

Performance-Based Research Fund

Evaluation Strategy Proposed by the Ministry of Education and the Tertiary Education Commission

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1. Purpose

1. The purpose of this paper is to outline a strategy for evaluating the implementation and impact of the Performance-Based Research Fund (PBRF). It should be emphasised that this is a high-level strategy document. It is designed to establish the overall nature and scope of the proposed evaluation. It is not intended to provide a comprehensive evaluation plan (or plans), including details of the evaluation process and the methodologies that will be adopted. It is assumed that detailed evaluation plans will be developed for each discrete phase of the evaluation prior to the work being undertaken.
2. The main focus of this paper is upon the first phase of the proposed evaluation, which is due for completion by late April 2004. Detailed consideration will be given to the precise nature and scope of the second and third phases of the proposed evaluation in mid-2004, once the results of the first phase are available.
3. The contents of this paper have been jointly agreed between the Tertiary Education Commission (TEC) and the Ministry of Education (MoE).

2. Context

4. The PBRF is a key element of the Government's *Tertiary Education Strategy* for 2002-07. It also figures prominently in the Government's *Statement of Tertiary Education Priorities* issued in early August 2003. The purposes of the Fund include:
 - Increasing the average quality of research;
 - Ensuring research continues to support degree and postgraduate teaching;
 - Enabling funding for new researchers;
 - Improving information about research quality;
 - Underpinning the existing sector strengths in tertiary education research; and
 - Preventing undue concentration of funding.
5. The overall purposes of the proposed evaluation of the PBRF are to:
 - Determine the extent to which the aims of the PBRF have been achieved;
 - Analyse the results of the PBRF Quality Evaluations (in 2003 and 2006) and assess what they reveal concerning the quality and pattern of research activity across New Zealand's tertiary sector;
 - Identify and assess the behavioural impacts, both positive and negative and both intended and unintended, of the PBRF since Cabinet approval (in December 2002), including the impacts on the nature, quality and quantity of research conducted in the tertiary education sector; and
 - Provide evidence to inform policy decisions concerning the design, implementation and funding of the PBRF, including the transitional funding

arrangements during 2004-07, the conduct of the proposed PBRF Quality Evaluations in 2006 and 2012, and the PBRF funding formula.

6. Both the MoE and the TEC have specific responsibilities in relation to the PBRF. The TEC has the primary responsibility for implementation of the PBRF, including the conduct of the periodic PBRF Quality Evaluations. The MoE has the primary responsibility for providing advice to the Associate Minister of Education (Tertiary Education) on policy matters relating to the PBRF. In this context, it has been agreed that the TEC will have the main responsibility for each phase of the evaluation of the PBRF, including all operational matters. This includes the appointment of an Evaluation Manager for the first phase of the evaluation process and the appointment of an Evaluation Advisory Group to oversee the conduct of this phase. The TEC will, however, consult fully with the MoE on all aspects of the evaluation process. The MoE, likewise, will consult with the TEC in preparing advice to the government on the future shape of the PBRF. In addition, it has been agreed that the evaluation of the PBRF will be jointly funded by the TEC and the MoE.
7. Under the proposed arrangements, Phase 1 of the evaluation will be conducted as a separate work stream within the current PBRF management structure, subject to the oversight of the PBRF Steering Group. The Evaluation Manager will report to the PBRF Project Manager.
8. The nature, scope and timetable for Phases 1 and 2 of the evaluation will be shaped, at least in part, by the need for the Ministry of Education to meet certain reporting requirements established by the Cabinet in late 2002. In this regard, the Cabinet directed the MoE, after consultation with the TEC, to report to the Social Development Committee by 31 March 2004 on the impacts of the PBRF as determined by modelling of impacts following the first PBRF Quality Evaluation, and to make any recommendations concerning:
 - Changes to transition arrangements;
 - The need for buffering of funding to providers;
 - Investment required to maintain programmes of strategic importance;
 - The impacts of the research completions measure on taught degree programmes and research quality, and any need for adjustment of the threshold for research components in the completions measure;
 - The impact of the PBRF on the clinical education courses required to produce practitioners for the health sector; and
 - Any other responses required.
9. Although the Cabinet has asked for a report by 31 March 2004, it is expected that the timeframe will be extended for 2-3 months. This will give evaluators the opportunity to assess more fully the implications of the first Quality Evaluation, the results of which will not be publicly released until late March 2004. It will also enable public feedback on the results to be considered prior to the completion of the evaluation report and the Cabinet paper.
10. Additionally, the Cabinet agreed that the MoE, after consultation with the TEC, would undertake a review of the PBRF, including system impacts, and should

