide range of quality among traditional, non-profit colleges and universities, there is a range of quality in the non-profit sector. Just as there has been fraud and abuse of public funds in the non-profit sector, there has been fraud and misuse of financial-aid funds in the for-profits (Richard S. Ruch 2001).

A distinction needs to be drawn between the genuine for-profit universities that are regionally accredited and the “hundreds of diploma mills and fake schools” that sell degrees to any customer who can pay \$3,000 to \$5,000 (Noble 2001).

Competition in higher education is also global in orientation with students able to access courses and programs from a wide range of providers. Already, the main players in the global education market are not seen as the traditional education providers, but engagement institutions taking on a role as *integrators* using technology to combine delivery and distribution of content. Some of these developments are at this stage still controversial.

At this stage there is still an emphasis on the opportunities created by the technology as distinct from how the service will be provided to the end user – who may be a student or a business that employs students.

Compared with overseas institutions, Australian universities are comparatively small. The University of Melbourne has observed that:

. . . in the longer term, retaining world class staff and maintaining internationally competitive research and teaching infrastructure will require a trebling or quadrupling of the University's current resource base. Only then will the University of Melbourne be resourced on a basis comparable with those of first rank, research-intensive universities in Europe, Japan and North America (IBIS World Pty Ltd. 2002).

In 2001 Melbourne University had an enrolment of 35,694. Expansion in enrolments would come from either amalgamation of existing institutions or creating a substantial presence in overseas markets.

Although higher education institutions still rely on the Australian Government as the major source of funding for the provision of education to undergraduate students, they now receive substantial income from tuition fees paid by overseas undergraduate students and national and overseas postgraduate students. This market for higher education services is international and highly competitive. Demand is sourced from both individual students and corporations.

At this stage, Australia is a relatively small player in that market compared with the US and Canada. Governments have sought to facilitate Australian entry through deregulation and support in obtaining market access. Several Australian universities have set up campuses in offshore locations.

Apart from tuition fees, universities also receive substantial levels of income from advisory and consultancy services and from research contracts and collaborative arrangements with businesses. This trend also has supply and demand dimensions; on the supply side, science based innovation is a critical aspect of biotechnology and materials technologies and on the



demand side, businesses are looking more broadly than their own research laboratories for inventions to incorporate into product development and are moving away from a “not invented here” philosophy.

Corporate research is being subject to market testing as part of broader technology acquisition strategies. This market is also global, and expanding, as corporations allow their research and development activities to move away from their headquarter operations and source capability according to where capability resides.

Some argue that this evolution has diluted the core business of teaching and learning, particularly for undergraduates. Many universities in Australia do not formally engage with their local economic and community environment, preferring to retain the traditional disinterested status and associated ivory tower image. But this may not be a problem for higher education institutions *per se*, but reflective of an absence of effective engagement institutions.

Institutions rarely change on their own volition. As discussed, they change in response to external threats and opportunities, but in a way that need not compromise their fundamental purpose and values. Community engagement is generally associated with strong community leadership and vision. This requires the commitment of university administrators, local government and regional business leaders.

The direction of industry evolution in higher education will also be impacted by the investment decisions of both incumbents and new entrants. Incumbents invest to take advantage of new research and teaching possibilities, new forms of delivery which shift entry barriers and the relative power among suppliers and between suppliers and buyers. Evolution depends on a combination of skills, resources, and, in particular, the performance of engagement institutions. These issues will be explored in later chapters.

## 8.4 Universities as businesses in the production of knowledge

The current perception of the role of the university reflects its place in the socio-political economy. That is, the university is shaped and evolves with its environment. The forces that drive that evolution are complex and frequently misunderstood, with observers and commentators still seeing the institution in very traditional ways. The point is captured by the following comment from a former President of the University of Michigan and Director of the Millennium Project:

The public still thinks of . . . images of students sitting in large classrooms listening to faculty members lecture on subjects such as literature or history. The faculty thinks of Oxbridge, themselves as dons and their students as serious scholars. The federal government sees the university as just another R&D contractor or health provider – a supplicant for the public purse (Duderstadt 2000).

Whilst the observation has an American twist it does also reflect an Australian context. The reality is that a modern research university is a “very complex, international conglomerate of highly diverse businesses” (Duderstadt 2000). They are, in fact, conglomerates managing very large budgets with increasing amounts of discretion. But they are far more complex than most industrial corporations, undertaking many activities - some for profit, some publicly regulated, and some operating in highly contested markets.

In addition to teaching and undertaking research, universities provide publishing services (academic presses), health care (through teaching hospitals), collaborate with businesses in

research and development, participate in economic development activities (including technology parks and precincts), stimulate social change, and provide sporting facilities and entertainment venues. Universities also have a wide range of investments in commercial property, securities and equities (Duderstadt 2000).

