



Tertiary Education Commission
Te Amorangi Mātauranga Matua

Performance-Based Research Fund

Evaluating Research Excellence

The 2006 Assessment

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Foreword



We New Zealanders have always been proud of our innovations, ideas, and ability to scale international heights.

In today's age, it is our research community that provides us with the enormous opportunity to continue this tradition of innovation and creativity – innovation not only in the economic sphere but also in the research excellence that preserves and enhances our culture and our environment. All research contributes to the intrinsic value of intellectual disciplines.

It contributes to new ways of thinking; it provides new ideas for new products or new ways of doing things. It is a means by which we learn more about ourselves, our history, our culture and people, and our surroundings – and thus it enriches our lives socially, culturally and economically. It is a tool by which we create sophisticated high-value concepts and products.

More than four years ago we launched an ambitious scheme to help boost the excellence of the research conducted in our tertiary education organisations, which are responsible for about half of the country's public-sector research output.

This scheme, the Performance-Based Research Fund (PBRF), ensures that excellence in tertiary sector research is encouraged and rewarded. It is an acknowledgement of the importance of

the tertiary education sector to New Zealand's research development, and therefore to our nation's economic and social advancement and environmental sustainability.

The very fact of the PBRF recognises that a vigorous high-quality research culture within an institution underpins and enhances degree-level learning environments, especially at postgraduate level.

This report outlines the results from the second Quality Evaluation round of the PBRF. It heartens me that after only a few years the system is already showing signs of success in encouraging the sector, and universities in particular, to raise the quality of their research. All universities and most other providers participating in the PBRF have shown improvements in research quality between the 2003 and 2006 Quality Evaluations. Most heartening is the marked increase in the numbers of world-class researchers: this confirms that our tertiary education organisations are able to attract and retain staff of the highest quality. In addition, the recognition that has been given to new and emerging researchers, who represent the future of academic research in New Zealand, is extremely welcome.

Overall, these results give the government good grounds for its ongoing commitment to research based in the tertiary education sector. They also give it confidence that the research it funds will contribute to product and technological innovation, to a better understanding of the issues that affect all aspects of life in this country, and to equipping New Zealanders with 21st-century skills.

A handwritten signature in black ink, appearing to read 'M. Cullen'. The signature is fluid and cursive.

Hon Dr Michael Cullen
Minister for Tertiary Education

Preface



In the tertiary education sector in New Zealand, 2007 is shaping up to be a watershed year. At the Tertiary Education Commission, we are overseeing a significant change to the way the government invests in tertiary education.

The tertiary education reforms focus on improving the quality and relevance of tertiary education and positioning it as a major force in New Zealand's economic and social transformation.

These reforms are driven by the same impetus that, more than five years ago, sought to improve research quality across the sector and achieve better results for New Zealand through the establishment of the Performance-Based Research Fund (PBRF).

The progress that has been made in those five years can be seen from the PBRF's second Quality Evaluation, undertaken by the TEC in 2006. Its results are presented in this report.

Thank you to everyone who has been involved in making this happen. It is a complex task – and it can be successful only through the significant contributions made by many people in the tertiary education sector.

The sector played a major role in the design of the system; and it had a critical role in refining the PBRF during the preparations for the 2006 Quality Evaluation, through the extensive consultation undertaken by the PBRF Sector Reference Group. In addition, more than 200 individuals made themselves available to be part of the assessment process as panel members or specialist advisers. That's not only a considerable time commitment, but involves the difficult and sometimes unenviable task of passing judgement on the work of peers.

The Quality Evaluation is rigorous and robust, and these qualities ensure the integrity and quality of its assessment process. With such a solid and secure foundation, the PBRF will continue to support research excellence, promote human capital development and contribute to a successful future for all New Zealanders.

A handwritten signature in blue ink that reads "Janice Shiner".

Janice Shiner
Chief Executive
Tertiary Education Commission
Te Amorangi Mātauranga Matua

Executive Summary

Key findings

- 1 The results of the 2006 Quality Evaluation show that:
 - a The average FTE-weighted quality score for the 31 participating tertiary education organisations (TEOs) is 2.96 (out of a potential maximum score of 10). This compares to an FTE-weighted quality score of 2.59 reported in 2003.
 - b There are a substantial number of staff in TEOs undertaking research of a world-class standard – of the 8,671 PBRF-eligible staff, the Evidence Portfolios of 7.4% (FTE-weighted) were assigned an “A” Quality Category by a peer review panel. In 2003, the Evidence Portfolios of 5.7% of PBRF-eligible staff were assigned an “A” Quality Category.
 - c There are significant numbers of high-calibre researchers in a broad range of the 42 subject areas. For instance, in nine subject areas the Evidence Portfolios of more than 20 staff (FTE-weighted) were assigned an “A” Quality Category and in 17 subject areas the Evidence Portfolios of more than 50 staff (FTE-weighted) were assigned a “B” Quality Category.
 - d The Evidence Portfolios of a total of 5,763 staff (non-FTE-weighted) were assigned a funded Quality Category (“A”, “B”, “C”, or “C(NE)”) in 2006. This compares to 4,740 staff in 2003.
 - e Almost 2,000 PBRF-eligible staff were reported as having met the eligibility criteria for new and emerging researchers by their TEOs, and the Evidence Portfolios of almost 1,000 of these staff were assigned a funded Quality Category in 2006. The vast majority (84%) were assigned a “C(NE)” Quality Category. In the absence of the specific assessment pathway for new and emerging researchers, it is likely that a large number of these would have been assigned an unfunded Quality Category.
 - f The research performance of PBRF-eligible staff (32.5% FTE-weighted) was deemed to not yet meet the standard required for achieving a funded Quality Category. This compares to almost 40% (FTE-weighted) in 2003. It is important to stress that the assignment of an “R” or “R(NE)” Quality Category does not mean that the staff member in question has produced no research outputs during the six-year assessment period, or that none of the research outputs produced are of a sound (or even very good) quality.
 - g There are major differences in the research performance of the participating TEOs. All eight universities achieved higher quality scores than the other TEOs. The Evidence Portfolios of relatively few researchers outside the university sector secured an “A” or “B” Quality Category, and some TEOs had very few researchers whose Evidence Portfolios were rated “C” or above. This reflects the broad patterns identified in 2003.
 - h The University of Otago achieved the highest quality score of any TEO. The second-ranked TEO, the University of Auckland, achieved only a slightly lower quality score. The universities of Auckland (209 or 33%) and Otago (144 or 23%) have the greatest number of researchers in the country whose Evidence Portfolios were assigned an “A” Quality Category.

- i Research performance within the university sector is very uneven. The difference in quality score between the top-ranked university and the lowest-ranked university is 2.37. For instance, the Evidence Portfolios of 42.3% of PBRF-eligible staff (FTE-weighted) in the university sector were assigned an “A” or “B” Quality Category. The range, however, extended from 50.4% for the highest-scoring university to 15.8% for the lowest-scoring university. Likewise, those assigned an “R” (or “R(NE)”) Quality Category varied between 11.4% and almost 42%.
- j More than 5% or 311 of the researchers whose Evidence Portfolios were assigned a funded Quality Category are located in the institutes of technology and polytechnics (ITPs). This is a relatively high number given that these TEOs generally have emerging research cultures. Almost half of these PBRF-funded staff are found in just five subject areas: visual arts and crafts (71), computer science, information technology, information sciences (35), engineering and technology (24), education (22), and management, human resources, industrial relations and other businesses (21).
- k There are marked differences in the research performance of the 42 subject areas. While some subject areas have a substantial proportion of researchers whose Evidence Portfolios were in the “A” and “B” Quality Categories, others have hardly any. Altogether, eight of the 42 subject areas have a quality score of less than 2.0 and thus an average score within the “R” range (0 to 1.99). The relative rankings of subject areas are very similar to those identified in 2003.
- l In general, the best results were achieved by long-established disciplines with strong research cultures, such as earth sciences and philosophy. Many of the subject areas with low quality scores are newer disciplines in New Zealand’s tertiary education sector, such as nursing; design; education; sport and exercise science; and theatre and dance, film and television and multimedia.
- m As in 2003, relatively high quality scores were achieved by subject areas within the biological and physical sciences, the humanities, and the social sciences. Against this, with only a few exceptions, subject areas in the fields of business and the creative and performing arts had below-average quality scores.
- n As with subject areas, there are marked differences in the research performance of the 336 academic units nominated for reporting purposes by participating TEOs. On the one hand, there are 46 nominated academic units with a quality score of at least 5.0. On the other hand, there are 101 units with a quality score of less than 1.0.

Key facts

- 2 Of the 46 PBRF-eligible TEOs, 31 participated in the 2006 Quality Evaluation. The 31 TEOs comprised all eight universities, 10 ITPs, two colleges of education, two wānanga, and nine private training establishments. In addition, provision was made for the separate reporting of the former Auckland and Wellington colleges of education.

