



THE UNIVERSITY OF  
**WAIKATO**  
*Te Whare Wānanga o Waikato*

## **Submission to New Zealand Productivity Commission Issues Paper (February 2016)** *New Models of Tertiary Education*

At a general level the University of Waikato endorses the Universities New Zealand submission on the Productivity Commission's *New Models of Tertiary Education* issues paper. In particular, we think that it is important that the Productivity Commission recognise that the New Zealand university sector delivers high quality education, research of international standing, commercialisation of that research, and substantial contributions to policy development and public debate, on levels of funding below those provided to Universities in Australia.

This submission by the University of Waikato focuses primarily on matters not included in that submission, on areas where we wish to place additional emphasis, and on areas where the position of the University of Waikato varies from that set out in the Universities New Zealand paper.

### **The distinctiveness of tertiary education sub-sectors**

In the University of Waikato's view, the issues paper does not adequately differentiate between the sub-sectors within tertiary education. The distinction between the sub-sectors is enshrined in s.162(4)(a) the Education Act 1989; universities are required to have all of the following characteristics, whereas other tertiary institutions are required to have just one or more:

- are primarily concerned with more advanced learning, the principal aim being to develop intellectual independence
- deliver research and teaching that are closely interdependent, with most of the teaching done by people who are active in research
- meet international standards of research and teaching
- are a repository of knowledge and expertise
- accept a role as critic and conscience of society.

Further, under s.162(4)(b) of the Act, the distinctive contributions of sub-sectors are set out as follows:

- a polytechnic is characterised by a wide diversity of continuing education, including vocational training that contributes to the maintenance, advancement, and dissemination of knowledge and expertise and promotes community learning, and by research, particularly applied and technological research, that aids development;
- a specialist college is characterised by teaching and (if relevant) research of a specialist nature that maintains, enhances, disseminates, and assists in the application of knowledge and expertise;
- a university is characterised by a wide diversity of teaching and research, especially at a higher level, that maintains, advances, disseminates, and assists the application of, knowledge, develops intellectual independence, and promotes community learning;
- a wānanga is characterised by teaching and research that maintains, advances, and disseminates knowledge and develops intellectual independence, and assists the application of knowledge regarding ahauatanga Māori (Māori tradition) according to tikanga Māori (Māori custom).

In practice the universities are differentiated from other tertiary institutions in a number of ways which include

1. Their very large sunk investment in reputation (relating to teaching and research) and the disincentive that this provides to adopt strategies that are inconsistent with this reputation.
2. Their diversification of revenue streams across Government funding for student places, PBRF income, income from a wide range of contestable research grant programmes, and commercial income.

3. Their scale and comprehensive offerings, which allow them to expand or contract delivery in different areas on the basis of demand and funding without harm to the institution as a whole.

### **Postgraduate study**

The value and contribution of postgraduate education is not sufficiently recognised in the Productivity Commission report. A key role of universities is to provide research-led teaching at postgraduate level. A growing proportion of our students are undertaking postgraduate study, which in the last three decades has shifted from being a fringe activity focussed on training future academics to being a central part of the work the universities undertake. The Productivity Commission should recognise the role of postgraduate education in meeting the need for a highly skilled workforce in New Zealand.

While changes to student allowances have proved a disincentive for postgraduate study, overall numbers have not been significantly affected (though patterns of enrolment have changed to maximise student entitlements) a fact that highlights the value that students place on postgraduate tertiary education. It is important to note however, that Māori and Pacific students have been particularly affected by changes to postgraduate student allowances; as reported in the University of Waikato's 2013 Annual Report, EFTS generated by Māori students at taught postgraduate level and above declined significantly in both number and proportion in 2013 (a pattern that has continued in later years). It was noted that while media releases from the Ministry of Education had suggested that the changes to eligibility for student allowances (impacting on postgraduate students) had not had an impact on enrolments overall in the sector, information from student focus groups conducted by the University of Waikato suggested that the policy changes have had a particular impact on Māori students and have discouraged those who might otherwise have undertaken postgraduate study.

