



# Performance -Based Research Fund Audit Report

**Tertiary Education Commission**

March 2019

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# 1 Executive Summary

## 1.1 Introduction

KPMG was appointed by the Tertiary Education Commission (the TEC) as the auditor for the 2018 Performance-Based Research Fund (PBRF) Quality Evaluation. The objective of this audit programme is to provide assurance to the TEC that the PBRF guidelines have been consistently and correctly applied by all participating tertiary education organisations (TEOs).

## 1.2 Overall conclusion

Overall, we conclude that the PBRF guidelines<sup>1</sup> have been consistently and correctly applied by all participating tertiary education organisations. Although we identified some instances where TEOs had not correctly applied the PBRF guidelines, these instances have been corrected and we are confident that our auditing procedures have identified the majority of errors.

## 1.3 Overview of audit findings

This section provides a brief summary of the findings identified against the five main areas of our scope. Depending on the severity of the error identified, the TEC either:

- Corrected the error. This was most common for serious errors, such as those affecting authorship or a researcher's new and emerging status.
- Removed the affected research output, research contribution or evidence portfolio for fundamental errors, such as those affecting the eligibility of a staff member or research output.

### 1.3.1 Staff eligibility

TEOs applied the staff eligibility criteria consistently and correctly. Only 13 ineligible staff were identified across the sample of 15.6% of staff audited. The errors identified were unintentional and generally attributable to errors in the data TEOs use to determine the eligibility of staff.

Errors in the calculation of FTE were more common, but only affected 3% of staff in our sample. This is a substantial reduction compared to the 2012 PBRF audit. In most cases these errors were insignificant and over- / understated FTE by 5% or less.

### 1.3.2 New and emerging researchers

Evidence portfolios for researchers that met the new and emerging criteria are subject to a different scoring framework and are eligible for additional funding. We audited all (100%) of staff claimed as new and emerging. The majority of staff (95.5%) were correctly assessed. The remaining 4.5% of staff were referred to the TEC, who reviewed each case and revoked the new and emerging status where appropriate. We can therefore provide assurance that all staff with new and emerging status (after the audit) met the criteria.

### 1.3.3 Research outputs

The audit of research outputs involved reviewing a random sample of outputs and also performing more focused analysis to identify outputs published outside the assessment period or outputs also submitted in the 2012 Quality Evaluation. We estimate that the rate of error in research outputs is approximately 1% (0.8% for nominated research outputs and 1.5% for other research outputs). Peer Review Panels and the TEC can have confidence that the rate of error in research outputs is very low.

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<sup>1</sup> Known formally as the 'Guidelines for tertiary education organisations participating in the 2018 Quality Evaluation'

Two main themes emerged from the research output audit:

— **Research outputs that were identical or similar to outputs submitted in the 2012 PBRF Quality Evaluation**

The PBRF Guidelines require that resubmitted research outputs, for example, new editions of books contain significant new research content. Many TEOs had not established processes to:

- Identify instances where researchers had submitted outputs similar to those included in the 2012 Quality Evaluation, and
- Confirm any outputs similar to those previously submitted contained significant new research content.

— **Research outputs that were published outside of the assessment period**

We identified instances where outputs published before or after the assessment period were included in evidence portfolios. Differences between the date of online availability and the date of imprint were often the cause of this issue.

**1.3.4 Research contributions**

We identified errors in approximately 2% of the research contributions in our random sample. Although our sample is too small to draw statistically valid conclusions, Peer Review Panels and the TEC can have confidence that the rate of error in research contributions is very low.

**1.3.5 Extraordinary circumstances**

We determined that all TEOs had implemented appropriate processes to validate the legitimacy of claims for extraordinary circumstances. KPMG assessed the adequacy of these processes but did not audit individual claims.

**Table 1: Summary of audit errors identified**

TEO	Number of evidence portfolios	Staff Data		Evidence Portfolios		Errors per evidence portfolio
		Fundamental errors	Serious errors	Fundamental errors	Serious errors	Average errors per evidence portfolio submitted
<b>Total</b>	<b>8,282<sup>2</sup></b>	<b>13</b>	<b>110</b>	<b>336</b>	<b>94</b>	<b>0.07</b>

<sup>2</sup> This is the total number of Evidence portfolios submitted by TEOs before any audit sanctions were applied.