- 3 The 2006 Quality Evaluation was conducted as a “partial” round. This meant that the preparation and submission of Evidence Portfolios was not required for most PBRF-eligible staff, and the Quality Categories assigned in 2003 could, in most cases, be “carried over” to the 2006 Quality Evaluation. TEOs were also not required to undertake a full internal assessment of the Evidence Portfolios of their PBRF-eligible staff, rather they were simply required to submit Evidence Portfolios that were likely to meet the standards required for the assignment of a funded Quality Category.
- 4 Of the 8,671 PBRF-eligible staff in the participating TEOs, 2,996 had their Quality Categories assigned in 2003 “carried over” to the 2006 Quality Evaluation and automatically reconfirmed. Evidence Portfolios were not submitted for a further 1,143 staff and, in these cases, “R” or “R(NE)” Quality Categories were automatically assigned. A further 4,532 had their Evidence Portfolios assessed by a peer review panel. There were 12 such panels covering 42 designated subject areas. The work of these expert panels was overseen by a Moderation Panel comprising the 12 panel chairs and three moderators. Altogether, there were 175 panel chairs and members, of whom 41 were from overseas. In addition, a total of 51 specialist advisors assisted panels in the assessment of Evidence Portfolios.
- 5 The external research income generated by the TEOs participating in the PBRF totalled around \$286 million in the 2005 calendar year. Overall, reported external research income has increased by 47% (from \$195 million) since 2002.
- 6 Research degree completions reported by the TEOs participating in the PBRF totalled 2,574 in the 2005 calendar year. Overall, PBRF-eligible research degree completions have increased by 49% (from 1,730) since 2002. The majority of the completions were masters courses and approximately one quarter were doctorate completions.

Confidence in the assessment process

- 7 The TEC undertook a series of audits in order to ensure that the Quality Evaluation was conducted in a robust, fair and consistent manner and that the data upon which the 12 peer review panels based their assessments were of the highest possible integrity.
- 8 An audit of research outputs conducted by the TEC identified some ineligible entries in Evidence Portfolios. In addition, an audit of staff eligibility identified a small number of instances where TEOs had incorrectly determined the eligibility of staff, or had incorrectly applied the eligibility criteria for new and emerging researchers. Where appropriate, this information was corrected.
- 9 The TEC’s Internal Audit group provided assurance on the processes followed for the PBRF, and was satisfied that the processes, procedures and practices in relation to the PBRF were consistent with good practice, and were carried out in accordance with the agreed design.
- 10 In summary, the TEC is confident that the peer review panels undertook their assessment of Evidence Portfolios in accordance with the assessment framework. The TEC considers that the results of the 2006 Quality Evaluation provide a fair reflection of the quality of research being undertaken across the tertiary education sector. The TEC is also confident that the data supplied by TEOs in relation to external research income and research degree completions are reliable.

Reporting framework

- 11 The results of the 2006 Quality Evaluation are discussed and analysed in Chapter 5. They are also outlined in detail in Appendix A of this report. The results include:
 - a The overall distribution of Quality Categories (“A”, “B”, “C”, “C(NE)”, “R”, and “R(NE)”) across the tertiary education sector, as well as for each of the 31 participating TEOs, 12 peer review panels, 42 subject areas, and 336 nominated academic units;
 - b The quality scores of the participating TEOs, peer review panels, subject areas, and nominated academic units (the method for calculating the quality scores is explained in Chapter 4);
 - c The number of PBRF-eligible staff for each of the participating TEOs, peer review panels, subject areas and nominated academic units; and
 - d The number of Evidence Portfolios assessed in 2006 for each of the participating TEOs, peer review panels, subject areas, and nominated academic units.
- 12 The results of the 2003 Quality Evaluation, and especially the quality score data, reflect the nature of the assessment methodology that has been employed and the particular weightings applied to the four Quality Categories – ie “A” (10), “B” (6), “C” and “C(NE)” (2), and “R” and “R(NE)” (0). Had the methodology (or weighting regime) been different, so too would the results.
- 13 Under the approach adopted, the maximum quality score that can be achieved by a TEO (subject area or nominated academic unit) is 10. In order to obtain such a score, however, all the PBRF-eligible staff in the relevant TEO would have to receive an “A” Quality Category. With the exception of very small academic units, such an outcome is extremely unlikely (ie given the nature of the assessment methodology adopted under the 2006 Quality Evaluation and the very exacting standards required to secure an “A”). No sizeable academic unit, let alone a large TEO, could reasonably be expected to secure a quality score even close to 10. Much the same applies to quality scores at the subject-area level. Likewise, there is no suggestion that a quality score of less than 5 constitutes a “fail”. These considerations are important to bear in mind when assessing the results reported in this document.
- 14 Several other matters deserve emphasis in this context. The quality scores of particular units are bound to change over time, at least to some degree – reflecting turnover in the staff being assessed and related fluctuations in the quality and quantity of research output. For obvious reasons, smaller academic units and TEOs are likely to experience greater variations in their scores than larger ones.
- 15 The quality score data also provide only one way of depicting the results of the 2006 Quality Evaluation and do not furnish a complete picture. For instance, the subject area of education achieved a relatively low quality score (1.31 FTE-weighted), yet it contains no less than 25.86 A-rated staff and 96.77 B-rated staff (FTE-weighted). The low quality score reflects the very large number of staff whose Evidence Portfolios were assigned an “R” or “R(NE)”.

- 16** For comparative purposes, data are presented using two measures of the number of PBRF-eligible staff: full-time-equivalent (FTE) and non-FTE at the overall TEO, panel and subject area level. In order to reduce the possibility that the results of individuals might be inferred, data are presented only on an FTE basis at other levels.
- 17** There are a number of factors that ought be considered when making intertemporal comparisons with the 2003 Quality Evaluation. These are discussed in detail in Chapters 4 and 5.

History of the PBRF

- 18** The purpose of conducting research in the tertiary education sector is twofold: to advance knowledge and understanding across all fields of human endeavour; and to ensure that learning, and especially research training at the postgraduate level, occurs in an environment characterised by vigorous and high-quality research activity.
- 19** The primary goal of the Performance-Based Research Fund (PBRF) is to ensure that excellent research in the tertiary education sector is encouraged and rewarded. This entails assessing the research performance of tertiary education organisations (TEOs) and then funding them on the basis of their performance.
- 20** The PBRF has three components: a periodic Quality Evaluation using expert panels to assess research quality based on material contained in Evidence Portfolios; a measure for research degree completions; and a measure for external research income. In the PBRF funding formula, the three components are weighted 60/25/15 respectively.
- 21** The PBRF is managed by the Tertiary Education Commission Te Amorangi Mātauranga Matua (TEC).
- 22** The government's decision to implement the PBRF was the product of detailed analysis of the relevant policy issues and options by the Tertiary Education Advisory Commission (2000-01), the Ministry of Education, the Transition Tertiary Education Commission (2001-02), and the PBRF Working Group (2002).
- 23** Following the first Quality Evaluation held in 2003, the TEC undertook extensive consultation with the tertiary education sector through the PBRF Sector Reference Group (2004-2005). This process led to a number of refinements to the PBRF in preparation for the second Quality Evaluation. These refinements included a specific assessment pathway for new and emerging researchers, arrangements for the 2006 Quality Evaluation to be conducted as a "partial" round, and changes to the definition of research to more explicitly recognise research in the creative and performing arts.
- 24** This report presents the results of the second Quality Evaluation, conducted during 2006, together with current information on research degree completions and external research income. It also includes the indicative funding allocations for TEOs for the 2007 calendar year.
- 25** The development and refinement of the PBRF has been characterised by extensive consultation with the tertiary education sector, and this will continue during the ongoing evaluation of the PBRF.

Funding allocations

- 26** In the 2007 funding year, the funding allocated by means of the three PBRF performance measures is almost \$231 million (based on current forecasts) and is derived from 100% of the former degree “top up” funding, together with additional funding from the government totaling \$63 million per annum.
- 27** Performance in the 2006 Quality Evaluation will determine the allocation of 60% of this funding until the next Quality Evaluation (planned for 2012). Overall, the PBRF will determine the allocation of approximately \$1.5 billion over the next six years.

Issues and implications

- 28** The results of the 2006 Quality Evaluation provide further evidence that New Zealand has significant research strength in a substantial number of subject areas and in most of the country's universities. This information will be extremely valuable for stakeholders in the tertiary education sector. For example, information on the distribution of research excellence might be used by TEOs when considering what role they may play in the network of provision of tertiary education.
- 29** The results of the 2006 Quality Evaluation also suggest there has been some degree of improvement in research quality. This reflects the experience in other countries that have conducted periodic evaluations of research performance, such as Britain and Hong Kong, where significant improvements have occurred in the quality of research since the commencement of the assessment regimes.
- 30** The measured improvement in research quality cannot be solely attributed to improvements in actual research quality as there are likely to be a number of factors influencing the results of the 2006 Quality Evaluation. Nevertheless, the increase in average quality scores, and the marked increase in the number of staff whose EPs were assigned a funded Quality Category between 2003 and 2006 suggests that there has been some increase in the actual level of research quality. This is very promising trend and indicates that the PBRF is having its desired effect on the New Zealand tertiary education sector.

Chapter 1

The PBRF assessment and funding regime

Introduction

- 1 The publication of the results of the PBRF's second Quality Evaluation is a significant event for the tertiary education sector. These results update the assessment of research quality in our tertiary education organisations (TEOs) – universities, institutes of technology and polytechnics, colleges of education, wānanga, and private training establishments – that was set out in the report of the 2003 Quality Evaluation.
- 2 The quality of the research produced within the tertiary education sector is vital for at least two reasons. First, TEOs play an important role in the creation, application and dissemination of knowledge – crucial ingredients for a knowledge economy and society, and for understanding the environment on which a developed society depends. If TEOs are not generating high-quality research, this will have a detrimental impact on New Zealand's overall research and innovation system. Second, vigorous and dynamic research cultures underpin and enhance degree-level learning, particularly at the postgraduate level. The quality of research within our TEOs is bound to affect the quality of the education received by many of our tertiary students.

