Executive Summary: Submission to the Productivity Commission Inquiry into New models of tertiary education

Universities New Zealand -Te Pōkai Tara

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Universities New Zealand Contact

This submission has been signed out by the Vice-Chancellors of the eight New Zealand universities.

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Submission to the Productivity Commission Inquiry into New Models of Tertiary Education

Executive Summary

The Terms of Reference for the Productivity Commission Inquiry is focussed on how current international trends in tertiary education may impact on the New Zealand tertiary education system.

In this submission, we focus on the university sector in New Zealand. The submission reflects the shared views of the Vice-Chancellors of New Zealand's eight universities. It answers 68 of the 78 questions posed by the Productivity Commission. Rather than answering each question in turn, we address questions (or groups of questions) through a higher-level analysis.

This submission is in four sections:

1. The university sector business model
2. Key challenges in the government policy and operating space
3. The other main issues identified by the Commission
4. The future

Key findings [and the sections to refer to in the body of this submission] include:

1. **Contribution to national productivity**. The Productivity Commission notes the OECD's analysis indicating that the net present value of both private and public benefits of higher education are among the lowest in the OECD. We note that this analysis includes both Type A (degree level) and Type B (sub-degree level) tertiary education. We draw the Commission's attention to the 2013 Treasury analysis[1] that highlights the methodological problem with these data and shows that the returns from sub-degree qualifications drag down the national average. When considered on their own, the completion rates, employments rates, and earnings outcomes that result from a New Zealand university education are among the best in the world and unemployment rates and under-employment rates are among the lowest. [Sections 3c & 3d]
2. **University Sector Productivity and Innovation**. To the outside world, universities often seem caught up in tradition – carrying out teaching and research in buildings that externally appear much as they did 20 or 100 years ago. In reality, every aspect of university life has seen extensive innovation and change over the past decade. [Section 1b, 1e, 1f, 2a, 3a, and Appendix 1]

[1] Zuccollo J, Maani S, Kaye-Blake B, Zeng L, Private Returns to Tertiary Education, How Does New Zealand Compare to the OECD, Treasury Working Paper 13/10, July 2013.

3. **System quality and effectiveness**. The New Zealand university system is unique internationally with all eight universities world-ranked and with excellent graduate outcomes and strong research performance. This outcome is due, in part, to a strong commitment to high-quality research-informed teaching and strong quality systems (via the Committee for University Academic Programmes (CUAP) and the Academic Quality Agency (AQA)). [Sections 1f, 3a, & 3b)

However, the New Zealand university system is also a system that is at risk.

- There is considerable funding pressure that is limiting the capacity of the system to enhance (or even maintain) quality. [Sections 1b, 1c, & 1f]
- The undifferentiated nature of the Tertiary Education Strategy (i.e., one strategy for the entire sector) does not reflect the ambitious nature of the universities and the fragmentation of policy objectives across different government agencies steals time and hinders progress. [Sections 2b, 2c, 2e, & 2f]
- There is insufficient funding to advance important government policy objectives in areas such as lifting Māori and Pasifika participation and achievement, increasing numbers of Science, Technology, Engineering and Mathematics (STEM) graduates and improving graduate work-readiness. [Sections 1c & 2a]

Overall, Universities New Zealand (Universities NZ) believes that the New Zealand university sector is highly prepared for future trends in university education. We believe:

1. Teaching will continue to be significantly more effective and satisfying for students when delivered in a campus-based environment. We also know that technology will continue to expand into every aspect of the teaching and learning experience. Although we do not see technology-enabled distance learning replacing campus-based learning any time soon (particularly for the youngest or most disadvantaged students who need the most support), we believe demand for reskilling and upskilling in the workforce will grow significantly. Universities with particular expertise with students of this kind are already responding to this need. [Section 3a]
2. International competition for staff and students will continue to intensify, making it even more important that New Zealand university teaching and research are of the highest quality. [Section 1f, 3f, & 4a]