With increasing levels of income from commercial activities a great deal of recent attention has been given to the emergence of what has been termed the “entrepreneurial university” (Sheila Slaughter 1999, Gallagher 2000). Whether these universities are in fact businesses, however, requires consideration of another set of issues.

It is possible to be in the business of knowledge production without being in business in a commercial context – that is, to generate a profit. In specific situations and circumstances, it is important to understand whether all, or only part, of the activities of a higher education institution are being operated on a commercial basis. To the extent that both types of activities are present the relationship between commercial activities (selling the work of a university for a profit) and core activities (research and teaching) becomes a major issue in overall strategy.

The concept of a university business is not necessarily or exclusively about pursuit of profit. It is about running a university in a *business-like* way. It relates to managing large quantities of resources in an efficient and effective manner and ensuring accountability for results (Brown 1996). In being business like it is also important to make a distinction from being commercial, that is, generating profits and returns on investments. This issue points to an emerging duality in the role of a university, its outputs and how performance is assessed. That is, universities were established and operate primarily as “not for profit” institutions, but a significant proportion of their activities is now directed towards a commercial outcome.

The distinction between a not-for-profit (beneficial) and a business (commercial) activity is important not so much in the process but in the outcome. That is, the purpose of a business is discharged when *customers* purchase products, pay for them and are satisfied. It involves selling a product and/or a service for a profit. In this sense, profit is the test of business viability, not the objective.

By contrast, the purpose of a not-for-profit entity, or non-government organisation, is discharged in the achievement of change – for example a cured patient in the case of a hospital, a repaired wetland in the case of an environmental agency, or an educated student or new understandings in science and society in the case of a university (Drucker 1992). The purpose of government is discharged when public programs are judged, or demonstrated, to be effective.<sup>158</sup>

To Drucker, the idea that businesses maximise profit is a major cause of the misunderstanding of profit in society and for the deep-seated hostility towards it as well as being responsible for the worst mistakes of public policy – which are “squarely based on a lack of understanding of the nature, function and purpose of a business enterprise” (Drucker 1993). This issue is critical to addressing the changing management arrangements in universities.

The main business driver in managing private, public and non-government organisations, and a common element to all, is a *plan* and a *budget*. Plans set the overall purpose, define intended results and specify the way in which they will be achieved. Budgets define how

<sup>158</sup> This distinction is discussed by Peter Drucker in a number of works. He argues that the practice of management differs little across institutions in that its primary function is to achieve the results of an organisation. See Drucker, P. F. (1992). *Managing for the Future: The 1990's and Beyond*. Oxford, Butterworth Heinemann, Drucker, P. F. (1999). *Management Challenges for the 21st Century*. New York, Harper Collins..



resources are to be sourced and applied. CEO performance is judged by their ability to deliver on plans and meet budget parameters.

In universities run along business lines, with revenues and expenditures running into hundreds of millions of dollars, plans and budgets are the key performance drivers. From this it follows that university managers must know about their costs, their commitments and the totality of their financial affairs and how they relate to business strategy.<sup>159</sup> This is not the same thing as a relentless pursuit of “profit”.

To create a business requires the investment of resources in management, marketing and working capital. Only a few universities have been prepared to make this commitment in relation to knowledge products, preferring instead to simply create a property right in discoveries and inventions and grant non-exclusive licenses for use.

A small number of universities have resourced technology transfer companies to secure intellectual property rights and, in addition, actively market those rights to businesses and engage with the financial sector in the formation of companies to produce products based on those technologies in the form of start-up companies. Some universities have established their own venture funds for this purpose. In addition, numerous agents, consultants and brokers have emerged that seek to undertake the commercialisation activity on behalf of the university.

One of the most difficult issues in the marketing of knowledge products is determining the exchange value. The extraordinarily high valuations of dotcom companies at the height of the technology boom was an indication of the difficulties and uncertainties surrounding the valuation of knowledge products. Many of the products were in fact simply ideas or concepts that had little or no prospect of ever delivering revenues that exceeded the costs of production (the business validity test).

The collapse of the technology boom in early 2000 indicated in sharp reality that, notwithstanding the ability to create pure knowledge products through the application of knowledge on knowledge, the capacity to derive a return relies heavily on the existence of complementary assets in marketing (including brands), production, distribution channels and management capacity.

For many knowledge products the exchange value is close to zero as a practical application has not been determined, reduction to practice research and development has not been undertaken, or a customer profile created. Moreover, exchange value is generally quite unrelated to the cost of discovery or invention.

For most businesses, value is created through marketing – by making existing and potential customers aware, and convinced, the attributes of a product and the way in which it will deliver value *to them*. The value related to the scientific or technical aspects of a product will be heavily discounted due to the costs and the risks of getting to that end position.

