

SUBMISSION

The University of Newcastle: Response to the Australian Universities Accord Discussion Paper

April 2023



Executive Summary

The University of Newcastle welcomes the opportunity to contribute to the Australian Universities Accord.

The University is represented through other submissions made by The Australian Technology Network of Universities; New South Wales Vice-Chancellors' Committee; and Universities Australia. We support these submissions, which provide an excellent sector-level view of key issues.

The University provides this submission as a research-intensive university serving our communities. We offer a unique perspective as an anchor institution bridging metropolitan and regional centres in Australia's largest regional economy. The University is a leader in equity, Aboriginal and Torres Strait Islander education, progressive education models incorporating work integrated learning, and industry-led research.

While our submission canvases a number of critical ideas and suggestions, the four core propositions are:

1. A roadmap to a unified tertiary education system
2. Equity funding to match equity load, driven by successful outcomes
3. A sector-wide approach to Aboriginal and Torres Strait Islander cultural governance; and
4. A collaborative research system driven by national priorities

To create a thriving tertiary education system that meets skills needs, the University supports a 10-year roadmap for moving to a unified tertiary system. Important stepping stones on the path to this unified system will be reached by creating Cooperative Skills Centres, and a single national microcredential unit.

National coordination will help close the national skills gap by creating a better understanding of immediate and emerging skills needs, coordinating training for professions in critical undersupply, harmonising accreditation processes, and reinvigorating Commonwealth-State education collaboration.

The University strongly supports the Australian Government's focus on widening participation. We propose a principled approach to equity policy, based on long-term, genuine commitment in partnership with communities.

True progress in equity will be achieved through system-wide loading based on where students live, and this system must be driven by outcomes. Proven programs such as enabling pathways must be protected and strengthened.

Aboriginal and Torres Strait Islander leadership and advancement in the sector will be best achieved through sound, sector-wide cultural governance, leveraging programs with proven results and strong track records that reflect the complexity of the challenges and that are underpinned by secure funding.

Meeting the challenges of the next century will require major structural change and new or reallocated resources, and must consider the potential for redistribution of resources within the sector.

Mission-driven research is a critical element of Australia's national research and innovation ecosystem. It has the potential to lift our national efforts, revitalise the national research programs, and bring the full benefit of research to all Australians, including those in regional communities and economies.

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Introduction

About the University of Newcastle

We provide the University submission as a research-intensive university, embedded as an anchor in our community. All the successful outcomes this university has achieved have been driven by our students, staff and community members.

Everything we do is underpinned by our commitment to delivering an excellent experience for all students, and to being a university of service to our region. Our enduring values of excellence and equity, sustainability and engagement guide our activities.

We are proud of our track record in delivering on the recommendations of the Bradley Review:

- we educate Australia's largest cohort of Aboriginal and Torres Strait Islander Students – 4.6% of our students;
- we have graduated more Aboriginal and Torres Strait Islander teachers, doctors and nurses than any other university;
- we have Australia's largest and oldest enabling education program; and
- our diverse student body experiences high success and completion rates.

Our research program is highly engaged with industry, driving industry growth, focused on new energy and health outcomes in the Hunter and Central Coast regions, and delivering through active partnerships with hundreds of businesses. This year, we will launch 'WIL for All', a promise that every graduating student will have a high-quality work-integrated learning placement – providing our students with career opportunities and understanding, and our industries with a talent pipeline.

Our submission is built on the fundamental premise that excellence is found everywhere in Australia, and a strong nation will create the conditions for it to flourish everywhere. Moreover, when community and students, and strong regional relationships are at the centre of university activity, investments will yield greater returns.

The Role of the University as Anchor Institution

Through the Dawkins Reforms, the Hawke Government envisioned a university system in balance, with *high quality institutions, each with particular areas of strength and specialisation, but coordinated to provide a comprehensive range of higher education offerings. Diversity and quality are paramount; the unified system will not be a uniform system.*

Regional, research-intensive universities fill a distinct role in a balanced system – as 'working universities' – engaged with their communities and at the forefront of change in regions. They:

- Enable development of industry through education, local workforce and research
- Provide access to education and a pipeline of skilled graduates
- Generate knowledge and educational opportunity with community partners
- Start new businesses through new knowledge, training and start-up platforms
- Are among the best-connected universities with their local communities

The University of Newcastle has underpinned the transition of Newcastle and the Central Coast from manufacturing and primary industries to a resource and skills-based economy. This has occurred through education, research partnership and industry diversification, as well as community leadership.

The University must be a key partner in achieving the next big shift – from fossil fuels to new energy – if we are to avoid major social and economic dislocation.

A Thriving Tertiary Education System

A 10-year Roadmap for a Unified University-TAFE System (Q: 15, 17, 19, 20)

Recommendation 1: The University recommends the establishment of a single regulatory system for the tertiary education sector, and a nationally unified approach to recognition of prior learning and university-TAFE collaboration.

This system will empower students and grow productive regions by using:

- A single, national accreditation framework
- A single national base credential that can be stacked within the Australian Qualifications Framework (AQF)
- A single regulator, removing the cost and time associated with navigating multiple systems
- Technology to democratise education and make it truly portable, using a single student identifier

Numerous reviews, government policy and programs have called on universities and vocational education providers to work together. There is good will on both sides, and in the wake of a national skills crisis, an increasingly urgent call from industry to act.

The University of Newcastle runs successful joint or articulated programs with TAFE NSW, including in nursing, construction and aviation; we share a campus with TAFE, and work closely. However, collaboration is negotiated on a course-by-course basis, with obstacles including competitive neutrality requirements, and challenges around recognition of prior learning in competency-based models.