## 2 Introduction

### 2.1 Background

Performance in the Performance-Based Research Fund determines the allocation of \$1.8 billion of funding for the six years starting 2019. The majority (55%) of this funding is allocated through the Quality Evaluation.

The Tertiary Education Commission is responsible for administering the PBRF. The TEC implemented the first PBRF Quality Evaluation in 2003, as part of the introduction of the PBRF to the New Zealand tertiary education sector. Quality Evaluations were also completed in 2006 and 2012.

Participation in the PBRF Quality Evaluation is governed by the [‘Guidelines for tertiary education organisations participating in the 2018 Quality Evaluation’](#) (referred to throughout this document as the “PBRF guidelines”).

### 2.2 Audit objectives

The Quality Evaluation is supported by a comprehensive compliance audit programme. KPMG was appointed by the TEC as auditor for the 2018 PBRF Quality Evaluation. The objective of the audit programme is to provide assurance to the TEC that the PBRF guidelines have been consistently and correctly applied by all participating tertiary education organisations. Specifically, the audit programme provides assurance that:

- Staff submitting Evidence Portfolios met the staff eligibility criteria, including the new and emerging researcher criteria where this has been claimed.
- The research outputs and contributions referenced in evidence portfolios exist, were published in the correct period to be considered eligible, and are accurately represented.

### 2.3 Audit approach

#### 2.3.1 High-level approach

A [published audit methodology](#) supports the audit programme, which includes two phases:

- Phase 1: Process Assurance. The first phase was completed in 2017 and assessed the preparedness of TEOs for the Quality Evaluation. The report from the first phase is published on the [TEC website](#).
- Phase 2: Data Evaluation. This report details our findings from the second phase. This phase provides assurance over the data submitted by TEOs for assessment in the 2018 Quality Evaluation.

#### 2.3.2 Detailed approach

The detailed approach, including our sampling methodology are described in Section 3 – Summary of our Findings.

References are made to categories of errors throughout this report. The process to investigate and categorise errors and apply sanctions is discussed in Section 4 – Managing errors identified through the audit.

## 3 Summary of our Findings

This section summarises the findings from the PBRF Quality Evaluation audit. The section is split into two sections:

- The first section discusses the results from the process assurance review completed in 2017.
- The second section discusses the results of the data evaluation audit completed in 2018.

### 3.1 Phase 1: Process Assurance (2017 preparedness audit)

#### 3.1.1 What we did

The first phase was completed in 2017 and involved a combination of site visits and telephone interviews to assess each TEO's preparedness for the Quality Evaluation. Our full report which includes our approach and findings is published on the [TEC website](#).

#### 3.1.2 What we found

All TEOs had implemented appropriate systems and controls to participate in the Quality Evaluation. Three main themes from the first phase are discussed below:

##### 1. The application of the new and emerging criteria

The criteria for determining new and emerging researcher status changed for the 2018 Quality Evaluation. This was a result of a relatively high rate of errors in the application of the 2012 criteria and policy changes which increased the financial incentives for new and emerging researchers that receive the C (NE) Quality Category.

We observed that many TEOs were finding it difficult to apply the new and emerging criteria and the quality of documentation retained to support decisions was variable. We provided guidance on how to document decisions in our report and the TEC also provided a decision-tree to support the sector with their decision-making.

##### 2. The calculation of a full-time equivalent

In previous Quality Evaluations, one full-time equivalent (FTE) was not defined in the PBRF guidelines, and there were inconsistencies in how participating TEOs determined an FTE. The 2018 PBRF guidelines clarified the definition of one FTE to be 37.5 hours per week.

