

Productivity Commission | 5-year Inquiry into Productivity

Introduction

Universities support innovation capacity through contributions to advancements in all sectors of the economy. Understanding their contribution requires assessments of the impact of both graduate outcomes on productivity, and research which contributes to social as well as economic benefits for the nation.

Through its Strategic Plan, *Impact 2030*, Monash University is focused on purpose-driven approaches that guide priorities and activity.

- The University contributes to national productivity through our education programs. Monash has the second highest number of domestic students in the nation and the highest rate of full-time employment of domestic undergraduates in Victoria. Enterprise initiatives are integral to education programs, including 2,183 work integrated learning programs in 2021, and a new eight-week program *Research to Innovator* added to the Generator startup hub for research students.
- Monash University research seeks to contribute to the development of new knowledge, translation of research and to make an impact on global challenges, in particular those which form the basis of Monash's strategy *Impact 2030*: mitigating the consequences of climate change, achieving geopolitical security, and supporting thriving communities. This occurs, across fields of study and disciplines, through independent and partnered discovery and applied research to inform policy and shape agendas, develop and patent new technologies, understand and influence behaviours. Monash manages a portfolio of 21 companies created from Monash IP and a further eight are expected in 2022.

We have contributed material to the Group of 8 submission, which we endorse, and add these further comments through this submission.

We make several recommendations for the Productivity Commission in relation to the tertiary education sector:

- As a high priority, consider options to address and ensure high quality core teaching and research activities in universities for the future of the nation. A sustainable mechanism for funding will return productivity dividends by facilitating the development of long-term research agendas, and support the risks inherent in innovation for future-oriented education, as well as discovery or fundamental research. Australian universities are responsive to markets and seek opportunities to diversify revenue. However, the current market design for publicly funded universities needs re-examination to consider the role of 'block' or 'base' public funding necessary to ensure underlying quality and ability to innovate is supported.
- Avoid over regulation of parts of the sector that have stability and proven track record in delivering quality and consistently meeting accreditation outcomes.
- Set a national aspiration or target of universal access to post-secondary education. This means accepting that year 12 equivalence is the minimum educational expectation for all citizens consistent with a high performing economy. This would require separating current assessments of vocational education into those qualification levels and outcomes that meet year 12 equivalence and those that are part of higher education, above year 12.

Response to questions from selected interim reports

From Learning to Growth

Chapter 1. The value of human capital

Education provides an essential and excellent return on investment for society, financial and otherwise. We suggest setting a national aspiration or target of universal access to post-secondary education, given the report states that “we cannot predict many of the jobs that will emerge over the coming decades” and that “9/10 future jobs require post-secondary education”. This would mean recognising that year 12 equivalence is now the implied standard for ‘compulsory’ education for citizens for the future.

Chapter 3. Investing for future skills needs

Recommendation direction and information request 3.1 Supporting sustainable growth in tertiary education

The Commission is considering a recommendation in its final report to expand the number of places in tertiary education to better support future workforce needs.

The recommendation should be for a pool of places sufficient to meet demand for access to post Year 12 education, informed by demographic projections.

To inform the development of this recommendation, we are seeking further views and evidence on:

- *How should places be expanded across VET and higher education? – Should growth in places be determined using a formula?*
- A new participation target should be set, equal to universal access to post-secondary education for 18-25 year olds. The formula could then be based on the total expected cohort, derived from the available pool of school leavers + 7 years.
 - *Should demand-driven funding be expanded to support more students (such as equity groups)?*
 - Yes. Consider demand-driven funding for all underrepresented groups, but recognise that these students are more costly to retain because they need greater support along the journey from access to successful completion.
- *Do funding caps place a binding constraint on education providers, or conversely, is there evidence on the extent of unmet demand for tertiary education?*
- Yes, funding caps constrain education providers in terms of domestic enrolments.
- Yes, there is some evidence of unmet demand, for particular fields - dependent on student assessments of desirable fields or occupations. With a sufficient pool of places for the anticipated demographic scale of the relevant age group and a simpler educational funding situation this should be able to be met across the system over a five-year period.
- *To what extent is ‘overskilling’ or ‘overeducation’ a problem in Australia, and what should be done to reduce it?*
- We note the Commission's discussion of overskilling but do not agree with wages as the sole measure of consequence, even noting the caveat that lifetime earnings have not been considered.
- In higher education, graduates are prepared to adapt across their entire lives. Evidence on graduate earnings premiums suggests they remain strong and generally apply over the lifetime of earnings.