Postgraduate qualifications typically have much higher paper and qualification completion rates than undergraduate qualifications as students who undertake postgraduate study are normally strongly committed to their programme of study and are familiar with tertiary education. In this regard, postgraduate tertiary education provides a stronger return on Government investment than provision at lower levels (particularly those programmes below level 7 on the NQF).

In the University of Waikato's view, the role and contribution of tertiary education, and in particular universities, in terms of postgraduate education and the resulting professionalisation of the economy should be recognised as part of the Productivity Commission report.

### **Community engagement**

High-level engagement with communities of stakeholders ensure that universities are contributing to the development of their region and the nation as they advance knowledge and research on global economics, social and environmental issues. Strong relationships with communities in the Waikato and Bay of Plenty are of significant importance to the University of Waikato. The discontinuation of Adult and Community Education funding for universities in 2013 curtailed an important mechanism for community engagement and impeded the ability of universities to achieve the Education Act 1989 requirement (see s.162(4)(a)) of providing community learning; Adult and Community Education funding remains available for other tertiary education sub-sectors, placing universities at a disadvantage in terms of their ability to deliver on Government's expectations around community engagement. This variation is not recognised in the Productivity Commission paper.

**In response to Q 10-14**

**Q10:** *What are the implications of the multiple activities of tertiary education for its delivery? What outputs are best produced together? What outputs are best produced separately?*

**Q11:** *What are the benefits and disadvantages, in terms of students' learning outcomes, of bundling together research and teaching at universities in New Zealand?*

**Q12:** *What value is attached to excellence in teaching compared to excellence in research when universities recruit or promote staff?*

**Q13:** *Do New Zealand TEIs cross-subsidise research with teaching income?*

**Q14:** *What other evidence is there about what makes for effective teaching in a tertiary environment? Is it different for different types of learning or student? How can teaching effectiveness be best measured and improved?*

**The Teaching-Research Nexus**

The Commission addresses the teaching – research nexus, and evaluation of teaching performance on pages 13-21 of its Issues Paper. We believe that the questions asked by the Commission miss the core of the issue about the teaching – research nexus.

The University of Waikato believes that the starting point for consideration of this issue should be that the scarce resource in the tertiary system is people who can be both researchers of international standing and good teachers. A key role of universities (as opposed to other tertiary institutions) is to identify and employ people who have that scarce combination of skills. So a debate about whether undergraduate programmes could be taught by staff who are not research active misses the point: non-university tertiary institutions are offering degrees using staff who are not research active, so for some institutions that is clearly possible. But exploiting the synergies between teaching and research is what universities do, and they could not do it as effectively if they had a B team of teachers of undergraduates who did not do research and an A team of postgraduate teachers and researchers. If students or their parents believe that a degree taught by staff who are not research active is preferred, they have numerous opportunities in New Zealand to obtain such a degree and a shift in market share between universities and other tertiary providers would be the result. The ability for students to vote with their feet is enhanced by the fact that all tertiary sub-sectors receive the same level of SAC funding regardless of whether teaching is research-led or not.

The University of Waikato sets minimum standards for teaching performance as part of its promotion processes; but the higher the salary applied for, the more strongly research performance will weight in the assessment. This reflects the fact that there are well-established international criteria for assessing research performance, as well as the value that their university and their society obtain through higher levels of research performance. Concerns that the universities do not provide sufficient weight to teaching must be considered in the context of the mandate and (in most cases) contractual requirement for university staff to undertake both teaching and research.