A university qualification will become an even more important way for New Zealanders to future-proof themselves against the impact of technology in the workplace. [Sections 3d, & 4b]

International evidence has shown repeatedly that a highly educated society is more likely to be democratic, tolerant, open-minded, adaptive, productive and stable. [Section 3d]

Introduction & Overview

Background:

- New Zealand is the only country in the world where all of its universities are world-ranked[2].
- New Zealand has some of the best qualification completion rates in the world. Only 16%[3] of full time students who start at a university in New Zealand do not have a qualification within eight years. By comparison, non-completion rates are 18%[4] in the UK, 27%[5] in Australia, 41%[6] in the US, and around 50–55% in South America and Asia. Within New Zealand, non-completion rates are 61%[7] for polytechnics/institutes of technology and 32%[8] for Wānanga.
- The New Zealand universities have some of the best graduate outcomes in the world. Three years after graduating, 97–98% of university graduates are in employment[9]. For graduates aged 29–38 at the time of the 2013 Census, 88% were in jobs that either needed a specific degree (doctor, teacher, etc) or for which a degree was highly useful (general manager, consultant, policy advisor, etc)[10].
- International education is New Zealand's fifth largest export earner at $2.85 billion annually[11]. Universities generate $1 billion of this and is the sector that makes the largest individual contribution[12]. New Zealand has the fifth highest proportion of international students in the world (12.9% of all students)[13]. There were 14,815 international equivalent full-time students (EFTS) at New Zealand universities in 2014[14].
- The New Zealand university system delivers these strong results efficiently. For example, for 2014, using New Zealand dollars in 2014 $NZ exchange rates[15]:

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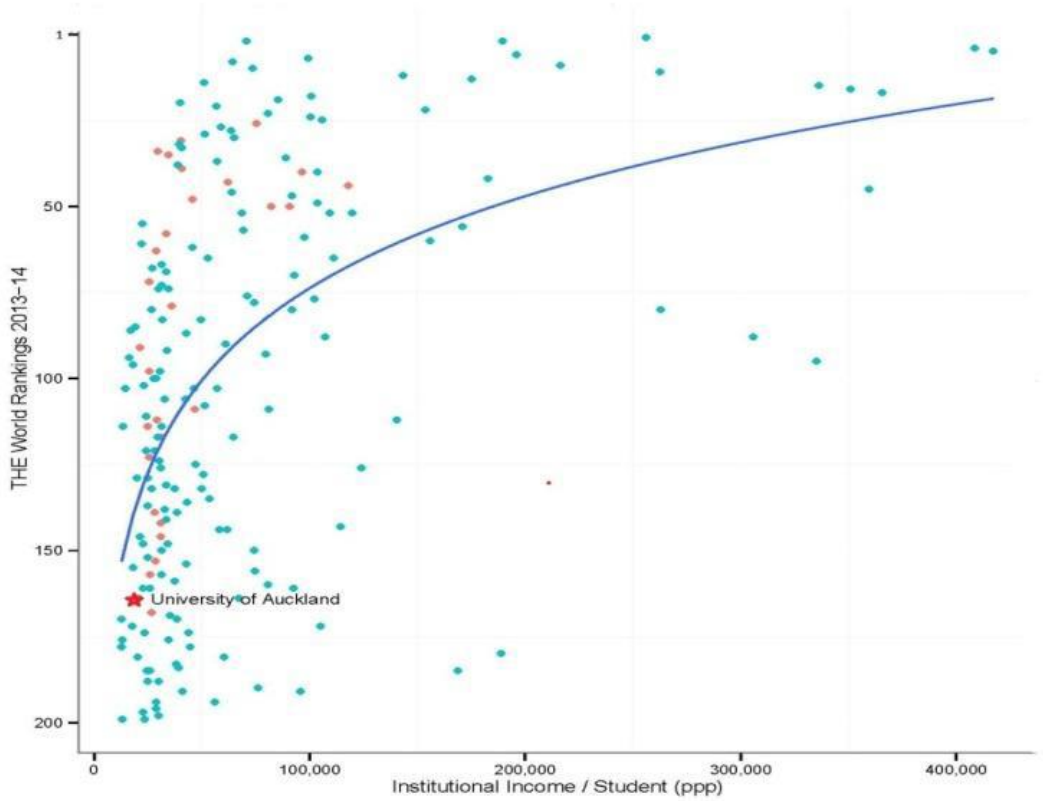
[2] Using the QS World Rankings – www.topuniversities.com/university-rankings.
[3] Education Counts - https://www.educationcounts.govt.nz/statistics/tertiary-education/retention_and_achievement Com.35 cells P7 (European), P22 (Maori) and P31 (Pasifika)
[4] https://www.timeshighereducation.com/news/how-student-completion-rates-vary-across-europe
[5] Completion Rates of Domestic Bachelor Students – a Cohort Analysis, 2005-2013, Australian Government, Department of Education, Page 4.
[6] National Centre for Education Statistics, US Department of Education, 2015. https://nces.ed.gov/fastfacts/display.asp?id=40
[7] Education Counts - https://www.educationcounts.govt.nz/statistics/tertiary-education/retention_and_achievement Com.34 cell P58
[8] Education Counts - https://www.educationcounts.govt.nz/statistics/tertiary-education/retention_and_achievement Com.34 cell P85
[9] What Young Graduates Earn when they Leave Study, NZ Ministry of Education, May 2013.
[10] Universities NZ, Graduate Return on Investment Study – unpublished, February 2016.
[11] http://www.enz.govt.nz/sites/public_files/Infograph.pdf
[12] From the eight university annual reports for 2014
[13] Education at a Glance 2015: OECD Indicators Table C4.1
[14] Calculated by adding international student numbers reported in each of the eight universities audited annual reports.
[15] These figures were calculated from the combined Annual reports of NZ's eight universities and the combined 2014 financial information provided by Australian universities to the Australian Government's Department of Education and Training. https://docs.education.gov.au/node/38416