Background

- 3 For many years, research in the tertiary education sector was funded mainly through public tuition subsidies based on the number of equivalent-full-time students (EFTS) and with weightings for different courses based, at least to some degree, on the cost of provision. TEOs are also able to secure research funds from the Foundation for Research, Science and Technology, the Health Research Council, the Marsden Fund (managed by the Royal Society of New Zealand), government departments, and the private sector.
- 4 The implementation of the Performance-Based Research Fund (PBRF) acknowledged that TEOs had been heavily dependent upon EFTS funding in order to support their research activities. This meant that certain research programmes were vulnerable to large shifts in student demand. It also meant that the volume of research in particular subject areas was determined more by the pattern of student demand than by the quality of research being undertaken. In the late 1990s, a portion of the EFTS subsidies for degree-level programmes was notionally designated for research in the form of degree "top ups" and the subsidy rates for different course categories were adjusted. This did not, however, alter the fundamental nature of the research funding system in the tertiary education sector; nor did it address the underlying weaknesses.
- 5 From 1999 onwards, significant efforts have been made to improve the tertiary funding regime in the interests of encouraging and rewarding excellence. The first major step in this process was the government's decision in 2001 to fund the creation of a number of centres of research excellence (COREs) within the tertiary sector. To date, seven COREs have been established; a further selection round is in progress.

- 6 A second key step was the establishment of the PBRF as a funding programme that entails the periodic assessment of research quality together with the use of two performance measures. All the funding that earlier had been distributed via the degree “top ups” has now been transferred to the PBRF; and, in 2007, more than \$67 million (including GST) additional funding will be available. On current forecasts, it is estimated that in 2007 approximately \$231 million (including GST) will be allocated through the PBRF to participating TEOs. This makes the PBRF the largest single source of research funding for the tertiary education sector.

Implications of the PBRF

- 7 The data in this report, along with the data contained in the report of the 2003 Quality Evaluation, provide an important source of information on the research performance of participating TEOs, subject areas and nominated academic units. This information enables interested parties to make meaningful and accurate comparisons between the current research performance of different TEOs (and types of TEOs) and between the quality of research in different subject areas. This should assist stakeholders in the tertiary education sector (including current and prospective students, research funders, providers, the government, and business) in making better-informed decisions. It should also serve to enhance accountability, both at the organisational and sub-organisational levels.
- 8 From the results of the first two Quality Evaluations, together with the annual results of the external research income (ERI) and research degree completions (RDC) performance measures, it is evident that the PBRF has provided a strong impetus for TEOs to review their research plans and strategies. While the process of change that the PBRF has engendered is ongoing, it is apparent from the results that there has been an increase in measured research quality overall in the tertiary system.

The genesis and development of the PBRF

The government's decision in mid 2002 to introduce the PBRF marked the culmination of many years of vigorous debate over the best way of funding research in the country's tertiary education sector. In 1997, the previous National-led government proposed a new system for research funding and subsequently appointed a team of experts to consider the options. For various reasons, little progress was made. In 2001, the Tertiary Education Advisory Commission (TEAC), which was appointed by the Labour-Alliance government, recommended the introduction of the PBRF as a central component of a new funding regime for the tertiary sector.

The TEAC proposal was the product of detailed consultation with the tertiary education sector and comparative analysis of various overseas approaches to the funding of research. In essence, TEAC recommended a mixed model for assessing and funding research: on the one hand, the proposed model incorporated an element of peer review (as used in the British and Hong Kong research assessment exercises [RAEs]); on the other hand, it incorporated several performance measures (as used in the Australian and Israeli research funding models). The proposed measures were external research income and research degree completions.

In response to the TEAC report, the government established a working group of sector experts in mid 2002, chaired by Professor Marston Conder. This group worked with the Transition Tertiary Education Commission and the Ministry of Education to develop the detailed design of a new research assessment and funding model for the tertiary sector. The Report of the Working Group on the PBRF – *Investing in Excellence* – was published in December 2002 and approved by the Cabinet.

In brief, the working group endorsed the key elements of the funding model proposed by TEAC, including the periodic assessment of research quality by expert panels and the use of two performance measures. It also supported TEAC's idea of using individuals as the unit of assessment, rather than academic units as in Britain. It did, however, recommend that the funding formula have different weightings from those proposed by TEAC – and it developed a comprehensive framework for assessing the research performance of individual staff.

The Tertiary Education Commission (TEC) was given the responsibility for overseeing the introduction of the PBRF; and the new funding regime was implemented in accordance with the agreed timetable.

Following the 2003 Quality Evaluation, the TEC began a process of refining the PBRF in preparation for the 2006 Quality Evaluation. The principal mechanism for this was the establishment of a Sector Reference Group (SRG) chaired by Professor Paul Callaghan, the Moderator of the 2003 Quality Evaluation.

The SRG undertook extensive consultation with the sector and made a large number of recommendations for refinement of the PBRF. These recommendations included a specific assessment pathway for new and emerging researchers, arrangements for the 2006 Quality Evaluation to be conducted as a "partial" round, and changes to the definition of research to more explicitly recognise research in the creative and performing arts.

The TEC broadly endorsed the changes proposed by the SRG and these were reflected in the PBRF assessment framework for the 2006 Quality Evaluation.

- 9 The considerable incentives provided by the PBRF can be expected to continue to underpin an improvement in the overall research performance of the tertiary education sector, in line with the goals of the government's *Tertiary Education Strategy 2007/12 incorporating the Statement of Tertiary Education Priorities 2008/10*.
- 10 The full implementation of the PBRF should ensure that compliance costs as a proportion of total funding over the next six years will drop markedly compared with those associated with the 2003 Quality Evaluation. In addition, most of the TEOs with the highest levels of measured research quality will receive considerably more funding through the PBRF than would have been the case had the PBRF not been implemented.
- 11 At the same time, the TEC recognises that some of the results will be disappointing for some TEOs (particularly those participating for the first time) and for some staff. For instance, the funding that certain TEOs receive through the PBRF between 2007 and 2012 may fall short of the costs of participation. More significantly, some staff are likely to feel that their research efforts have not been properly recognised.
- 12 In this context, the TEC is aware that aspects of the PBRF remain controversial. The results contained in this report will fuel discussion and debate, particularly in relation to the overall assessment framework or about particular aspects of the methodology used to evaluate evidence portfolios (EPs). Questions are also likely to be raised, given the low quality scores of certain TEOs and subject areas, about the quality of particular undergraduate and postgraduate programmes.

Evaluation of the PBRF

- 13 As stated in the report of the 2003 Quality Evaluation, the TEC is committed to a three-phase evaluation strategy for the PBRF (see Appendix E). The Phase I evaluation, covering the implementation of the PBRF and the conduct of the 2003 Quality Evaluation, was released in July 2004. The results of that evaluation informed the refinements undertaken in preparation for the 2006 Quality Evaluation.
- 14 The Phase II evaluation of the PBRF has commenced and is intended to identify any emerging impacts of the PBRF on the tertiary education sector.
- 15 The Phase III evaluation of the PBRF is scheduled to occur after the completion of the third Quality Evaluation (scheduled for 2012). It will examine whether the PBRF has achieved its longer term objectives.

More detailed information in the rest of the report

- 16 The remaining chapters in this report detail the processes and methodology that underlie the PBRF and discuss the key findings from the 2006 Quality Evaluation.
- 17 Chapter 2 outlines the aims and key elements of the PBRF, including the PBRF definition of research. Chapter 3 provides a brief description of how the 2006 Quality Evaluation was conducted, and outlines some of the key facts and timelines of the assessment process. Chapter 4 explains the decisions of the TEC in presenting the results of the 2006 Quality Evaluation and discusses how the assessment framework has affected the overall results. It also highlights some of the limitations of the data and provides guidance on interpreting the results.
- 18 The results of the 2006 Quality Evaluation are explored in detail in Chapter 5. Drawing upon the detailed statistical information provided in Appendix A, this chapter compares the relative research performance of the 31 participating TEOs¹, and outlines the results reported at the level of the 12 peer review panels, 42 subject areas, and 336 units nominated for reporting purposes by TEOs.
- 19 The report then turns, in Chapters 6 and 7, to consider the other two performance measures that form part of the PBRF – namely, ERI and RDC. This is followed, in Chapter 8, by an outline of the PBRF funding formula and the indicative funding allocations to participating TEOs for 2007.
- 20 Finally, Chapter 9 draws together some of the key themes and issues arising from the results of the 2006 Quality Evaluation, and looks ahead to what can be learned for the 2012 Quality Evaluation.
- 21 Additional information and analyses are provided in the appendices, including a description of the various audits undertaken in relation to the 2006 Quality Evaluation.

Confidentiality issues

Confidentiality of the Quality Categories assigned to individuals

The TEC has undertaken to protect the confidentiality of the Quality Categories assigned to individual staff. To ensure that this principle is adhered to, the TEC will not release publicly the Quality Categories assigned to individual staff. The TEC has, however, made such information available to the TEOs of the staff concerned.

EPs will not be published on the TEC website

The TEC has confirmed that EPs from the 2003 and the 2006 Quality Evaluations will not be published on the TEC website.

Reporting thresholds

In order to minimise the possibility that the results of individuals may be inferred, the TEC has agreed that data for nominated academic units and subject areas at TEO level with fewer than five PBRF-eligible FTE staff will be reported under the category of "other". These thresholds are outlined in the *PBRF Guidelines 2006* and their implications are discussed in Chapter 4.

¹ This figure excludes the former Auckland and Wellington colleges of education, which merged respectively with the University of Auckland and Victoria University of Wellington before Census date and therefore are not included in the TEO "headcount". The results for the EPs of staff in the two former colleges of education as at the date of the merger are, however, reported separately from those of the two universities.