It would be expected that skills and knowledge gained during a degree would be deployed across a career and therefore cannot be assessed from first job post completion of a qualification. Value can be added beyond a wages premium. We also note that skills mismatch is caused in part by lack of labour mobility, and therefore incentives to increase mobility, or reduce the barriers are likely to improve outcomes.

Recommendation direction and information request 3.2

More effective targeting of government investment in education

The Commission is considering a recommendation in its final report to alter qualification subsidy rates across tertiary education to improve the effectiveness of government investment and support expanded access. To inform the development of this recommendation, we are seeking further views and evidence on:

- *Which approach: public benefits, private benefits, a flat-rate subsidy or some other variant, is the best method of setting subsidies?*
- *How should subsidy rates vary by field and level of education? Should there be any adjustments for particular types of students?*
- High private benefit can co-exist with high public benefit. There should be a single rate for students' contribution, with the government rate differentiated based on an estimate of cost of teaching for broad fields.
- Monash supports efforts to undo the perverse incentives and overly complex structure built into the JRG package. On the current evidence that student demand in the current HELP fee system is not influenced by fee level or price we suggest a single price for students for subjects. Recognising the impact on supply by universities of subjects and courses of differences in funding level we suggest some differentiation in government funding reflecting high and low-cost fields. There is a need for a complete restructure of the funding system.
- Differences in circumstances of students that affect their access should be subject of scholarship assistance.
- Particular workforce needs for government provision of services such as teachers, health and medical workers can be addressed by scholarships or reduction of HELP debt.
- *While skill lists and differential subsidies do not appear to be effective ways to address skills shortages, could they be improved in some way that would support good outcomes?*
- Scholarships with stipends could be used to encourage the take-up of places in priority disciplines, especially in postgraduate programs. HELP debt forgiveness or reduction could be used to incentivise workers to enter particular industries in the same way it is used presently to encourage workers to particular regions.
- *Can funding be better allocated in tertiary education to encourage competition across providers? To what extent would this (or other funding approaches) support more efficient or high-quality education, and improve the flexibility of the tertiary system to changing skill needs?*
- It is not clear that there is any evidence of lack of competition between providers (remembering provision of commonwealth places does not allow for competition on price) or that there is delay in introduction of new subjects, courses or approaches to meet new demands, whether workforce or student based.
- There are two areas of constraint that affect provision of places or courses in high demand areas and which affect either the high cost of provision which cannot be matched by price, or the ability to provide a 'place': firstly, costs of provision in a number of highly regulated and tightly professionally accredited fields - where regulation and accreditation is linked to 'safety' of professionals being

- educated; and secondly, the physical limitation of number of 'places' available - particularly in various clinical settings and other placement situations.
- Attempts to increase competition for funding across providers is likely to have an adverse effect on quality of provision as the real-world experiment with open market access to government funding for vocational education places demonstrated.

Recommendation direction and information request 3.3 Improving price setting in tertiary education

To improve incentives for providers to deliver courses that adapt to growing and changing skill needs, the Commission is considering a recommendation in its final report to improve price setting in tertiary education. To inform this recommendation, we are seeking further views and evidence on:

- *Is median cost a suitable benchmark for efficient prices?*
- It is not suitable given the differential investment in and need for facilities and staff for teaching across fields of study, and across levels of study, such as undergraduate and postgraduate. The current requirement that universities maintain a level of research endeavour also affects the need for infrastructure and other operational costs of equipment in order to fulfill this requirement. It should be noted that a number of universities maintain cultural and sporting facilities for uses other than teaching and research - facilities usually open to and subsidised for community use. Without a funding system that supports sustainable research funding and recognises community use of facilities, it is not possible to credibly estimate the cost of teaching.
- We agree that efficiency is an important goal of price setting - although it begs the question of the effectiveness of what is provided in terms of outcomes. For some time, it appears that *lowest theoretical cost* is the driver. In the current system, universities must use surpluses generated in one area of teaching to subsidise other areas. In a median cost situation there will always be certain courses at specific institutions that are not fully funded to actual cost, requiring continued cross-subsidisation. Unless every course offered by an institution is fully covered, along with other areas of core business such as research, cross subsidisation is inevitable and not necessarily inefficient if it enables an institution to conduct its full range of activities to an acceptable standard.
- *How could existing methods for estimating efficient costs be improved?*
- There needs to be an examination of costs that separates teaching, research, and incorporates an understanding of the costs of community access and engagement.