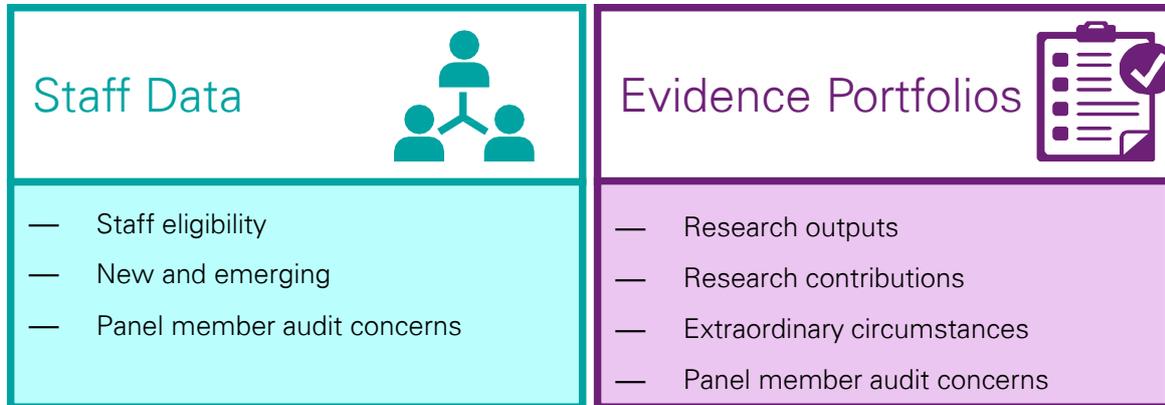
We observed in 2017 that some TEOs were still applying the incorrect denominator (that is not 37.5 hours per week) or were making errors in their FTE calculations. We worked with each TEO to ensure they were calculating FTE correctly. We also worked with the TEC to publish additional guidance in the PBRF guidelines on how to determine FTE.

##### 3. The verification of research activity within evidence portfolios

Some TEOs had not implemented robust procedures to check the accuracy of research outputs and we continued to identify fundamental and serious errors in research outputs. We recommended that all TEOs implemented procedures to verify that research outputs exist, were published in the correct period to be considered eligible and were accurately recorded.

## 3.2 Phase 2: Data Evaluation (2018 audit)

The data evaluation phase of the audit includes two main areas of scope – staff data that TEOs submitted to support funding calculations and evidence portfolios submitted for assessment. The former had three focus areas and the latter four.



### 3.2.1 Staff data

#### 3.2.1.1 Staff eligibility

##### **What we did**

The PBRF guidelines set out four criteria that must be met for staff to participate in the Quality Evaluation. Additional requirements are set for staff contracted from a non-TEO and for staff on long-term leave on the staff eligibility date (14 June 2018).

We developed an audit programme and sampling methodology to determine whether staff submitting evidence portfolios met the staff eligibility criteria. For each staff member in the sample, we reviewed employment agreements and payroll records to confirm that the staff eligibility criteria were met.

A sample of 1,296 staff were selected for audit. The sample size was determined based on a confidence-level of 95% and 2.5% margin of error. A combined random and judgemental sampling approach was followed, which means that it is not possible to extrapolate the rate of error we identified to the population of all staff participating in the Quality Evaluation. Approximately two-thirds of the sample of staff were selected randomly, with the remaining third of the sample selected based on a series of indicators that we considered increased the likelihood of an error in the data.

##### **What we found**

We observed fewer errors in the application of the staff eligibility criteria than in the 2012 PBRF audit. Errors in the calculation of full-time equivalent (FTE) levels were again the most common error identified in our audit and affected 3% of staff in our sample. Errors were most commonly made for staff employed on more than one contract with a TEO or who had changes to their FTE level in the year before data submission. Where FTE errors were identified through the audit, these were confirmed with the relevant TEO and then referred to the TEC to correct the staff data file.

The evidence portfolios for 13 staff (or 1% of our sample) were removed from assessment as we determined that the staff member did not meet the eligibility criteria. The following table presents the reason for these errors.