- New Zealand delivered its outputs with 19% less infrastructure than did Australian universities. That is, Australian universities had $57,280 of buildings, plant and equipment per EFTS compared with $46,381 for New Zealand universities.
- New Zealand produced its outputs for only 70% of what it cost in Australia. That is Australian expenditure was $34,351 per university EFTS compared with $23,949 for New Zealand.

The graph below shows the universities that are ranked in the top 200 by Times Higher Education 2013/14. On the Y-axis is their ranking from best (#1) at the top, to the worst (#200) at the bottom. On the X-axis is the expenditure per student. The University of Auckland was the only New Zealand university in the top 200 (175th), but if the other seven universities were mapped onto the same graph, all would be below and to the left of the University of Auckland.

The graph clearly shows that the level of funding per student is a key element in maintaining quality and rankings.



Although the New Zealand university system is not perfect, it is extremely strong by international standards and is stellar when compared with other parts of the New Zealand tertiary education system.

The New Zealand university system is also operating in line with current and likely future best practice. Internationally, regardless of what ranking system is used,

the top 500 universities are all research-led, predominantly focussed on campus-based learning and offer a wide range of graduate and post-graduate programmes.

These highly consistent features of successful universities sit at the heart of the university business model. These elements include:

- Students learn better and enjoy learning more when they are with other students and with their teachers.
- A significant proportion of university education has a practical element requiring time in physical facilities where students can practice and demonstrate what they are learning.
- The best teachers are research-active and able to handle flexible, wide-ranging, high-level discussions with their students.
- Better research occurs when researchers are co-located and generate new ideas as they mix and mingle.

New Zealand universities have remained successful over the past few decades by adapting and innovating across all areas of their practice. See Appendix 1 for a full list of adaptions and innovations, but they include:

- major technology initiatives to improve research, the student learning experience, and to simplify administration
- increased quality, quantity, and internationalisation of research
- internal efficiency gains through automation and self-service
- innovation in programmes that meet student and employer needs such as increased specialisation, semesterisation, and shorter programmes of study
- adoption of shared services models supported by technology
- significantly increased numbers of Māori and Pasifika students, students with disabilities and women in the STEM disciplines
- improved space utilisation rates and creation of multi-purpose and social study space
- enhanced external stakeholder engagement and delivery on the needs of stakeholders – students, schools, employers
- improved strategic planning, budgeting and resource management

These innovations have been achieved in an environment where funding on a per-student basis has declined in real terms while competition for staff and students has become even more intense.