Recommendation direction and information request 3.4 Equalising access to loans across tertiary education

The Commission is considering a recommendation in its final report to expand eligibility for income-contingent loans to reduce barriers to VET participation. To inform this recommendation, we are seeking views and evidence on:

- *How far down the Australian Qualifications Framework should income-contingent loans extend?*
- Qualifications within the AQF which are post-year 12 equivalence should be in scope for income contingent loans. If year 12 is the implied compulsory standard of education for all citizens, then funding of programs to meet this level needs to be considered in the same way that funding for schooling is provided.
- Enrolment in any course should be based on need and interest/skill rather than loan access. If income contingent loans attached only to qualifications post year 12 equivalence, then a number of the incentives to abuse the VET Student Loans system would be removed.

- *How should a transition to greater loan availability be managed?*
- The change outlined above would fundamentally alter the funding system for vocational education by distinguishing those qualifications that raise people to year 12 equivalence and those that add capability and skills beyond that threshold.
- *What other policies are needed to address other barriers to participation in tertiary education, such as living costs while studying?*
- The funding for PhD candidates has fallen behind increases in the CPI. The current annual stipend of \$28,845 (tax-free) needs to be addressed, especially to attract underrepresented cohorts.

Recommendation direction and information request 3.5 Governments' role in lifelong learning

Labour market trends suggest a continued need for upskilling and reskilling. In this context, greater government support for lifelong learning might be justified.

The Commission is considering a recommendation in its final report to expand taxpayer support for lifelong learning. To inform this recommendation, we are seeking views and evidence on:

- *Is the current balance between government funding for initial post-school education and training, and ongoing skills acquisition and lifelong learning fit for purpose? Or, does it need to be reconsidered given evolving labour market needs?*
- It should be reconsidered as part of the University Accord. However, the need for ongoing learning doesn't imply a shift in emphasis of the existing quantum, it requires a greater investment. There is not a reduced need for learning immediately post school.
- *Should there be a greater public investment in lifelong learning? If so, what areas have the largest positive spillovers that governments should target with their support?*
- Yes, there should be greater public investment, with businesses as partners in value creation.
- Given the commentary elsewhere in the interim report about the difficulty of predicting future skills beyond fields such as data and digital technologies, allied health/community care and nursing and generalist and enterprise skills, it would be unwise to be prescriptive. We recognise that all disciplines and learning have spillovers and recommend support for enterprise skills, critical thinking, sophisticated literacy and numeracy, and similar. Our current students will likely remain in the workforce until the 2070s. So the role soft skills play (understanding, communication, emotional intelligence etc) in the workforce and the role higher education plays in developing that through learning for learning's sake is key to an adaptable future workforce.
- There needs to be an explicit recognition of what is needed to support compulsory acquisition of year 12 equivalent skills and capabilities for the next generation. And then configuring tertiary education funding to provide capacity to educate a portion of the population - an estimate needs to be made of the proportion to be covered by government funding. As the interim report notes, Australia presently has a tertiary attainment rate (diploma or above) of >50% for 25-34 year olds.
- *What would be the best mechanisms to encourage additional uptake of ongoing education and training, given that private benefits for both workers and employers exist, and many adults are already engaging in lifelong learning?*
- As further study is frequently based on an individual's assessment of private benefit (increased wage, or job security, or other personal interest), governments could look to expand on incentives via the taxation system for individuals, and similar incentives for employers.

Chapter 4. Boosting learning outcomes for tertiary students

Recommendation direction and information request 4.1 Better informed student choice in tertiary education

To improve incentives for institutions to invest in teaching quality, the Commission is considering a recommendation in its final report to support students making more informed choices when selecting a tertiary provider, and is interested in views about:

