Submission No 14

INQUIRY INTO FUTURE DEVELOPMENT OF THE NSW TERTIARY EDUCATION SECTOR

Organisation: University of New South Wales

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UNSW Submission: Future development of the NSW tertiary education sector

About UNSW Sydney

UNSW is one of Australia's leading research and teaching universities, ranked in the 2020 QS World University Rankings as one of the top 50 universities in the world[1]. Through our *2025 Strategy*, UNSW is committed to research that addresses some of the most significant challenges facing Australia and the world, as well as educating students to become highly employable skilled professionals.

In 2019, the 70th anniversary of our foundation, UNSW had 64,053 students enrolled and 7285 total staff. We are proud to have been ranked first in Australia for research excellence and impact, with more top ratings in broad fields of research and more impact cases rated high than any other Australian university[2]. Highlighting the breadth and quality of research by UNSW academics, in 2020 UNSW again had the highest number of subjects (12) ranked first within Australia and the highest number of subjects (52 out of 54) ranked in the Academic Ranking of World Universities (ARWU) subject ranking[3]. Meanwhile, UNSW ranks 27th in the world in the 2020 QS Graduate Employability Rankings[4].

Beyond academic excellence, our *2025 Strategy* has 'Social Impact' and 'Innovation and Engagement' as key priorities for UNSW, ensuring that our work supports improved quality of life for people in Australia and around the world, while also supporting the exchange of knowledge with the broader community, opening up new opportunities for job creation.

The value of higher education

The value of higher education has a broad reach, benefiting both graduates and wider society, and includes both economic and non-economic outcomes.

The value of graduates

University graduates are critical to NSW's productivity, undertaking the work that will propel our economy into the future. With a growing trend towards automation of manual labour, the strength of tomorrow's workforce will increasingly depend on university graduates. Indeed, Federal Minister for Education, the Hon. Dan Tehan MP, has acknowledged that the majority of new jobs created in Australia in the coming years will require a university degree[5]. This is mirrored in the participation rate in university education, with more than 40% of 19-year-old Australians enrolled in higher education at the last census in 2016, more than double the rate in 1989[6].

A 2019 study found that bachelor degree graduates aged between 20 and 29 earn wages 52% higher than their peers without a university qualification[7], while UNSW postgraduates have a median income of more than $120,000 three years after graduating[8]. UNSW graduates also benefit from increased employability, with 77.5% of graduates employed full-time within four months of graduating[9].

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[1] https://www.topuniversities.com/university-rankings/world-university-rankings/2020
[2] Excellence in Research for Australia 2018 and 2018 EI Assessment
[3] https://newsroom.unsw.edu.au/news/general/unsw-tops-australia-arwu-world-subject-rankings-third-year?utm_source=unsw&utm_medium=social-team
[4] For further information, see https://www.unsw.edu.au/about-us/university/reputation
[5] Minister Tehan address to National Press Club, 28 August 2019. https://ministers.education.gov.au/tehan/national-press-club
[6] Drawn from Department of Education and Training and ABS data, set out at https://grattan.edu.au/wp-content/uploads/2018/09/907-Mapping-Australian-higher-education-2018.pdf at p22.
[7] Ernst & Young, *The productivity uplift from better outcomes for our university students* (September 2019) at p11
[8] 2019 QILT Graduate Outcomes Survey
[9] 2018-19 Good Universities Guide

However, the benefits of graduates entering the workforce extend beyond the employment opportunities and wage premium experienced by individual graduates. There is a growing body of evidence demonstrating that the benefits of a university education, and indeed university research, flow through to the economy overall.

Universities Australia estimates that Australia's university sector directly contributed $41 billion to the economy in 2018, supporting 259,100 full time equivalent (FTE) jobs[10]. These benefits extend well beyond graduates. For example, for every 1000 new graduates entering the workforce, 120 new jobs are created for people without a degree, while the wages of those without a degree are boosted by $655 a year when more graduates enter the workforce[11]. Indeed, research commissioned by the Federal Government has shown that 55% of the benefit to the economy from each graduate – US$167,700 per male graduate and US$126,500 per female graduate – was a public benefit, compared to a 45% private benefit[12].