**Table 2: Summary of staff eligibility errors identified**

Type of error	Number of errors	Percentage of evidence portfolios submitted
<b>Fundamental errors</b>		
Not continuously employed for one year or more	5	0.06%
Not employed on the staff eligibility date	2	0.02%
Not NZ-based	2	0.02%
Employed for less than the minimum FTE	2	0.02%
Not meeting the non-TEO test	2	0.02%
<b>Total fundamental errors</b>	<b>13</b>	<b>0.16%</b>
<b>Serious errors</b>		
Incorrect recording of a staff member's FTE	41	0.5%
<b>Total serious errors</b>	<b>41</b>	<b>0.5%</b>

### 3.2.2 New and emerging

#### *What we did*

We assessed the application of the new and emerging criteria for all 1,522 new and emerging staff. For each new and emerging staff member, we reviewed their Curriculum Vitae, publicly available information and other records that TEOs held to determine whether they met the criteria to be considered new and emerging.

#### *What we found*

TEOs considered that approximately 18.4% (1,522) of researchers were new and emerging. We generally agreed with the decisions TEOs made and the new and emerging classification was only removed from 4.5% of staff (69 staff) claimed as new and emerging.

As with previous quality evaluations, the highest rates of error were for staff working in the creative sectors or who undertook research-related activities before entering academia (commonly in engineering, design or science).

**Table 3: Summary of new and emerging errors identified**

Type of error	Number of errors
<b>Serious errors<sup>3</sup></b>	
Incorrect application of the new and emerging researcher criteria	69
<b>Total serious errors</b>	<b>69</b>

<sup>3</sup> Errors regarding the classification of staff as new and emerging are classified as serious. There is no category of fundamental error for this area of our scope.

**Table 4: Total of all serious errors**

Total of serious errors	Number of errors
Summary of staff eligibility errors identified	41
Summary of new and emerging errors identified	69
<b>Total of all serious errors</b>	<b>110</b>

The table above is a sum of all serious errors as per tables 2 and 3, which aligns with the total in table 1

**Panel member audit concerns – staff data**

Panel members could raise ‘audit concerns’ using the PBRF Quality Evaluation IT system and they raised 25 audit concerns around staff data. Audit concerns are raised when a panellist has identified an aspect of the evidence portfolio that does not look valid; and for staff data these were predominantly around the FTE level or new and emerging status of researchers.

KPMG reviewed each audit concern against evidence in the PBRF IT system and publicly available records. Where the evidence supported that an error may have occurred we sought additional evidence and a confirmation from the relevant TEO before providing a response to the panel member.

Any errors identified from audit concerns raised by panel members were referred to the TEC for sanctions in accordance with the *process for managing errors* described in section 4. The table below presents the results from the investigation of audit concerns around evidence portfolios.

Any errors identified by panellists are included in the totals reported in tables 2 and 3 on the previous pages.

**Table 5: Summary of panel member audit concerns – staff data**

Error significance	Outcome from audit	
	Staff Eligibility	New and Emerging
Fundamental error	0	0
Serious error	0	4
Invalid concern or insignificant error	8	13
<b>Total audit concerns</b>	<b>8</b>	<b>17</b>

**3.2.3 Evidence portfolios**

3.2.3.1 Research outputs

**What we did**

The information claimed in evidence portfolios was checked against information uploaded to the PBRF IT system and other publication databases to confirm the accuracy of information. KPMG subcontracted a team of librarians from Wellington City Libraries to support this work. Where potential discrepancies were identified, these were raised with the relevant TEO to review and respond. Below describes the sampling approach and sample size for each sub-part of the research output audit.

**Random samples of Nominated Research Outputs (NROs) and Other Research Outputs (OROs)**

A statistically significant random sample of 2,239 NROs was selected which represented 6.8% of all NROs. The sample was selected randomly. The sample size was determined based on a confidence-level of 95% and 2% margin of error

A non-statistical sample of 1% of OROs (804) was randomly selected for audit.

The research output audit primarily focused on NROs, as these are given particular scrutiny during the Quality Evaluation and individually have the greatest impact on the score awarded to an evidence portfolio.

#### Additional focused analysis across research outputs

In addition to the samples above, we performed specific analysis across the population of research outputs that were:

- i) Assessed in the 2012 Quality Evaluation, and
- ii) Published on the periphery of the assessment period (2012 and 2017).