Chapter 2

The aims and key elements of the PBRF

Introduction

22 This chapter outlines the aims of the PBRF, the principles governing its implementation, the key elements of the assessment framework, and the PBRF definition of research.²

Aims of the PBRF

- 23** The government's main aims for the PBRF are to:
- increase the average quality of research;
 - ensure that research continues to support degree and postgraduate teaching;
 - ensure that funding is available for postgraduate students and new researchers;
 - improve the quality of public information about research output;
 - prevent undue concentration of funding that would undermine research support for all degrees or prevent access to the system by new researchers; and
 - underpin the existing research strengths in the tertiary education sector.

Principles of the PBRF

- 24** The PBRF is governed by the following set of principles from *Investing in Excellence*:³
- **Comprehensiveness:** the PBRF should appropriately measure the quality of the full range of original investigative activity that occurs within the sector, regardless of its type, form, or place of output;
 - **Respect for academic traditions:** the PBRF should operate in a manner that is consistent with academic freedom and institutional autonomy;
 - **Consistency:** evaluations of quality made through the PBRF should be consistent across the different subject areas and in the calibration of quality ratings against international standards of excellence;
 - **Continuity:** changes to the PBRF process should only be made where they can bring demonstrable improvements that outweigh the cost of implementing them;
 - **Differentiation:** the PBRF should allow stakeholders and the government to differentiate between providers and their units on the basis of their relative quality;
 - **Credibility:** the methodology, format and processes employed in the PBRF must be credible to those being assessed;
 - **Efficiency:** administrative and compliance costs should be kept to the minimum consistent with a robust and credible process;

² More comprehensive details regarding the overall aims, structure and key elements of the PBRF are contained within the *2006 PBRF Guidelines* available online at <http://www.tec.govt.nz>

³ These principles were first enunciated by the Working Group on the PBRF. See *Investing in Excellence*, pp.8-9.

- **Transparency:** decisions and decision-making processes must be explained openly, except where there is a need to preserve confidentiality and privacy;
- **Complementarity:** the PBRF should be integrated with new and existing policies, such as charters and profiles, and quality assurance systems for degrees and degree providers; and
- **Cultural inclusiveness:** the PBRF should reflect the bicultural nature of New Zealand and the special role and status of the Treaty of Waitangi, and should appropriately reflect and include the full diversity of New Zealand's population.

Key elements of the PBRF

- 25** The PBRF is a "mixed" performance-assessment regime in the sense that it employs both peer-review processes and performance measures. There are three elements to its assessment:
- a periodic Quality Evaluations: the assessment of the research performance of eligible TEO staff, undertaken by expert peer review panels;
 - a postgraduate "research degree completions" (RDC) measure: the number of postgraduate research-based degrees completed in participating TEOs, assessed on an annual basis; and
 - an "external research income" (ERI) measure: the amount of income for research purposes received by participating TEOs from external sources, assessed on an annual basis.
- 26** For funding purposes, the weightings given to these three elements are: 60% for the Quality Evaluation; 25% for RDC; and 15% for ERI. The details of the funding formula and the allocations to TEOs for 2007 are set out in Chapter 8.

The Quality Evaluation

- 27** The Quality Evaluation is a periodic assessment of research quality across the tertiary education sector. While the timing of the next Quality Evaluation (scheduled for 2012) is yet to be confirmed, it is envisaged that further assessments will be conducted every six years.
- 28** Unlike the research assessment exercise (RAE) in Britain, but in keeping with the Hong Kong RAE, the Quality Evaluation involves the direct assessment of individual staff rather than academic units. As in Britain, however, the field of research has been divided for assessment and reporting purposes into a large number of separate subject areas. For the 2006 Quality Evaluation, 42 subject areas were identified (see also Chapter 4).

The role and structure of peer review panels

- 29** The assessment of research quality is undertaken by interdisciplinary peer review panels consisting of disciplinary experts from both within New Zealand and overseas. As for the 2003 Quality Evaluation, 12 peer review panels were established. These panels comprised between nine and 21 members selected to provide expert coverage of the subject areas within each panel's respective field of responsibility (see Table 2.1).

- 30** Altogether, there were 175 panel chairs and members, of whom 41 (23%) were from overseas. In addition, a total of 51 specialist advisers assisted panels in the assessment of EPs. The names and institutional affiliations of all panel chairs, members, and specialist advisers are set out in Appendix B.
- 31** The panels were advised by a PBRF Project Team within the TEC that provided policy, technical and administrative support.

Table 2.1: Panels and Subject Areas

Panel	Subject-Area
Biological Sciences	Agriculture and other applied biological sciences
	Ecology, evolution and behaviour
	Molecular, cellular and whole organism biology
Business and Economics	Accounting and finance
	Economics
	Management, human resources, industrial relations, international business and other business
	Marketing and tourism
Creative and Performing Arts	Design
	Music, literary arts and other arts
	Theatre and dance, film and television and multimedia
	Visual arts and crafts
Education	Education
Engineering, Technology and Architecture	Architecture, design, planning, surveying
	Engineering and technology
Health	Dentistry
	Nursing
	Other health studies (including rehabilitation therapies)
	Pharmacy
	Sport and exercise science
	Veterinary studies and large animal science
Humanities and Law	English language and literature
	Foreign languages and linguistics
	History, history of art, classics and curatorial studies
	Law
	Philosophy
	Religious studies and theology
Māori Knowledge and Development	Māori knowledge and development
Mathematical and Information Sciences and Technology	Computer science, information technology, information sciences
	Pure and applied mathematics
	Statistics

Panel	Subject-Area
Medicine and Public Health	Biomedical
	Clinical medicine
	Public health
Physical Sciences	Chemistry
	Earth sciences
	Physics
Social Sciences and Other Cultural/ Social Studies	Anthropology and archaeology
	Communications, journalism and media studies
	Human geography
	Political science, international relations and public policy
	Psychology
	Sociology, social policy, social work, criminology and gender studies

Eligibility criteria

- 32** All New Zealand TEOs with authority to teach degree level courses (and/or post graduate degrees) were entitled to submit evidence portfolios (EPs) of staff for assessment by a peer review panel.
- 33** Two key principles governed the eligibility of staff to participate in the 2006 Quality Evaluation:
- the individual must be an academic staff member (ie they are expected to make a contribution to the learning environment); and
 - the individual is expected to make a significant contribution to research activity and/or degree teaching in a TEO.
- 34** Detailed staff-eligibility criteria were also set out in the *PBRF Guidelines 2006*.

Changes to the assessment framework for the 2006 Quality Evaluation

- 35** The refinement of the PBRF in preparation for the 2006 Quality Evaluation resulted in a number of changes to the Quality Evaluation measure. The most significant of these changes included:
- the “partial” round provision;
 - more detailed information on special circumstances;
 - changes to the definition of research;
 - a specific assessment pathway for new and emerging researchers;
 - changes to the moderation arrangements; and
 - closer definition of the process for scoring EPs.
- 36** The “partial” round meant that in most cases the Quality Categories assigned to the EPs of staff assessed as part of the 2003 Quality Evaluation could be “carried over” to the 2006 Quality Evaluation, assuming that they remained PBRF eligible. This decision meant that, for many PBRF-eligible staff, the preparation and submission of EPs was not required. This also enabled TEOs to avoid the costs of a full internal assessment of the EPs of their PBRF-eligible staff.

- 37** EPs submitted for assessment by the peer review panels were required to include structured information on special circumstances (if these were being claimed). This requirement was intended to simplify the process of assessing EPs and to minimise the number of EPs inappropriately claiming special circumstances. This reduced the proportion of EPs that claimed special circumstances from 75% to 60%.
- 38** Any changes to the definition of research are significant, because the definition underpins the entire assessment framework. The changes made in preparation for the 2006 Quality Evaluation clarified what constitutes research in the creative and performing arts. (For the PBRF definition of research, see box at the end of this chapter.)
- 39** The assessment pathway for new and emerging researchers made provision for such researchers to be assessed against specific criteria. These criteria recognised that new and emerging researchers were unlikely to have had an opportunity to develop extensive evidence of peer esteem (PE) or contribution to the research environment (CRE), and so made it possible for panels to assign a funded Quality Category to the EPs of a significant number of new and emerging researchers.
- 40** Changes to the processes relating to moderation were also instituted. These changes included the appointment of three moderators including one as Principal Moderator who would also chair the Moderation Panel. The appointment of three individuals separate from the assessment process was designed to enable additional consideration to be given to the analysis arising out of the assessment process, and to enable moderators to attend significant proportions of each panel meeting.
- 41** Closer definitions of the process for pre-meeting and panel assessment were also developed. The assessment process defined clear steps for each panel member to follow when engaged in pre-meeting assessment and for panels to follow during their meetings.
- 42** For pre-meeting assessment, the most significant of these developments were the provisions for preparatory and preliminary scoring. Preparatory scores were the “initial” scores assigned to an EP by each member of the panel pair (working independently). Where special circumstances had been claimed, the EPs had two sets of preparatory scores assigned – once disregarding the special circumstances, and once taking them into account. Preliminary scoring was the process of assigning a “final” pre-meeting score. This was done by the panel pair working together. The preliminary scores took account of the preparatory scores and any cross-referral scoring; it also took special circumstances (where relevant) into account.
- 43** The scoring processes for the panel assessments were also carefully defined in the 2006 Quality Evaluation. The most significant developments were the panel calibration of the pre-meeting assessments that had been undertaken by the panel pairs, and the consideration of the Final Quality Categories assigned as part of the 2003 Quality Evaluation (where these were available).
- 44** During the panel meetings, the scoring processes were also carefully defined. These processes provided for several features including the calibration of the pre-meeting assessments undertaken by panel pairs, and consideration of the Final Quality Categories (where available) assigned as part of the 2003 Quality Evaluation.

