Australian Catholic University (ACU)
Submission to the Inquiry into innovation and creativity: workforce for the new economy

March 2016
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EXECUTIVE SUMMARY

Australian Catholic University (ACU) welcomes the opportunity to make a submission to the Inquiry into innovation and creativity: workforce for the new economy.

As the Prime Minister, the Hon Malcolm Turnbull MP has stated, ‘the Australia of the future has to be a nation that is agile, that is innovative, that is creative.’ 1 The tertiary education system, in particular universities, is essential to ensuring that Australia is able to be an agile, innovative and creative nation in two important ways. Firstly, it will create the skilled workers needed to take advantage of the opportunities presented. Secondly, it provides the research environment needed to ensure that Australia is at the forefront of technological change.

ACU is a multi-jurisdictional university that operates across four states and one territory, with a strong reputation in the areas of health and education. The university has built on this reputation under the demand driven system; by focusing on its strengths in these disciplines, it educates the largest number of undergraduate nursing and teaching students in Australia.2 To support this growth, the university has built strong linkages with industry, ensuring its students are highly sought after once they graduate, with ACU graduates achieving a 94 per cent employment rate.3

ACU makes this submission for three reasons.

Firstly, to support the ongoing continuation of the demand driven funding system. The demand driven system is designed to meet growing workforce demand for university graduates by funding universities on the basis of student demand for courses and industry need, rather than through central allocation of places by the Commonwealth. The demand driven system has enabled 190,000 additional students to receive a university education. Under a capped system, these students would have been deprived of this opportunity, and Australia would be further behind in its efforts to meet workforce shortages and boost national productivity.

Secondly, while it is important that Government regulation of the tertiary education sector is minimised to allow institutions to do what they do best – teach and research – experience in the vocational education and training (VET) sector shows that lax regulation of institutional entry to the system can cause considerable damage. The unscrupulous behaviour of some private providers in regards to the operation of the VET FEE-HELP scheme demonstrates the importance of the regulatory framework in which tertiary education providers operate.

Lastly, as a university with a particular focus on teaching and research in teacher education and health science, ACU believes that discussions around innovation need to be broader than research in science, technology, engineering and mathematics (STEM). Innovation is the process of improving how we currently operate, and need not be limited to STEM disciplines. ACU’s engagement with the education and health industries demonstrate the importance of university-industry linkages, but also how innovation in these disciplines has the potential to greatly improve the lives of many people.

3 Graduate Destination Survey (GDS) 2014 – Proportion of those available for full-time employment and were in full-time or part-time employment.

3
I. DEVELOPING THE SKILLS NEEDED FOR THE JOBS OF TODAY AND OF THE FUTURE

The demand driven funding system

The 2008 Review of Australian Higher Education (Bradley Review), recommended that ‘the Australian Government introduce a demand-driven entitlement system for domestic higher education students, in which recognised providers are free to enrol as many eligible students as they wish in eligible higher education courses and receive corresponding government subsidies for those students.’ Fully introduced from 2012, the demand driven system has operated for bachelor level places (excluding medical courses) at public universities.

The demand driven system has enabled more than 190,000 additional students to receive a university education. Under a capped system, these students would have been deprived of this opportunity, and Australia would be further behind in its efforts to meet workforce shortages and boost national productivity.

While the demand driven funding system has greatly expanded the number of places available for people to study at university, evidence shows that the growth that was experienced in early years is slowing. From 2009 to 2012, annual growth in Commonwealth supported places (CSPs) was over 5 per cent, as what was previously unmet demand was satisfied, with growth in commencing places over 8 per cent in a number of years. However, as the following chart shows, this growth is slowing, with the forward estimates showing growth of less than two per cent in 2018 (if the Government’s proposed expansion of the system is not included in the estimates).