Research – economic benefit

Research undertaken at universities also drives economic growth benefiting the wider NSW and Australian population. The Group of Eight (Go8) universities released a report in 2018 written by London Economics, which highlighted that for every dollar invested in university research, around $10 came back in benefits[13]. That same report also found that for every person employed at research intensive universities such as those making up the Go8, 2.4 jobs were created in the broader community.

The importance of university research to Australia's economy, and indeed our recovery from the current recession, has recently been highlighted by the National COVID-19 Co-ordination Commission (NCCC), who asked the Rapid Research Information Forum (RRIF) to inquire into the impact of the pandemic on Australia's research capability[14]. In response, RRIF advised that universities perform approximately 43% of all applied research in Australia, and noted that any decrease in funding university research would lead to "a decline in innovation, limiting economic growth by slowing the development of new technology, skills, and efficiency gains in service and production processes."

Applying research to global and local challenges

While the economic value of research may be quantified in terms of new technologies and industries that arise from research outcomes, other university research helps address the pressing issues facing the community. We are proud of our world leading research which has led to inventions that improve lives, addressed critical challenges faced by society, and provided input to the formulation of important public policy.

UNSW researchers have played a leading role in supporting public health efforts to address COVID-19, working towards finding a vaccine or cure, advising health authorities, and helping to address other impacts of the pandemic such as family violence. We were delighted to learn just last month (June 2020) that UNSW's Professor Raina Macintyre received the accolade of Australia's most prominent coronavirus expert, based on research by the Australian Science Media Centre.

During the 2019-20 summer bushfire crisis, UNSW researchers contributed their expertise to a number of aspects of the response, including better understanding bushfire management, the impact on water supplies, the health impact of reduced air quality, emergency systems and the treatment of trauma in emergency service workers and impacted communities.

At UNSW, cutting-edge research is regularly undertaken across a wide range of areas, including water technology, waste management, hydrogen energy storage and cancer research, while solar photovoltaic cells were developed from UNSW research, and continue to play a critical role in the global transition to renewable

[10] https://www.universitiesaustralia.edu.au/wp-content/uploads/2020/04/200325-Deloitte-one-pager-FINAL.pdf
[11] Deloitte Access Economics (2016), *Estimating the public and private benefits of education*, Report to DET, p.47, cited in Australian Government 2016, *The Higher Education Reform Package*, p.9-10.
[12] Ibid, and OECD (2018), *Education at a Glance 2018: OECD indicators*, OECD Publishing, Paris, Indicator A5.3.
[13] London Economics, *The Economic Impact of Group of Eight Universities* (2018), available online at https://www.go8.edu.au/Go8_London-Economics-Report.pdf
[14] https://www.science.org.au/sites/default/files/rrif-covid19-research-workforce.pdf

energy. University research offers many other opportunities to underpin the new industries and jobs that will grow as Australia recovers from recession.

Solar photovoltaic expertise

UNSW research has directly produced world leading solar cells using a range of materials and technologies – including silicone, perovskite, CZTS and concentrating photovoltaics. The PERC solar cell design developed by UNSW in the 1980s and 1990s is used in more than 50% of the global production of photovoltaics, with sales predicted to exceed US$1 trillion by 2040. Solar photovoltaic development led by UNSW covers areas such as solar powered transport and new solar capture methods such as paints, films, and on top of buses and trucks.

International education

Valued at $39 billion in 2019 and supporting around 250,000 jobs, international education is Australia's fourth largest export industry, and largest service export. In NSW, international education is the state's second biggest export industry, contributing more than $12 billion in export income to the state's economy in 2017-18[15]. The economic benefit of international education extends well beyond universities, with the Go8 London Economics report finding that for every three international students studying in Australia, there was a $1 million benefit to the economy. Indeed, the Mitchell Institute released a study in April this year predicting that over the next three years, the Australia economy could contract by more than $40 billion, in addition to $19 billion of losses directly experienced by universities, due to reduced international student numbers caused by COVID-19[16].

The flow on benefits of international education are easily visible, with accommodation and living expenses supporting a large number of local businesses. It is estimated that businesses in Kingsford alone benefited to the value of $335 million in 2019, owing to spending by UNSW international students[17]. Meanwhile the tourism sector especially benefits from international students, their family and friends exploring Australia. According to Tourism Research Australia, from 2014 to 2019, education related tourism has grown from 20% to 29% of total international tourism revenue, while only constituting 6.8% of visitors[18].

