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Should New Zealand have a more differentiated university system?

To a large extent, New Zealand's public policy environment treats our universities as if they were all the same. This is particularly so in respect of domestic student funding. Thus, irrespective of its unique characteristics or international rankings, each university receives precisely the same government funding for each domestic student in a particular discipline. The tuition fees which each university may charge those students are highly regulated by government and essentially the same across the sector. As a result, the combination of government tuition funding and domestic tuition fees is also essentially the same across all eight universities for a given discipline. Together, these sources make up on average 48% of the total revenue of each university. Only the Performance-Based Research Fund (PBRF), which comprises 4 - 9% of university revenues, has a direct quality component. In such a highly regulated sector, with a public policy focus on lowering cost rather than raising quality, it is perhaps not surprising that the top universities have seen their international rankings decline gradually.[1]

Not only are the differences between universities largely ignored, but distinctions between the universities and other parts of the tertiary sector have also been blurred. Thus, for example, institutes of technology and polytechnics (ITPs) have been permitted to move into degree and postgraduate teaching, and funded to do so at the same rates as universities, despite the fact that they do not meet the statutory requirements for degree teaching.[2]

By contrast, some other countries have adopted a more differentiated approach to the role and resourcing of their universities in order to support the performance and international competitiveness of their university sector, and ensure that their top universities can keep up with the leading universities in the world. In this issue of *Commentary* we look at the divergence of the New Zealand university sector and how the public policy environment of other countries addresses differentiation.

A gradually diverging sector

Despite the fact that the New Zealand tertiary funding system largely treats the eight universities as if they were all the same, the sector has been gradually diverging. Figures 1 and 2 show two measures of the size of these institutions. Whereas in 2000 the range of sizes, as measured by total revenue, was $58 to 375 million, today it is (also in 2000 dollars) much greater at $81 to $823 million. Similarly, the assets of the universities, all less than $650 million dollars two decades ago, now range from $0.1 billion to nearly $2.2 billion (again in 2000 dollars).[3]

Part of the explanation for this divergence lies in the changing nature of the activities in which the various universities have been engaged. For example, numbers of domestic students have not changed markedly over the last 15 years reflecting the slow growth (and recent demographic