**In response to Q23-25:**

*Q.23: How effective is the TES instrument at giving Government education agencies direction about prioritising resources and making trade-offs in carrying out their roles? What are the benefits and risks, in terms of fostering an innovative system, of a more or less directive TES?*

*Q.24: How do other instruments (e.g. funding mechanisms, letters of expectation, budget initiatives) influence government agencies' behaviour? How do these align with the TES instrument?*

*Q.25: When do the TEC's independent funding role and its Crown monitoring role align, and when are they in tension?*

**Drivers of student behaviour**

The Universities New Zealand submission noted the effectiveness of the competitive procurement process around the establishment of ICT Graduate Schools and included ICT SAC Funding, ICT establishment funding and ICT outcomes funding rather than just being limited to SAC funding; UNZ did note however, the significant administrative overhead and complexity associated with the Graduate Schools. While this approach to establishing and funding initiatives is welcomed and demonstrates a small and useful variation from the plain SAC funding model, it should be noted that the mechanisms currently utilised by the TEC to direct students into particular disciplines and career paths do not, of themselves, drive student behaviour.

The recent increases in STEM SAC funding categories has not resulted in an increase in the number of students qualified, prepared or interested to undertake study in STEM subjects. In order to change student behaviour and attract them into certain subject areas, alternative approaches will need to be undertaken; these could include Government-funded scholarships for students enrolling in in-demand areas, increased student allowances, or incentives around student loans.

Further, the University of Waikato suggests that changes are required outside the tertiary education sector if Government wishes to more directly drive changes in student behaviour. Currently, secondary schools may guide students into certain combinations of subjects and these combinations may eliminate a study path at university. The content and starting point of first-year university papers (which have been designed in response to level requirements, and approved at that level for funding by the Tertiary Education Commission) may mean that students are not provided with the opportunity to undertake a programme of study that is of interest, particularly when there are time and study volume limitations on student eligibility for allowances – this situation is particularly prevalent in the STEM subjects.

There is currently a disconnect between the targets set for the secondary education sector and the requirements for entry to university. In 2012 the Government set out its priorities for education as part of Better Public Services. Under the heading 'boosting skills and employment' the Ministry of Education set as a target that 85 percent of 18-year-olds will have achieved NCEA Level 2 or equivalent qualification by 2017. While secondary schools are working to achieve this target, little consideration is being given to increasing the proportion of students who achieve University Entrance in a given year.

Additionally, as noted above, the NCEA Level 2 target is encouraging secondary schools to direct students into courses of study where they are most likely to pass and achieve NCEA Level 2, rather than directing students into programmes of study that will more adequately prepare them for success in tertiary education and leave options open for study at university. The University of Waikato would suggest that better alignment of expectations across the secondary and tertiary education sectors would be likely to improve student outcomes and productivity.

## **In response to Q29-30**

*Q29: What factors best explain the discrepancy between growing levels of tertiary education attainment without a significant productivity dividend?*

*Q30: What are the best measures to determine whether the tertiary education system is working well?*

### **Productivity, Responsiveness and Constraints on Innovation**

The Productivity Commission has reasonably drawn attention to the fact that labour productivity in New Zealand is lower than in other countries with similar tertiary participation rates. For the reasons pointed out in the Universities New Zealand submission, it seems unlikely that this is a result of the New Zealand universities producing graduates who have a lower capacity for productivity than those in other countries. New Zealand's university graduates readily find jobs in those higher productivity economies overseas, and the best of them are readily accepted into higher degree programmes at the top-ranked universities in Australia, Canada, the US and the UK. It therefore seems likely that lower labour productivity in New Zealand is a result of the structure of the New Zealand economy and its lower capital intensity rather than a result of the quality of the education received at New Zealand universities.

The productivity benefit obtained from university education can be demonstrated by the fact that the wage premium associated with obtaining a university education does not appear to have fallen over time despite an increasing proportion of the population obtaining a university degree. This reflects that fact that for a small open economy like New Zealand the better educated our workforce is, the more we benefit from the ideas and trade opportunities provided by interaction with the rest of the world economy.

There is vigorous competition between New Zealand universities, and students benefit from the focus on quality, reputation and student support that competition has engendered. However, there are constraints on that competition within the system that the Productivity Commission may wish to consider.