- *What mechanisms or channels should be used to provide students with relevant information about higher education course quality when they make their enrolment decisions?*
- There is significant information to inform student choice in the Australian market through public and private mechanisms. However, it is not evident that the assumption implicit in this question, course quality, is the only variable affecting student choice. Nor is course quality a simple, single variable. Australian systems of accreditation should assure that a minimum acceptable standard of quality is available in providers so accredited and in professional courses subject to such accreditation. Location, price (where that varies), and reputation with employers are all factors among others that students may use to choose.
- Across the sector we have TEQSA, we have admissions transparency, and there is CourseSeeker to help students make comparisons. At Monash we have introduced “Course Mapper” to provide advice to students.
- *Would a single combined measure of higher education course quality improve teaching outcomes? Are there other options that could support better student choice? What are the benefits and risks?*
- A single measure that merely conflates existing measures is likely to be overly simplistic and not provide granularity of information for students who might have different priorities for what they want to achieve from education. Education quality cannot be signified by a single combined measure. As subjects and teachers are subject to quality assessment at least annually it is not evident another evaluation will do other than increase regulatory burden.
- The most effective means to improve teaching quality is to invest in the development of and support for teaching.
- Investing in quality teaching requires funding, and flexibility of engagement profiles to provide more differentiated support to teaching that recognises the increasing complexity and sophistication of digital enhancements (to name but the most obvious).

Recommendation direction and information request 4.2

Supporting ongoing improvement in the quality of teaching in higher education

The Commission is considering a recommendation to support ongoing improvement in teaching quality for higher education providers, and is interested in views about:

- *Could teaching quality across the higher education sector be improved with more comprehensive external review of outcomes?*
- There are many existing reviews and measures of outcomes, including TEQSA and professional accreditations of a large number of qualifications.
- Universities have self-accrediting authority, and part of this responsibility is to review its course outcomes and performance. Other providers are also required to review outcomes and are also periodically tested by TEQSA.
- We recommend the use of QILT and other existing mechanisms to draw data and then isolate a problem rather than treating this as a broad and sector-wide issue.

- *Should a centre for teaching excellence be established to support external review of teaching quality, or could this function be linked to an existing body?*
- As noted in the Interim Report, the Office for Learning and Teaching was defunded in 2016-17. Further, the 2021 Commonwealth Budget reduced support for the administration of quality assessment exercises including QILT, and stopped funding to Universities Australia for the Australian Awards for University Teaching and the Learning and Teaching Repository which encouraged dissemination of innovations and best practice in quality in teaching. Any “new” approaches should be enduring if they are to be worth the establishment costs.
- The 2018 Monash Commission recommended the establishment of a “single independent statutory agency” to maintain expertise and provide advice to governments and industry on post-compulsory education and training, and undertake four core activities:
 - “advise federal and state governments on all matters related to post-compulsory education and training
 - devise strategic development plans for post-compulsory education, aligned to Australia’s needs, while respecting and encouraging institutional autonomy and differentiation
 - be the single funding authority distributing the allocated budget for all state, territory and Commonwealth subsidised post-compulsory education
 - engage industry, relevant state and territory agencies, and providers of post-compulsory education and training to better align future workforce education and training needs with demands.”
- If structured independently this type of agency would have a greater impact on education quality and relevance for future needs than additional reviews and assessments of teaching quality.
 - *Are there other ways such a body could support higher quality teaching (for example, evaluating new approaches to online learning)?*
 - There are existing peer-review processes and for professional accredited courses the external review process is extensive. These could equally be applied to online learning. Additionally, we know that for many providers the shift to online learning was swift and large during Covid. It is reasonable to assume that institutions are assessing the quality of these approaches themselves and seeking to improve in order to maintain markets. Students have many options for online learning and evaluation and assessment is not differentiated from or integrated with assessments of more traditional or hybrid modes of teaching and learning.

Recommendation direction and information request 4.4 Supporting completion where it improves outcomes

The Commission is considering recommendations for its final report to support retention where it improves outcomes, while also facilitating exit where it is preferable, and is interested in views about:

- *What are the best approaches to supporting student retention, how should these be adapted for different students, and how could the lessons from these approaches be shared across the tertiary sector?*
- We recommend against completions-based funding, unless it’s applied as loan forgiveness/debt reduction for the student themselves. Completions-based funding would be complex to administer because of the volume of students, and the variety of legitimate reasons for delays/non-completions. More problematically, it would potentially expose staff to pressure to pass students and/or reduce enrolments of students who require a higher level of support, but nonetheless complete over longer periods and make a productive contribution to the economy - that is, it could conflict with goals to increase education access by underrepresented groups.