report to the Social Development Committee by 30 September 2005. It is envisaged that this review will provide an opportunity to reconsider some of the design features of the PBRF with a view to addressing any problems or weaknesses that may have become apparent. Note that the second PBRF Quality Evaluation is due to be undertaken during 2006. Accordingly, any changes to the policy framework will need to be determined by late 2005 if they are to be incorporated into the design and implementation of this Quality Evaluation.

3. Proposed Phasing of the PBRF Evaluation

11. Given the MoE's reporting obligations noted above, it is proposed that the evaluation of the PBRF will be conducted in three separate phases:
 - i. The short-term phase: This will focus upon an evaluation of the implementation process (especially in relation to the 2003 PBRF Quality Evaluation) and the short-term impacts of the PBRF on the tertiary education sector, including modelling the likely financial implications of the PBRF for tertiary education organisations (TEOs) during 2004-2007. It will also consider the results of the Quality Evaluation and what these reveal about the overall quality of research being conducted in the tertiary education sector, the main areas of research strength and weakness, and the relative research performance of the TEOs that have participated in the PBRF. The short-term phase will need to be completed by 30 April 2004.
 - ii. The medium-term phase: This will focus upon a more detailed review and evaluation of the wider impacts of the PBRF on the tertiary education sector. It is envisaged that this phase will commence towards the end of 2004 and be completed in time for advice to be provided to the Cabinet by the MoE on the future shape of the PBRF by 30 September 2005.
 - iii. The longer-term phase: This will focus upon whether the PBRF has fulfilled its stated objectives and whether the overall benefits exceeded the costs. It is envisaged that such an evaluation would be undertaken sometime after the second PBRF Quality Evaluation has been completed (presumably in late 2006 or early 2007) but prior to the third PBRF Quality Evaluation (which is due in 2012).
12. It is envisaged that detailed evaluation plans will be prepared for each phase of the evaluation, with detailed reports being prepared at the conclusion of each phase. Such reports will be made publicly available.

4. Constraints

13. All phases of the proposed evaluation will be constrained in various ways. First, the scope and depth of the evaluation will need to be tailored to fit the available budget. This means, amongst other things, that it will be necessary to set priorities. Considerations in the setting of such priorities will need to include:

- i. The requirements of the reports due to Cabinet;
 - ii. The impacts of the PBRF that have been identified as presenting the greatest risk to the sector. These include risks to:
 - The financial viability of particular TEOs (e.g. because of significant changes to the level and pattern of student demand and/or changes in research income);
 - The quality of degree provision;
 - The viability of certain taught postgraduate programmes; and
 - Maori and Pacific research and researchers;
 - iii. The ease with which data can be collected and analysed;
 - iv. The requirement to establish benchmarks against which future PBRF Quality Evaluations can be assessed; and
 - v. The need to ensure that any problems with the design and implementation of the 2003 Quality Evaluation are identified and avoided during the 2006 Quality Evaluation.
14. Second, many of the impacts of the PBRF, both intended and unintended, may not be evident for many years. For instance, until the second and third Quality Evaluations are conducted it will be difficult to assess the impact of the PBRF on the quality of research being undertaken in the tertiary sector.
15. Third, the PBRF is but one of a number of important policy changes affecting tertiary education and research, science and technology in recent years. In many cases it is likely to be difficult to isolate the specific impacts of the PBRF and determine their precise magnitude and significance. This, of course, is a constraint encountered in all areas of policy evaluation.