### **What we found**

#### Random sample of NROs

We identified errors in 18 of the 2,239 NROs in our sample. This represents a 0.8% estimated rate of fundamental or serious errors. From our audit of the sample, we can estimate the error rate within the population of 32,980 NROs with 95% confidence, which would lie between 0.45% and 1.16%. As this range is less than the 2% margin of error specified in the audit methodology, we consider that the estimated rate of error of the population is acceptable.

Furthermore, only half of the errors identified were 'fundamental errors' i.e. errors that resulted in the NRO being removed from the evidence portfolio. The remaining half were 'serious errors', which typically related to incorrect authorship or an incorrect research output type.

#### Random sample of OROs

We identified fundamental or serious errors in 12 of the 804 OROs in our sample. This represents a 1.5% rate of error in our sample<sup>4</sup>.

#### Additional focused analysis - outputs also submitted in the 2012 Quality Evaluation

An output was identified as part of the randomly selected sample of NROs and OROs that a researcher had also submitted in their 2012 evidence portfolio. We performed an initial analysis to identify whether this issue was more widespread and identified that the issue potentially affected several hundred other research outputs. This was raised with the TEC, who requested we compare the entire population of research outputs included in 2018 evidence portfolios with the research outputs included in 2012 evidence portfolios.

This further analysis identified approximately 1,200 potential matches. Each potential match was reviewed by an auditor to assess the strength and nature of the potential match. Queries were sent to TEOs to review approximately 500 research outputs where there was a strong relationship between the 2012 and 2018 research outputs.

In each of these cases, we sought an explanation from the TEO on the significant new research that had occurred inside the assessment period. Most of our queries were addressed by the explanations provided. However, we identified many cases where the explanations provided by TEOs supported that no research had occurred inside the assessment period and changes were limited to typesetting or formatting. The TEC removed 227 research outputs (61 NROs and 166 OROs) affected by these issues. This issue affected most large TEOs.

The audit observations can be grouped into the following two categories:

##### 1. *Identical outputs*

We observed examples where exactly the same output was submitted in both the 2012 and 2018 evidence portfolio of a researcher. This was often an indicator that the research output was not eligible for inclusion in the 2018 Quality Evaluation or had been included erroneously in the 2012 Quality Evaluation.

##### 2. *Similar or virtually identical outputs.*

We observed a wide range of examples where outputs were included in 2018 evidence portfolios which were similar or virtually identical to outputs included within 2012 evidence portfolios. Examples included new editions of books, repeat performances or conferences on the same topic. A common theme we observed was also where a draft of a research output was included in a 2012 evidence portfolio as a working paper and this was subsequently published in a journal

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<sup>4</sup> Note: the sample of OROs was non-statistical and it is therefore not possible to draw conclusions on the rate of error in the wider population of OROs.

article claimed in a 2018 evidence portfolio. These cases mostly related to working papers uploaded to Arxiv, SSRN, RePEc or University working paper archives.

#### Additional focused analysis - outputs not published inside the assessment period

Early analysis of audit observations and queries from panellists indicated that some TEOs had submitted research outputs that were not produced inside the assessment period. The basic principle governing the inclusion or exclusion of a research output concerns the date when the final version was first made available in the public domain.

We conducted detailed analysis of outputs that had indicators that they may have been produced outside of the assessment period. For each research output, we reviewed information from the publisher or other sources to understand the date of eligibility. Queries were raised with TEOs where our analysis suggested that the output may not have been eligible.

We identified 98 research outputs that were published outside the assessment period (35 NROs and 63 OROs). Some TEOs had a greater share of errors in this category. All TEOs had established procedures to verify the accuracy and eligibility of research outputs within evidence portfolios. However, we understand, for various reasons, that these TEOs had not been able to verify all research outputs before data submission.