- *Should the Higher Education Participation and Partnerships Program extend to support retention beyond equity groups to capture a broader range of students with elevated risk of non-completion (such as part-time, online or low ATAR students)?*
- Given current budgetary constraints the HEPP should maintain its focus on improving outcomes for equity groups.
- *What approaches have been demonstrated to reduce barriers or costs to trying a tertiary pathway and dropping out?*
- We have found that pathway programs and alternative entry modes (such as via the Diploma of Tertiary Studies) help students prepare for tertiary education and test out their readiness.
- The Monash Guarantee provides access at a lower ATAR than the expected course selection rank for students who have experienced financial disadvantage, live in a low SES area, are Indigenous Australians or attend a school that operates in and with an economically or socially disadvantaged catchment. Monash has enrolled thousands of students through this Guarantee and as evidence below attests their retention and success meets the high levels of success and retention of the overall student cohort.
- Early assessments and feedback before the census date are effective to identify students at risk of not progressing. Monash has comprehensive programs to encourage participation beyond access and the result is an outstanding retention rate of about 90% for all students, and in the mid 80s for underrepresented groups. This places us third nationally for all students and Indigenous students, 6th for disability and 10th for low SES.
- After leaving Monash, students from underrepresented groups have very good full time employment outcomes relative to the overall student population. Across 2020-21, 71% of all Monash domestic undergraduates found full time employment within six months of course completion. The rate for low-SES undergraduates was equivalent, and was higher for Indigenous undergraduates at 90%.

Innovation for the 98%

Chapter 2. Enabling innovation diffusion in Australia

Information request 2.2

The recently announced National Industry PhD Program (part of the University Research Commercialisation Action Plan) aims to increase the supply of researchers with industry-relevant research experience, with preference given to applications aligned with the National Manufacturing Priorities.

Is a lack of industry-relevant research experience in universities the most significant constraint to firms developing an in-house research capacity?

- No. We provide high quality HDR graduates who are globally employable. We include non-research specific skills in their training, so they can engage widely. We recommend an outreach campaign through major employer groups outlining the advantages of engaging a PhD graduate and the mechanisms available to do so.

To what extent is firm capacity to make the best use of researchers' skills a constraint?

- With reference to the University Research Commercialisation consultation undertaken in 2021, the Department of Education received numerous responses that the size and structure of businesses in Australia is a key barrier. There is a large proportion of SMEs and branch operations of foreign-headquartered MNEs. This means that businesses in Australia are less likely to have either financial resources or autonomy to undertake R&D at any material scale.

- Barriers for the 98% are lack of absorptive capacity and capabilities and to direct or deploy research. The 2% work with universities on research projects.

What kind of arrangements would foster greater movement of researchers from the Social Science fields into Australian businesses?

- Monash has investigated significantly in Graduate Research Industry Programs (GRIPs) which support establishment, facilitation and student scholarships of groups of PhD students in particular industry sectors and issues, including social sciences. Since the pilot in 2015, we have created programs in such fields as water sustainability, food and dairy, sustainable public transport, chemicals/plastics/polymers, digital health, and behaviour change for sustainability. All of these programs link the group of PhDs to industry partners.
- Of the 54 candidates who have completed to date, 70% (38) obtained employment in industry, and the remaining 30% (16) are in academia. See detailed statistics and partners in **Appendix**.

Information request 2.5

Can Australia's current level of academic consulting to private industry be increased?

- Yes. However, it must be balanced with research needs and demands. Consulting that diffuses new findings, technologies and practices from research to industry is the preferred method. As per the questions above there must be industry demand and capability to facilitate effective consulting of this type.

In what industries or areas of research could linkages improve the diffusion of innovation?

- We recommend a broader perspective on knowledge exchange.
- University research and researchers can help all industries and areas of research, from government policy, consumer products, technological innovation, manufacturing, behaviour change.

Recommendation direction 2.2 Focus on skills to increase firm absorptive capacity

To strengthen diffusion, government support for building workforce skills should focus on transferable skills that augment the absorptive capacity of firms, such as digital and management skills. Support measures should be broad-based.

- This already occurs. PhDs in industry are not just providing direct research capability, or a specific knowledge area. They offer other skills that are valuable for innovation, such as the capacity to articulate and understand a problem, interrogate solutions, undertake data analysis and project management. Universities can do more to help them understand and communicate the skills they have acquired

Chapter 3. Innovation and diffusion in government services

Recommendation direction 3.3 Ideas that have large public good value should not be behind paywalls

The Australian Government should:

- *require open-source publication of research principally funded by governments in line with recommendations in the Productivity Commission's inquiry into intellectual property*
- Agreed, with consideration of costs borne by researchers, and incorporation into funding programs.