EPs and the assessment framework

- 45** The evaluation of a staff member's research performance was based on information contained within an EP, which had three components:
- The "research output" (RO) component. This comprised up to four "nominated research outputs" (NROs),⁴ as well as up to 30 "other" research outputs. The RO component had a 70% weighting. For a research output to be eligible for inclusion, it had to have been produced (ie published, publicly disseminated, presented, performed, or exhibited) within the assessment period. For the 2006 Quality Evaluation the period in question was 1 January 2000 to 31 December 2005. Research outputs were also required to satisfy the PBRF definition of research (see box at the end of this chapter).
 - The "peer esteem" (PE) component. This comprised the recognition of a staff member's research by her or his peers (eg prizes, awards, invitations to speak at conferences) and had a 15% weighting.
 - The "contribution to the research environment" (CRE) component. This comprised a staff member's contribution to a vital high-quality research environment (eg the supervision of research students, the receipt of research grants) and had a 15% weighting.
- 46** The assessment of an EP involved scoring each of its three components. In determining the appropriate score, the panels drew upon generic descriptors and tie-points (encapsulating the standard expected for a particular score) that applied to every panel, together with certain panel-specific guidelines.
- 47** The rating scale had the following characteristics:
- The scale for each component had eight steps (0-7), with "7" being the highest point on the scale and "0" being the lowest.
 - A score of "0" indicated that no evidence had been provided in the EP for that component.
 - Only whole scores were allocated (ie the use of fractions was not permitted).
 - The descriptors and tie-points for each of the three components were used to assist with the scoring. The tie-points at 2, 4 and 6 were used to distinguish between different descriptions of quality for each of the components.
- 48** Having agreed on the appropriate scores for each of the three components, panels were required to assign a Quality Category to the EP – and in doing this they were required to make a "holistic judgement"⁵ (which was based only on the information contained in the EP).
- 49** Following the deliberation of the Holistic Quality Category, the Quality Category assigned in 2003 (where appropriate) was revealed to the panels. The panels then assigned a Final Quality Category. The scoring system was an important aid in assigning a Final Quality Category but did not determine it.

⁴ It was expected that staff would nominate their (up to) four "best" pieces of research carried out during the eligible assessment period.

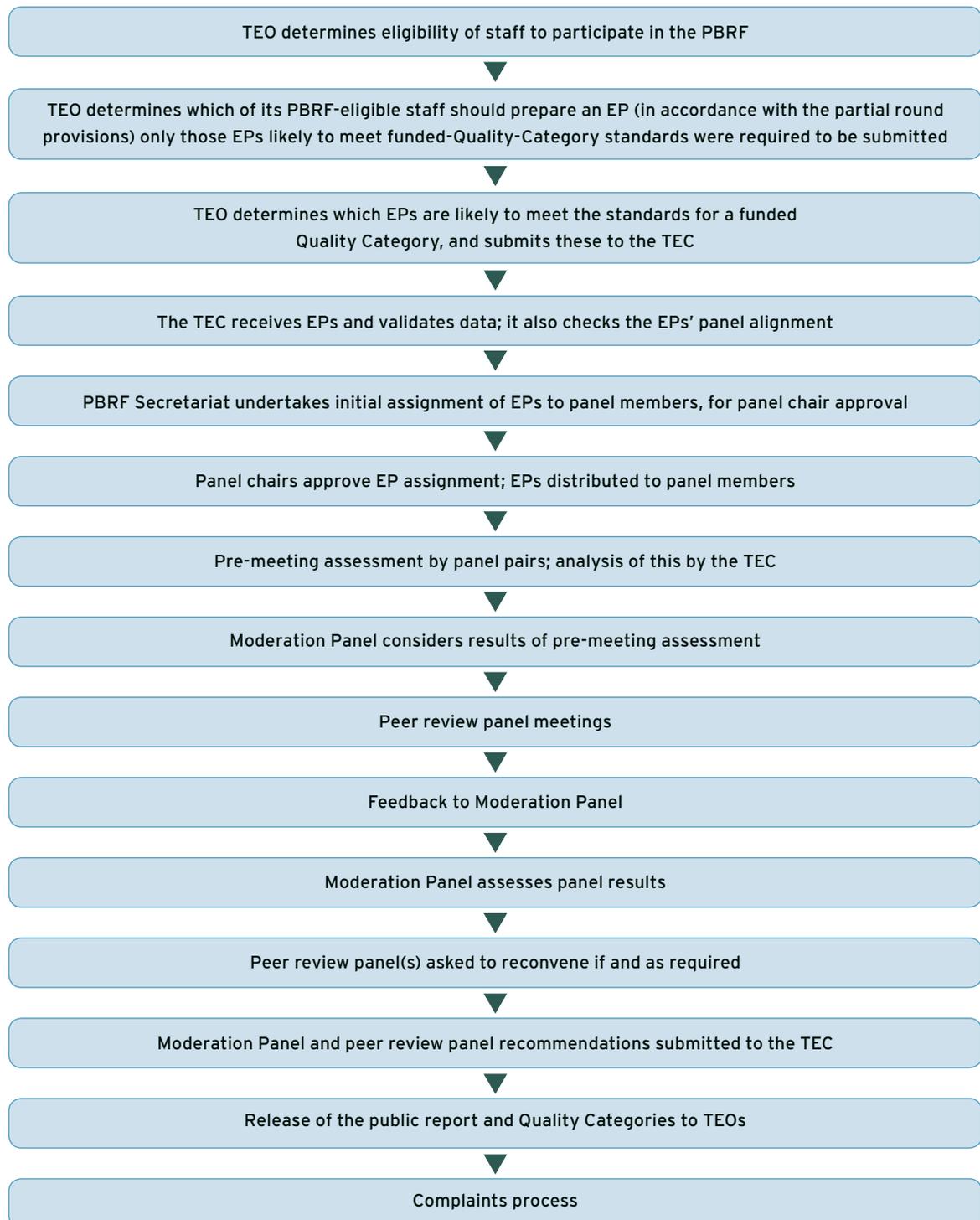
⁵ The purpose of the holistic assessment is to ascertain which of the available Quality Categories is most appropriate for an EP, taking all relevant factors into consideration. Comprehensive details for determining *Holistic* Quality Categories can be found on p.146 of the *2006 PBRF Guidelines* available online at <http://www.tec.govt.nz>

- 50** The following example illustrates how the scoring system worked in practice. Consider an EP that was rated 5 for RO, 4 for PE and 3 for CRE. RO had a weighting of 70 (out of 100), so a score of 5 generated a total score of 350 (5 x 70). PE had a weighting of 15 (out of 100), so a score of 4 generated a total score of 60 (4 x 15). CRE had a weighting of 15 (out of 100), so a score of 3 generated a total score of 45 (3 x 15). Thus the EP in question would have achieved an aggregate score of 455.
- 51** For the 2006 Quality Evaluation, there were six Quality Categories: "A", "B", "C", "C(NE)", "R", and "R(NE)".
- 52** The EPs of staff who did not meet the criteria of "new and emerging researcher" were assigned one of the following Quality Categories:
- "A" (indicative of a total weighted score of 600-700);
 - "B" (indicative of a total weighted score of 400-599);
 - "C" (indicative of a total weighted score of 200-399); and
 - "R" (indicative of a total weighted score of less than 200).
- 53** The EPs of staff who did meet the eligibility criteria of "new and emerging researcher" were assigned one of the following Quality Categories:
- "A" (indicative of a total weighted score of 600-700);
 - "B" (indicative of a total weighted score of 400-599);
 - "C(NE)" (indicative of a total weighted score of 200-399); and
 - "R(NE)" (indicative of a total weighted score of less than 200).

Moderation Panel

- 54** The assessments conducted by the 12 peer review panels were subject to the oversight of a Moderation Panel which was composed of the panel chairs and three moderators. The role of the Moderation Panel was to:
- a ensure that the assessment framework was applied consistently across the panels, while at the same time avoiding a situation in which the judgements of the panels were reduced to a mechanistic application of the assessment criteria;
 - b provide an opportunity to review the standards and processes being applied by the panels;
 - c establish mechanisms and processes by which material differences or apparent inconsistencies in standards and processes could be addressed by the panels; and
 - d advise the TEC on any issues regarding consistency of standards across panels.
- 55** Figure 2.1 provides an overview of the key phases in the 2006 Quality Evaluation.

Figure 2.1: Key Phases of the 2006 Quality Evaluation



Recognition of Māori and Pacific research

- 56** The PBRF has been designed to ensure that proper recognition is given to: research by Māori and Pacific researchers; research into Māori and Pacific matters; and research that employs distinctive Māori and Pacific methodologies.
- 57** With respect to Māori research, a number of mechanisms were instituted:
- the formation of a Māori Knowledge and Development Panel, to evaluate research into distinctly Māori matters such as aspects of Māori development, te reo Māori, and tikanga Māori;
 - the provision of advice from the Māori Knowledge and Development Panel on research that had a significant Māori component but was being assessed by other panels;
 - the inclusion of Māori researchers on other panels; and
 - the encouragement of growth in Māori research capability through an equity weighting for research degree completions by Māori students during the first two evaluation rounds of the PBRF.
- 58** With respect to Pacific research, the following mechanisms were instituted:
- the appointment of panel members and specialist advisers with expertise in Pacific research; and
 - an equity weighting for research degree completions by Pacific students during the first two evaluation rounds of the PBRF, to encourage growth in Pacific research capability.