5. Principles Guiding the Proposed Evaluation

16. Each of the three phases of the proposed evaluation of the PBRF will adhere to the relevant principles that have guided the development and implementation of PBRF, adapted to the context of the evaluation. These are:
- *Comprehensiveness*: The evaluation strategy will cover those aspects of the implementation and impact of the PBRF that relate to, or are perceived to relate to, the effectiveness of the PBRF in achieving its primary aims.
 - *Differentiation*: The evaluation strategy is designed to ensure that differences between institutions are recognised, as well as the differential impacts of the PBRF.
 - *Credibility*: The evaluation must be conducted in a credible fashion. This will require that the evaluation is managed by a well-respected person with a detailed knowledge of evaluation techniques and methodologies. Additionally, it is proposed that the conduct of the first phase of the evaluation be overseen by an Evaluation Advisory Group (see below).
 - *Efficiency*: The evaluation will be conducted in a timely and cost-effective manner, and compliance costs for TEOs will be kept to a minimum.
 - *Transparency*: The process and results of the evaluation will be made publicly available.

17. Four additional principles will also guide the proposed evaluation:

- *Continuity*: The evaluation strategy is designed to capture the short-term (to April 2004), medium-term (to mid-2005) and long-term (to 2012) impacts.
- *Relevance*: The evaluation strategy is designed to ensure that the assessment of the PBRF will generate policy-relevant information and conclusions.
- *International comparability*: The evaluation of the PBRF will draw upon the evaluations and reviews of similar research assessment exercises and performance-based funding regimes in other countries (e.g. Britain and Hong Kong).
- *Independence*: The first phase of the evaluation of the PBRF will be managed by a person who is independent of the TEC and the MoE and who was not assessed as part of the 2003 Quality Evaluation (i.e. academic staff employed by participating TEOs). This does not, of course, rule out the possibility of drawing upon the expertise of various New Zealand-based academics to contribute to the evaluation process. It is envisaged that the second phase of the evaluation will be led by a person of high international standing who is familiar with performance-based research funding systems.

6. Phase 1: The Short-Term Evaluation

18. The TEC will have the overall responsibility for managing this phase of the evaluation.

The Scope of the Evaluation

19. As noted, the first phase of the PBRF evaluation will focus upon a range of matters, including:

- an evaluation of the implementation of the PBRF, with particular attention to the 2003 Quality Evaluation taking into account the findings of the report on Process Assurance;
- an analysis of the likely financial implications of the PBRF for TEOs during the transitional funding period (2004-2007) based on modelling of the results of the three performance measures (i.e. the Quality Evaluation, research degree completions and external research income);
- an assessment of the key short-term impacts (positive and negative, intended and unintended) of the PBRF on the tertiary education sector;
- an analysis of the results of the 2003 Quality Evaluation, with particular attention being given to what they reveal about the overall quality of research being conducted in the tertiary education sector, the main areas of research strength and weakness, and the relative research performance of the TEOs that have participated in the PBRF; and
- an analysis of any concerns relating to the design of the PBRF.

20. Specific attention will also be given to:
- an assessment of whether the PBRF may put at jeopardy any programmes deemed to be of strategic importance;
 - an assessment of the impacts of the research completions measure on taught degree programmes and research quality; and
 - an assessment of the impact of the PBRF on the clinical education courses required to produce practitioners for the health sector.
21. It is envisaged that the Phase 1 of the evaluation will commence in early September 2003 and be completed by late April 2004. The results will provide the empirical basis for the MoE's report to the Cabinet.

The Conduct of the Evaluation

22. Phase 1 of the PBRF evaluation will be managed by an independent person with expertise in the area of policy evaluation. This person will supervise a small team of evaluators. Staff of the MoE and the TEC will assist with the evaluation, as is deemed appropriate. If necessary additional staff will be recruited on a short-term basis to assist with particular evaluation tasks.
23. The first task of the Evaluation Manager will be to prepare, or oversee the preparation of, a detailed Evaluation Plan. This plan will outline the precise nature of the evaluation techniques and methods that will be employed, the timeframes within which the various aspects of the evaluation will be conducted, and the way the available resources will be deployed. It will also outline an intervention logic describing how the PBRF might be expected to achieve its aims and the degree to which various changes in the tertiary sector might be attributed to the PBRF.
24. It is proposed that a small Evaluation Advisory Group of around 7-8 persons be appointed to advise on the conduct of Phase 1. This Group will include representatives of the MoE and the TEC, at least one senior academic with expertise in the area of evaluation, and a person from overseas with detailed knowledge of performance-based research funding mechanisms. Consideration will be given to how best to include Maori and Pacific representation. It is envisaged that the Evaluation Advisory Group will review the Evaluation Plan prepared by the Evaluation Manager, monitor the activities of the evaluation team and review the report prepared by the Evaluation Manager. The Group will meet as required, if necessary using teleconferencing facilities.
25. It is recognized that a number of academics are likely to undertake independent research on aspects of the PBRF, and indeed that some research has already commenced. Additionally, various participating TEOs are likely to undertake internal reviews and audits of their own processes for assessing the research quality of their staff. The evaluation team will be expected to draw upon such work wherever appropriate.