However, the benefits of international education extend well beyond their contribution to the bottom line of universities, and their contribution to the wider economy. International education has helped develop long lasting cultural and diplomatic ties, and plays an important role in Australia's soft power profile, promoting Australia and our values to the world. The positive relationship students returning to their home country have with Australia has led to enormous benefits when those returning students have subsequently reached leadership positions in government and business.

Recommendation 1: That the Committee recognise the value of higher education, including education, research and engagement outcomes to the NSW economy and more broadly.

Recommendation 2: That the NSW Government proactively seeks to protect the value of public universities in NSW in the wake of COVID-19.

Higher education – responding to the big challenges

The terms of reference to this inquiry contemplates a number of broad challenges as they relate to the university sector. UNSW Sydney offers the following comments in response.

[15] Study NSW, *International Education Strategy 2019-2020* at p6
[16] http://www.mitchellinstitute.org.au/wp-content/uploads/2020/04/Higher-Education-Funding-Report-FINAL-April-2020.pdf
[17] https://www.smh.com.au/national/it-s-not-just-a-university-problem-the-drop-in-international-students-being-felt-across-sydney-s-suburbs-20200612-p551yu.html
[18] Tourism Research Australia (2020) *International Visitor Survey Summary: Year ending December 2019*. See https://www.tra.gov.au/Economic-analysis/State-of-the-Industry/state-of-the-industry at p13.

Impact of the COVID-19 pandemic

UNSW, like most universities, has been impacted significantly by the COVID-19 pandemic. With a significant campus population, our top priority has been the health and welfare of our students and staff. To inform our decisions, we have at all times followed the advice of the Chief Medical Officer and other medical experts, and have provided regular updates to students and staff. We have recently commenced a lengthy process to reactivate the campus in line with public health advice, and continue to work closely with the relevant health authorities.

At an operational level, the pandemic has meant the requirement to quickly transition to online teaching and asking staff to work remotely wherever possible. The inability of many of our international students to come to Australia, combined with the impact on our regular operations, means that we have faced a significant financial impost, and the impact is expected to continue into the next couple of years. Even with careful risk management strategies and contingencies in place, we now face financial challenges. This experience is not unique to UNSW. Universities Australia estimates universities around Australia will collectively lose an estimated $3.1-$4.8 billion in revenue in 2020, with estimated losses of $16 billion between now and 2023[19].

That universities came to have this financial dependence on international students is a result of successive decreases to public funding formulas by governments. Indeed, the NSW Auditor General's recently released universities' 2019 audits found that government grants fell from 39% of university revenue in 2015 to 31% of revenue in 2019[20]. On a per student basis, Commonwealth Grant Scheme funding has declined from $11,730 (in 2017 dollars) per student in 1989 to $11,240 per student in 2017[21]. Over the same period, student contributions increased by 140 percent[22].

Similarly, Commonwealth Government funding for university research decreased from $3.833 billion in 2010-11 (or 2.19% of GDP) to $3.329 billion in 2017-18 (1.79% of GDP)[23].

The decreasing proportion of revenue from government grants has therefore meant an increased reliance in student fees and charges, and particularly those coming from international students.

The practical impact on universities of this financial situation is significant. The report presented to the National COVID-19 Co-ordination Commission (NCCC) on the impact of COVID-19 on Australia's research committee estimated a loss to university research and development (R&D) of $2.5 billion in 2020, placing at risk at least 38% of research salaries[24]. Another estimate holds that 70% of Australian research is undertaken by university staff on fixed-term contracts, whose positions are increasingly vulnerable[25]. With reduced ability to fund research salaries, not only are the jobs of researchers placed at risk, but so too are their research efforts that are of great benefit to the wider community, including efforts to find a cure or vaccine to COVID-19.

