

# Terms of Reference Issue Paper 4: Sustainable and Diverse Workforce

## Purpose

*This paper aims to provide supporting information for the Performance-Based Research Fund (PBRF) Review panel, as they look at one of the six issues in the Terms of Reference (ToR) for the Review – a sustainable and diverse workforce with investigator-led research capability.*

*The ToR state that the Review will examine the effectiveness of the PBRF on the development of a highly-skilled and diverse research workforce for New Zealand in the context of the changing nature of work and workplaces. This will include consideration of whether any adjustments to PBRF settings are required to support a sustainable mix of gender, ethnicity and ages across the tertiary research workforce.*

*The ToR also state that the Review will also consider whether the PBRF creates any incentives or disincentives within tertiary education organisations given the changing nature of work and the continued evolution of new types of working arrangements, ways of working and workforce development.*

## Background

The tertiary education sector plays a key role in developing New Zealand's research workforce, and this is reflected in the specific funding within the PBRF for annual research degree completions. The way people engage in work will continue to evolve for example, the changing nature of work may increase numbers of staff working part-time, flexible working arrangements, working across multiple workplaces, or contracting arrangements. The PBRF will need to ensure it does not disadvantage any researchers.

In addition, there are long-standing concerns around the diversity of our research workforce and if we have a sustainable and representative mix of gender, ethnicity and ages across the workforce.

The PBRF is at its core a funding mechanism, and not intended to fundamentally shape the research system and its workforce. As noted in paper 3, it is important to avoid putting in place a PBRF-based mechanism to fix issues that are actually systemic, and would exist with or without the PBRF. At the same time, there may be helpful changes we can make to the PBRF to encourage a more sustainable and diverse research workforce. There may also be barriers in place as part of PBRF operation that need to be removed to enable these changes.

Recent Government work has more emphasis on our research workforce and what can be done to support them. For example, the Ministry of Business, Innovation and Employment (MBIE) has recently released its draft Research, Science and Innovation Strategy for consultation, which has much more of an emphasis on how we achieve diversity within our research workforce and is seeking feedback on this issue. MBIE has also published its Diversity in Science Statement, which sets out their ambition to promote diversity in science and research.

Many of the issues discussed in this paper appear to be the result of TEO management practices and so the PBRF may not be the best, or the only mechanism to address them.

It is important to note that, as with all of the issues in the ToR, there are interdependencies between potentially adjusting PBRF settings to better support a sustainable and diverse workforce and any other recommendations made in other areas. For example, if a decision were made to introduce further weightings based on the type of researcher then it would have to be worked through whether this would still be viable if group based assessment was introduced.

## Issues

### ***New and Emerging Researchers***

While the 2018 Quality Evaluation introduced a weighting for new and emerging researchers, there is still a sense from some research staff that the PBRF has distorted management practices, with a tendency towards hiring more experienced staff at the expense of their more junior colleagues. If this is happening, this is a case of management practice within Tertiary Education Organisations (TEOs) responding to the structure of the PBRF.

As noted by the Tertiary Education Commission (TEC), the number of new and emerging researchers in the 2018 Quality Evaluation increased only marginally, signalling that the increased funding weighting of 2 may not have had a significant impact on TEOs taking on early career researchers, or submitting Evidence Portfolios for these researchers. However it may have prevented a decrease in the number of new and emerging researchers being employed and having Evidence Portfolios submitted.

The 2018 Quality Evaluation results appear to support research undertaken by Buckle and Creedy (2018) on the evolution of quality as measured by the PBRF. Buckle and Creedy (2018) found that the research workforce is aging - with an increase in the average age of entrants, and fewer exiting from the older age groups. They note that there may not be enough younger researchers entering and moving up through the system to see increases in quality in future rounds. The 2018 Quality Evaluation showed that approximately two thirds of returning researchers received an A or B Quality Category in 2018, which was either the same Quality Category or an increase from 2012.

Some have stated that the PBRF has highlighted the aging workforce problem for TEOs and how they need better succession planning. However the lack of change from the 2012 Quality Evaluation seems to suggest that while TEOs may be aware of the issue, they have not made the corresponding changes to their management and hiring practices. In addition, the PBRF has now become fairly well-established, with older researchers having substantial experience with the PBRF as compared to new and emerging researchers, which could be seen as giving them an advantage when participating in the process. We have heard from some in the sector that it can be an intimidating process for new and emerging researchers.