Annual growth in CSPs (total and commencing), 2005 to 2018

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Data released in January 2016 confirms this slowing in growth. Looking at the enrolments in the first half of 2015 (full-year 2015 data will not be available until the middle of 2016), this data shows that the number of commencing CSPs grew by 68, or 0.1 per cent. This is well below growth experienced in the previous decade. Although this result is partly the result of lower than normal enrolments in Western Australia due to a reduced school-leaver cohort, this flat lining of commencing CSPs in 2015 will flow through to overall CSPs over the following few years and is likely to lead to only minimal growth in CSPs.


Of course, in a tight fiscal environment, increases in the number of subsidised places can have a significant impact on the Government’s budget. This is evident from looking at the Commonwealth Grant Scheme (CGS) expenditure between 2009 and 2015, which saw an increase from $4.5 billion to $6.7 billion (49.8 per cent, or 7.0 per cent per year). However, as with the minimal growth that is estimated in CSPs in the future, it is also extremely likely that growth in CGS expenditure will moderate considerably.

Soon after coming to office, the current Government asked the Hon Dr David Kemp and Andrew Norton to review the demand driven system, including examining whether it was:

a. Increasing participation;

b. Improving access for students from low socio-economic status backgrounds and rural and regional communities;

c. Meeting the skill needs in the economy.

In their final report, Kemp and Norton found that ‘the demand driven system has responded effectively to most recent skills shortages.’ This is not surprising. One of the reasons identified by the Bradley Review for its recommendation was that ‘the current system provides very little labour market information to help reduce the risk of mismatch between student choices of fields of study and the requirements of the workforce.’ Causing further concern was a finding from Access Economics that there would be a ‘cumulative shortfall of 370,000 graduates by 2018 and suggests a failure to meet this demand may undermine Australia’s future productivity.’ One of the principal rationales for the introduction of demand driven funding was therefore its ability to respond more effectively to workforce needs.

The increasing importance of university level qualifications has continued to be highlighted by a number of studies. In 2013, the Australian Workforce and Productivity Agency (AWPA) found that the number of

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undergraduate qualifications needs ‘to increase by 3.3 to 4.1 per cent annually (from a 2011 base) in order to meet projected demand.’\textsuperscript{12} More recently, Deloitte Access Economics found that, in total, around 3.8 million new university qualifications (2.5 million new undergraduate qualifications and 1.3 million new postgraduate qualifications) will need to enter Australia’s knowledge economy over the period 2015-2025 to meet this demand. This means that on average, Australia will need approximately 227,000 new undergraduate qualifications and 115,000 new postgraduate qualifications each year over this period.

By way of comparison, in 2014, a total of 136,700 domestic undergraduates and 78,600 domestic postgraduates graduated from Australian universities, significantly less than this projected demand.\textsuperscript{13}

The following table provides an overview of enrolment growth in commencing domestic students under the demand driven system by broad field of education at all Australian higher education providers and the success of graduates in those fields in gaining employment. As noted above, enrolment data for the first half-year of 2015 shows a significant slowing in growth under the demand driven system. This slowing has affected different disciplines differently, with health continuing to have significant increases (a 7.3 per cent increase in commencing students compared to 2014) and architecture and building seeing a significant increase (7.0 per cent). Significantly, a number of disciplines saw a reduction in commencing students, with education falling by 9.9 per cent and natural and physical sciences by 1.0 per cent.\textsuperscript{14}

\begin{tabular}{|l|c|c|c|}
\hline
Broad Field of Education & Commencing Domestic Student Numbers & % employed of those seeking full-time employment (2014) \\
\hline
& % Change from 2009-2014 & Average Annual Increase 2009-2014 & \\
\hline
Natural and Physical Sciences & 44.1\% & 7.6\% & 81.4\% \\
Information Technology & 33.9\% & 6.0\% & 81.9\% \\
Engineering and Related Technologies & 26.3\% & 4.8\% & 84.4\% \\
Architecture and Building & 9.4\% & 1.8\% & 88.3\% \\
Agriculture, Environmental and Related Studies & -5.8\% & -1.2\% & 87.8\% \\
Health & 45.1\% & 7.7\% & 93.6\% \\
Education & 30.5\% & 5.5\% & 94.5\% \\
Management and Commerce & 23.0\% & 4.2\% & 89.1\% \\
Society and Culture & 27.6\% & 5.0\% & 85.8\% \\
Creative Arts & 18.5\% & 3.5\% & 80.2\% \\
Total & 28.9\% & 5.2\% & 88.4\% \\
\hline
\end{tabular}

