FUNDING BY NUMBERS

Australia and New Zealand both rely on assessment schemes to improve research quality, yet the money associated with each is very different. By **Julie Gould**.

The Excellence in Research for Australia defines research as:

"The creation of new knowledge and/or the use of existing knowledge in a new and creative way so as to generate new concepts, methodologies and understanding."

Funding for universities as determined by ERA assessment¹.

AUSTRALIA RESEARCH ASSESSMENT FUNDING BY STATE

Australia's budget for higher-education research and development is an order of magnitude larger than that of New Zealand, yet the amount of money determined by Excellence in Research for Australia (ERA) is significantly smaller.

Population:

22M

MONEY MATTERS

The Excellence in Research for Australia (ERA) assessment comprises only 0.08% of all government funding for higher-education research and development (HERD)¹.

SCHOLARLY SPENDING

New Zealand continues to increase gross domestic expenditure on research and development (GERD), but Australia is starting to pull back².

*Data for Australia are produced on even years; data for New Zealand are produced on odd years.

EXCELLENCE IN RESEARCH FOR AUSTRALIA: TIMELINE

Policy-makers and government officials have changed funding allocations from formula favouring quantity to assessment criteria favouring quality³.

1990	1995	2000	2005	2010	2015
Australian Research Council established.	Introduction of Unified National System, which was a framework to reorganize and improve higher education in Australia.	Research block funding became formula based, measuring number of papers published.	Minister for Education, Brendan Nelson, calls for new Research Quality Framework (RQF).	ERA pilot study. Excellence in Research for Australia (ERA) announced. RQF abandoned.	ERA 2012 report. Next ERA evaluation.

References: 1. *Research and Experimental Development, Higher Education Organisations* (Australian Bureau of Statistics, 2010), available at go.nature.com/1obhsa; 2. United Nations Educational Scientific and Cultural Organization Institute for Statistics; 3. Kwok, J. T. *Impact of ERA Research Assessment on University Behaviour and their Staff* (NTEU National Policy and Research Unit, 2013) available at go.nature.com/c2ypxa.

2010

All data are from 2010 unless otherwise stated, because 2010 provides the most recent, reliable, comparable and complete data. All dollar amounts are in US dollars, converted using a 2010 exchange rate.

NEW ZEALAND RESEARCH ASSESSMENT FUNDING BY UNIVERSITY

The majority of New Zealand's higher education funding is allocated by the Performance-Based Research Fund (PBRF), which spent a total of \$168 million on tertiary education organizations in 2010.

Population:

4.4M

The Performance-Based Research Fund defines research as:

“Original investigation undertaken in order to contribute to knowledge and understanding and, in the case of some disciplines, cultural innovation or aesthetic refinement.”

THE GREAT DIVIDE

The system used by the PBRF to allocate funds to universities⁴.

*The system used to allocate funds by Excellence in Research for Australia is more complicated and relies on a more peer-review structure than New Zealand's system.

PRINTED MATERIAL

Any published articles* that include at least one author from Australia or New Zealand⁵.

*Journals, conference proceedings, book series, books or trade publications.

MONEY MATTERS

Almost 90% of all funding for higher-education research and development (HERD) in New Zealand is provided by the government and universities⁶.

PERFORMANCE-BASED RESEARCH FUND: TIMELINE

Before 2000, funding was provided to tertiary education organizations based on the number of researchers. Now funding is dependent upon individual performance reviews⁷.

1990	1995	2000	2005	2010	2015
Education Act establishes the Tertiary Education Commission.	Funding now based on number of equivalent full-time students, weighted by course costs.	White Paper to assure research quality and accountability. Tertiary Education Advisory Commission (TEAC) established to provide advice on strategic direction.	First Performance-Based Research Fund (PBRF) assessment. TEAC introduces the PBRF.	PBRF reviewed. All funding now allocated through the PBRF.	Full PBRF assessment. Next PBRF assessment is in 2018.

4. Performance-Based Research Fund Annual Report 2010 (Tertiary Education Commission), available at go.nature.com/s5t6p7; 5. Scopus; 6. Research and Development in New Zealand 2010 (Statistics New Zealand), available at go.nature.com/c7bbp5; 7. A History and Overview of the PBRF (New Zealand Ministry of Education), available at go.nature.com/vwXjbu.