The capacity of the system to continue to innovate and advance policy objectives is facing several inter-linked resource-driven challenges:

- **Return on Investment Challenges**: Universities are under considerable financial pressure, driving them to focus investment in areas that are generally lower risk and with more certain returns. In general, universities optimise existing channels and business models rather than investing in new ones.
- **Funding Setting Challenges**: Just over half the sector's income is through Government and Government determines the level of domestic fees. Funding is largely the same for all providers – e.g., any provider of a SAC Cost-Category 1 course will receive the same funding as any other provider. Together, these factors constrain the amount of innovation, differentiation and adoption of new business models that is possible across the sector. In general, the level of Student Achievement Component (SAC), Performance Based Research Fund (PBRF) and Equity Funding sets the upper limit on the amount that universities can spend on new or improved ways of teaching, researching and broadening access to university. Significant additional progress is unlikely in areas that are priorities for Government (lifting Māori and Pasifika participation, growing STEM numbers and improving graduate work-readiness) within current funding settings.

In general, this submission takes a myth-busting approach in addressing the questions posed by the Productivity Commission. Areas considered in this submission include:

- Myth: *Technology will make campus-based learning irrelevant*. Reality: The opposite is true. All things being equal, students prefer and are more successful when studying in a campus environment where their learning is supported by others and where they have access to libraries, laboratories, workshops and a range of social and recreational opportunities that facilitate wider personal growth. Distance and electronic learning will have a major role to play in future for second-chance learners or adults who are shifting fields, but is unlikely to supplant campus-based learning. Technology, in any case, is already highly integrated into campus-based teaching and learning.
- Myth: *Students will prefer the new learning channels (like Massive Open On-line Courses (MOOCs)), which reduce the cost and time of gaining a qualification*. Reality: Students (and their employers) prefer traditional qualifications with rigorous assessment of capabilities from proven providers over products that are unfamiliar and provide little evidence of the learning outcomes for each student. It is no coincidence that Harvard, Stanford, MIT and the like offer their for-credit programmes under their own (elite) brand but their MOOCs under another brand (Coursera).
- Myth: *The traditional university is dead*. Reality: What the public popularly imagine as being a traditional university disappeared years ago. Universities have, for years, been actively adapting and differentiating in response to a hugely competitive environment while remaining true to the ethos of quality, research-led, accessible, and engaging education.

- Myth: *Universities are producing poor quality graduates or graduates that are not work-ready*. Reality: Universities are strongly linked to employers in designing and reviewing their qualifications and curricula. New Zealand university graduates have some of the best employment rates in the world.
- Myth: *The university system is moribund, conservative, and slow to adapt*. Reality: The opposite is true. The level of adaption and change over the past 10 years and currently underway is extraordinary. The main risk now is that government funding and policy settings may be impeding the New Zealand universities' ability to adapt fast enough and to adopt some of the more innovative differentiation models successfully operating internationally.
- Myth: *Universities could be doing more to contribute to productivity and innovation*. Reality: The sector is making a strong contribution to productivity and innovation through its commitment to employer-informed qualifications and curriculum, and its large curricula and high-quality contribution to research (including considerable amounts of contract and applied research). New Zealand university graduates have some of the best completion rates, and employment rates, and lowest under-employment rates of any OECD country, and the income premium they obtain from a university education is substantially higher than that obtained by students with qualifications from other parts of the tertiary sector.
- Myth: *The university quality systems are inefficient or barriers to innovation*. Reality: The New Zealand university quality system is one of its greatest assets and the main reason why all our universities are world-ranked and our graduates are so highly employable. The system is so strong because universities oversee their own quality frameworks through CUAP (the Committee for University Academic Programmes) and AQA (the Academic Quality Agency).