This table shows that not only is the demand driven funding system delivering more graduates, but students are graduating from those disciplines where there are jobs. The highest rates of employment are found in health and education, which have also recorded two of the highest rates of growth in enrolments over the period. On the other hand, graduates from the creative arts have the worst employment outcomes, but has also seen one of the lower increases in enrolments. This is consistent with the findings of the Kemp-Norton review noted above.

\textsuperscript{12} Australian Workforce and Productivity Agency, Submission to the Review of the Demand Driven Funding System, 8 January 2014, 1.

\textsuperscript{13} Deloitte Access Economics, The importance of universities to Australia’s prosperity: A report prepared for Universities Australia (October 2015) 45.

Science, Technology, Engineering and Mathematics (STEM) skills

While the demand driven system has done a good job of matching graduates with jobs, this is not necessarily the case for graduates from Science, Technology, Engineering and Mathematics (STEM) courses. These disciplines (Natural and Physical Sciences, Information Technology and Engineering and Related Technologies in the above table) are characterised by high growth in enrolments and relatively low employment outcomes. While they have experienced above average growth in enrolments, with Natural and Physical Sciences and Information Technology the second and third fastest growing disciplines, the only discipline with worse employment outcomes is Creative Arts. This again is consistent with the findings of the Kemp-Norton Review: ‘The rapid increase in science enrolments is leading to employment problems for graduates.’

One of the reasons for this outcome may be that the employment outcomes are taken four months after the person graduates, so the data does not account for longer term employment outcomes. This may be particularly important for STEM graduates, with it being found that 75 per cent of the fastest growing occupations require STEM skills and knowledge. In addition, the former Department of Industry, Innovation, Science, Research and Tertiary Education has highlighted that ‘in order to produce an innovative, high technology, highly productive economy, Australia will need to raise the level of technical skills and scientific education as well as the number of people with these skills in the workforce.’ While the short-term employment outcomes for these students are not as good as for those from other disciplines, long-term projections of employment needs indicate that it is these skills that are vital to Australia’s future in an innovation economy, suggesting these graduates’ long-term employment prospects are very good.

While the demand driven system has seen a growing number of STEM graduates, concerns have been raised about the ability of commencing students in these disciplines. For example, it has been found that less than 29 per cent of year 12 students are undertaking intermediate maths courses which are needed for the study of STEM at university. This will obviously have an impact on success at university, with it being reported that ‘satisfactory performance in Year 12 intermediate maths has a positive impact on performance in all university STEM subjects (and this is not true of other year 12 STEM subjects).’

Ensuring graduates are career ready

ACU is committed to ensuring that its graduates are work ready and have a range of skills to progress their careers from graduate entry to management and leadership. Curricula are focused on employment outcomes and contexts as well as the skills and competencies needed in the professions. Career Development concepts and activities are embedded within programs and aligned to specific work integrated learning experiences. Students are encouraged to reflect on the workplaces and organisational structures they encounter and receive feedback on their participation in them. The ACU Career Development Team provides consultancy to the faculties, career counselling to students, offers job seeking support nationally and internationally and manages the Student Jobs on Campus programs. In addition to Work Integrated Learning, ACU students all undertake a frontline community engagement activity. This is designed to assist students in developing soft skills and empathy with diverse people and circumstances.