External research income (ERI) and research degree completions (RDC)

- 59** External research income (ERI) is a measure of the total research income received by a TEO (and/or any 100% owned subsidiary), excluding income from: TEO employees who receive external research income in their personal capacity (ie the ERI is received by them and not their employer); controlled trusts; partnerships; and joint ventures.
- 60** The 2007 funding allocations are based on the ERI data supplied by TEOs for each of the calendar years 2003, 2004 and 2005.
- 61** The requirements relating to ERI are described in detail in Chapter 6.
- 62** Research degree completions (RDC) is a measure of the number of research-based postgraduate degrees (eg masters and doctorates) that are completed within a TEO and that meet the following criteria:
- The degree has a research component of 0.75 EFTS or more.
 - The student who has completed the degree has met all compulsory academic requirements by the end of the relevant years.
 - The student has successfully completed the course.
- 63** For 2007 funding allocations, the end of the relevant years is 31 December 2003, 2004 and 2005.
- 64** The requirements relating to RDC are described in detail in Chapter 7.

The definition of research

For the purposes of the PBRF, research is original investigation undertaken in order to contribute to knowledge and understanding and, in the case of some disciplines, cultural innovation or aesthetic refinement.

It typically involves enquiry of an experimental or critical nature driven by hypotheses or intellectual positions capable of rigorous assessment by experts in a given discipline.

It is an independent*, creative, cumulative and often long-term activity conducted by people with specialist knowledge about the theories, methods and information concerning their field of enquiry. Its findings must be open to scrutiny and formal evaluation by others in the field, and this may be achieved through publication or public presentation.

In some disciplines, the investigation and its results may be embodied in the form of artistic works, designs or performances.

Research includes contribution to the intellectual infrastructure of subjects and disciplines (eg dictionaries and scholarly editions). It also includes the experimental development of design or construction solutions, as well as investigation that leads to new or substantially improved materials, devices, products or processes.

The following activities are excluded from the definition of research except where they are used primarily for the support, or as part, of research and experimental development activities:

- preparation for teaching;
- the provision of advice or opinion, except where it is consistent with the PBRF's Definition of Research;
- scientific and technical information services;
- general purpose or routine data collection;
- standardisation and routine testing (but not including standards development);
- feasibility studies (except into research and experimental development projects);
- specialised routine medical care;
- the commercial, legal and administrative aspects of patenting, copyrighting or licensing activities;
- routine computer programming, systems work or software maintenance (but note that research into and experimental development of, for example, applications software, new programming languages and new operating systems is included);
- any other routine professional practice (eg in arts, law, architecture or business) that does not comply with the Definition.**

Notes:

* The term "independent" here should not be construed to exclude collaborative work.

**Clinical trials, evaluations and similar activities will be included, where they are consistent with the Definition of Research.

Chapter 3

The conduct of the 2006 Quality Evaluation

Introduction

65 This chapter briefly outlines the conduct of the 2006 Quality Evaluation. In particular, it provides a timeline of the key events, describes the way that the peer review panels conducted their assessments of EPs, and outlines the role of the Moderation Panel. The chapter also includes some relevant data concerning the implementation of the assessment process and notes a few of the issues that arose.

Timeline of key events

- 66** Following the 2003 Quality Evaluation, the TEC received a number of reports as part of its evaluation of the PBRF. These included: a report from the Office of the Auditor General; the reports of the 12 peer review panels; the Moderation Panel's report; and the report of the Phase I evaluation of the PBRF prepared by Web Research. While all these reports⁶ found that the assessment process was robust and fair, they also indicated areas where improvements might be made.
- 67** During 2004, the TEC began its review of all aspects of the PBRF, in preparation for the 2006 Quality Evaluation. This included the appointment of a Sector Reference Group (SRG) chaired by Professor Paul Callaghan. The SRG was asked to analyse the PBRF process, taking into account the earlier reports, and to suggest improvements. As part of its activities, the SRG undertook extensive consultation with the tertiary sector.
- 68** The SRG commenced work in 2004 and prepared a total of 12 consultation papers for consideration by the sector. These consultation papers dealt with a range of significant issues that warranted careful consideration. These included: the unit of assessment; the "partial" round provisions; the definition of research; the assessment framework; and the reporting framework.
- 69** Following careful consideration of feedback from the tertiary sector, the SRG prepared a series of recommendations to the TEC. These recommendations were carefully considered by the TEC and, where appropriate, reflected in the revised guidelines for the PBRF. Following additional consultation, the *PBRF Guidelines 2006* was formally released in July 2005.
- 70** Detailed information on the refinement of the PBRF after the 2003 Quality Evaluation – including the report of the SRG and the response of the TEC to that report – is available on the TEC website.⁷
- 71** One of the key differences between the 2003 and 2006 Quality Evaluation was the provision for a "partial" round. The "partial" round had two key implications for the 2006 Quality Evaluation.
- 72** Firstly, the preparation and submission of EPs was not required for most PBRF-eligible staff. Quality Categories assigned in the 2003 Quality Evaluation could, in most cases, be "carried over" to the 2006 Quality Evaluation.
- 73** Secondly, TEOs were not required to conduct a full internal assessment of the EPs prepared by their PBRF-eligible staff. The TEOs were required simply to submit to the TEC those EPs that were likely to meet the standards required for the assignment of a funded Quality Category.⁸

⁶ Archived at <http://www.tec.govt.nz/templates/standard.aspx?id=588>.

⁷ See "PBRF 2006 Resources" at <http://www.tec.govt.nz/templates/standard.aspx?id=588>.

⁸ Funded Quality Categories are those that attract funding through the Quality Evaluation measure, namely "A", "B", "C", and "C(NE)"

- 74** The EPs that were considered by TEOs to meet this standard were submitted to the TEC, for assessment by a peer review panel, by 21 July 2006. The EPs were distributed to panel members for preparatory scoring in early September, and the panels met (typically for three days) between late November and early December to undertake their assessments. A more detailed timeline of the key events is provided in Table 3.1.

Table 3.1: Timeline of Key Events

Date	Event
April 2004	Report of the 2003 Quality Evaluation published
September 2004 to June 2005	Redesign work overseen by the Sector Reference Group (SRG)
February 2005	Appointment of moderators for the 2006 Quality Evaluation
July 2005	Appointment of members of peer review panels announced; <i>PBRF Guidelines 2006</i> released
January 2006	2006 “EP Manager” software operational; process assurance and audit of TEOs commences
January to June 2006	TEOs conduct internal assessment of EPs (to determine which EPs were likely to meet the standards of a funded Quality Category)
14 June 2006	Date of PBRF Census: Staffing Return
21 July 2006	All EPs submitted to the TEC
September to November 2006	Pre-meeting assessment of EPs by panel pairs
20 November 2006	First Moderation Panel meeting
27 November – 8 December 2006	Peer review panel meetings
15 December 2006	Second Moderation Panel meeting
21 February 2007	Convening of Māori Knowledge and Development Panel sub-committee
March 2007	Process assurance and audit of TEOs completed
26 March 2007	Tertiary Education Commissioners approve results of 2006 Quality Evaluation
April/May 2007	TEOs advised of Final Quality Categories; report of the 2006 Quality Evaluation released
18 June 2007	Lodging of complaints closes
July 2008	Report of the Phase II of the evaluation of the PBRF due

Participation in the PBRF

- 75** At the PBRF Census date (14 June 2006), there were a total of 46 PBRF-eligible TEOs. Of these TEOs, 31 participated in the 2006 Quality Evaluation: all eight of New Zealand’s universities; 10 of the 17 eligible institutes of technology and polytechnics; both colleges of education; two of the three wānanga; and nine of the 16 eligible private training establishments (PTEs). In addition, provision was made for the separate reporting of the staff of the former Auckland and Wellington colleges of education.
- 76** All the 31 participating TEOs were required to participate in all three measures of the PBRF. PBRF-eligible TEOs that chose not to participate in all three components are not eligible for PBRF funding.

- 77** Of the 8,671 PBRF-eligible staff in these 31 TEOs, 4,532 had EPs submitted to the TEC as part of the 2006 Quality Evaluation. A further 2,996 had their Quality Categories from the 2003 Quality Evaluation “carried over” and automatically reconfirmed (this group included some researchers whose EPs had been assigned an “R” Quality Category in 2003). PBRF-eligible staff who did not submit an EP in either 2003 or 2006 were counted as “R” or “R(NE)” for the purposes of the 2006 Quality Evaluation.

The assessment of EPs by the peer review panels

- 78** All peer review panels strove to ensure that the EPs for which they were responsible were assessed in line with the *PBRF Guidelines 2006* and in an accurate, fair and consistent manner. In particular, every effort was made to ensure that conflicts of interest were handled in accordance with the agreed procedures, and that the different subject areas for which each panel was responsible were assessed on the basis of equivalent quality standards.
- 79** In all cases, the panels employed the following methods:
- a Each EP was initially assessed by a panel pair; and pre-meeting scores for most EPs were submitted to the PBRF Project Team before the panel meetings.
 - b Panel members obtained and reviewed nominated research outputs (NROs). Slightly more than 10,000 NROs were either supplied to panel members or were reported as having been sourced by panel members themselves. In most cases, at least two NROs were sighted for each EP.
 - c Panel members typically operated in multiple pairings (ie in some cases a panel member might work in 10 or more pairings, each time with a different member of their panel), thus enabling significant variations in standards or approach to be detected.
 - d Where special circumstances had been claimed, the EPs were scored twice – once disregarding the special circumstances, and once taking them into account.
 - e Around 22% (987) of EPs were cross-referred to other peer review panels for advice (compared with 8% of all EPs in 2003).
 - f Specialist advice was sought for 267 EPs (compared with 87 in 2003), from a total of 51 specialist advisers.
 - g Panels were informed, by their chairs, of the findings of the first Moderation Panel meeting (which was held just before the commencement of the panel meetings).
 - h Panels devoted considerable attention to the calibration of scores for each of the three EP components.
 - i All panels undertook a systematic review of EPs. In some panels, particular attention was given to those EPs where the total weighted score was close to a Quality Category boundary.
 - j Panels considered all EPs where panel pairs were unable to reach agreement on the preliminary scores.
 - k Panels gave particular attention to the EPs of new and emerging researchers, to ensure that the “C(NE)”/“R(NE)” boundary was appropriately calibrated.