With a greater dependence on student fees, and international student fees in particular, the university sector has been increasingly vulnerable to crisis situations such as COVID-19. Savings have been made through a range of cost-cutting measures, including the pausing of future capital spending. At UNSW, a restructure is currently underway to ensure that UNSW is well positioned for the future, and well placed to fulfill our mission of remaining a world class university. This restructure will regrettably involve the loss of jobs. However, it may also open new opportunities for UNSW, with the creation of a new lifelong learning initiative to create tailored learning for students of all ages, as well as plans to further open up our campus to business as an innovation hub.

Australia needs our world class universities now more than ever, to educate and train more of the workforce, to drive innovation, economic growth and job creation, and to rebuild our export trade. It is however incumbent on government to support universities to weather the current crisis and fulfil this role.

[19] https://www.universitiesaustralia.edu.au/media-item/covid-19-to-cost-universities-16-billion-by-2023/
[20] NSW Auditor General's Report to Parliament (2020) *Universities 2019 Audits* at p11.
[21] https://www.universitiesaustralia.edu.au/wp-content/uploads/2019/08/190716-Facts-and-Figures-2019-Final-v2.pdf at p10.
[22] Ibid.
[23] ABS (2019) *Research and Experimental Development, Businesses, Australia, 2017–18*, Cat. No. 8104.0
[24] https://www.science.org.au/sites/default/files/rrif-covid19-research-workforce.pdf
[25] https://www.theage.com.au/politics/nsw/not-immune-universities-prepare-for-more-job-losses-20200716-p55csp.html

Integration with industry

One of the key priorities of UNSW's *2025 Strategy* is 'Innovation and Engagement', reflecting our ambition to be regarded as Australia's pre-eminent entrepreneurial university. We are conscious that university research can play a key role in supporting business innovation, in turn solving complex issues while creating jobs and economic growth. UNSW also has a long-held commitment to developing successful entrepreneurs, and we were pleased to be recognised by *Startup Muster* in 2019 as Australia's top entrepreneurial university in terms of the number of startups generated[26].

At UNSW, our Division of Enterprise takes an active role in fostering knowledge exchange, developing partnerships and collaborations with industry, government and communities, and working to ensure that research outputs can be realised as technologies that make a real difference. UNSW regularly hosts a number of showcases that promote our research expertise to potential partners across both public and private sector. In addition, our Division of Enterprise is tasked with actively seeking partners to collaborate on translating available research outputs into commercial products. Some recent success stories include UNSW's Scientia Professor, Veena Sahajwalla's work turning textiles into fibres for 3D printing and waste plastics and waste rubber into steel, leading to a direct relationship with One Steel, funded by the NSW Circular Economy Network, while UNSW's Division of Enterprise plays an active role managing the research contractual arrangements, spin-out company and patent portfolio relating to Professor Michelle Simmons' work to build the world's first quantum computer.

Working with industry on renewable energy solutions

The Manilla Solar Project is a project between Manilla Community Renewable Energy Inc. and Providence Asset Group. It utilises technology developed at UNSW.

The Manilla Solar Project will utilise an advanced Hybrid battery - the first of its kind deployed in NSW. As well as a traditional Li-ion battery system, the battery will utilise hydrogen power-to-gas technology. This will consist of NSW's largest electrolyser at 2MW, NSW's first fuel cell and deployment of H2Store technology. H2Store is a new hydrogen storage and transport technology developed at UNSW and being commercialized in NSW. This is a world leading energy storage solution which is attracting significant international interest.

The ability to translate research output into commercial success also underpins UNSW's work to foster entrepreneurship. Our Founders Program comprises a number of programs and services that embed entrepreneurial skill building at scale, while identifying and supporting exceptional entrepreneurs as they launch startups that have a global impact.

Supporting entrepreneurs

UNSW's Founders Program has supported more than 980 startups and teams, and has facilitated more than 22,000 interactions with participants. Complementing the Founders Program is the UNSW Founders New Wave program, which focuses on increasing the number of women entrepreneurs. In just two years, this program has had 157 participants and generated 52 startup ideas.

Other UNSW programs, such as *TechConnect*, are supported by government through the NSW Government's *Boosting Business Innovation Program*. This program specifically connects UNSW research to small and medium sized businesses, with great success. One recent successful example saw a small business, Advanced Alloy Holdings in partnership with UNSW researchers, develop a lead-free brass alloy to replace traditional plumbing brass materials that have been shown to leach lead into drinking water. Other programs supported by *TechConnect* include our *FarmConnect* program, whereby a team of UNSW engineers, coders, designers and other specialists travel to a farm to discover and create new technologies to help farmers revolutionise their practices. Already new companies have been created out of this initiative, supporting innovation in the agricultural sector and commercialising Australian inventions.