**Table 6: Summary of research output errors identified**

Type of error	Number of errors
<b>Fundamental errors</b>	
Research outputs that were submitted in a prior Quality Evaluation	227
The final version of a research output being publicly available outside the assessment period for the 2018 Quality Evaluation.	97
No evidence or insufficient evidence to confirm the research output existed	3
A research output not being authored by the person who submitted the relevant evidence portfolio	1
A confidential research output where permission was not obtained from the commissioning body to include in the Quality Evaluation	1
<b>Total fundamental errors</b>	<b>329</b>
<b>Serious errors</b>	
Incorrect classification of research output type	24
A research output that is virtually identical to other research outputs submitted in the evidence portfolio	23
Failure to include the names or contributions of co-authors, or another authorship error	16
Identification of research outputs as quality assured when they are not	7
<b>Total serious errors</b>	<b>70</b>

#### 3.2.3.2 Research contributions

##### **What we did**

A sample of 1% of research contributions (983) was randomly selected for audit. We sought to review each research contribution claim against publicly available records to confirm the claim occurred within the assessment period and could be attributed to the researcher claiming the research contribution. Where we could not locate publicly available evidence, we asked for the TEO to provide evidence to support the research contribution claim.

### What we found

We identified errors in 22 of the 983 research contributions in our sample. This represents a 2.2% rate of error in our sample<sup>5</sup>. The errors are grouped into three themes:

- Claims that occurred (entirely or partially) outside the assessment period
- Claims that could not be substantiated by the TEO in the 10 working days provided, and
- Exaggerated or embellished claims.

Depending on the extent of the error, we either removed the affected part of the research contribution or reworded the research contribution to more accurately reflect the evidence.

**Table 7: Summary of research contribution errors identified**

Type of error	Number of errors
<b>Fundamental errors</b>	
No evidence confirming the research contribution's existence	6
All of a research contribution occurring outside the assessment period	1
<b>Total fundamental errors</b>	<b>7</b>
<b>Serious errors</b>	
Misrepresentation of the contribution of the submitting staff member to a research contribution.	13
Part of a research contribution occurring outside the assessment period	6
Insufficient evidence confirming the research contribution's existence	4
A research contribution containing identical content to another research contribution	1
<b>Total serious errors</b>	<b>24</b>

**Table 8: Total of all evidence portfolio - fundamental errors**

Total of fundamental errors	Number of errors
Summary of research output errors identified	329
Summary of research contribution errors identified	7
<b>Total of all fundamental errors</b>	<b>336</b>

The table above is a sum of all fundamental errors as per tables 6 and 7, which aligns with the total in table 1

<sup>5</sup> Note: the sample of research contributions was non-statistical and it is therefore not possible to draw conclusions on the rate of error in the wider population of research contributions.

**Table 9: Total of all evidence portfolio – serious errors**

Total of serious errors	Number of errors
Summary of research output errors identified	70
Summary of research contribution errors identified	24
<b>Total of all serious errors</b>	<b>94</b>

The table above is a sum of all fundamental errors as per tables 6 and 7, which aligns with the total in table 1

### 3.2.3.3 Extraordinary circumstances

Researchers could claim ‘extraordinary circumstances’ if they had experienced a long-term illness or disability, extended personal leave, significant family or community responsibilities or impacts from the Canterbury earthquakes. The PBRF guidelines include specific criteria around the impact and duration of the circumstances.

Each TEO was required to establish procedures to consider, endorse and validate claims of extraordinary circumstances. KPMG assessed the adequacy of these processes but did not audit individual claims.

We determined that all TEOs had implemented appropriate processes to validate the legitimacy of claims for extraordinary circumstances.

### 3.2.3.4 Panel member audit concerns

Panel members could raise ‘audit concerns’ using the PBRF Quality Evaluation IT system and panel members raised 289 audit concerns around evidence portfolios. Audit concerns are raised when a panellist has identified an aspect of the evidence portfolio that does not look valid. Audit concerns around evidence portfolios were predominantly around the date a research output was first published, duplication between research outputs within an evidence portfolio and the accuracy of research contribution statements.

KPMG reviewed each audit concern against evidence in the PBRF IT system and publicly available records. Where the evidence supported that such an error may have occurred we sought additional evidence and a confirmation from the relevant TEO before providing a response to the panel member.

Any errors identified from audit concerns panel members raised were referred to the TEC for sanctions in accordance with the *process for managing errors* described in section 4. The table below presents the results from the investigation of audit concerns around evidence portfolios. Errors identified by panellists are included in the totals discussed in tables 6 and 7 on the previous pages but are excluded from the commentary on randomly selected samples or specific analysis in section 3.2.2.