Figure 1. Total Revenue 2000 – 2018, in 2000 dollars

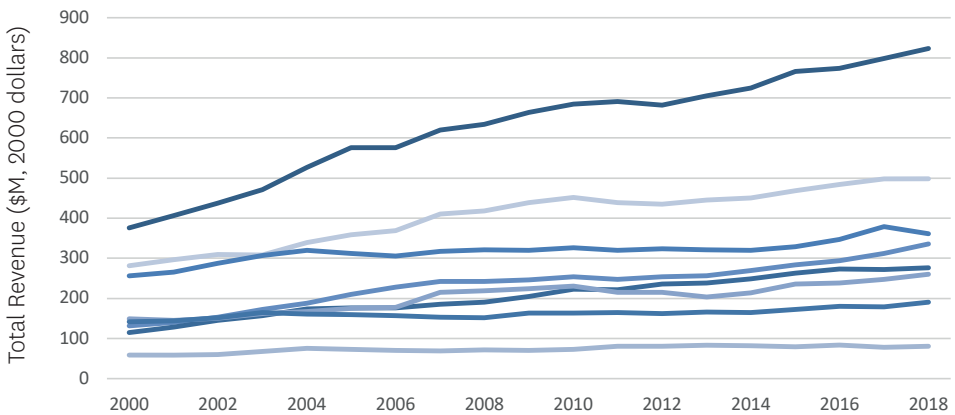


Figure 2. Property, Plant & Equipment 2000 – 2018, in 2000 dollars

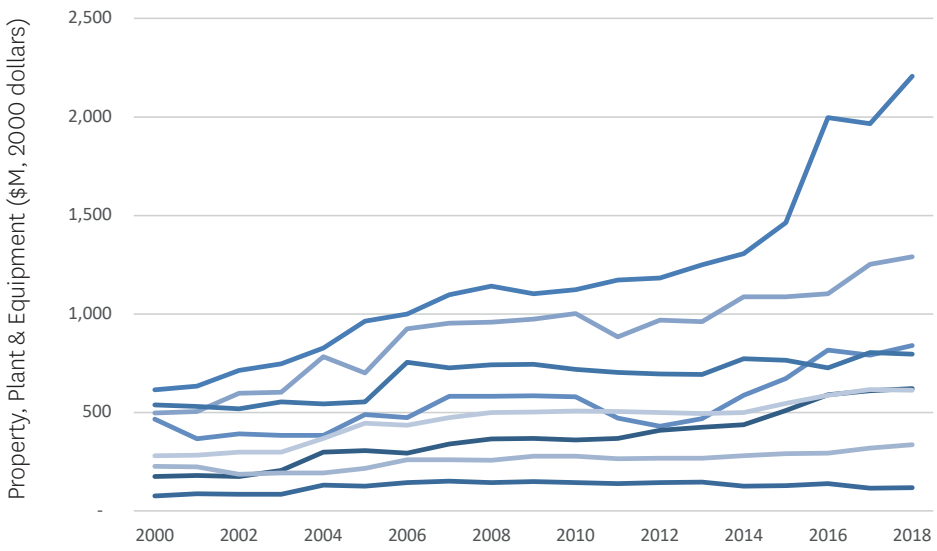


Figure 3. International Fee Income 2000 – 2018, in 2000 dollars

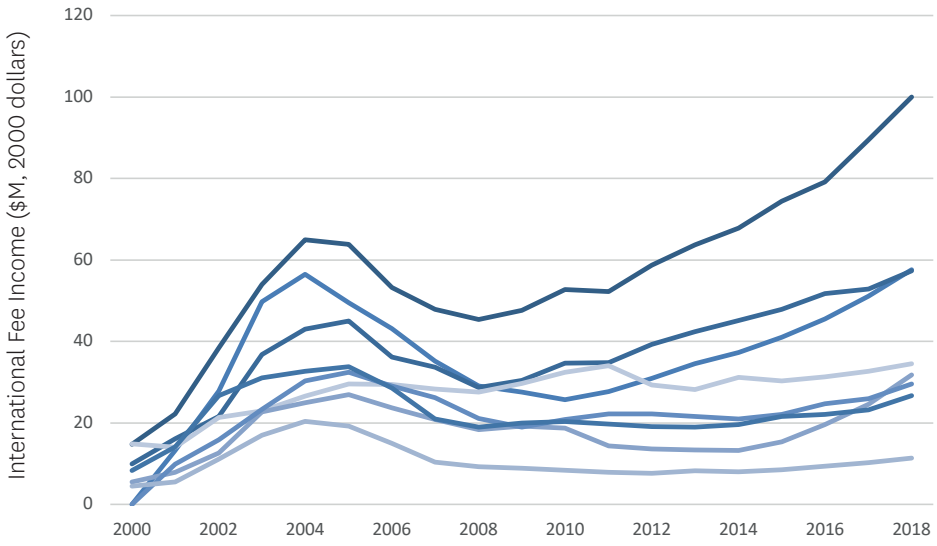
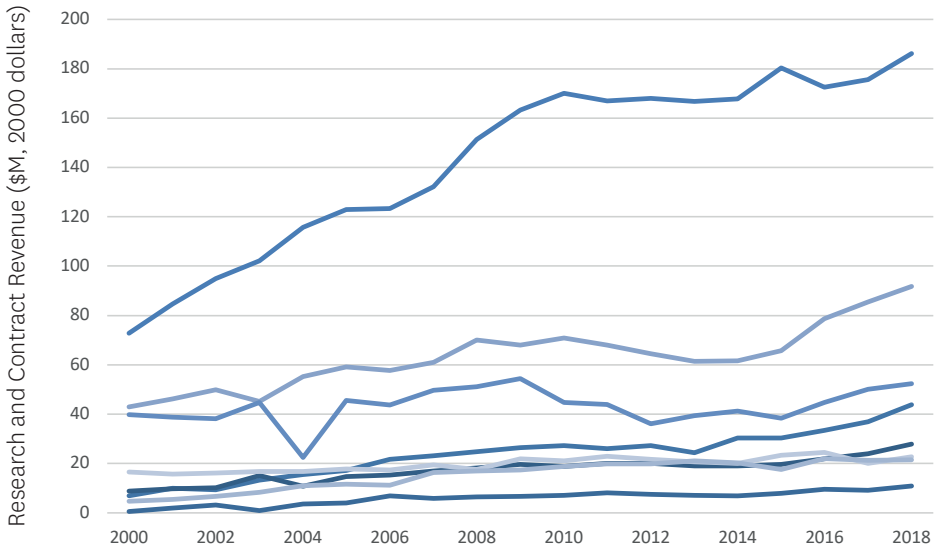


Figure 4. Research and Contract Revenue 2000 – 2018, in 2000 dollars



dip) in numbers of New Zealand school leavers going on to university. However, international fee income (Figure 3) and research revenue (Figure 4) have increased very markedly in some universities as they have sought to generate new opportunities beyond the highly constrained domestic student market, but not in others.