Evaluation Assumptions and Considerations

26. The key assumptions and considerations underpinning Phase 1 of the evaluation strategy are as follows:

- The TEC and the MoE will cooperate on all aspects of the evaluation;
- Existing capacity within the TEC and the MoE will be utilised as much as possible to conduct specific aspects of the evaluation;
- Databases that have been established as part of the PBRF implementation process will be used in the evaluation wherever possible;
- Other tertiary databases operated by the TEC and the MoE will be used wherever appropriate;
- The evaluation will be conducted in accordance with well-established ethical standards;
- Consideration will be given to the collection of data that will provide benchmarks against which the medium-to-longer impacts of the PBRF can be measured;
- Sector feedback on the implementation of the PBRF will be sought;
- Any compliance costs incurred by TEOs as a result of the proposed evaluation will be minimised to the greatest extent possible;
- TEOs will be asked to nominate a PBRF evaluation contact person. This person will be responsible for liaison with the evaluation team and responding to any requests for information from their institution;
- Peer-review, both nationally and internationally, will be used wherever possible to ensure rigour;
- The evaluation team will draw wherever relevant on the evaluations that have been conducted on the British Research Assessment Exercise (RAE);
- The results of the evaluation will be used to inform and improve the PBRF and contribute to its aims and purposes; and
- The evaluation strategy, plans and results will be made publicly available.

The Impact of Other Policy Changes

27. As in all evaluation exercises, care will need to be taken to distinguish, wherever possible, the initial impacts of the PBRF from the effects of other recent policy changes in relation to tertiary education and research funding (as well as other exogenous factors). Any evaluation will also need to take into account the changing research environment in New Zealand (and internationally).

28. In this context, the following changes are likely to be of particular relevance:

- The changes to the regulatory framework for tertiary education, including the changes to TEO Charters and the introduction of Profiles;
- The changes to the tertiary funding framework, including the establishment of Centres of Research Excellence and the introduction of the fee-maxima policy;
- The degree of competition both within and from outside the tertiary sector;
- Changes in relation to TEO-industry linkages;
- Changes in the wider academic labour market; and

- Changes to research funding, especially in relation to the funding allocated by the Foundation for Research, Science and Technology, the Health Research Council and the Royal Society of New Zealand.

The Key Elements of Phase 1

29. As noted earlier, Phase 1 of the PBRF evaluation will consider at least five discrete sets of issues. Each of these is discussed briefly below.

The Implementation of the PBRF

30. This aspect of the evaluation will focus primarily on the processes adopted by the TEC and the MoE to implement the PBRF, and the conduct of the Quality Evaluation by the Peer Review Panels. Relatively less emphasis will be given to examining how the participating TEOs undertook the appraisal of their staff. However, it will be important to assess the administrative/compliance costs incurred by TEOs as a result of the Quality Evaluation and related PBRF requirements.
31. The evaluation of the implementation will need to consider all three components of the PBRF, namely the Quality Evaluation, research degree completions and external research income, with primary attention being given to the Quality Evaluation. It will draw upon the results of the audit of the PBRF implementation.
32. A major objective for this aspect of the evaluation will be to provide information upon which recommendations for the conduct of the 2006 Quality Evaluation can be made.
33. The possible data sources for each aspect of the implementation evaluation are described in Appendix 1.

Modelling the Financial Impacts of the PBRF on TEOs

34. The PBRF modelling work will focus on the financial impacts on the tertiary education sector, including both participating and non-participating TEOs, during the transitional funding period (2004-07). Such work will need to take into account:
- The distribution of the likely available funding for the PBRF according to the currently-agreed funding formula (based on the three performance measures – the Quality Evaluation, research degree completions and external research income);
 - The reduction in funding allocated via the research top-ups; and
 - Any likely changes arising from the current funding category review.
35. It is envisaged that the modelling work will also include an analysis of possible changes to the transitional funding arrangements, such as changes to the funding formula (including the cost-weightings).
36. This element of the evaluation will be undertaken in conjunction with the Tertiary Advisory Monitoring Unit in the MoE.