Looking forward

The capacity of some students entering higher education under the demand driven system to succeed has been questioned by a number of commentators.20 This was in part the reason for the Review of the Demand Driven System, which was tasked with examining ‘whether there is evidence of any potential adverse impacts on the quality of teaching and of future graduates.’21 The Review found that ‘Higher education providers are actively working to identify and better support less adequately prepared students,’ but also that ‘Pathway programs successfully prepare students for university study.’22 It was in part the success of these pathways programs, which are usually delivered at the sub-bachelor level, that led Kemp and Norton to recommend ‘Sub-bachelor higher education courses should be included in the demand driven system.’23

In response to the recommendations of the Kemp-Norton review, the Abbott Government announced its intention to extend the demand driven funding system to sub-bachelor courses,24 in line with the original recommendation of the Bradley Review.25 Due to debate about other, more contentious aspects of the reform package, including the deregulation of fees, this extension has not occurred and sub-bachelor places continue to be limited by the Government. Providing demand driven funding to sub-bachelor courses at public universities will assist to not only ensure that enough people are trained to fill the jobs of the future, but that they have the skills to take full advantage of the opportunities that flow from these jobs.

While the provision of demand driven funding to sub-bachelor courses will better prepare some students for university study, many of the jobs of the future will require the higher skills that come from postgraduate education. As the Deloitte Access Economics report cited above notes, it is not only undergraduate qualifications that are important, but also postgraduate qualifications, with 115,000 postgraduate qualifications needed each year over the next decade.

As with sub-bachelor places, funding for postgraduate Commonwealth supported places continues to be capped by the government. The Bradley Review recommended that the demand driven system be extended to postgraduate coursework level courses once further work was undertaken,26 and the government undertook a consultation on the allocation and funding of Commonwealth supported postgraduate places.27 However, no action was ever taken to improve this allocation which is the result of a number of historical decisions, which may no longer be applicable. A re-examination of the current allocation of postgraduate Commonwealth supported places would allow the Government and universities to ensure that they are targeted in the right areas to support the government’s long term strategies.

Although there are some issues that could be considered in future policy discussion about improving the operation and effectiveness of the demand driven system, its introduction has proven transformational for the


24 See Denise Bradley et al, Review of Australian Higher Education: Final Report (December 2008) 158, noting the recommendation that the demand driven funding system ‘apply initially to undergraduate courses’ (emphasis added).


Australian higher education system and many students over the past four years. Policies that aim to curtail the demand driven funding system and take Australia’s higher education sector back to the bureaucratic and centrally-planned system that previously existed should be dismissed as the antithesis of the innovative and creative system that Australia requires.

Further, while the demand driven funding system has proven to be extremely effective at ensuring the Australian higher education system meets current and future skill needs, one of the best ways to encourage innovative approaches to solving problems is to provide a study environment that is itself innovative and inspiring. The Kemp-Norton review found that this is the type of higher education system that the demand driven funding system is facilitating, finding that “the demand driven system has encourage technology-based innovation in higher education.”28 The demand driven system is therefore essential to ensuring that Australia is innovative, creative and agile, as it will need to be in the economy of the future.

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II. REGULATING WHO CAN BE AN EDUCATION PROVIDER

Importance of the right level of regulation

While the demand driven funding system has been very successful at meeting current and future skills needs, ACU recognises that amendments to the policy may be needed to ensure that this continues to happen as the skills needed by industry develop and change in response to broader economic developments. As noted, the current funding arrangements for sub-bachelor and postgraduate Commonwealth supported places are issues that could be examined.

The Abbott Government expressed its intention to expand demand driven funding to all undergraduate places at higher education institutions registered with the Tertiary Education Quality and Standards Agency (TEQSA). The stated aim of this policy is to provide a ‘great opportunity for more Australians who want to gain higher education skills that will keep them competitive in the global economy.’ Another effect of this policy would be to increase the incentive for new operators to enter higher education.

While it is important that Australia’s higher education system provides Australians with the skills to be successful in the new economy, as ACU has noted in a number of other submissions, it strongly opposes the proposal to extend public funding to non-university higher education providers (NUHEPs) for a number of reasons, including that in a strained fiscal environment the government should not be making already successful profit making ventures dependent on government funding.

Most importantly in the context of this inquiry, extending public money to private providers could have an adverse impact on the quality and, in the medium to long-term, the international standing of Australia’s higher education system.