- l Panels discussed (and agreed upon) the appropriate boundaries between Quality Categories, giving appropriate regard to the tie-points and descriptors in the *PBRF Guidelines 2006*.
 - m Panels considered a small number of EPs at the holistic assessment stage, but a significant proportion of these EPs were discussed in detail.
 - n At a late stage in proceedings, panels considered the Quality Categories assigned in 2003 (where available) and reviewed those EPs where there were large disparities between the 2003 Quality Category and the panel's 2006 Holistic Quality Category.
 - o Panel secretariats took an active role in ensuring that panels complied with the PBRF assessment framework and guidelines.
- 80** Some panels employed a number of additional methods to ensure that EPs were assessed in an accurate, fair and consistent manner. For instance:
- a In many cases, panel chairs assessed a significant proportion of the EPs submitted to their particular panels.
 - b In many cases, panels examined all EPs that had unusual score combinations for their RO, PE and CRE components.
 - c In almost every case, all panel members were involved in an EP's assessment.
 - d After panel calibration discussions, groups of panel members with expertise in the same subject area met to reconsider the preliminary scores of a small number of EPs.

Conflicts of interest

- 81** The *PBRF Guidelines 2006* included detailed provisions for the handling of conflicts of interest. In addition, the Moderation Panel provided panel chairs with guidelines for dealing with specific types of conflicts of interest.
- 82** Panel chairs, with the assistance of the panel secretariats, managed conflicts of interest in accordance with the *PBRF Guidelines 2006*. This included a declaration of potential conflicts before the allocation of EPs to panel members, and the active management of conflicts as they were identified during the course of panel meetings.

The moderation process

- 83** The PBRF assessment framework was designed to maximise not merely *intra*-panel consistency but also *inter*-panel consistency. Methods employed in the 2006 Quality Evaluation to achieve inter-panel consistency included:
- a the moderation process (which was overseen by the Moderation Panel);
 - b the provision of clearly specified assessment criteria and guidelines, including tie-points and descriptors;
 - c a requirement for panel-specific guidelines to be consistent with the generic PBRF guidelines for panels;
 - d the use of cross-referrals between panels – which included score data and, in some cases, commentary; and

e the use of 2003 Quality Evaluation results for comparative purposes – both in relation to the Quality Categories assigned to individual staff and at the aggregate level.

84 A detailed account of the methods and procedures employed in the moderation process is contained in the Report of the Moderation Panel (see Appendix C). In brief, the Moderation Panel sought to ensure inter-panel consistency through the following means:

- a In mid November 2006, a detailed analysis of the results of the assessment thus far (based on data from the pre-meeting assessment undertaken by panel members) was prepared by the Moderation Panel's secretariat. This analysis identified areas of concern, including possible inconsistencies in the application of the assessment guidelines.
- b The Moderation Panel at its first meeting (held in November, just before the commencement of panel meetings) considered the findings of this analysis. In response, the Moderation Panel agreed that particular issues would be drawn to the attention of various peer review panels by their respective chairs.
- c In addition, the Moderation Panel considered a selection of EPs representing those scored at the "A", "B" and "C" Quality Categories levels. This enabled various calibration issues to be clarified and a common view reached on the boundaries for tie-points. The nature and results of the Moderation Panel's deliberations were reported to each peer review panel by their respective chairs.
- d The moderators attended peer review panel meetings for significant periods, to observe proceedings.
- e In early December 2006, an updated analysis of the results of the assessment (based on data from the preparatory scores and the Final Quality Categories) was prepared by the Moderation Panel's secretariat for consideration by the second meeting of the Moderation Panel.
- f The second Moderation Panel meeting considered the findings of this analysis. Attention was given to the overall pattern of the results and the changes that had occurred at various stages in the assessment process (eg from the pre-meeting assessment undertaken by panel members, to the Final Quality Categories).
- g It was noted that two Māori Knowledge and Development Panel members were unable to attend their panel meetings because of illness. Accordingly it was agreed that a sub-committee would be convened to provide an opportunity for those two panel members to participate fully in the assessment.
- h The meeting of the sub-committee took place in February 2007 with a Deputy Moderator in attendance. The Moderation Panel considered and accepted the outcomes of the sub-committee's deliberations.

Audits

85 The TEC made every effort to ensure that the 2006 Quality Evaluation, including the assessment of EPs by the peer review panels, was conducted in a fair and robust manner and that the data upon which the panels based their assessments were of the highest possible integrity. It also sought to ensure that the data supplied by TEOs in relation to the two PBRF performance measures – ERI and RDC – were accurate and complied with the *PBRF Guidelines 2006*.

- 86** Building on the experience of the 2003 Quality Evaluation, the TEC undertook a risk-based approach to the process assurance and audit of the data supplied by TEOs. The primary objectives of the PBRF audit methodology were to:
- a determine whether participating TEOs had adequate systems and controls for submitting EPs to the TEC;
 - b determine whether participating TEOs had adequate systems and controls for identifying and verifying PBRF-eligible staff for inclusion in the PBRF Census;
 - c understand participating TEOs' preparedness for submitting accurate PBRF Census and EP data; and
 - d provide assurance to the TEC and the PBRF peer review panels that the material presented in the RO component of EPs and in the TEOs' staff-eligibility data was complete and accurate.
- 87** Independent assurance on the processes for the assessment of EPs was provided by the TEC's Internal Audit Unit.
- 88** Appendix D outlines the design, conduct and results of these audits.

Relevant data arising from the assessment process

- 89** Table 3.2 outlines key data arising from the conduct of the 2006 Quality Evaluation.

Table 3.2: Data on the Assessment Process

Item	Number/ percentage
Number of TEOs participating in the PBRF	31
Number of TEOs participating in the 2006 Quality Evaluation for reporting purposes	33
Number of EPs received	4,532
<i>Percentage of PBRF-eligible staff who submitted EPs</i>	<i>52%</i>
Average number of EPs per panel	377
Number of cross-referrals of EPs	1,177
Number of transfers of EPs between panels	123
Number of EPs referred to specialist advisers	87
Number of NROs	17,908
Number of other ROs	72,378
Total number of ROs	90,286
Number of ineligible NROs	8
Number of NROs examined by panel members	Approx. 10,500
<i>Percentage of NROs examined by panel members</i>	<i>59%</i>
Average number of ROs per EP	19
Average number of PE entries per EP	14
Average number of CRE entries per EP	13

90 Table 3.3 outlines the number and percentage of different types of the (up to four) NROs contained in EPs, while Table 3.4 provides similar data for the (up to 30) other ROs. As might be expected, conference papers comprise a much higher proportion of other ROs than of NROs.

Table 3.3: NROs (Nominated Research Outputs) by Type

Output Type	Number	Percentage
Artefact/Object	124	0.69%
Authored Book	673	3.76%
Awarded Doctoral Thesis	709	3.96%
Awarded Research Masters Thesis	215	1.20%
Chapter in Book	1,335	7.45%
Composition	55	0.31%
Conference Contribution – Abstract	156	0.87%
Conference Contribution – Full Conference paper	712	3.98%
Conference Contribution – Oral presentation	411	2.30%
Conference Contribution – Other	39	0.22%
Conference Contribution – Paper in published proceedings	1,100	6.14%
Conference Contribution – Poster presentation	95	0.53%
Confidential Report	35	0.20%
Design Output	114	0.64%
Discussion Paper	26	0.15%
Edited Book	228	1.27%
Exhibition	476	2.66%
Film/Video	75	0.42%
Intellectual Property	55	0.31%
Journal Article	10,295	57.49%
Monograph	38	0.21%
Oral Presentation	63	0.35%
Other	145	0.81%
Performance	168	0.94%
Report for External Body	318	1.78%
Scholarly Edition	37	0.21%
Software	51	0.28%
Technical Report	79	0.44%
Working Paper	81	0.45%
Total	17,908	100.00

Table 3.4: Other ROs (Research Outputs) by Type

Output Type	Number	Percentage
Artefact/Object	485	0.67%
Authored Book	513	0.71%
Awarded Doctoral Thesis	455	0.63%
Awarded Research Masters Thesis	112	0.15%
Chapter in Book	4,451	6.15%
Composition	275	0.38%
Conference Contribution – Abstract	4,026	5.56%
Conference Contribution – Full Conference paper	6,835	9.44%
Conference Contribution – Oral presentation	8,299	11.47%
Conference Contribution – Other	506	0.70%
Conference Contribution – Paper in published proceedings	7,176	9.91%
Conference Contribution – Poster presentation	2,108	2.91%
Confidential Report	470	0.65%
Design Output	365	0.50%
Discussion Paper	219	0.30%
Edited Book	580	0.80%
Exhibition	1,747	2.41%
Film/Video	256	0.35%
Intellectual Property	384	0.53%
Journal Article	21,913	30.28%
Monograph	242	0.33%
Oral Presentation	2,593	3.58%
Other	2,613	3.61%
Performance	1,129	1.56%
Report for External Body	2,705	3.74%
Scholarly Edition	114	0.16%
Software	214	0.30%
Technical Report	898	1.24%
Working Paper	695	0.96%
Total	72,378	100.00

Problems and issues

- 91 Overall, the implementation of the 2006 Quality Evaluation was relatively smooth. All the panels conducted their assessments in accordance with the agreed guidelines and completed their task within the set timeframes.
- 92 Nevertheless, the reports of the Moderation Panel and the peer review panels have highlighted a number of issues that the TEC will carefully consider to ensure that the lessons learned from this experience are taken into account in the design and conduct of the next Quality Evaluation scheduled for 2012.