This has links to another issue in the ToR, whether we should shift to group-based assessment. While this is included in the ToR in the context of increasing collaboration, it has been suggested that group based assessment could allow for increased mentoring of new and emerging researchers by more experienced

researchers, and also take the pressure off new and emerging researchers in the first stages of their career. However there is also a danger that group-based assessment could reinforce some of the possible hierarchies in place now. For example, TEOs could favour their researchers that have received higher Quality Categories when deciding whose outputs to include for assessment in each group.

### ***Ethnic Diversity and the PBRF***

The 2018 Quality Evaluation showed an increase in the percentage of researchers who identified as Māori (4.8%, up from 3.7% in 2012, and as compared to 16.5% of the wider population<sup>1</sup>). There was a very slight increase in the percentage of researchers who identified as Pacific (1.4%, up from 1.3% in 2012, and as compared to 8.1% of the wider population<sup>2</sup>).

While it is encouraging that the numbers of researchers identifying as Māori or Pacific is increasing, the numbers show there is still a lack of representation as compared to the wider population. This has flow on effects for TEOs and the students in them. Recent research has shown that the proportion of Māori and Pacific staff in tertiary education has not increased in recent years and argues this raises questions about TEOs commitment to Te Tiriti o Waitangi<sup>3</sup> and the treatment of Pacific academics employed by TEOs.<sup>4</sup> This lack of representation also means Māori and Pacific students at TEOs are not being taught by a workforce representative of who they are.

As with many of the issues in this paper, this situation appears to be a reflection of the management practices within TEOs, and the PBRF may not be the best mechanism to address it. The PBRF can also provide a neutral validated assessment of research, which can be helpful when dealing with bias within an institution. This can also apply to women who feel they are faced with a biased assessment of their work within their institution.

It should also be noted that there are links to another issue in the ToR, around supporting all types of research activity, as Māori researchers tend to be carrying out the majority of Mātauranga Māori research.

### ***Gender Diversity and the PBRF***

The 2018 Quality Evaluation witnessed greater gender parity with 42.9% of those receiving funded Quality Categories being women (up from 38.8% in 2012). Women researchers were awarded slightly more of the C(NE) Quality Category with men more likely to receive an A or B Quality Category.

This aligns with research (currently under review for publication) being done by Ann Brower and Alex James (who you will be hearing from at your meeting). They have looked at the previous three Quality Evaluation rounds and shown that in universities women were more likely to be Lecturers and Senior Lecturers and more likely to be awarded C and C(NE) Quality Categories than their male counterparts.

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<sup>1</sup> Census 2018.

<sup>2</sup> Census 2018.

<sup>3</sup> 'Why isn't my professor Māori? A snapshot of the academic workforce in New Zealand universities', McAllister et al, 2019.

<sup>4</sup> 'Why isn't my professor Pasifika? A snapshot of the academic workforce in New Zealand universities', Naepi, 2019.

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### ***Part-time Researchers***

Linked to the issue of gender diversity is how the PBRF treats part-time researchers. The 2018 Quality Evaluation results showed that women tended to be employed on a part-time basis more often than men. Of the female researchers, 16.4% were part-time and 83.6% full-time. This compares with their male counterparts, where only 8.0% of men were part-time and 92.0% full-time.

There are two main reasons for why a researcher would be defined as working 'part-time' for a TEO. One is someone who is a part-time researcher for a TEO and with the rest of their time are carrying out family and/or community responsibilities. Linked to this is the time some research staff take out for cultural obligations. The second type is those who are a part-time researcher for a TEO and with the rest of their time are still working in the research area (i.e. at a research institute), so are essentially 'full-time' researchers despite not being defined this way by the PBRF.

For the latter type, the connections between their two roles could give them a potential advantage in research opportunities, while the former could potentially be disadvantaged. The distinction between these two types should be kept in mind when looking at possible areas for consideration.

In the past part-time researchers could fall under the 'Special Circumstances' category for the Quality Evaluation, but this is no longer the case. For the 2018 Quality Evaluation, the Special Circumstances category was replaced by the Extraordinary Circumstances category. Part-time employment was not considered an extraordinary circumstance on its own. However, staff members affected by extraordinary circumstances who were also part-time could also include information on their employment status. Alternatively, part-time status could be outlined in the Platform of Research Contextual Summary statement in the EP regardless of whether or not a researcher claimed extraordinary circumstances. However, this proved challenging for panellists to interpret and contextualise in the assessment process and panellists have requested that this be improved for any future Quality Evaluations. The general extraordinary circumstances category included three types of leave (long-term illness or disability, extended personal leave and significant family or community responsibilities). The leave had to have occurred over a minimum time period of three years during the assessment period (six years).