1. The self-accreditation of university programmes through CUAP serves as both a mechanism to ensure minimum levels of quality in teaching programmes and standardisation in degree nomenclature, and as a mechanism that constrains the scope for competition. Supporters of CUAP suggest that it is the reason why all New Zealand universities perform well in global rankings, but that argument is counterintuitive given that if global rankings actually matter to a university we would expect them to follow paths that were consistent with high rankings without their competitors enforcing those pathways through a mechanism such as CUAP.
2. The requirement that all students achieve University Entrance as it is currently defined also represents both a minimum quality mechanism and a barrier to competition. Given the potential for students to acquire knowledge and skills as part of their degree, it is not clear why particular sets of knowledge and skills should be imposed on entrance to all universities and all degree programmes in universities. Neither is it clear why an arbitrary standard of readiness for university study would be used instead of an assessment of who would benefit from tertiary study. The TEC has the power to constrain universities from taking students with lower academic results from Year 13 (if it thought this was a bad thing) by constraints on the number of funded places. So it is not clear why universities cannot be left to set their own entrance standards and be judged on their ability to bring those students up to the level required for degree completion. The TEC also has the mechanism to penalise universities if they fail to bring students up to the level required for completion, through the funding associated with the Educational Performance Indicators.
3. Every year thousands of students choose the University of Auckland and the University of Otago as places to study because this is the only way they can create the option to study medicine. Otago and Auckland do not accept first year science papers taught at other universities for entrance to the medicine programmes even though most universities could teach these programmes at the same standards. And given the diversity of medical programmes in other countries (where there are, in addition to Auckland and Otago style

undergraduate entry programmes, graduate entry programmes, and community based programmes) the Commission may wish to consider whether the current approach to medical training in New Zealand is constraining productivity and innovation in this area of university education.

#### **In response to Q32**

*Q32: To what extent are graduates meeting employers' expectations with respect to hard or technical skills? What about soft skills and capabilities?*

#### **Transferable skills and life-long learning**

In order to ensure that its graduates maintain pace with the fast-changing employment market, the University of Waikato is undertaking a curriculum redevelopment programme aimed at ensuring that all students have the opportunity to acquire the overarching graduate attributes of a University of Waikato qualification, namely that they will be able to

1. Apply discipline (and profession) specific knowledge
2. Apply critical thinking in systematic, innovative and creative ways
3. Communicate and collaborate effectively
4. Demonstrate competence in culturally diverse local and global contexts
5. Exhibit professional and personal integrity.

The University of Waikato views tertiary education, and particularly university study, as being the development of the ability for graduates to self-learn which increases their ability to make career changes through their lives and maintain productivity in a changing world. It is important to consider the ways in which, rather than vocationally specific training, a university education prepares students to develop the skills and abilities to apply their knowledge in a workplace environment, which will help graduates maintain currency across their careers and ensure they can contribute productively.

#### **In response to Q37**

*Q37: What evidence is there on the effect of tuition fees on student access to, or the demand for, tertiary education in New Zealand?*

#### **Barriers to Tertiary Participation**

While tuition fees charged by New Zealand universities are not high by the standards of most other developed countries, fees combined with geographical distance may still represent a substantial barrier to obtaining a university education. The University of Waikato serves a large geographical region, and finds that outside of the commuter zones for Hamilton and Tauranga university participation rates drop very sharply. Our work with regional schools suggests that there are three reasons:

1. Lower family incomes in the regional centres and towns than in Hamilton and Tauranga.
2. Students outside the commuter zone must own a car and drive to University, or be able to afford the \$12,000 per annum to live in Hamilton, so that the total cost of study is around \$20,000 per year + living costs.
3. Aversion to taking on large amounts of debt to fund tertiary education. While parents with professional incomes and substantial net assets may not be concerned about their children acquiring large amounts of debt to fund tertiary study, the poorest families with minimal net assets will quite rationally be averse to their children acquiring large amounts of debt.