Bespoke models that require significant negotiation are not fit for purpose to create system-wide change, and will not provide the skills we need as a nation, or the opportunity for people to participate in lifelong learning.

Once established, a unified system would provide scope for major, institutional-led structural changes. This could include university mergers, university networks (i.e. University of California model), or university-TAFE integration.

The Steps to Get There: Cooperative Skills Centre (Q: 13, 16, 17, 20, 23)

Recommendation 2: The University recommends a Cooperative Skills Centre Pilot.

Based on the Cooperative Research Centre, education providers and employers would bid together for long term (around seven years) funding to develop education entities in specific areas of skill needs. This would:

- Address skills needs, especially for regions and industries experiencing rapid growth and transition
- Create a flexible environment for TAFE, industry and universities to co-develop and deliver courses of study that include university education and competency-based training.
- Provide an 'economic zone' for TAFE university interaction, considerably removing barriers of cost sharing and commercial neutrality
- Create a simplified environment for students to navigate
- Could be renewed, or modified as skills needs are met or evolve
- Could provide a means to viably run academic programs with low enrolments e.g. languages, geology, allied health
- Could be scaled from a single University, TAFE College and/or industry partner focused on a specific business sector to expand across regions to a national footprint with multiple education and industry partners.

The Atomic Unit – A Single National Microcredential (Q: 13, 15-18, 20, 23, 37)

Recommendation: The University recommends the Australian Government develop a single national microcredential

Australia led the way internationally developing the Australian Qualifications Framework. There is now an urgent need to harmonise the definition of microcredentials nationally and internationally.

While some employers see value in microcredentials to provide a specific industry skill, many people are unwilling to invest in obtaining microcredentials if they do not have transferable value between institutions, either into further education or to increase their overall employability. To redress this, a recognisable credential within the AQF would be highly beneficial, building on existing work to develop a microcredentials framework.

The Australian Government has the opportunity to lead the way by creating a base 'atomic unit' that is understood nationally as a microcredential. This will:

- Enable easier stacking of credentials towards AQF credentials
- Create a path to more flexible engagement across institutions and sectors
- Help develop better employer recognition of microcredentials, especially in areas that require accreditation.

Digital infrastructure to democratise credentials (Q: 5, 13, 15-17, 20, 23)

Recommendation: The establishment of digital infrastructure to ensure microcredentials can be used and recognised across a student's lifetime

Universities may be facing a 'Blockbuster Moment'. AI and rapid advancement of technology can enable a more democratized, agile and fit-for-purpose education system. Credentials are a key currency of universities, and we need to align the need of students and industry with what we provide.

As a sector we need to mobilise new technology with the support of government to ensure a national microcredential can be used and recognised from school age to working age. This is particularly relevant in areas that are not professionally accredited.

Harmonised Industrial Frameworks (Q: 38)

Recommendation: A unified system with harmonised industrial relations settings

Universities exist to an extent in a homogenous system of governance, however all universities negotiate separate enterprise bargaining agreements on a triennial basis. As part of the process of working towards a unified system, the University supports moving towards harmonised industrial relations settings, negotiated with unions and government. The University is a member of AHEIA, and this submission is provided in addition to the AHEIA submission.

National Coordination to Meet National Skills Needs

Jobs and Skills Australia – Analysis and Migration-Linked Investment (Q: 2, 3, 9, 19)

Recommendation: The University strongly supports a role for Jobs and Skills Australia in plugging gaps in Australia's higher education system.

Regional communities rightly have high expectations of their anchor institutions to deliver the knowledge and skills needed to for a healthy and prosperous society. However, there is a mismatch between national skills needs and student preference, with professions such as engineering, podiatry and geology facing a widening gap between need and graduates.

This could be achieved through:

- predictive analysis and lead indicators of current and future skills needs
- informing the investment of resources at a system and program level

Recommendation: The University recommends the Government pilot linking demand to Australia's skilled migration system.

Skilled migration in engineering is an example of a lead indicator in skills shortage in the engineering sector that is both structural and cyclical.

At its simplest, where a university-level skilled visa is granted, resources could be provided to creating a domestic higher education place, or towards attracting students to an area of study.

While a more nuanced and regionally adjusted process could be developed through Jobs and Skills Australia over time, skilled migration is a lead indicator of education gaps.

The University supports the ATN submission regarding migration pathways for international students following graduation.

Critical Professions Network (Q: 5, 6, 9, 19, 35, 37)

Recommendation: The University of Newcastle recommends selecting universities to teach disciplines of national importance.

The current university funding model makes it unsustainable to support 'sub-critical' degrees – those where a critical mass of students cannot be attracted to a course at any single institution. Where there is an identified need for trained professionals in a sub-critical area, we propose a small number of universities be funded to run the programs, and support be provided to students who need to relocate to study. This could be developed into a 'Critical Professions Network'. Universities, with industry partners where appropriate, could bid to host the network.

Reinvigorate Federal-State Education Planning (Q: 15, 17, 19, 20, 21-23, 33, 35-37)

Recommendation: We recommend harnessing an active national education planning body, that shares data and co-creates workforce strategy.

Effective Commonwealth-State collaboration would achieve better workforce outcomes.

Almost all universities are governed by state legislation but directly funded by the Commonwealth; audited by states but with detailed enrolment and funding data held by the Commonwealth. This has led at times to sub-optimal outcomes where State and Commonwealth funding and policy interact, and can make it challenging for State governments to make appropriately informed funding decisions in the university sector.

There are several areas of immediate need where Federal-State solutions are required. For example, health workforce planning and underrepresentation of women in STEM, where:

- increased funding for university nursing training is ineffective without hospital training places
- incentives for women in STEM are ineffective without more girls studying STEM at school

National Accreditation Coordination (Q: 13)

Recommendation: We recommend a nationally unified approach to accreditation, including national standards and coordination.