[26] https://neweconomy.media/wp-content/uploads/2019/06/Startup-Muster-2018-Report.pdf

UNSW has also invested significantly in the integration of academic endeavours with industry, government and the community, through the development of precincts. Our transformational Health and Education Precincts, most notably in Randwick and Liverpool, are taking university research directly into a clinical setting, to the benefit of patients. In our Randwick Health and Education Precinct we have launched a Health Innovation Network, partnering with other Health Precinct sites in NSW to create a new health innovation ecosystem to encourage better research translation and a more seamless experience for industry and external partners. The NSW community stands to benefit from this initiative, receiving cutting edge healthcare drawn from the latest research, while commercial outcomes can also be supported. We are also active in the development of the advanced manufacturing precinct being planned around the new 'aerotropolis' in Western Sydney, which will similarly integrate university expertise with VET providers such as TAFE as well as industry as part of a new 'multiversity'.

Recommendation 3: That the NSW Government continue to support the *Boosting Business Innovation Program* (BBIP) as well as other programs supporting innovation and collaboration between industry and universities.

Freedom of expression

UNSW is committed to academic freedom and more broadly, to intellectual freedom and the spirit of open inquiry, as essential to the proper conduct of teaching, research and scholarship within the University. UNSW is confident that our existing safeguards and processes provide for a robust, transparent and effective defence of academic freedom.

We also believe that 'Freedom of Speech' on university campuses should be treated no differently to anywhere else in Australia. We do not believe that there are any particular aspects of university life which would justify altering protections or constraints on freedom of expression when, for example, an individual walks from Kensington High Street onto our campus. Accordingly, any attempt to guarantee or regulate 'freedom of speech' at Australian universities should be dealt with broadly across society, rather than by piecemeal attempts made through regulation and aimed at specific sectors.

Former Chief Justice of the High Court of Australia, the Hon. Robert French AC, was commissioned in 2018 to conduct an independent review into freedom of speech in higher education. In his report, Mr French found "*no evidence… of a 'free speech crisis' on campus*"[27].

UNSW continues to ensure that our policies on academic and intellectual freedom remain appropriate and fit for purpose. These can be found at: https://www.unsw.edu.au/sites/default/files/documents/Academic-and-Intellectual-freedom-at-UNSW.pdf.

Foreign interference

As Australia navigates its way through an increasingly complex geopolitical environment, UNSW is conscious of ensuring our global activities align with Australia's national interests. Accordingly, we have proactively worked closely with the Commonwealth Government on a range of measures to ensure that we demonstrate best practice.

UNSW Sydney was an active participant in the development of the University Foreign Interference Guidelines (UFIT), released last year by Education Minister the Hon. Dan Tehan MP, with UNSW representatives on three of the four UFIT working groups that developed the Guidelines. In addition to our role in the development of UFIT, we continue to liaise closely with the national security agencies of government to ensure that our activities properly manage any foreign interference threats.

[27] Independent Review of Freedom of Speech in Australian Higher Education Providers (2019) at p224.

UNSW is proud of our expertise as a leading institution undertaking defence-related research. To ensure our compliance with defence export restrictions, UNSW maintains a close working relationship with the Defence Export Control Office.

Meanwhile, we remain committed to best-practice cyber security, in light of recent cyber incidents in Australia that have impacted our sector. As well as having a number of Australia's leading cyber security experts as part of UNSW faculty, we have also implemented our three-year, *2020 Technology Strategy and Roadmap*[28], to ensure that we remain vigilant against any threats.

UNSW remains committed to working with government to ensure that universities properly manage any foreign interference threats, while supporting our world-leading teaching and research activities that are a critical asset to Australia.

Maximising the benefits of higher education

Against the backdrop described in this submission, there are a number of opportunities to further increase the value of higher education to NSW.