Concentration of research excellence also varies by institution as reflected in the results of the PBRF. The proportion of researchers in each university that are A-rated (recognised as world-class researchers, the highest Quality Category under the PBRF) varies from 7% to 22%, and some universities have much greater breadth of research activity across the subject areas evaluated for the PBRF than do others.

What are other governments doing to strengthen their leading universities?

Many western higher education systems (except the US) that developed in the decades following the Second World War were built on principles of equality of institutions with all universities essentially treated the same. However, spurred on by increasing international competition over the past two decades and the proliferation of international ranking systems in the early 2000s, governments wanting to maintain or develop top-tier universities have increasingly rethought the egalitarian principles underpinning their university systems, including the often-uniform budget entitlements enjoyed by universities.[4] As one commentator has noted "The need for mission differentiation, and with only a select few truly research-intensive universities adequately funded, is now widely understood by ministries and those who study higher education systems".[5] As a result, governments have introduced strategic funding initiatives, often referred to as *excellence inititiatives*, involving the injection of large sums of additional funds into a select group of universities to strengthen their research performance and international competitiveness.[6]

There are numerous examples of excellence initiatives worldwide with more than 20 countries having (or having had) one or more such programme in place.[7] Those most often talked about include the German *Exzellenzinitiative*, which gave name to the concept, and those in Asia (e.g. China, South Korea) often credited with the rapid rise in the rankings of universities in those

countries. Table 1 shows the details of initiatives in Germany, China and South Korea, and gives a clear picture of the scale of some of these initiatives. It is worth noting that for many of the initiatives the majority of funds are targeted at the very top institutions e.g. China's Project 985.

While different countries have gone about implementing excellence iniatives somewhat differently (e.g. transforming existing universities vs. establishing new ones from scratch or through mergers)[9], there are some common elements worth noting. These include:

- The programmes are typically highly selective in terms of universities targeted in an effort to concentrate funds and build critical mass
- Funds are additional to usual funding instruments (i.e. do not replace regular funding or come at the expense of institutions not part of the initiative)
- The time frame is typically 5 -7 years, giving institutions certainty, and several rounds are common
- There is a focus on building research infrastructure and attracting world-leading scholars and scientists

Notwithstanding the fact that factors such as time and attribution make it difficult to assess the impact of excellence initiatives, rankings performance offers some insights.[10] In China, for example, the number of universities in the top 100 of the QS ranking has gone from 2 in 2010 to 6 in 2020. Their performance in the THE rankings has also improved significantly with another 4 universities in the top 200, taking the total to 7. Similarly, South Korea has gone from 2 to 5 universities in the top 100 of QS from 2010 to 2020, and the number of their universities in the top 200 of THE has gone from 4 to 6 over that period. Germany, another strong performer, has had another 5 universities make it into the top 100 of THE (taking the total to 8), and gone from 14 to 23 in the top 200 of the THE rankings. At the institutional level, Chinese universities have made enormous progress. China's top universities, Tsinghua, Peking and Fudan, have improved significantly in the rankings and are now ranked 16, 22 and 40 in the world respectively (QS).

Over the same period (2010 to 2020), New Zealand's top universities have continued to slide in the QS rankings – Auckland from 68 to 83, Otago from 135 to 176, and Canterbury from 189 to 227. New Zealand now has only one university in the top 200 of the THE rankings.