Accreditation can be the rate limiting step in professional degrees and courses, and can cause significant delays if requirements aren't met in time for semester/trimester periods. Accreditation bodies are diverse across states and the nation.

Re-establish an Infrastructure Funding Stream (Q: 39, 40, 46)

Recommendation: The University recommends re-establishing a nationally co-ordinated infrastructure funding program, with the principle that all students and staff should have high quality facilities for teaching and learning.

Many universities have ageing estates: approaching end of life and costly to maintain. This is particularly prevalent in outer suburban or regional campuses that incorporate former Colleges of Advanced Education, with infrastructure built from 1960-80s.

Since the \$3.9 billion Education Investment Fund (EIF) was repurposed as the Disaster Ready Fund, universities have not had access to a consistent, policy-driven source of capital funding to upgrade and replace infrastructure and provide safe and fit-for-purpose learning and research environments. The EIF co-investment model drove State-federal leverage and encouraged alignment of priorities.

Currently universities either use debt, surpluses generated from additional revenue (such as international student revenue), ad hoc capital grants and philanthropic contributions, or public-private partnerships to fund capital upgrades.

Access to capital is unevenly available to universities. Capital city locations are more attractive to international students, and provide better returns on investment for lenders, private partners and state government assessors. Further, without a clear policy framework, infrastructure decisions made at both state and federal level are subject to political considerations rather than considerations of systemic need.

The combined effect of these limitations makes it difficult for some universities – particularly those outside capital cities – to make consistent and strategic decisions about estate management.

Reintroducing a clear approach to higher education infrastructure funding would provide much needed policy clarity for universities, and enable better planning.

Such a program should extend beyond the previous EIF program to digital infrastructure, which is underinvested in the university sector. It could also underpin new approaches to shared infrastructure, including shared services models on a state-by-state basis, focusing particularly on corporate services including IT services, to improve economies of scale.

Equity Principles for the Universities Accord

The public benefit of higher education is significant in regional areas, and regions and communities in transition depend on the success of such investment.

The University of Newcastle has met and exceeded the Bradley targets through a long-term commitment and community partnership:

- Next year, the University's Open Foundation program celebrates 50 years of operation, having graduated more than 70,000 students (of a cohort of more than 160,000) who would otherwise never have attended university
- Our Wollotuka Institute is 40 years old, providing a culturally safe space and pastoral care for Aboriginal and Torres Strait Islander students
- The University has educated more Aboriginal and Torres Strait Islander doctors, teachers and nurses than any other institution

But more needs to be done.

Shocks such as the pandemic, changes to the cost of living, and societal dislocation have had a greater impact on people and communities who already experience disadvantage, and this must be factored into the Government analysis.

Public policy in education has played a role in privileging and disadvantaging groups of people, especially Aboriginal and Torres Strait Islander students. Alongside this, intersecting inequalities continue to deeply impact groups and communities, and universities require the resources and tools to redress those inequalities in the context of their local and regional communities.

As a sector we must also acknowledge the power universities have to change lives for people from under-represented groups and their communities – wherever they are located.

We propose the following principles for successful equity policy under the Accord.

In pursuing meaningful progress towards equity, we propose the following principles:

- **Equity is achieved through outcomes, not enrolments.**
- **Progress and achievement must be made at scale, continuous and to the benefit of communities where it is most needed.**
- For change to be meaningful and generational, it must be **embedded at a systems level, as core work of institutions, and committed to over decades.**
- **Change must be informed by and co-created with the communities it benefits;** Aboriginal and Torres Strait Islander programs and policies must be genuinely community led and partnered.
- **New policy must challenge entrenched structures of social inequality,** rather than based on a deficit model – it is counterproductive to consider individual students from underrepresented backgrounds as lacking in aspiration, confidence or resilience.
- **Creating competition for students does not widen participation.** Approaches to reaching equity targets must not lead to the potentially destructive outcome of universities competing to enrol students who have suffered social and education inequalities, particularly if this involves relocating from regional Australia. Student enrolment must come with a long-term commitment to community engagement and success.

Achieving the Equity Mission: A Framework for Progress

Fund the Full Cost of Widening Participation (Q: 28-33)

Recommendation: Commonwealth Grant Scheme funding should include funding for widening participation

Most universities outside capital cities have met or exceeded Bradley equity targets. To do so requires genuine commitment, funding support and incentives for those universities underperforming in this space.

Key to successfully supporting students to and through higher education are pro-active support systems and resources that meet their academic, financial and health needs. These systems and resources must be easy to access and free.

This requires a higher education system that effectively redistributes opportunities and resources to those navigating financial and other disadvantage.

Government and student contributions could be rescoped to reflect the real costs of educating students from under-represented backgrounds by building socio-economic factors into Commonwealth Grant Scheme contribution rates.

This could take the form of block funding for equity measures that are truly embedded into university systems, as suggested by the ATN.

Funding would be directed based on socio-economic indicators at a regional or catchment level, including educational attainment, and taking into account success and completion.

Other, dedicated federal equity funding should be retained, and grown. Funding should be community-driven with responsive evaluation guiding allocation rather than standardised measures.

Deliver Resources Where They Are Most Needed (Q: 28-33)

Recommendation: develop policy to deliver resources based on community need

There is a distinct difference between educational advantage in regional and metropolitan areas, but the current geographical definitions of universities (as either 'regional' or 'metropolitan', and 'high growth' and 'low growth') do not accurately reflect where and how to focus resources to help students.