Research and Development (R&D)

The 2019 *NSW Innovation and Productivity Scorecard* highlighted that NSW lags behind Victoria, Queensland and the national benchmark for higher education research and development investment[29]. Furthermore, the Scorecard highlighted that collaboration between industry and universities on research in NSW is at a comparatively low level, with 31.8% of higher education research funded by industry[30]. This is compounded by Commonwealth investment in research and development having fallen by $4 billion, and now well below the OECD average of 2.37% of GDP[31]. Indeed, the Commonwealth Productivity Commission last year identified decreased investment in research and development as a prime cause for "mediocre" productivity growth[32].

In the wake of the COVID-19 pandemic, the imperative for greater collaboration between industry and university researchers has only increased, as has the need for direct government support. University research offers the prospect of supporting a revitalised advanced manufacturing sector, with research outputs underpinning the development of new and enhanced products. Conversely, the pandemic has placed university research at a greater risk than has been experienced recently.

We note that last year the Premier asked her Parliamentary Secretary, the Hon. Gabrielle Upton MP to help accelerate research and development (R&D) investment to make NSW a leader in this space, and the NSW Government is to be commended for recognising this as a priority. It is critical that this work is not lost following the pandemic.

The NSW Physical Sciences Fund, administered by the NSW Chief Scientist, is an important existing initiative that offers support for the commercialisation of university research into products and services. However, this Fund is only valued at $5 million, which in turn limits its ability to have an impact at any meaningful scale. Enhancing the value of this fund, and announcing grants more regularly than once per year as occurs at present, would provide a valuable investment in commercialising research into commercial outputs.

One widely acknowledged proposal to boost R&D is through reform of the R&D tax incentive. A couple of previous reports have suggested boosting R&D activity through a collaboration premium to be included in the R&D tax incentive to pull industry towards collaboration with publicly funded research institutions[33].

A further proposal that has been previously proposed by UNSW is the establishment of an Australian Research Translation Fund as a non-health parallel to the Medical Research Future Fund. This proposal was

[28] https://www.myit.unsw.edu.au/sites/default/files/documents/UNSW_Technology_Strategy_2020.pdf
[29] *NSW Productivity Scorecard* (2019), available online at https://www.industry.nsw.gov.au/business-and-industry-in-nsw/innovation-and-research/research-series/scorecard
[30] Ibid.
[31] https://www.theaustralian.com.au/higher-education/rd-spending-drops-below-oecd-average/news-story/86f921d3a51522e7efc19f5105732b53
[32] https://www.smh.com.au/politics/federal/productivity-growth-mediocre-as-businesses-cut-r-and-d-and-innovation-spending-20190603-p51tvd.html
[33] Department of Industry, Innovation and Science, *Review of the R&D tax incentive* (2016); and Department of Industry, Innovation and Science, *Australia 2030: Prosperity Through Innovation* (2018).

recommended in a 2018 Parliamentary Inquiry into *Funding arrangements for non-NHMRC Research*[34], and would complement the research funded by the Australian Research Council to encourage the translation of research in priority areas.

While both of these proposals have been targeted at the Commonwealth Government, NSW should consider developing its own initiatives to give it a strategic advantage over other states to attract investment. NSW would be well placed to undertake advocacy to the Commonwealth on reforms to R&D tax incentives and could establish its own fund to promote industry translation of university research.

Recommendation 4: The NSW Government's inquiry into *Accelerating Research and Development* should be finalised and released, and its recommendations considered in a timely manner.

Recommendation 5: Additional funding for research and development in NSW should be treated as a priority economic stimulus measure, including partnering with universities on research into priority issues.

Recommendation 6: That funding for the NSW Government's Physical Sciences Fund be increased and the fund consider applications more frequently than its current annual basis.

Recommendation 7: Advocacy to the Commonwealth should be undertaken to seek reform to research and development tax incentives, to further incentivise research, innovation and collaboration.

Recommendation 8: The NSW Government should consider establishing a research translation fund to promote collaboration between universities and industry. Given the cost-benefit of university research, such a fund would be consistent with NSW fiscal policy.

Attracting international students

This submission has already canvassed the benefits of international education, including the economic and foreign policy benefits.

As Australia recovers from COVID-19, there is an important opportunity to enhance the leading role we play in international education, by being "first to market" in bringing back international students when it is safe to do so. However, NSW needs to remain competitive with other Australian states as well as overseas destinations.