Experience suggests that private providers will cut corners where they can. While there are a select number of established private providers in the market that have built good reputations, there are also many that have not. TEQSA has already had its resources cut and will be overburdened (if not so already) in assuring the sustained quality and timely regulation of an expanded list of providers. In reality, without substantial additional funding it would be very difficult for TEQSA with its limited resources to regularly assess quality and monitor standards across an expanded range and number of providers; particularly as private providers do not have the same level of rigorous internal quality assurance mechanisms in place as at universities. The situation will be acute if there is a proliferation of NUHEPs that seek to enter the market to access the public funding on offer.

There are serious issues around quality and unscrupulous behaviour in Australia’s vocational education and training (VET) sector. As ACU has previously argued, the extension of the demand driven funding system to NUHEPs is likely to see the practices which the VET system has experienced translated to the higher education system, damaging the reputation of the entire system, as has happened in the VET system.

The unscrupulous behaviour of some private VET providers in regards the operation of the VET FEE-HELP scheme is well documented. In one example, Unique International College was found to be charging students around $25,000 per year for diplomas and had received almost $140 million in VET FEE-HELP payments in less than two years. Its completion rate was just 5.8 per cent. One of the reasons for this low completion rate was no doubt the marketing and recruitment actions of the college which allegedly involved targeting particular locations, including rural and remote towns and indigenous communities, to sign consumers up to diploma courses ranging from $22,000 to $25,000 without adequately explaining they were incurring a


government debt. Unique employees, who were paid incentive payments based on the number of students they enrolled, visited the locations including Bankstown, Boggabilla, Bourke, Brewarrina, Emerton, Moree, Taree, Toomelah, Walgett, Wagga Wagga with boxes of ‘free’ laptops for anyone who signed up for a course.31

Other examples include a provider that received $46 million in VET FEE-HELP loans in one year. Of the 4200 students enrolled, fewer than five completed. In another example, loans worth $3.5 million were provided to support 603 students, with just nine completing.32

These examples demonstrate the very real risks of any expansion to private higher education providers without appropriate regulatory oversight. In particular, private providers have demonstrated how quickly they can set up and grow their enrolments to become major players in the market.

The experience of VET FEE-HELP indicates the speed at which private education providers are able to very quickly come to dominate a system, even a well-established system with significant historical investment in public providers. While unscrupulous behaviour in the VET sector may be in the minority, what is concerning from a public policy perspective is that those providers that come to dominate the system can be those whose business practices are most questionable. It has been reported that six of the top ten private VET providers are ‘under regulatory scrutiny or have been accused of questionable quality or marketing practices.’33 Between them they received $620 million in VET FEE-HELP loans in 2014 (over 35 per cent of loans provided).34 This group of providers enrolled almost 60,000 students with VET FEE-HELP loans in 2014.35 In comparison, in 2013, they enrolled just over 23,000 students.36 This is an increase of 160 per cent in one year. In two cases, these providers did not exist in 2013, meaning that they were in the top 10 providers for enrolments in their first year of operation.

For Australia’s tertiary education system to be able to produce graduates that have the skills needed to prosper in the new economy, it is important that the system is appropriately regulated and the quality of training is maintained. While there may be a role for new providers in training students in particular niche disciplines that are needed in the new economy, any significant loosening of entry and quality requirements must be carefully considered. Otherwise, as the experience in the VET sector makes clear, there is a very real risk of unscrupulous providers taking advantage of public funding and exploiting students, leaving the government to clean up the mess while reputable institutions are tarnished by association.

There is significant public support for Australia’s universities. A survey undertaken by Universities Australia in 2012 found that less than 5 per cent of people had a negative perception of universities.37 This broad
support is the result of universities’ long held commitment to quality and community engagement, and it is important that people continue to have confidence in those institutions that are considered universities.

When defining what makes a university, the same survey found that 90 per cent of people agreed that research is ‘an essential part of what a university does.’

Research activity is fundamental to the conception of universities as the bastions of scholarship and inquiry-based learning, which fuels innovation and innovative thinking. This is supported by the higher education regulatory framework, with the Higher Education Standards Framework (Threshold Standards) 2015 stating that a university must undertake ‘research that leads to the creation of new knowledge and original creative endeavour at least in those broad fields of study in which Masters Degrees (Research) and Doctoral Degrees (Research) are offered.’