Impacts on the Sector

37. Phase 1 of the evaluation will include an initial assessment of the short-term impacts of the PBRF on the tertiary education sector, giving particular attention to the 2003 Quality Evaluation.
38. It is envisaged that this aspect of the evaluation will draw on various kinds of information including:
 - Written submissions from interested parties;
 - Interviews with selected staff TEOs, such as research managers, the chairs of research committees and those responsible for the implementation of the PBRF;
 - A survey of a sample of research staff;
 - A review of readily available TEO research-related documents, including any evaluations conducted by TEOs or their staff;
 - Sector impacts identified in the financial modelling exercise noted above;
 - An analysis of compliance costs and burdens; and
 - Interviews with selected people from the main research funding bodies (i.e. the Foundation for Research, Science and Technology, the Health Research Council and the Royal Society) to ascertain whether they have noticed any changes as a result of the introduction of the PBRF.
39. Attention will be focussed on impacts that have been identified within the tertiary education sector as being of particular concern.

The Results of the Quality Evaluation

40. This part of Phase 1 will include an analysis of the outcome of the 2003 Quality Evaluation. Particular attention will be given to what the results reveal about the overall quality of research being conducted in the tertiary education sector, the main areas of research strength and weakness, and the relative research performance of the TEOs that have participated in the PBRF.

Policy Design Issues

41. Finally, Phase 1 will include an analysis of any specific concerns relating to the current design of the PBRF (e.g. relating to staff eligibility, the assessment criteria, etc.). This may include suggestions as to how the PBRF might be improved.

7. Phases 2 and 3: Evaluating the Medium and Long-Term Impacts of the PBRF

42. The nature and scope of Phases 2 and 3 of the PBRF evaluation will be determined after Phase 1 has been completed. Nevertheless, it is envisaged that these phases will be relatively comprehensive and that they will be designed to provide policy makers with data of relevance to the future design and implementation of the PBRF.

43. Based upon the experience of the British RAE, it can be expected that the PBRF will have a wide range of impacts on the tertiary education sector over the medium-to-longer term. While many of these impacts are expected to be positive, it is also likely that some will be negative. For instance, there has been considerable concern in Britain over the possible negative impact of the RAE on the quality of teaching, especially at the undergraduate level.
44. Any comprehensive evaluation of the PBRF will need to consider, amongst other matters, the following possible impacts:
- Sector-wide impacts, including those on both participating and non-participating TEOs;
 - Administrative/compliance costs and burdens for TEOs and the TEC/MoE;
 - Institutional responses and strategies;
 - Personnel impacts and issues;
 - Impact on TEO staffing patterns and policies;
 - Impact on particular categories of staff, including new researchers, women, Maori and Pacific researchers;
 - Impact on research practice, including interdisciplinary research;
 - Impact on research outputs, including quality;
 - Impact on research end-users and TEO-industry linkages;
 - Impact on teaching quality;
 - Impact on community service by academic staff;
 - Impact on students, especially postgraduate students;
 - Impact on other sector organisations and other stakeholders
 - The external uses and perceptions of PBRF quality scores
45. Possible data sources and further details of the impacts in each of the areas above are provided in Appendix 2.

8. Risk Analysis

46. The main risks associated with the proposed evaluation of the PBRF are the potential difficulties of finding independent evaluators of the required calibre, competence and credibility, ensuring that the work undertaken is of a high quality and making certain that the various phases are conducted within agreed timeframes. In the immediate future, the main challenge will be to secure, at relatively short notice, the services of a suitable Evaluation Manager. It is proposed that this particular risk be mitigated by means of a relatively extensive search for suitable candidates.
47. The Evaluation Plans for each phase of the evaluation will be expected to include a detailed risk analysis, together with risk mitigation strategies.