The University of Waikato has recently created a scholarship scheme (as part of its pilot to attract students from Tokoroa and Putaruru) aimed at students from families for whom tertiary study would otherwise be unaffordable. However, the University lacks the information to precisely target this scholarship scheme on the students with the greatest need. Our investment in the different aspects of

our project to make the University of Waikato accessible to students from the wider region also illustrates the fact that universities serving a largely urban professional region will have much lower costs of recruitment than universities such as Waikato that are attempting to serve a much larger and more socioeconomically diverse region, but at the moment there is no recognition of these differential costs in the funding provided to universities. To address this issue the Government could either:

1. Introduce a scheme of support for families with children undertaking tertiary study that was closely tied to income and wealth – perhaps in the form of a negative tax, and that was supplementary to the current allowances and supplements provided, or
2. Provide a supplement to SAC funding for students from regional areas (who could be easily identified on the basis of the high school that they attended) to incentivise the universities to expand schemes such as the Tokoroa – Putaruru pilot at the University of Waikato.

#### **In response to Q45**

*Q45: Is the “New Zealand” brand an important part of international competition for students, staff, and education products and services? What should providers and Government do to manage or enhance this brand?*

#### **International marketing**

The University of Waikato believes that, given the limited resources available across the tertiary education sector, there is merit in taking a NZ Inc approach to marketing New Zealand tertiary education overseas; particularly in terms of a New Zealand branded PhD. Given Government’s ‘domestic fees for international PhD students’ initiative, maximising PhD enrolments is likely to align with Government’s intentions.

#### **In response to Q46-47**

*Q46: What other trends provide challenges and opportunities for the tertiary education system?*

*Q47: What trends are most likely to be most influential for the tertiary education system over the next 20 years?*

#### **Infrastructure**

In line with the Universities New Zealand submission, the University of Waikato recognises the continued need for built infrastructure and face-to-face engagement with students. Many of the ‘soft skills’ that are imparted through a university education and are of increasing value in the workforce are difficult to deliver online. Students benefit from face-to-face collegial engagement, team work and socialisation to deliver the social engagement skills that are necessary in the workplace. Increasingly, universities are focusing on the ‘facilitation of learning’ rather than ‘teaching’, and as pedagogies and delivery mechanisms change there is a need for a combination of both virtual and real spaces.

An example is provided by our data on the use of our Student Centre (formerly the Library) facility. Provision of library resources via the internet and increasingly mobile technologies have changed the way that students find, consume and interact with resources but do not appear to have fundamentally changed the numbers of students using the physical facilities within the Library. So while discovery can happen anywhere and students are relying less on the library as a physical place for accessing information, they are relying on it more as a place to be productive.

The redevelopment of the old Library into the Student Centre included the provision of more flexible spaces which provide students with a range of facilities from areas for quiet individual study through to areas which allow group work. The change from print to electronic as the main medium for the supply of library materials and the removal of many books and journals from the public collections facilitated those changes.

In 2004 across all Australian universities which reported data, 45% of total materials expenditure was on electronic resources. This ranged from a low of 25% to a high of 65%. Across New Zealand

universities the average was 44%, with a low of 33% and a high of 64%. The average across Australia and New Zealand was 44%. 2004 was the first year that expenditure on electronic resources was reported separately. By 2015 the average was 85% in both Australia and New Zealand. Within New Zealand the highest was 93% and the lowest 76%. In 2004 Waikato spent 46% of its materials budget on electronic resources and in 2015 the figure was 83%.

Despite this shift in the provision of resources which has been accompanied by a drop off in the use of more traditional services such as the issuing of print books which has fallen by 59% between 2004 (371,737 issues) and 2015 (152,553 issues) usage of Library facilities and the Student Centre has remained fairly constant. In 2008, the last full year of operation of the old Library the door count was 564,307, issues were 295,449. In 2015 the door count was 552,640 and issues were 152,553

Computer usage in the first six weeks of Semester A this year averaged between 70% and 90%, depending on the day of the week, between 9.00 am and 3.00 pm. The 24 hour study space recorded computer usage of up to 36% at night during that period. In that same six week time period average daily head count was just over 3,150 per day and the average maximum occupancy was approximately 540.

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