Over the past few years there has been some questioning of the relative role of universities in the research landscape. One argument which has been canvassed is that only some universities should engage in research, while others should focus purely on teaching. ACU considers that such a proposition should be strongly refuted on two main public policy grounds.

First, it would significantly diminish the strength, research breadth and international competitiveness of the university sector. If fewer universities were funded and supported to engage in research, this would shrink Australia’s research base. It would also severely dampen the diversity of the research sector, which stimulates innovation across a broad range of fields and communities across the nation.

Second, it would be contrary to the modern conception of universities as institutions that advance scholarship, which is facilitated through research and teaching. The seminal work of John Henry Newman in The Idea of a University and his conception of university teachers ‘was very much one of individuals of great scholarship and learning, whose natural outlet today certainly would be in both teaching and fundamental research.’

Universities today play an indispensable role as intellectual engines that educate and produce quality graduates that will drive the future Australian workforce, foster active inquiry, and advance research-led innovation across the nation. As the Group of Eight has previously articulated:

The purpose and role of a university is not to produce students equipped to move into a particular job or type of job; it is to prepare students to live in a complex and unpredictable world in which they will need to respond to situations, challenges and opportunities which we cannot forecast, and take advantage of them; and produce graduates who are flexible, resilient and have the self-confidence necessary to take responsibility for their own actions… A pervasive research culture is important because it enables universities to focus on learning rather than teaching, thinking as well as doing, debate not just assertion…

A good university is one that provides an exciting environment, one that stimulates the passion and motivation of its students by exposing them to zealous and motivated educators in a setting permeated by the creation of new knowledge and the application of rigorous debate. The benefits of this learning go beyond the provision of particular disciplinary information – which is readily available elsewhere and will often quickly become out of date. University education aims to support the balanced development of the whole person. Achieving this outcome requires the application of

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39 Higher Education Standards Framework (Thresholds Standards) 2015 (Cth) B1.2.3.

40 As Greg Craven identifies “We must remember…that Newman’s writing really pre dated the final triumph of research within the great university constructs of the nineteenth century.”; Craven, G., The Idea of an Australian Catholic University (2008) [Inaugural Lecture, 22 May 2008, St Mary’s Cathedral Crypt], at http://www.acu.edu.au/__data/assets/pdf_file/0006/438378/20080522_VC_Inaugural_lecture.pdf
rigorous standards of academic excellence and an emphasis on generic characteristics such as curiosity, probity, rational inquiry, and placing a higher reliance on evidence than on authority; it is also an outcome of the academic environment as a whole, requiring an academic community that transcends disciplines and builds on the interactions that take place outside any formal teaching arrangements.41

Australia’s universities are well-placed to deliver the qualifications that people need to succeed in the new economy. Any lessening of regulations governing the use of the title university, including the requirement to undertake research, threatens to diminish confidence in Australia’s higher education system and its ability to continue to deliver these important qualifications.

III. LINKAGES BETWEEN EDUCATION PROVIDERS AND INDUSTRY

Australia’s universities are highly aware of the importance of linkages with industry. As Universities Australia has noted in its National Strategy on Work Integrated Learning in University Education, ‘enterprises, educators and the community, working together, improve the quality and capacity of our education systems and innovation, breadth and competitiveness of our economy.’

Research linkages

The Government’s National Innovation and Science Agenda clearly sets out the important role that university-industry linkages play in developing an innovative and creative economy. Importantly, improvements to the Australian Research Council’s (ARC’s) Linkage funding scheme will help improve these linkages.

The Linkage funding scheme plays a vital role in facilitating collaborative research projects between higher education researchers and other parts of Australia’s innovation system, particularly industry. Linkage funding supports national and international partnerships between researchers and business, industry, community organisations, and other publicly funded research agencies.