While NSW attracts the majority of international students to Australia, Victoria, Queensland and other states are working hard to increase their share. To this end, NSW must ensure that Study NSW is properly resourced and remains fit for purpose.

Recommendation 9: Subject to public health considerations, the NSW Government should work towards the return of international students as a priority measure to boost the NSW economy.

Recommendation 10: Study NSW should be adequately resourced and remain fit for purpose in supporting universities and other education providers to attract international students.

Equitable access

Equitable access to higher education is critical, given the links between education and prosperity. Wide and equitable access to higher education will ensure that NSW is able to draw from a larger and more productive workforce, while also better sharing the prosperity that results from education. Universities, including UNSW, have run a range of programs for some years to improve the access of students from disadvantaged backgrounds to a university education. At UNSW, HEPPP funding and significant university resources are

[34] https://www.aph.gov.au/Parliamentary_Business/Committees/House/Employment_Education_and_Training/FundingResearch/Report at Recommendation 11

dedicated to this. But we are still far from achieving equity in access to Higher Education for disadvantaged students.

The involvement of state government is vitally important to the various efforts to promote equitable access to a university education.

The sole reliance on ATAR scores for university admission is an obstacle to supporting more equitable access to universities, with students from higher socio-economic backgrounds and more advantaged schools generally achieving higher ATAR scores. UNSW, along with other universities, has been developing alternative entry pathways to help mitigate this inequity, such as our Gateway early conditional offer program and pathway. This program currently has 1400 registered students from targeted disadvantaged schools in NSW, and has engaged a large number of Aboriginal and Torres Strait Islander students and students from regional, rural and remote schools across NSW. We believe the state government could assist us in this endeavour to ensure that high school students are not disadvantaged due to their socio-economic background.

Research indicates that a sense of 'belonging' is important to a student's educational aspirations, as is geography. Outreach activities by universities play an important role in school children considering a university education as an option, while effective transition courses between school and university can help prepare these students for Higher Education. Once students from disadvantaged backgrounds are at university, ensuring the availability of scholarships and other forms of financial support as well as appropriate mentoring and support are effective in assisting them to belong and succeed.

Promoting equity: NSW Equity Consortium
UNSW partners with UTS, Macquarie University and nine partner schools in Western Sydney to form the NSW Equity Consortium, an innovative outreach program targeted at Years 7-9. This program is the first program of its kind to explicitly address the expectations-aspirations gap that may inhibit students, and those from disadvantaged backgrounds in particular, from applying themselves at school and pursuing a place at university.

UNSW and other universities already undertake these types of activities, and since launching our Aspire program in 200735, enrolments in university from partner schools have increased by 155%. UNSW is partnering with other Sydney based universities to more effectively and efficiently deliver widening access programs to students in disadvantaged schools in NSW.

Our engagement extends beyond the time spent at university to also support the transition through to early career placements. UNSW is directly supporting students' imagined career pathways through our Degrees @ Work Program which is delivered with Industry and Corporate partners such as Atlassian, Sales Force and law firm Collins, Biggers and Paisley.

However, equity programs such as Aspire are resource intensive for universities to run and HEPPP provides only a very small proportion of the resources needed. The involvement of government in such programs through public funding and in-kind support will greatly enhance the outcomes they are driving, which in turn will further promote the economic benefits of higher education for NSW.

Recommendation 11: The NSW Government should consider how to better support university efforts to increase enrolments of students from disadvantaged backgrounds.

Conclusion

UNSW is grateful to have had the opportunity to contribute to this inquiry. A range of university activities support the goals of the NSW Government by driving the state's prosperity into the future and improving the lives of

[35] Aspire is UNSW's outreach program, working in communities where the number of school students who attend university is low. Its aim is to support students considering university as a post-secondary school option. Further details can be found at http://www.aspire.unsw.edu.au/

people who live here. This has particularly been the case since the onset of the COVID-19 pandemic, even as the university sector has been severely impacted by the pandemic. The health and economic recovery from COVID-19 will be greatly enhanced by the work of universities, and this submission outlines some opportunities to capitalise on our sector's value. We look forward to working together to bring these to fruition.