While pockets of education disadvantage exist in capital cities, generally inequity spreads away from cities – into rural, regional and remote areas (see Figures 1-3). Educating a local workforce and creating economic opportunities where people live amplifies the economic and social impact of investment. This is particularly important given the worsening housing crisis.

National averages in education have been achieved unevenly, and can mask disadvantage. While the Bradley Review of Higher Education target of 40% of 25–34-year-olds with a degree has been achieved nationally, in some areas the participation gap has widened.

By example the average attainment in Greater Sydney is more than 50%, but in areas of Western Sydney it remains below the national average, while the Upper and Lower Hunter SA4 regions sit at 15% and 14% respectively (see Figure 3). At a national level, there is an inverse correlation between distance from a major city and university attainment.

Figure 1: Higher Education Attainment Rates (Bachelor Degree or above) of population aged 15-64 by Statistical Area 4, all of Australia.

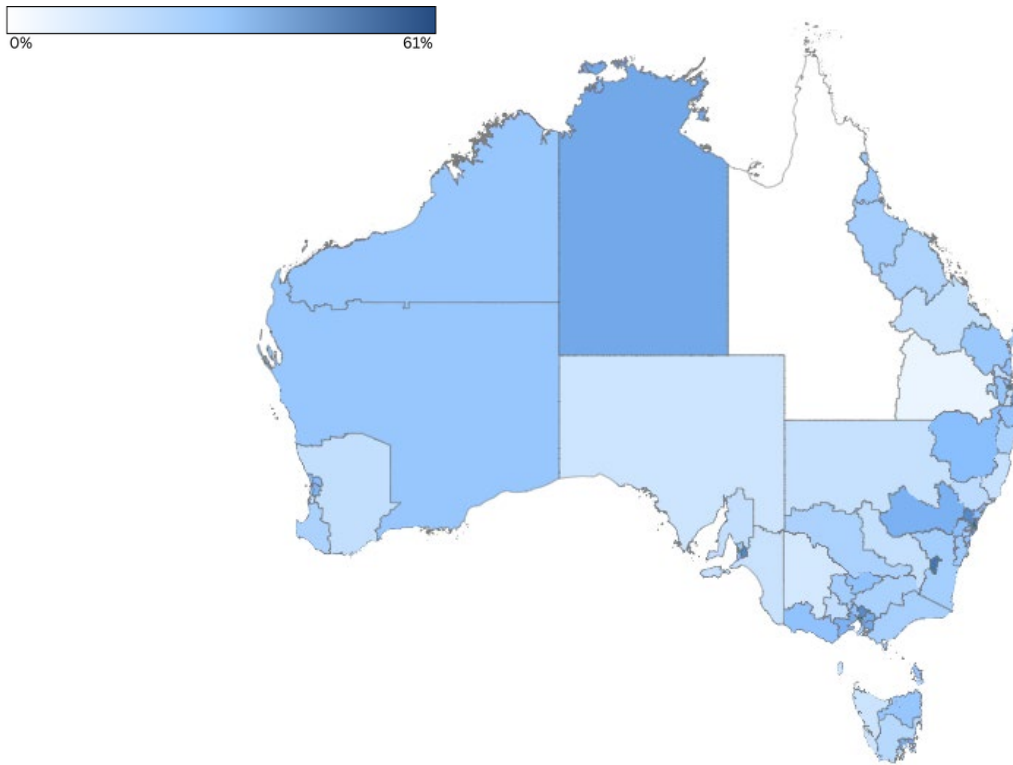
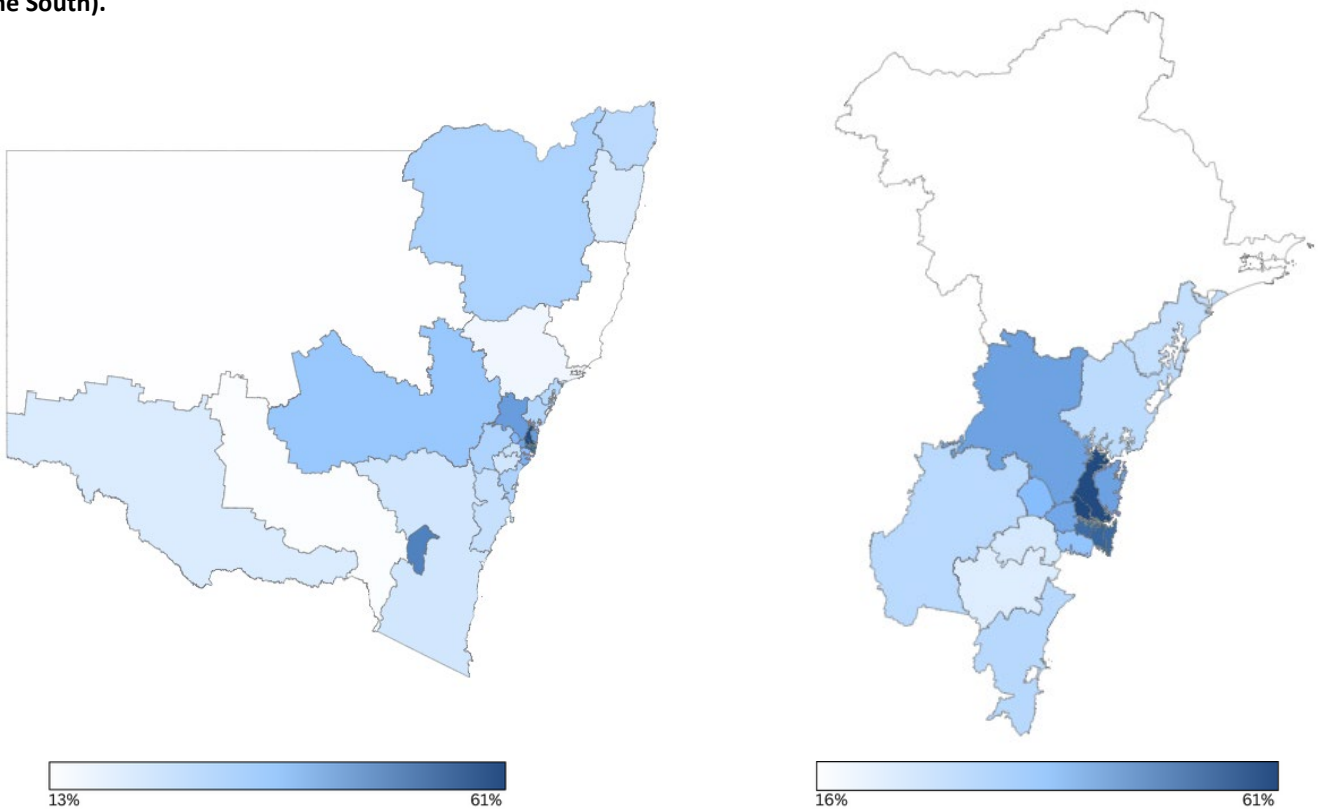