Table 1. Selected Excellence Initiatives[8]

Country	Programme & no. of targeted universities	Funding ($NZ) – approximate annual total
Germany (~ 380 universities)	**Excellence Initiative Phase I: (2006-2011)** *10 universities, 40 graduate schools, 30 clusters of excellence*	$533 million
	Excellence Initiative Phase II: (2012-2017) *11 universities, 45 graduate schools, 45 clusters of excellence*	$767 million
	Excellence Strategy: (2018/19 - ongoing; initially 7-year round *11 universities of excellence, 57 excellence clusters*	$923 million *$667 million to excellence clusters; $256 million for universities of excellence*
China (~ 2000 universities)	**Project 211 (1995-2005)** *112 universities*	$727 million
	Project 985 (1998-2012) *39 (subset of 9 designated as elite and received approx. 50% of total funds)*	$1.3 billion
	Double World Class Project (DWCP) (2015 - ongoing) *42 universities receive funding to develop as world class institutions, and a further 95 universities receive funding for specific disciplines*	Not available
South Korea (~ 220 universities)	**Brain Korea 21 (BK21) (1999-2005)** *14 universities received 90% of funds*	$257 million
	BK21 Phase II (2006-2012) *10 universities received 80% of total funds*	$300 million
	World Class University Program (WCU) (2008-2012) *33 universities*	$195 million
	Brain Korea 21 Plus Project (2013-2020) *Number of targeted universities not available*	$313 million

Conclusion

At least from a funding perspective, the public policy environment in New Zealand treats all universities as if they were all the same, and constrains them to what are by international standards very low levels of resourcing. This has been associated with a gradual decline in the international rankings of our top universities. Yet, as we have shown, our universities are becoming less homogeneous than they were, demonstrating increasing variability in size, in the nature of their student body and in research capability.

Meanwhile, other governments have accepted the need for greater differentiation amongst their universities, and there is evidence that their willingness to invest heavily in their top universities has seen those universities climb in the rankings. If New Zealand wishes to buck the current trend and retain some top-ranked universities it will need to consider taking a similar approach.

[1] Refer to Commentary Issue 8, March 2018 on university rankings. Available: **https://cdn.auckland.ac.nz/assets/auckland/about-us/the-university/official-publications/commentary/commentary-issue-8.pdf**

[2] Section 253(B) part (3) of the Education Act requires that the award of a degree must recognise the completion of a programme of advanced learning that is "taught mainly by people engaged in research". As PBRF and other data show, that condition is not met in the ITP sector.

[3]Australia's leading research universities (Group of 8) have high levels of PPE investments in line with that seen at the highest level in New Zealand.

[4] Douglas, J. A. (2016). The origin of the flagship idea and modern adaptations. In J. A. Douglas (Eds.*), The new flagship university: changing the paradigm from global ranking to national relevancy* (pp. 31-37). Hampshire, England: Palgrave Macmillan.

[5] Douglas, J. A. (2016, p.35). Ibid.

[6] J. Salmi (2016). Excellence Initiatives to Create World-Class Universities: Do They Work? Available: **http://tertiaryeducation.org/**

[7] The authors have idenfied at least 20 countries that have had at least one excellence initiative, in some cases more.

[8] Sources by country include: **Germany:** Federal Minstry of Education and Research (n.d.) Excellence Strategy. Available: **https://www.bmbf.de/en/excellence-strategy-5425.html China:** Jiang, J. and Mok, K. H. (2019). Asserting global leadership in higher education: governance with strong government in China. In D.S. L. Jarvis & K. H. Mok (Eds.), *Transformations in higher education governance in Asia: Policy, politics and progress* (pp. 101-122). Singapore: Springer Nature. **South Korea:** Um, M. (n.d.) Centre for Excellence as a tool for capacity-building: case study Korea. OECD. Available: **https://www.oecd.org/sti/Korea_case_study.pdf.** Suh, G. & Park, S. (2014). The Korean government's policies and strategies to foster world-class universities. In Y. Cheng, Q. Wang & N. C. Liu (Eds.), *How world-class universities affect global higher education* (pp. 65-83). Rotterdam: Sense Publishers.

[9] Froumin, I. & Lisyutkin, M. (2015). Excellence-driven policies and initiatives in the context of the Bologna Process: Rationale, design, implementation and outcomes. In A. Curaj, L. Matei, R. Pricopie, J. Salmi & P. Scott (Eds.), *The European Higher Education Area: Between critical reflections and future policies* (pp. 249-265). Switzerland: Springer International Publishing.

[10]J. Salmi (2016). Op. cit.

Commentary is produced on an occasional basis by the Office of the Vice-Chancellor at the University of Auckland, and brings together some of the research-based evidence relevant to current issues in higher education and research.

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