Appendix 1: Phase 1 – Evaluation of PBRF Implementation

1. The Quality Evaluation Implementation

Table 1: Evaluation of the Quality Evaluation Implementation

Objective 1	Evaluate all aspects of the first Quality Evaluation (excluding operation of Peer Review Panels: see Table 2)	
	Aspects to be evaluated	Possible Data sources
TEC	Project management Project design Sequencing and timing Adequacy of documentation and training Resourcing IT systems Data checking and verification processes Process assurance Costs of implementation Communication with the sector including effectiveness of the website Level and quality of sector consultation and feedback Guidance material provided to the sector Publication of PBRF results The Complaints process Ongoing capability of the TEC to manage the PBRF process over time Role of PBRF Steering Group and the TEC Board Maori research and researcher issues Pacific research and researcher issues	<ul style="list-style-type: none"> • Debriefing reports by the TEC staff involved in specific aspects of the evaluation • Steering Group minutes and papers • PBRF Project Manager's report • Moderation Panel report to the TEC Board • Audit Manager's report • Process Assurance report • Summary report on the checking of nominated research outputs • Feedback from TEOs and the MoE about the TEC's performance
MoE	Collection of staff returns from TEOs Establishment of database Issuance of staff unique identifiers Validation of staff eligibility Communication with sector	<ul style="list-style-type: none"> • Debriefing report from MoE staff • Feedback from the TEC about the MoE's performance
TEOs	Management of appraisal process within TEOs Internal verification process for evidence portfolios Staff eligibility criteria: interpretation and application Substantiveness test: interpretation and application IT processes Filling out evidence portfolios Evaluation of evidence portfolios and the application of assessment criteria Compliance costs of implementation On-going administration costs	<ul style="list-style-type: none"> • Written submissions about the implementation process from TEOs. • TEC evaluation team to visit selected TEOs to interview key staff such as heads of faculty research committees and research managers • Comparison of TEO quality categories with peer review panel quality categories • Survey (written questionnaire) of all research managers • Focus group interviews with

	Reporting process Complaints process Communication with the TEC and MoE Communication within TEOs Research staff perspectives on Quality Evaluation process Maori research and researcher issues Pacific research and researcher issues	sample of research staff <ul style="list-style-type: none"> • Survey of sample of research staff to evaluate perceptions of fairness, quality of communication and attitudes towards the PBRF Quality Evaluation • Feedback from the TEC and MoE regarding TEO performance
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2. The Peer Review Panel Process

Table 2: Evaluation of the Peer Review Panel Process

Objective 2	Evaluate all aspects of the peer review panel process	
	Aspects to be evaluated	Possible Data sources
TEC	Panel selection process, including transparency of process Operation of panel system Preparation and training of panel chairs and members Composition of panel (gender, ethnicity, etc.) Inter-panel moderation process Management processes Function and operation of panel secretariat Assessment of Maori and Pacific research	<ul style="list-style-type: none"> • Debriefing reports from the TEC staff involved in peer review panel process • Debriefing reports from panel secretariat • Analysis of panel composition • Process Assurance report • Interviews with Panel Chairs
Peer Review Panel chairs and members	Processes adopted by the panels. Conduct of assessment of EPs by peer review panels Application of assessment criteria Management of conflicts of interest Nature and application of the evaluation criteria Workload Role of Maori Knowledge and Development panel Role of Pacific Advisory Group Role of specialist advisers Review of examination of nominated research outputs	<ul style="list-style-type: none"> • Peer Review Panel Reports to the TEC Board • Moderation Panel Report to the TEC Board • Opportunity for panel members to comment on the process by submission • Phone interviews with sample of members from Maori Knowledge and Development panel, Pacific Advisory Group, specialist advisers and other panel members • Process Assurance report
TEOs	Response to panel scores	<ul style="list-style-type: none"> • Written submissions • Interviews with heads of faculty research committees and research managers and sample of researchers

3. Research Degree Completions

Table 3: Evaluation of the of the implementation of the Research Degree Completions measure

Objective 3	Evaluate the implementation of the Research Degree Completions measure	
	Aspects to be evaluated	Possible Data sources
TEC	Appropriateness and effectiveness of the weightings for cost, equity, type of degree and volume of completions Application of the weightings for cost, equity, type of degree and volume of completions Verification processes to ensure accuracy of data Cost of the implementation	<ul style="list-style-type: none"> • Debriefing reports from the TEC • Outcome of financial modelling exercise
TEOs	Verification processes to ensure accuracy of data Internal policy and funding changes	<ul style="list-style-type: none"> • Submission process for academic staff, administrators and postgraduate students • Interviews with heads of faculty research committees and research managers
MoE	Validation and verification procedures	<ul style="list-style-type: none"> • Debriefing reports from the MoE