Peter Drucker has argued consistently over many years that only an organisation that fulfils itself through marketing a product or a service is a business. He adds that the primary purpose of a business is to create a customer and this is achieved through the dual functions of marketing and innovation (Drucker 1988).

An organisation in which marketing is either absent or incidental is not a business and should not be run as if it were one. It is the presence or absence of a marketing function that sets a business apart from other institutions and forms of human organisation. Specifically,

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<sup>159</sup> It is of interest that recent significant CEO appointments have come from a finance background – BHP and the ABC are prominent examples.

the church, the state, and the university (in its traditional formulation) have not generally been involved in marketing a product or service.<sup>160</sup> These institutions have stood back from the market and commercial world to provide stability, certainty and a supporting ideology for the conduct of trade, enterprise and social interaction.

In a business environment *customers* determine what a business is by being willing to pay for a product or a service. Businesses adapt and respond to customer wants. Thus, a citizen is not a customer of the state or a parishioner a customer of the church, a prisoner a customer of a gaol, or a student or scientist a customer of a university.<sup>161</sup> Historically, universities have been organised as communities – as reflected in references to the “academic community” and the “community of science”. But these relationships are undergoing change.

As the university becomes involved in commercial activities (that is seeking to sell its outputs for a profit) customer relationships become established and a business emerges. The scale and scope of that business in the overall institutional structure and the way in which it relates to it is an important issue for consideration.

Through experience both church and state, when involved in commercial operations and activities, have sought to separate the business and marketing functions from their integrating and regulatory functions. The way in which universities are resolving the balance between providing their core functions of teaching and research objectively and autonomously, with the commercial pressure to satisfy customers, is still evolving. Practices adopted in general government can be instructive in this regard.

The instrument of the statutory authority for example, was created to separate commercial and trading operations from the functions of the state. More recently, the Australian Government has used the device of an *Executive Agency* to create a degree of independence from departmental management and facilitate a higher level of engagement with business, industry and other key constituencies.

Although universities are now charging directly for a range of products services, it does not necessarily mean they are businesses. The issue is whether they are actively *marketing* those services, the way in which they are being marketed and the extent of involvement of a “customer” in the design and delivery of those services. If universities merely assert property rights in discoveries and inventions and are not involved in marketing the asset created by this process, they are not really involved in a business.

This is the preferred course of action for many research universities and is reflected in the very low level of resource commitment allocated to technology transfer offices. Standing back from the market avoids the risk of conflicts of interest over the direction of research and scholarly inquiry. Moreover, research shows that very few universities have ever been successful in this sort of business (Johnston, Howard et al. 2003).

It should not follow, however, that a person or organisation who pays for courses, or for research, directs the way the teaching is provided, or research is undertaken – any more than a patient (not a customer) instructs a physician or a surgeon or a litigator tells a barrister about how to undertake their work. This is the nature of professional services in the knowledge economy and knowledge society.

<sup>160</sup> There are exceptions. The Catholic Church was in the business of selling “soul indulgences” prior to the Reformation.

<sup>161</sup> There have been some interesting learning experiences – such as the Australian Taxation Office once referring to taxpayers as customers.

Fees are paid for process, not outcomes; in many professions, payment on the basis of outcomes (success) or commission is regarded as unprofessional and in breach of ethical standards. But fee for service does demand accountability, professional integrity, and ways to identify, assess and rank quality, and mechanisms to obtain redress for poor performance and conflicts of interest.<sup>162</sup> It also requires that teaching and research is not only excellent – it has to be relevant to end user needs.

One of the few areas where universities have been active in marketing is in the area of business education. The representations by universities and business schools of career advancement associated with completion of a MBA qualification have been brought into question (Crainer and Dearlove 1998). Business schools now have to take greater cognisance of the needs of students as customers who want a qualification that *will* provide opportunities for career advancement. To this end there is now a great deal of information, and rating systems, that publish information about the performance of business schools relating to the success of their graduates.<sup>163</sup>

Global professional services firm PricewaterhouseCoopers, a major employer of university graduates has argued that an important consideration for universities, especially in light of the drive for deregulation of fees, will be how they manage the increased expectations of the customer. The firm suggests that this is not something universities have had to worry much about in the past. Processes to deal with marketing, business development, and managing customer satisfaction are all areas where universities need to adjust their services to meet the changing requirements of students, business, and the wider community. The firm notes:

More collaborative approaches to learning are required, providing knowledge and skills to students when and where they need them. Greater competition in the higher education sector and a shrinking market place will place pressure on universities to become more customer-focused in their design and delivery of education services (Means and Schneider 2000).

To perform in this context higher education institutions will have to give attention to the way in which they engage with organisations such as PricewaterhouseCoopers. They will need to commit to the generation of disciplinary knowledge, which lies at the basis of their legitimacy as higher education institutions, whilst at the same time responding to a customer demand for vocationally oriented teaching. Engagement may evolve along the lines of specialised teaching institutes and schools that stand at the interface between core institutional values and the demands of the marketplace.