Figure 2 (Left, below) Higher Education Attainment Rates (Bachelor Degree or above) of population aged 15-64 by Statistical Area 4, for NSW only.

Figure 3: (Right, below) Higher Education Attainment Rates (Bachelor Degree or above) of population aged 15-64 by Statistical Area 4, Greater Sydney and surrounds (bounded by Hunter Valley exc. Newcastle to the North, and Illawarra to the South).



In the Hunter Region, as with many others, low university attainment in part reflects the historical availability of high quality, intergenerational jobs along the entire mining and power supply chain. University attainment is compounded by access to transport and STEM teaching in high schools, with ramifications along the STEM skills pipeline.

Lower levels of attainment leave regions vulnerable to economic shocks and the impact of post-industrial transition, presenting challenges that need a nuanced solution. The current categorisation of universities as metropolitan and regional, and the definitions that drive growth factors (high growth and low growth) are crude and not fit for purpose, and do not align funding growth with need.

Even with significant preparation and support, there is a distinct correlation between educational advantage and success, and disadvantage and attrition. This is compounded when students do not have access to resources.

Above a certain level of pre-university educational opportunity, this difference is no longer significant – for example in courses that require high levels of academic foundation, i.e., medicine, completion is nearly 100%.

Open Access – Disadvantage is Complex (Q: 28-33)

Recommendation: access to equity programs should not be limited by narrow equity categories.

When designing frameworks for equity programs, it is important to balance indicators of disadvantage with the complexities of real life.

Through the Job Ready Graduates Package, there was a perceived move to codify students needing additional support as Indigenous, Regional and Low SES students.

In reality, students who access support programs do not fit neatly into these categories, and include:

- Women who are re-entering the workforce after a long absence
- Victim-survivors of domestic violence
- Students who have lived in out-of-home care
- People retraining after structural adjustment
- People with a disability
- Carers and people who experienced illness or other major changes during critical times

Up to half of students in our University's enabling programs (or up to 10% of our student body) would miss out on support if equity programs were narrowly defined. While funding drivers must be measured, access to programs should not be prescriptive.

Protect Proven Measures: Enabling Pathways Must Be Legislated and Resourced (Q: 10, 11, 28-33, 39)

Recommendation: That the Accord:

- **Recognises the critical role of enabling pathways in the educational landscape and growing Australia's skilled workforce.**
- **Enshrines enabling pathways back in legislation, and resources them appropriately.**

For decades, enabling pathways have provided hundreds of thousands of students nationally access to higher education.

Importantly, enabling programs are free. When surveyed, the majority of enabling students advised they would not have entered the program if there was a fee.

The Job Ready Graduates changes removed enabling programs from legislation, diminished the amount of per enabling student, and created an uncertain policy future for these programs, and these changes should be reversed.

Further, enabling funding should be smoothed over time to ensure this counter-cyclical offering can flex where and when it is needed.

The number of available pathways to university, and short courses has grown considerably in recent years, and there are opportunities to evolve the enabling program again through the Accord, particularly given the cost of living pressures outlined below.

Case Study: Half a Century of Opportunity

For nearly half a century, the University of Newcastle has supported more than 70,000 students to university education through Open Foundation, a free, open access enabling program. Over the past 10 years, nearly one in five students who graduated from the University of Newcastle entered via a free enabling program.

The success of Open Foundation lies in long term commitment and continuous improvement. Through evidence-based pedagogy, continuous research, and feedback the program has been developed to deliver course content with embedded skills students need to thrive at university, while studying in areas of interest.

Taylah Gray is a proud Wiradjuri woman and law graduate. Taylah's journey to law started with an enabling program at the University of Newcastle. Growing up in Dubbo, Taylah did not have the same educational advantage as most other law students – she didn't have wifi at home and studying for her HSC was difficult. Her father is a Stolen Generation survivor – Taylah has shared how he was discouraged from engaging with the education system and had to sit at the back of the class for every lesson. In her graduation speech, Taylah told her peers how she sat at the front of every class because her father couldn't. Taylah topped her law class, and in 2020, she won a Supreme Court case overturning a decision to ban a Black Lives Matter protest. Taylah is now on track to complete her PhD on Native Title at the University of the Newcastle.

Berkdeniz Cavusoglu (Cav) came to Australia from Turkey as a child refugee, spending his childhood in Perth. He became his mother's fulltime carer when she became ill, and after school joined the army. After being medically discharged, Cav moved across the country to study at the University of Newcastle through the Open Foundation program. Despite facing many challenges, Cav is now studying a Bachelor of Medical Science and Doctor of Medicine. He aims to support community-based health initiatives and advocate for people with disabilities.