Benefits of the scheme can include better service delivery that leads to community well-being. For example, ACU’s Institute for Positive Psychology and Education (IPPE) has used ARC Linkage grants for the following activities:

- Working with the NSW Department of Education to investigate the impact of Positive Behaviour for Learning (PBL) on the behaviour, well-being, motivation, and academic achievement of children at school, the purpose being to enable students to maximise their potential, build teacher capacity, improve school environments, and contribute to general well-being.

- Work with The Scots College to explore the impact of Indigenous education programs in transforming lives and communities, in particular, investigating the phenomenon of private boarding schools offering scholarships to Indigenous students.

- Work with the NSW Police Force to help officers become more resilient, and support those suffering from stress-related illness, with the main purpose being to find out how best to maintain an officer’s well-being in the face of adversity.

The Government’s decision to change research funding arrangements in line with the recommendations of the Review of Research Policy and Funding Arrangements (Watt Review) will also provide greater incentives for universities to improve engagement and collaboration with business and other end-users. The case studies on university-business collaboration, released with the final report of the Watt Review, demonstrate how the university sector is already collaborating with industry, and the new incentives provided by the Government will improve this work.

Teaching and learning linkages

While linkages on research projects between universities and industry are important to improving Australia’s innovative capacity, linkages in regards to teaching and learning are also important, with it being said recently that “teaching – rather than research – was arguably the university activity where “sustainable


foundations for relationships with industry… can be best facilitated.” An uncapped higher education environment, such as Australia’s, encourages universities to make strategic decisions around partnerships and collaborations to enhance their services and profiles. With the flexibility afforded under the demand driven system, higher education providers are able to respond more quickly to the needs of industry and employers by working with them to ensure graduates have the requisite skills.

Under a demand driven system, universities have much greater flexibility and incentive to keep abreast of workforce needs and to adapt and enhance course offerings accordingly, to better serve students and employers.

- For instance, Flinders University identifies that its motivation for the industry-focus of its engineering awards has been the “feedback the University is receiving from employers”, also noting the ‘steady stream of commentary’ in 2012 detailing the shortage of engineering and ICT graduates.

- Through building partnerships that link community, industry and professions, Charles Sturt University has increased courses in areas of critical labour market need in rural and regional Australia, including in veterinary science, nursing, physiotherapy and dentistry.

- The University of Western Sydney introduced 75 new courses between 2010 and 2013, with these courses aligning with areas of current and future skills shortages as reflected in the Australian Government’s Department of Education Skills Shortages List. This included courses in physiotherapy, paramedicine, midwifery and mechanical sciences.

ACU recognises the importance of working closely with industry partners to ensure that its graduates are work-ready. In particular, given ACU’s focus on teacher education and health science, the university works closely with employers in these industries to arrange workplacements and ensure that graduates meet their needs.

In teacher education, the universities’ courses have been built on strong industry links and partnerships, particularly with Catholic Schools. ACU prides itself on building relationships and shared responsibilities with schools and early childhood settings that connect theoretical and practical spaces providing pre-service teachers with opportunities to learn from experts. It seeks to support its partners by engaging in scholarly activities, research agendas and professional development.

For example, in response to requests from Catholic education authorities, the university has established the La Salle Academy to prepare teachers and leaders who can present the Christian message in an inspiring and systematic way. The La Salle Academy has contributed significantly to innovating and reshaping initial teacher education by ensuring that students are prepared for employment in contemporary Catholic schools and that courses respond to the contemporary needs of Catholic Education Offices and other Catholic school activities.

ACU also educates the largest number of undergraduate nursing students in Australia. In 2014, ACU organised over 1.1 million hours of clinical placements for its nursing students. In recognition of its

46 Charles Sturt University, Charles Sturt University submission to the Review of the Demand Driven Funding System (2013)
47 University of Western Sydney, Submission to the Review for the Demand Driven Funding System (2013)
48 Australian Catholic University, La Salle Academy
commitment to innovative teaching arrangements, ACU also employs a Faculty Coordinator of Health Simulation (a unique position amongst Australian universities) and has invested heavily in physical simulation labs. The integration of human patient simulator manikins into case-based scenarios provides students with an opportunity to experience the variations to the 'patient's' health just like a real patient. The University’s Health Simulation Centre provides students with simulated healthcare environments and equipment used within the practice setting. A landmark study recently completed in the United States found no statistically significant differences in clinical competency, comprehensive nursing knowledge, or pass rates between students who had traditional clinical experiences, 25 per cent of their traditional clinical hours replaced by simulation, or 50 per cent of their traditional clinical hours replaced by simulation.49