**Table 10: Summary of panel member audit concerns – evidence portfolios**

Error significance	Outcome from audit	
	Research Output	Research Contribution
Fundamental error	28	1
Serious error	56	8
Invalid concern or insignificant error	151	11
<b>Total audit concerns</b>	<b>235</b>	<b>20</b>

## 4 Managing errors identified through the audit

### 4.1 Process for managing errors

The following process was followed to investigate and manage errors identified during the data evaluation audit. This process began once KPMG had reviewed the initial evidence provided by the TEO and potential discrepancies had been identified.

1. A list of queries was sent to the TEO.
2. The TEO had 10 working days to respond to the queries and provide evidence.
3. KPMG reviewed the evidence provided if the:
  - a) Additional information confirmed there was no error in the data, no further action was taken.
  - b) Additional information confirmed there may have been an error in the data, KPMG discussed the error with the TEO and sought confirmation that the TEO accepted the error.
  - c) TEO disputed the error, the original query and evidence, additional information, and KPMG's assessment were provided to the TEC for a final decision.
4. The TEC considered the error(s) identified and information provided and made a final decision.
5. The TEC advised TEOs of the outcome and the sanction to be applied (if any).
6. The TEC applied any sanctions and actions any changes required to the staff and/or evidence portfolio data.

### 4.2 Types of errors

The PBRF guidelines set out two categories of errors – fundamental and serious. Generally, fundamental errors result in the removal of an evidence portfolio or a research output/contribution, whereas serious errors result in a correction to data to remedy the error. The following sections describes the types of errors in each category:

#### 4.2.1 Fundamental errors

- Staff members not meeting the staff-eligibility criteria, for example:
  - not being continuously employed
  - being based overseas
  - being employed for less than the minimum FTE required
- The final version of a research output being publicly available outside the assessment period for the 2018 Quality Evaluation
- A research output not being authored by the person who submitted the relevant evidence portfolio
- No evidence confirming the research output's existence
- A research output that does not meet the PBRF Definition of Research
- A research contribution not attributed to the staff member submitting the evidence portfolio
- A research contribution occurring outside the assessment period for the 2018 Quality Evaluation.

#### 4.2.2 Serious errors

- Incorrect recording of a staff member's FTE
- Incorrect application of the new and emerging researcher criteria
- Incorrect classification of research output type
- A research output that is virtually identical to other research outputs submitted in the evidence portfolio
- Identification of research outputs as quality assured when they are not

- Failure to include the names or contributions of co-authors, or both
- Misrepresentation of the contribution of the submitting staff member to a research output or research contribution.

*Source: The PBRF guidelines pages 105 and 106.*

## Appendix A Audit errors identified by TEO

Appendix A presents the number of fundamental and serious errors identified at each participating TEO. This includes errors identified through the audit sampling process, in response to concerns the Peer Review panels raised and self-identified errors the TEOs reported. Section 4 of this report sets out what constitutes a fundamental or serious audit concern.

Code	TEO	Staff Data		Evidence Portfolios		Errors per evidence portfolio
		Fundamental errors	Serious errors	Fundamental errors	Serious errors	Total errors/number of evidence portfolios
6006	Ara Institute of Canterbury	0	4	0	0	0.09
8530	Auckland Institute of Studies	0	0	0	2	0.17
7008	Auckland University of Technology	0	13	42	12	0.09
8694	Bethlehem Tertiary Institute	0	0	0	0	0.00
8979	Carey Baptist College	0	1	0	0	0.14
6007	Eastern Institute of Technology	1	0	0	1	0.04
8717	Good Shepherd College - Te Heparā Pai	0	0	0	0	0.00
7548	ICL Graduate Business School	0	0	0	0	0.00
8550	IPU New Zealand	0	1	0	0	0.17
8563	Laidlaw College Inc	0	0	0	0	0.00
7006	Lincoln University	0	3 <sup>6</sup>	4	0	0.04
6010	Manukau Institute of Technology	0	1	1	0	0.05
7003	Massey University	4	21	98 <sup>7</sup>	26	0.14
8192	Media Design School	1	0	1	0	0.18
6011	Nelson Marlborough Institute of Technology	0	2	0	0	0.11

<sup>6</sup> This includes two errors related to the calculation of FTE which were self-identified and reported by Lincoln University during the audit.