4. External Research Income

Table 4: Evaluation of the External Research Income assessment process

Objective 4	Evaluate the External Research Income assessment process	
	Aspects to be evaluated	Possible Data sources
TEC	Reporting of information to the sector Cost of implementation	<ul style="list-style-type: none"> • Debriefing reports on reporting process
TEOs	Verification process for ERI, completion of ERI return and auditable work papers Interpretation and application of inclusion and exclusion criteria Perceived appropriateness of inclusion and exclusion criteria	<ul style="list-style-type: none"> • Submission process • Interviews with heads of faculty research committees, and research managers
MoE (TAMU)	Validation of ERI return and audit certificates	<ul style="list-style-type: none"> • Debriefing report

Appendix 2: Phases 2 and 3 – Evaluating the Medium-to-Long-Term Impacts of the PBRF

Table 5 outlines the range of possible impacts that Phases 2 and 3 of the PBRF evaluation may need to consider, together with potential data sources. Note that for various reasons, not least funding constraints, some of these impacts will not be able to be evaluated in detail. Priorities for Phases 2 and 3 will thus need to be established. The suggested prioritisation outlined in Table 5 is indicative only.

Table 5: Evaluation of PBRF Impacts

	PBRF Impacts to be evaluated	Possible Data sources
Sector-wide impacts	<p>High importance Impact on particular types of institutions Impact on institutional differentiation Impact on particular subject areas Impact on international perceptions of NZ TEOs and researchers Impact on any programmes of strategic importance Impact on overall research output across disciplines</p>	<ul style="list-style-type: none"> • Written submissions from TEOs • Overview of data collected at an institutional level (as described below) will enable sector-wide effects to be evaluated • Financial reports • Review of published literature on the PBRF • Review of analysis of Single Data Return information collected by the MoE • Stats NZ Research and Development Surveys • MoRST Bibliometric Surveys
Institutional responses and strategies	<p>High importance Possible 'gaming' Proportion of staff submitted for external assessment Eligibility criteria for staff submitting EPs Treatment of high and low scoring subjects areas and academic units including investments, mergers and closures Changes to internal processes for promoting and monitoring research quality Changes to internal resource allocation (e.g. funding for scholarships, research infrastructure) Changes in endeavours to secure ERI</p> <p>Lower importance Changes in inter-institutional collaboration Changes in attitudes towards consultancy work by staff Changes in technology transfer</p>	<ul style="list-style-type: none"> • Review of documents such as research strategies and profiles • Interviews with heads of faculty research committees and research managers • Case studies of selected TEOs • Open submission process for TEOs • TEO Profiles
Personnel impacts and issues	<p>High importance Impact of the Quality Evaluation and quality categories on staff morale Impact of the PBRF on recruitment patterns, retention and the 'transfer' market (including age, gender, ethnicity, qualifications, research records) Changes to the nature of employment</p>	<ul style="list-style-type: none"> • Survey of sample of research staff • Focus groups and workshops with research staff such as Maori, young researchers, women • Analysis of TEO documents on staffing, employment