Importantly, as seen by the above examples, not only does innovation develop from research partnerships between universities, but also from teaching and learning partnerships. Further, innovation does not only arise in those disciplines normally associated with innovation: science and technology. An innovative mindset is vital in all disciplines, as it encourages teachers and students to think about better ways to solve the problems that arise in their particular disciplines. By exposing students to innovative approaches to teaching and learning, such as through simulated clinical placements, universities can ensure that graduates in all disciplines enter the workforce with the skills needed to be successful in the future.

49 ‘The NCSBN National Simulation Study: A Longitudinal, Randomized, Controlled Study Replacing Clinical Hours with Simulation in Prelicensure Nursing Education’ (2014) Journal of Nursing Regulation 5(2), S3-S40.
APPENDIX A - AUSTRALIAN CATHOLIC UNIVERSITY (ACU) PROFILE

Australian Catholic University (ACU) is a publicly funded Catholic university, open to people of all faiths and of none and with teaching, learning and research inspired by 2,000 years of Catholic intellectual tradition. ACU operates as a multi-jurisdictional university with seven campuses across four states and one territory. ACU campuses are located in North Sydney (NSW), Strathfield (NSW), Canberra (ACT), Melbourne (Victoria), Ballarat (Victoria), Brisbane (QLD) and Adelaide (SA).

ACU is the largest Catholic university in the English speaking world. Today, ACU has around 32,000 students and over 2,000 staff.50

ACU graduates demonstrate high standards of professional excellence and are also socially responsible, highly employable and committed to active and responsive learning. ACU graduates are highly sought after by employers, with a 94 per cent employment rate.51

ACU has built its reputation in the areas of Health and Education and is a major producer of nursing and teaching graduates in Australia. ACU educates the largest number of undergraduate nursing and teaching students in Australia,52 serving to meet significant workforce needs in these areas. Under the demand driven system, ACU has sought to focus and build on these strengths.

Since 2014 ACU has had four faculties: Health Services; Education and Arts; Law and Business; and Theology and Philosophy. The consolidation of the previous six faculties has created a more efficient and competitive structure focused on the needs of industry and employment partners. ACU is also moving towards the adoption of a shared services model where suitable, to improve efficiencies, internal processes and better allocate resources.

ACU is committed to targeted and quality research. ACU’s strategic plan focuses on areas that align with ACU’s mission and reflect most of its learning and teaching: Education; Health and Wellbeing; Theology and Philosophy; and Social Justice and the Common Good. To underpin its plan for research intensification, ACU has appointed high profile leaders to assume the directorships, and work with high calibre members, in seven research institutes.53

In the last three years the quality of ACU’s research has improved dramatically. In the 2015 Excellence in Research for Australia (ERA) assessment ACU received high scores in the fields of research identified as strategic priorities and in which it has concentrated investment in order to achieve the highest levels of excellence. These include selected areas of Health, as well as Education, Psychology, Theology, and Philosophy.

ACU’s research in Psychology, Human Movement and Sports Science, Nursing, Public Health and Health Services is rated in the top category (ERA category 5) as being “well above world standard”.

ACU’s research in Specialist Studies in Education, Philosophy, and Religion and Religious Studies is in ERA category 4, “above world standard”.

While ACU’s research in Education Studies in Human Society, Law and Legal Studies, History and Archaeology Education Systems, Curriculum and Pedagogy, Business and Management, Political Science, Sociology, Law, Applied Ethics and Historical Studies is in ERA category 3, “at world standard”.

50 As at February 2016. Student numbers refer to headcount figures while staff numbers refer to full-time equivalent (FTE).
51 Graduate Destination Survey (GDS) 2014.