The way the PBRF considers research contributions can count against those with family or caring responsibilities that can reduce flexibility to be on panels or attending conferences in this situation. Some have also stated that there is a compounding of missed opportunities when researchers take time out of the workforce, it can be difficult to 'catch-up'. There are also factors other than the PBRF disadvantaging part-time researchers, such as a lack of flexible working arrangements within a TEO.

## **Possible Areas for Consideration**

### ***Changes to Weightings***

One option that has been raised by various researchers involved in PBRF is to make changes to the weightings for different types of researchers, as is the case for new

and emerging researchers currently. For example, a further weighting for new and emerging could be introduced, such as taking it to 2.5, rather than 2. However, this may not have a significant impact, as was experience when the weighting was increased to 2.

Instead a new weighting could be added, for Māori, Pacific, or female researchers awarded Quality Categories in the Quality Evaluation. The 2018 Quality Evaluation results would seem to suggest this might not be particularly effective (as demonstrated by the marginal increase in new and emerging researchers, despite the increased weighting). It would also add to the complexity of the PBRF, as it has been quite time consuming for the TEOs to assess who should qualify as a 'new and emerging researcher' as part of the Quality Evaluation process and for TEC to audit this, adding to transaction costs. In addition, there could be the danger that this would be wrongly understood by TEOs and the wider public.

### **Separate Capability Funding Mechanism for Research Staff**

Issue paper 3 discussed the option of a separate funding mechanism aimed at increasing the capability of smaller TEOs or TEOs carrying out research activity the PBRF would specifically like to increase.

Related to this, a capability fund specifically for research staff could be introduced. I.e. a fund that aims to provide additional training and resources for Māori and Pacific researchers, to enable them to successfully participate in the PBRF. However this solution presupposes that the issue is with the researchers themselves, rather than the TEOs and the support they are providing to their researchers.

### ***Classification and Recognition of Part-time Researchers***

One option to better recognise part-time researchers would be to relax the definition to qualify under the 'extraordinary circumstances' provisions.

However a broader option would be to introduce a system that worked for everyone so there was no need to use 'extraordinary circumstances' for part-time researchers. For example, the Australian Research Council (ARC), which administers Excellence in Research for Australia (ERA) uses 'Research Opportunity and Performance Evidence (ROPE)'. ROPE aims to:

“ensure the assessment processes accurately evaluate an Investigator’s career history relative to their current career stage, and considers whether their productivity and contribution is commensurate with the opportunities that have been available to them.”

Under ROPE, a range of different factors are included when looking at a researcher’s outputs, such as working arrangements, career histories and personal circumstances. This includes taking into account periods of time away from employment.

Putting in place a system similar to ROPE could also have wider benefits for those other than part-time researchers. In Australia it is also intended to help with the assessment of early career researchers and their work.

The concept of ROPE has also already been introduced in the New Zealand context (albeit not for a funding mechanism like the PBRF). For example, the University of

Auckland has a 'Merit Relative to Opportunity' policy, designed to be taken into account when making employment-related decisions, including promotion.

This model could be incorporated into the PBRF however this would require more work by the peer review panels involved in the Quality Evaluation, who already have a fairly heavy workload. (This could be mitigated somewhat by it only being considered by the panel for the sub-set of EPs that are on the border between Quality Categories, or which have unusual scoring patterns or other reasons for the panel to review the EP in greater detail). It would also require careful moderation, to ensure that it was being consistently applied by different panels (especially as some panels have a far higher proportion of part-time researchers than others).

## **Annex 1: International Comparisons**

It should be noted that many of the issues in this paper do not have relevant international comparisons (ie international research funding systems based on peer review do not tend to have specific measures within them designed to encourage diversity). Instead they tend to focus on influencing the workforce through other mechanisms.

### ***United Kingdom***

The Research Excellence Framework (REF) has put in place an Equality and Diversity Advisory Panel for the 2021 assessment round. They advise the funding bodies, the REF team and the REF panels on the development of the full range of measures to promote equality and diversity in the REF. The panel will initially advise on measures to increase the representativeness of the expert panels, and on the development of the guidance and criteria that appropriately recognise equality and diversity considerations in all elements of submissions to the next REF.

As part of this work guidance has been given to institutions on how to put in place effective processes for supporting staff with 'equality-related circumstances', such as documenting how they are doing this in their code of practice and adjusting expectations about the number of outputs (linked to their system of group assessment). In addition, work has been done to improve the representativeness of their peer review panels and on an ongoing equality impact assessment for the REF.

### ***Australia***

As detailed above in more detail, the ARC assesses research on the basis of 'Research Opportunity and Performance Evidence', including for ERA.