Growing What Works: Pathways & Foundations for Success (Q: 10, 11, 28-33, 39)

Recommendation: The University recommends enabling programs, which have provided pathways to university, be expanded to provide pathways through the early years of university.

Building on nearly half a century of successful practice, traditional pre-entry programs could be extended to provide an ongoing foundation through early undergraduate study. Foundation courses taken alongside undergraduate study would assist students during the critical early years of university study.

Universities with strong, established systems and a track record of success in enabling education could provide highly supported enabling courses scaffolded on to courses for those students who could benefit from these approaches.

The percentage of enabling courses would taper over the course of a qualification, and would be personalised to a student's trajectory.

While this personalisation is resource intensive, the skills and resources to do this exist within current enabling teams; legislative change would be required to protect enabling contributions over time.

This would reduce student attrition and accelerate completion to degree completion, through providing students with:

- the benefit of proven enabling pedagogies during the riskiest and most challenging early years of tertiary study
- access to for-credit study at the same time as embedded academic support

- Quality Assurance guided by *National Australian Enabling Educators Association* (NAEEA) and linked to learning outcomes

Cost of Living (Q: 11, 28-31)

Recommendation: The University recommends the Government consider options to lift students above the poverty line.

Inequalities are reproduced when students from under-represented groups are forced to study within conditions of poverty. In regions and communities with less access to parental financial assistance, this affects success more acutely. The Government must consider options to lift students above the poverty line. NSWVCC submission provided options in this regard, as did the ATN submission. Scholarships are a useful mechanism to support students facing disadvantage but cannot replace a well-designed funding system¹.

Through the social welfare system Australian Government has the national architecture to provide means-tested payments to people studying at university.

We recommend the Government model the impact of allowing students to earn more before student support payments are reduced. Currently student support payments under 22 years of age are up to \$335 per week. Students can earn up to \$240 a week before these payments are affected: just as students are about to breach the poverty line, their payments are reduced. Moving the earnings threshold may help prevent students working for cash-in-hand, often underpaid and without benefits.

We also recommend careful consideration of income contingent student living loans, which may be an additional avenue for students to access funds for living expenses without incurring immediate costs. These approaches have seen some success in the UK, with a number of studies indicating that maintenance grants may have the clearest association with increased participation versus scholarships. However, these results have not been tested in an inflationary environment. Such a scheme would impact more significantly students of limited financial means. So, any consideration of this policy would need to be balanced against the considerable risk of increasing the gap between students from low SES backgrounds and students with parental and other means of support. Were such a loan system created, protections against entrenched debt would be required, including considering debt forgiveness in lower paid service professions after a period of employment, and making repayments tax deductible.

¹ Research in the US (Zaloom, 2019) highlights that equity scholarships often become 'gamed' by more privileged students or represent anomalies from disadvantaged backgrounds (tokenism, rather than large-scale change), with the majority of the most in need left unsupported. International research such as work in the UK by Callender and Wilkinson (2013) argues that shifts away from publicly funded systems of financial support undermines equity agendas.

Aboriginal and Torres Strait Islander Leadership and Advancement

A University Accord on Aboriginal and Torres Strait Islander Cultural Governance (Q: 28-34)

Recommendation: The University proposes a sector-wide Accord on Aboriginal and Torres Strait Islander Cultural Governance.

All success in Aboriginal and Torres Strait Islander education and research is built on decades of local and regional community partnership and leadership.

To achieve this, national DVC/PVC Indigenous network can partner with National Aboriginal and Torres Strait Islander Higher Education Consortium (NATSIHEC) to develop an agreement that local, place-based cultural governance is at the core of every university's approach to Aboriginal and Torres Strait Islander education, research and engagement.

The voices heard through these governance structures need to be reflected in local initiatives and collaborations between universities. This localised approach will ensure Aboriginal and Torres Strait Islander students and staff are supported and strategies reflect the needs of community.

Such community leadership is critical to ensure universities do not diverge from community expectation and support over the long term, and to put in place structures to ensure funding goes to where it is needed.

This will ensure a strong foundation for future student growth: based on the latest ABS Census data, the Aboriginal population has increased by 23.2% since 2016. Over one third of the Aboriginal and Torres Strait Islander population is aged under 15.

The sector must work together to increase participation of Aboriginal and Torres Strait Islander students and staff, rather than foster a competitive environment. The national DVC/PVC Indigenous network can lead this approach in partnership NATSIHEC.

Some universities already have best practice community governance models that oversee leadership, and include community affirmed processes for confirmation of Aboriginality, which could be rolled out as a nationally consistent model.

We are proud to have Aboriginal and Torres Strait Islander education and research at the centre of what we do and driven by community. Our Board of Aboriginal and Torres Strait Islander Education and Research provides the governance structures that ensure our actions are aligned with the expectations of community, particularly in the complex area of identity.

Resource Community Engagement (Q: 28-34)

Recommendation: Increase ISSP for universities that undertake community services

Our University is proud to welcome the largest cohort of Aboriginal and Torres Strait Islander students in Australian universities to our campus in 2022, more than 1400 students. First Nations students are more than 4.6% of our student body; and more than 3% of our staff.

The University's Wollotuka Institute, celebrating 40 years of operation this year, provides a broad range of culturally appropriate student support for Aboriginal and Torres Strait Islander students. This includes academic support, access to financial support, health care and pastoral care. The Wollotuka institute also delivers academic programmes and research. Wollotuka is a unique environment that provides a culturally safe space and connection to community.