In this submission, we argue that the features that make the New Zealand university system so effective include:

- A relatively untagged funding environment gives each university significant freedom to innovate and an ability to differentiate themselves.
- The system is internationally recognised for the quality of its institutions, its research and its qualifications. This allows universities to recruit staff internationally and retain them over their careers, allowing New Zealand universities to produce excellent research and teaching. In turn, this means New Zealand universities can provide New Zealand students with a world-class education and can generate international education revenue for the New Zealand economy.
- The majority of our universities are comprehensive (teach most or all academic subjects) and all offer qualifications from sub-degree to PhD levels. This feature gives them the scale that makes them efficient and the ability to develop innovative multi-disciplinary and inter-disciplinary programmes quickly.

- Our legislative environment is serving New Zealand well. A world-class quality system, qualification framework and protections around who can and cannot call themselves a university and confer university qualifications have combined to create one of the best university systems internationally. We are able to compete for staff and students internationally and there are no wrong choices for New Zealand students when it comes to getting high quality teaching and well-regarded qualifications.

Recommendations

We suggest that different settings would produce greater outcomes for New Zealand in the following areas:

1. **Rethink funding settings for areas of strategic importance**

   Where Government believes particular policy objectives are not being met (for example, lifting Māori and Pasifika participation, growing STEM numbers and improving graduate work-readiness) they must consider ways to lifting funding levels to allow universities the opportunity to continue to advance successful initiatives in these areas.

2. **Tertiary Education Strategy – sub-sector plan**

   The tertiary education sector is not homogeneous. Universities, institutes of technology and polytechnics, wānanga and private training providers all have different roles and business models. The university sector would benefit from clearer sub-sector specific strategies and objectives. A TES sub-sector plan would be useful for the university sector as long as it was not so prescriptive as to inhibit appropriate levels of innovation and differentiation.

3. **Early involvement in design of new initiatives**

   Where universities are going to play a part in implementing or supporting government policy, they should be involved in early framing, scoping and design.

4. **Better management of transitions from compulsory to post-compulsory education**

   Transitions from compulsory to post-compulsory education need better ownership, funding support, strategies and capability. The lessons from successful initiatives such as the Auckland Starpath Project[16] should be taken up nationally and the traditional guidance counselling and careers planning functions in schools should be replaced by nationally supported academic and vocational pathway planning functions.

[16] http://www.education.auckland.ac.nz/en/about/research/starpath-home.html

5. **Consider supplementing existing funding where more differentiation is sought**

   All New Zealand universities receive a similar amount of funding (fee and tuition subsidies) for courses offered under particular Student Achievement Component (SAC) cost categories. This constrains the amount of differentiation and innovation that is possible in New Zealand universities. Government should consider supplementing SAC funding where it wants to see more differentiation or innovation – for example, in getting all students degree-relevant work experience as a part of the academic curriculum, or where particular programmes to support Māori students has been shown to be effective.

6. **Develop a more coherent approach to advising young people on study and career options**

   Government is seeking to improve the information available to potential students and their advisors. This advice is being developed in a largely uncoordinated and inefficient manner across at least five different agencies through at least eight different initiatives. We recommend having a national strategy and overall programme management plan to ensure this is designed and implemented to best meet the needs of students and their advisors.

7. **Formalise employer involvement in graduate profiles and curriculum design**

   All New Zealand university qualifications now have a graduate profile, but not all are being developed with employer input and many qualifications are being delivered without employer input into curriculum design. Formalising employer involvement in programmes where graduate employment outcomes are below average would contribute to lifting graduate work-readiness and productivity.

8. **Take a more holistic approach to international education objectives**

   Government should think about international education in a more holistic way and link export education objectives with wider trade, diplomatic, security and internationalisation objectives with a number of New Zealand's key trading partners – all of whom are increasingly adopting strategies based on reciprocity.