Such institutes can only be successful if they have available a core of disciplinary knowledge that is created in an objective, credible and autonomous environment (academic excellence) but at the same time are capable of applying that knowledge to business and industrial situations (business and industrial relevance). In the research arena, the balance between research excellence and research relevance has been one of the major challenges for ensuring success in Cooperative Research Centres (Howard Partners 2003).

There has been a great deal of concern expressed in situations where businesses become customers in relation to research services, particularly in the pharmaceuticals sector (Bok

<sup>162</sup> The failure of the auditing and accounting profession to adhere to professional standards in relation to recent corporate collapses is an indication of conflicts of interest between managers and shareholders. The situation was driven in large part by excessive discounting of audit fees and boards making decisions on price alone, encouraging auditors to leverage their consulting colleagues into the businesses. Notwithstanding “Chinese walls” within the accounting firms, auditors and consultants shared profits and “cross selling” was a major criterion in performance appraisal. It is likely that the profession will lose its capacity for self-regulation.

<sup>163</sup> *Business Week* publishes an annual survey of business school performance and provides a substantial amount of information on its on-line website.

2003). The business purpose of satisfied customers (for example, a favourable outcome of a clinical trial) has the potential to undermine academic credibility and institutional values if research is biased. As argued above, resolution of this dilemma requires strong and effective engagement institutions that protect the values of higher education institutions and meet the needs of industry. This may involve the creation of ethics and probity organisations to develop standards (rules) and advocate their implementation. These standards and rules should form basic guidance for institutions of engagement.

Engagement institutions allow for the separation of the interests of business and the maintenance of academic integrity and values. University research offices currently perform this role, but they are generally poorly resourced and do not have the capacity for monitoring and delivery of sanctions. There is a case for separate and independent engagement institutions for managing the interface between the requirements of business for commercial outcomes of research and the need to preserve and maintain academic standards and values of higher education and research institutions.

These institutions require robust structures in order to operate effectively in knowledge markets and professional, expert management in joint ventures, alliance and partnership arrangements. It is at the interface that business is conducted: this does not necessitate or imply that higher education institutions lose sight of and commitment to basic institutional purpose.

## 8.5 Summary

The demand and the resources available for “disinterested” scholarly activity with no apparent application are not endless; there comes a time when priorities and frameworks have to be set and decisions about the allocation of resources made. This is a process that is currently underway. The increase in demand for student places, and the cost of research, has placed enormous financial pressure on universities. Governments are not inclined to meet the full cost of this commitment by either increasing taxes or extending public borrowing. Accordingly, this requires a greater focus on commercial issues and, as suggested above, managing to the discipline of a plan and budget. This is being business-like.

These observations provide an important base for thinking about universities in business terms. That is, successful university “businesses” will not achieve success and sustainability by a relentless pursuit of profit. They will do so by focusing on the needs and interests of their constituency – students, government, businesses and the broader community – and commit to a process of innovation in meeting those needs and requirements. However, many universities have come to realise that without some form of customer focus in a highly competitive industrial environment, they will cease to exist as sustainable organisations.

Universities are not the same as industrial corporations. They have different institutional characteristics in terms of structure, routines and cultures. The criteria for assessing performance are also different. There are numerous reasons why universities should not be directly involved in the knowledge business. These relate to threats to fundamental institutional purpose and integrity. However, it is essential that there be effective forms of engagement between universities and businesses as a way of achieving mutually beneficial outcomes, particularly in the area of mode 2 knowledge creation.

For higher education institutions to survive and grow as knowledge producing institutions they must maintain and build on their unique institutional purpose. This provides a basis for creating effective forms of engagement with business and government that are grounded in

institutional strengths. The benefits to the economy and society of relational knowledge creation will be achieved through the processes of engagement rather than attempting to imitate the institutional characteristics of a commercially oriented business enterprise.

Engagement occurs through collaboration in both teaching and research. Collaboration when structured as a partnership, alliance or joint venture, is a managed relationship requiring the input of experienced and competent joint venture managers who are capable of acting in the interests of all parties. Management skills in this area are in short supply.

Engagement through commercialisation as in the sale of knowledge products and services (such as academic publications, technology licensing and full fee paying courses) also requires the skills, capabilities and commitment of market intermediaries. The capacity to build expertise, trust and maintain integrity in these exchange based relationships is a major challenge.

The development and implementation of strategies for collaborative and exchange based relationships are likely to have profound effects and impacts for the future development and structure of the higher education industry. It is clear from the analysis of performance to date that not all universities have the capacity to be heavily engaged in research commercialisation or to generate substantial income from overseas students.

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