<sup>7</sup> This includes 12 research outputs that were published outside the assessment period. These were self-identified and reported by Massey University during the audit.

Code	TEO	Staff Data		Evidence Portfolios		Errors per evidence portfolio
		Fundamental errors	Serious errors	Fundamental errors	Serious errors	Total errors/number of evidence portfolios
8396	New Zealand College of Chiropractic	0	0	0	0	0.00
8619	New Zealand Tertiary College	0	0	0	0	0.00
6012	Northland Polytechnic	0	1	0	0	0.11
6022	Open Polytechnic of New Zealand	0	0	1	0	0.05
6013	Otago Polytechnic	1 <sup>8</sup>	0	5	9	0.14
8630	Te Wānanga o Aotearoa	0	4	0	0	0.18
9386	Te Whare Wānanga o Awanuiārangi	0	4	2	1	0.35
6025	Toi Ohomai Institute of Technology	0	0	0	0	0.00
8502	Toi Whakaari New Zealand Drama School	0	1	0	0	1.00
6004	Unitec Institute of Technology	1	0	6	0	0.05
6009	Universal College of Learning	0	0	8	0	0.33
7001	University of Auckland	1	11	61	10	0.04
7005	University of Canterbury	0	6	16	7	0.05
7007	University of Otago	2	17	18	6	0.03
7002	University of Waikato	0	6	7	0	0.03
7004	Victoria University of Wellington	1	6	63	16	0.09
6019	Waikato Institute of Technology	1	3	1	2	0.10
6008	Weltec	0	1	1	1	0.18
6017	Western Institute of Technology at Taranaki	0	0	0	0	0.00
8509	Whitecliffe College of Arts and Design	0	2	0	1	0.18

<sup>8</sup> Otago Polytechnic identified an EP had been submitted for a staff member who was not eligible before the audit began.

Code	TEO	Staff Data		Evidence Portfolios		Errors per evidence portfolio
		Fundamental errors	Serious errors	Fundamental errors	Serious errors	Total errors/number of evidence portfolios
6014	Whitireia Community Polytechnic	0	2	1	0	0.07
<b>Total</b>		<b>13</b>	<b>110</b>	<b>336</b>	<b>94</b>	<b>0.07</b> Average

## Appendix B Audit errors identified by Peer Review Panel

Appendix B presents the number of fundamental and serious errors identified across each peer review panel. This includes errors identified through the audit sampling process, in response to concerns the Peer Review panels raised and self-identified errors the TEOs reported. Section 4 of this report sets out what constitutes a fundamental or serious audit concern. Please note: this is the total number of Evidence Portfolios submitted by TEOs before any audit sanctions were applied.

Panel	Number of evidence portfolios submitted	Staff Data		Evidence Portfolios		Errors per evidence portfolio
		Fundamental errors	Serious errors	Fundamental errors	Serious errors	Total errors/number of evidence portfolios
Biological Sciences	789	2	10	29	9	0.06
Business & Economics	859	2	7	55	10	0.09
Creative & Performing Arts	538	0	19	9	16	0.08
Education	588	0	7	17	10	0.06
Engineering, Technology and Architecture	774	3	9	34	6	0.07
Health	615	0	8	43	10	0.09
Humanities & Law	667	1	6	14	7	0.04
Maori Knowledge & Development	189	1	7	2	2	0.06
Mathematical & Information Sciences & Technology	563	1	3	42	7	0.09
Medicine & Public Health	1212	2	17	24	7	0.04
Pacific Research	60	0	1	3	1	0.08
Physical Sciences	549	0	4	26	1	0.06
Social Sciences & Other Cultural/Social Studies	879	1	12	38	8	0.07
<b>Total</b>	<b>8,282</b>	<b>13</b>	<b>110</b>	<b>336</b>	<b>94</b>	<b>0.07 Average</b>

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