The Indigenous Student Success Programme, delivered through the department of Prime Minister and Cabinet provides essential funding for Wollotuka and similar institutes elsewhere. This funding must be preserved and grown in recognition of the growing range of community engagement Aboriginal and Torres Strait Islander staff provide.

Additional work includes broader academic work, outreach in primary and high schools as well as community engagement. Staff are also spending an increasing amount of time working with people who are connecting to their heritage and community for the first time. This is a body of work that many universities are well placed to undertake, however they are not resourced to do so.

ISSP must be preserved and grown in recognition of the growing range of community engagement Aboriginal and Torres Strait Islander staff provide.

Cross Portfolio Approaches for Community-led Upskilling (Q: 9, 16, 28-31, 33, 40, 45)

Recommendation: The University recommends a pilot program for community-led education and upskilling

Such a program would blend approaches to addressing skills shortages in rural and remote communities, which is community led, and involves VET and Universities, with success based on training outcomes and service provision for the community.

The barriers to cooperation are more acute for programs that cross portfolios and jurisdictions, for example those needed to address service shortages in rural or Aboriginal and Torres Strait Islander communities.

By example, staffing rural and remote Aboriginal health services relies heavily on locum clinicians, creating a recruitment and retention problem. At the same time, many skilled Aboriginal and Torres Strait Islander people work in their community, but would not leave country to upskill or gain accreditation.

Cross-jurisdictional programs like the Rural Health Multidisciplinary Training Program (Department of Health) are extremely effective. This program recognises successful clinical training is delivered in partnership between universities and hospitals, state and federal governments, so funds a blended and flexible approach to training.

Walgett Aboriginal Medical Service has proposed to pilot a fully accredited, On Country, nursing program which blends VET and university, and partners health and education. The barriers to such a pilot include navigating multiple portfolios, jurisdictions and accreditation.

Research and Engagement

Explore National Collaboration Models

Recommendation: The university recommends a larger portion of research funding:

- 1) be driven by national challenges, and**
- 2) leverage long-term community and industry partnerships.**

Internationally, there is a policy position emerging, which seeks to promote investment in research universities that are either located within or can access marginalised communities. This leverages the maturity of established institutions and promotes greater continuity of relationships and expertise.

Communities undergoing transition need research-intensive universities. This is clear across Australia where we see the successful relationship of many Australian universities with their regional industries and communities, including:

- Deakin – post automotive-industry transformation into future materials through Carbon Nexus and the Institute for Frontier Materials
- Wollongong – green steel industry and post-industry transformation
- Curtin - WA School of Mines: Minerals, Energy and Chemical Engineering, operating from Perth and former goldfield towns
- Newcastle – post-industrial transformation into Australia's largest regional economy through services, resources and energy generation

A range of international approaches that promote collaboration between industry, community and established universities could be explored in the Australian context to maximise the social, environmental and economic impact from the national research effort.

National Collaborative Research Strategy (Q: 24-26)

Recommendation: extend the principles of NCRIS to create a national research pilot

NCRIS worked on a novel premise: that working together, and identifying common needs, researchers could use a limited pool of funds to greatest benefit for the nation. This strategy has been successful in creating partnerships, sharing resources and creating real impact on national problems.

Through the Accord, the Australian Government has the opportunity to re-imagine research funding models to develop a funding system that focusses on bringing together the right skills and capacities to address national challenges, rather than competing for funding. Through this process, universities could bring a diverse range of partners and knowledge to the table to address national-scale problems.

By creating a framework for collaboration as part of normal operations, Australia will be in a better position to work on a collaborative (rather than competitive) basis when facing major, sudden research challenges – like those seen during the pandemic.

Regional Research Engines (Q: 1, 2, 23-26)

While some research programs, such as Medical Research Futures Fund and Cooperative Research Centres, are driven by nationally-coordinated priorities, there is limited alignment across government.

There is scope to increase the impact of applied and translational research funding through whole-of-government coordination, and programs driven by national priorities.

International examples of successful programs driven by national priorities include the United States' National Science Foundation's *Regional Innovation Engines* and *Convergence Accelerators* that incorporate community partnership and regional priorities into multidisciplinary teams. Regional Innovation Engines are focused on use-inspired research, and closely link research with workforce development, and job creation.

At a regional level, these research engines could focus on Living Laboratories, or ‘Districts of Specialisation’ – be they sector or theme based, and drawing on the particular assets of a region, including the workforce and industry presence.

Case Study – Newcastle Institute for Energy and Resources

The Newcastle Institute for Energy and Resources (NIER) is a national exemplar of industry and university working together. It is a university-led and majority industry-funded coordination hub for industry and academics to focus on industry problems relevant to regional employment and the national economy. Located at the site of the former BHP R&D Industry Labs, NIER is an exemplar of regionally based, long term, deeply embedded industry-university collaboration. When industry partners approach NIER with a problem, multidisciplinary teams are brought together rapidly to collaboratively identify solutions. The site allows for research prototypes to be scaled up for industry and commercial application. NIER infrastructure and team structure enables relationships to be established through problem solving, as well as through hosting strong industry and government networks.

NIER also hosts spin outs and colocation with industry, and has facilitated enduring relationships with many companies. This includes Ampcontrol, headquartered in the Hunter, and a global leader in delivering complex electrical infrastructure solutions. Ampcontrol employs more than 1,000 staff and is on track to double in size over the next three years. Collaboration with universities is critical for businesses like Ampcontrol in both testing and developing next generation R&D solutions and critical skills delivery. Together with the University of Newcastle, Ampcontrol established ResTech – which provides a testbed for prototyping and new product design, as well as a training ground for students. As just one example of success, Ampcontrol worked with the University during the pandemic to rapidly design and prototype a new ventilator, which was selected for production by the NSW Government for export.