	<p>agreements, including the impact of the 0.2 FTE threshold. Focus on medicine in particular</p> <p>Changes to staffing levels and staffing mix (e.g. impact on research fellows, teaching fellows, tutors, etc.)</p> <p>Changes to staff mobility and turnover</p> <p>Impact on Maori researchers</p> <p>Impact on Pacific researchers</p> <p>Impact on women researchers</p> <p>Impact on new and young researchers</p> <p>Lower importance</p> <p>Impact on salary differentials</p> <p>Impact of average ratings of academic units on staff</p> <p>Impact on collegiality and collaboration</p>	<p>staffing, employment agreements, recruitment, etc.</p> <ul style="list-style-type: none"> • Case studies of academic units (schools, departments) to track changes made in response to the PBRF exercise • Submissions from unions and employee groups such as ASTE, AUS • Interviews with key administration staff and managers in selected TEOs
Changes in research practice	<p>High importance</p> <p>Changes to the nature of research activity, including interdisciplinary research, inter-institutional collaboration, research dissemination and quality assurance</p> <p>Changes in the nature of the research being undertaken: timeframes, pure v applied, risky v safe, etc.</p> <p>Impacts on new and emerging research areas</p> <p>Impact of ERI eligibility criteria on funding arrangements</p> <p>Impacts on development and maintenance of international research networks</p> <p>Changes in levels of joint venture research projects with external partners</p> <p>Impact on technology transfer</p> <p>Lower importance</p> <p>Changes to research infrastructure investments including equipment purchases and library expenditure</p> <p>Changes to the amount of time allocated to research</p> <p>Changes in the nature of conferences attended</p> <p>Changes in the sources of and amounts of funding for ERI measure</p> <p>Impact of PBRF on knowledge transfer</p> <p>Size and nature of internal research grants</p> <p>Research and study leave arrangements</p> <p>Building of research centres</p>	<ul style="list-style-type: none"> • Interviews with TEO research managers to track changes to research practice, infrastructure investment, funding changes • Longitudinal study of selected academic units to track changes in research practice over time • Survey of sample of research staff • MoRST bibliometric surveys • TEO Profiles • TEO financial statements
Impact on Maori research	<p>High importance</p> <p>Impact on key institutions, including wananga</p>	<ul style="list-style-type: none"> • Hui and fono held in TEOs • Interviews with Maori and Pacific staff • Consultation with relevant sector organisations such as Te Taihū o Nga Wananga
Impact on Pacific research	<p>High importance</p> <p>Impact on key institutions</p>	<ul style="list-style-type: none"> • Fono held in TEOs • Interviews with Pacific staff • Consultation with relevant sector organisations

		<ul style="list-style-type: none"> • Interviews with key researchers in international Pacific research networks (e.g. USP)
Changes in research outputs, including quality	<p>High importance Impact on the type and location of research outputs being produced Impact on research productivity, output, impact factors Differences in impact across disciplines Impact on balance between basic/pure, strategic and applied research undertaken by TEOs Potential disincentives to increase quality</p> <p>Lower importance Impact on the proportion of jointly authored research outputs (and numbers of authors) Impact on including students in the authorship of research outputs</p>	<ul style="list-style-type: none"> • Analysis of documents such as annual reports and research reports of TEOs where research outputs are recorded • PBRF Quality Evaluation reports • MoRST bibliometric surveys • Stats NZ Research and Development Surveys
Impact on teaching	<p>High importance Impact on teaching preparation Impact on quantum of teaching /class supervision Impact on the research-teaching nexus: is research contributing more to teaching?</p> <p>Lower importance Impact on teaching quality (e.g. as judged via student evaluations)</p>	<ul style="list-style-type: none"> • Analysis of student evaluations of teacher quality • Interviews with research staff • Time use/allocation survey with sample of research staff
Impact on willingness of TEO staff to undertake administrative tasks and community service	<p>High importance Changes in the willingness of staff to contribute to TEO administration and committee work</p> <p>Lower importance Changes in the time allocated by staff to community service</p>	<ul style="list-style-type: none"> • Interviews with research staff and heads of academic units • Time use/allocation survey data
Impact on students, especially research students	<p>High importance Impact on the pattern and nature of student demand, especially for research-based courses and qualifications Impact on Maori students e.g. participation rates, completion rates, support levels, and facilities Impact on Pacific students e.g. participation rates, completion rates, support levels, and facilities Impact on research facilities and scholarship funding Impact on level and quality of supervision, including pastoral care Impact on research-degree completion rates</p> <p>Lower importance Impact on selection of research students</p>	<ul style="list-style-type: none"> • Focus group meetings with post-graduate research students • Analysis of changes to pattern of student demand • Submissions from student groups • Enrolment and completion statistics • TEO profiles

Impact on research end users	High importance Impact on quality and relevance of research produced by TEOs from end-user perspective Impact on timeliness of research outputs from end-user perspective Impact on willingness of TEOs to engage with end users	<ul style="list-style-type: none"> • Interviews with selection of key research end users across sectors
Impact on other sector organisations and other stakeholders	High importance Impact on other sector organisations, research funding bodies, etc.	<ul style="list-style-type: none"> • Submission process to enable these organisations to comment on the impact of the PBRF • Interviews with selected key stakeholders from others sector organisations
External uses and perceptions of PBRF quality scores		<ul style="list-style-type: none"> • Survey of postgraduate students • Analysis of reporting of Quality Evaluation scores in the media