‘Loss Leaders’ to Kickstart Industry-University Collaborations (Q: 1, 2, 23-26)

Many highly productive research relationships with industry start with practical problem solving. Long lead times involving pilot projects and initial conceptual work can deepen collaborations required for successful industry partnership grants, but can involve investment without financial or traditional academic returns.

The Accord could enable Australia to generate greater industry investment in research and achieve more effective collaborations by turning the existing process on its head, by:

- funding models which also support the role Universities play in driving the ‘development’ component of research and development through a range of activities. An example of this is the Australian Government’s Trailblazer program.

Funding loss-leading industry problem solving would mean the public sector shares the cost and risk of initial project phases. The pay-off would be established partnerships, and more in-depth projects, where the industry partner contributes to project costs.

The role of universities working with industry and government agencies within this process also changes from one of chasing consultancies to one where the university works jointly with stakeholders to problem-solve. This is essential to the process of creating living laboratories:

- Small successes build trust and larger collaborations can be envisaged
- Innovative clusters form around thematic strengths
- The funding of applied collaborative developmental or applied/translational projects, rather than innovative new conceptual projects would similarly build cross-sectoral collaborations.

Revision of the R&D tax incentive would provide the opportunity to greater leverage private funding into true applied research that enhanced Australian impact.

Industry-engaged Research Infrastructure (Q: 1, 2, 23-26)

The University supports the UA and ATN submissions calling for ongoing funding of NCRIS. Typically, the facilities supported through NCRIS are (appropriately) run out of universities based in capital cities, given demand and their central location. To extend the benefits of infrastructure investments to regional areas, a portion of this investment might align to industry and regional need. This would broaden the base of non-research users as well and create a genuine industry hub around key research specialisations. This would provide the opportunity of a 'collision point' for industry which could be based around key infrastructure with the necessary expertise to operate it as well.

Reinvigorating Publicly Funded Research Agencies for National Impact (Q: 1, 2, 23-26)

Recommendation: Reinvigorate National Research Agencies

The University supports the ATN's suggestion that there is scope to consider the best operating model to maximise public investment in both universities and publicly funded research agencies, including CSIRO.

Missing from Australia's research landscape is a distributed funding model that enables mission-driven research in an environment that embraces risk and accelerates industry problem solving. It is time to find ways to comprehensively integrate Australia's significant national researcher capabilities to address our significant national challenges in energy, health and the environment. It was notable that during COVID-19 our nation did not pull its scientific capabilities together across institutions to focus on major technical solutions e.g. a vaccine, instead we worked in existing local groupings on a competitive basis, thus limiting the possible scope of solutions.

The Defense Advanced Research Projects Agency (DARPA) in the US brings together world-class experts from industry and academia to work on mission-focused projects. It makes pivotal investments in breakthrough technologies for national security. Team members are organised and led by technical managers, who themselves are accomplished in their fields and possess exceptional leadership skills.

With expertise across national priority areas staff can rapidly develop, prototype and test solutions. Through colocation, and fast assembly of teams from universities and such, a public agency would leverage its national reach to create connections between institutions and within industry.

Such an approach could also significantly boost the research training system, through industry supervision of PhD students, and opportunities for postdoctoral students to work on novel projects.

Industry-engaged Learning for an Excellent Student Experience (Q: 8, 13, 14, 39)

The University supports UA and ATN submissions calling for a new national framework supporting work integrated learning as part of creating accessible, lifelong learning for all students.

The University's 'WIL For All' program, launching this year, would integrate into a national framework, and would be boosted by national approaches to training placements and addressing the challenges of student living costs.

Expand University Roles in the Asia-Pacific (Q: 4)

Recommendation: Leverage university engagement to strengthen relationships in the Asia-Pacific

University research and training relationships have significant potential to establish and strengthen relationships at an institutional, community and government level in the Asia-Pacific. The University of Newcastle, through its Pacific Strategy, has developed productive research and training-based relationships with several Pacific countries, through funding sourced primarily from the EU or US. These activities deliver research excellence, innovation, knowledge brokerage and economic growth, and result in increased student mobility, increased research collaboration and partnerships, and strengthened domestic capacity.

CASE STUDY: Moata'a Living Lab (Samoa)

The Moata'a Living Lab is situated around a unique urban mangrove environment in Samoa. It is driven by the village's desire to conserve the remaining mangrove area and ensure their future livelihoods by developing the area into a key environmental education and eco-tourism site - the Moata'a Living Lab.

The Moata'a concept was developed 'bottom-up' with the University of Newcastle, the National University of Samoa, Moata'a village council, Secretariat of the Pacific Regional Environment Program, and Samoa's Ministry of Natural Resources and Environment in June 2020.

It is a collaborative model that supports environmental education and eco-tourism development in a mangrove environment by prioritising relevant research and student engagement activities. It provides all partners and students with enriching educational and research opportunities and pathways, while driving eco-tourism development and conserving areas of unique environmental and cultural heritage.

Encourage access for Pacific Island Students

It is critical Australia continues to build strong and enduring relationships with our Pacific neighbours. Currently, there is inequitable opportunity for students from Pacific Island nations to access higher education in Australia. To build strong relationships and mutual ties, the government could consider a domestic fee-paying structure for undergraduate students from Pacific Island nations and allow access to HECS.

Australian Government Higher Education Hubs

There is opportunity to increase the Pacific market and strengthen online and offshore delivery of tertiary education in the Pacific through a 'hub' teaching-learning model. Due to the small market, rather than having individual institutional presence in Pacific centres, the Australian Government could develop Pacific Higher Education Hubs - communal spaces for Pacific students enrolled in Australian universities to study online/off-shore.

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