Chapter 4

Interpreting the results of the 2006 Quality Evaluation

Introduction

- 93** The detailed results of the 2006 Quality Evaluation are presented in Chapter 5 and Appendix A. These results also include data carried forward from the 2003 Quality Evaluation.
- 94** In some cases, the presentation of some of the results of the 2006 Quality Evaluation differs from that outlined in Chapter 6 of the *PBRF Guidelines 2006*. The changes in question have been designed to enhance the clarity and comprehensiveness of the data.
- 95** The TEC will not be publicly releasing data on the Quality Categories assigned to individuals. Likewise, it will not be publishing the content of EPs submitted for assessment.

Presenting the data

Principles

- 96** In considering how to present the results of the 2006 Quality Evaluation, the TEC has been guided by a number of important principles. These include:
- protecting the confidentiality of individuals' Quality Categories;
 - maintaining the confidence and co-operation of the academic community;
 - ensuring that the results are presented in a useful and meaningful manner for relevant stakeholders, such as students and research funders;
 - providing information that will assist TEOs in benchmarking their research performance and will enable them to make better decisions on priority setting and resource allocation; and
 - maintaining a consistent reporting framework over two or more Quality Evaluations, to facilitate comparisons over time.

Changes to the reporting framework

- 97** The reporting framework is broadly similar to that employed for the 2003 Quality Evaluation. In keeping with the 2003 Quality Evaluation, results have been reported at four levels: TEO, panel, subject area, and nominated academic unit. Significant exceptions are:
- Data on staff headcount (ie non-FTE-weighted) is not presented for nominated academic units, nor where the subject area is reported at TEO level.
 - Aggregate information on the Quality Categories assigned to new and emerging researchers is presented at the TEO, panel and subject-area level.
 - For nominated academic units and subject areas at the TEO level, the "C" and "C(NE)" Quality Categories have been combined.
 - For nominated academic units and subject areas at the TEO level, the "R" and "R(NE)" Quality Categories have been combined.

- e In order to minimise the possibility that the Quality Categories assigned to the EPs of individual staff may be inferred, no data is reported for nominated academic units or subject areas with less than five PBRF-eligible FTE staff. Instead, the relevant data is aggregated under a separate category of "other".
 - f Results at the overall TEO, panel and subject-area level include information on their standard deviation and standard error, and box and whisker diagrams outlining their spread.
 - g The results for TEOs that merged between 31 December 2002 and 31 December 2005 have been reported separately.
- 98** As in 2003, participating TEOs were allowed to choose their own nominated academic units. In some cases, TEOs chose to group their staff into relatively large units (eg at the faculty level). In other cases, TEOs chose smaller units (eg departments or schools). As a result, the relative performance of nominated academic units covering similar disciplinary areas may not be comparable.
- 99** The results for the four colleges of education that have been disestablished and merged with their local universities have been reported separately. In the cases of the Christchurch and Dunedin colleges of education, this is because the relevant merger took place after the PBRF Census date. In the cases of the Auckland and Wellington colleges of education, this is because of the separate reporting requirement for TEOs that merged between 31 December 2002 and 31 December 2005. The results of the 2006 Quality Evaluation relating to staff of the former Auckland and Wellington colleges of education who were employed by that college before the merger are reported under that college (which is prefixed by "former"); staff members employed by the "new" combined entity (ie since the merger) will be reported against that entity ie the University of Auckland or Victoria University of Wellington.

The calculation of quality scores

- 100** Many of the results of the 2006 Quality Evaluation are reported using quality scores. The method for calculating these scores is the same as that outlined in the *PBRF Guidelines 2006* (Chapter 6). In brief:
- a Weightings were assigned to the six Quality Categories. The agreed funding weights – "A" (5), "B" (3), "C" (1), "C(NE)" (1), "R" (0) and "R(NE)" (0) – were multiplied by 2, to give an enhanced weighting. This resulted in a rating scale of 0-10. The weighting regime was applied to all PBRF-eligible staff, not merely those whose EPs were submitted in 2006 or who were assigned a Quality Category in 2003 that was "carried over". PBRF-eligible staff who did not have an EP submitted in 2003 or 2006 have been assigned an "R" or "R(NE)".
 - b The quality score was thus calculated by: adding the weighted scores (0, 1, 3, and 5) of staff in the relevant TEO, subject area or nominated academic unit; multiplying by 2; and then dividing by the number of staff.
 - c All the figures displaying the ranking of quality scores have been presented using FTE weightings (see Appendix A: Figures A-1 to A-79).
 - d The information provided in the various tables and figures has been calculated to one or two decimal places.

Notes on the interpretation of quality scores

- 101** The following considerations are important to bear in mind when assessing quality scores.
- 102** Under the approach adopted, the maximum quality score that can be achieved by a TEO, subject area or nominated academic unit is 10. In order to obtain such a score, however, all the PBRF-eligible staff in the relevant unit of measurement would have to receive an “A” Quality Category. Given the nature of the assessment methodology adopted under the 2006 Quality Evaluation, and the very exacting standards required to secure an “A”, such an outcome is extremely unlikely. Furthermore, there is no suggestion that a quality score of less than 5 constitutes a “fail”. No sizeable academic unit, let alone a large TEO, could reasonably be expected to secure a quality score even close to a 10.
- 103** Just as a quality score between 8 and 10 is not realistically achievable (except by very small academic units), it is not necessarily something to which it would be prudent to aspire. For example, any academic unit (or TEO) concerned about its longer-term viability and future research capability would have a strong interest in ensuring that it has within its ranks not only a sufficient number of experienced and well respected researchers, but also a pool of new and emerging researchers. Under the assessment framework employed in the 2006 Quality Evaluation, any academic unit with staff at different stages of their research careers will find it virtually impossible to secure a score in excess of 8.⁹
- 104** Quite apart from this, TEOs and the academic units within them have multiple purposes. While research is vitally important (especially for universities), so too are teaching and service to the community. In many cases, PBRF-eligible staff members are employed primarily, if not solely, for their teaching expertise rather than as researchers. This, of course, is perfectly appropriate. High-quality teaching is not an optional extra. But by virtue of having multiple purposes – and thus the need to recruit and retain staff with varying types of expertise – TEOs are likely to achieve somewhat lower quality scores than those that would be achieved by an institution dedicated solely to research, if it were assessed by the same criteria.

The impact of the assessment framework on the overall results

- 105** The overall results of the 2006 Quality Evaluation will have been influenced by the nature of the assessment framework. Three matters deserve particular attention:
- a The Quality Evaluation is a standards-referenced assessment regime; it is not norm-based. Therefore there are no controls or predetermined limits on the assignment of particular Quality Categories.
 - b The scoring system employed by panels had significant implications for the distribution of Quality Categories.
 - c The criteria for achieving an “A” were exacting.

⁹ For example, only two nominated academic units achieved quality scores higher than seven. None of these contained more than 20 (FTE-weighted) staff.

No controls or predetermined limits on Quality Categories

106 Because the Quality Evaluation is a standards-referenced assessment regime, there were no predetermined limits on the proportion of PBRF-eligible staff who could be assigned particular Quality Categories. Accordingly, the peer review panels were free to determine the appropriate distribution of Quality Categories for their respective subject areas. The decisions of each panel, however, needed to be consistent with the agreed assessment criteria and were subject to the scrutiny of the Moderation Panel.

The scoring system

107 With the exception of the “C(NE)” Quality Category, the scoring system used for the 2006 Quality Evaluation is likely to have had the effect of reducing the overall proportions of those assigned a funded Quality Category, compared with what would have been the case if scores had been based solely on the RO (research output) component.

108 For example, in order to secure an “A” it was generally necessary for all three components of an EP¹⁰ to receive a relatively high score (ie a minimum of 6/6/6 or 7/4/4). For example, of the 30 EPs with a score of 6 for RO and PE but a 5 for CRE, only four were assigned an “A” (based on the holistic judgement of the relevant panel).

109 While some EPs with scoring combinations of less than 6/6/6 or 7/4/4 were assigned an “A” at the holistic stage of the panel assessment process, this was not common. The scoring system thus had the effect of reducing the proportion of those assigned an “A” relative to what would have been the case if the results had been based solely on the RO component. This effect was slightly greater than that noted in the report of the 2003 Quality Evaluation. In 2006, only 4.8% of EPs (non-FTE- weighted) received an “A”, but 10.1% of EPs were assigned a score of 6 or 7 for the RO component of their EPs. For the 2003 Quality Evaluation, the relevant proportions were 5.5% and 9.5% respectively.

110 In the same way, the scoring system increased the proportion of those assigned an “R” Quality Category, which would have been allocated for a score of 2/2/1. For example, of the EPs submitted as part of the 2006 Quality Evaluation, 520 (11.5%) were assigned an “R” – and these included 210 EPs (4.6%) with an RO score of “2”. This effect did not alter the proportion of EPs assigned an “R(NE)” Quality Category because new and emerging researchers could be assigned a “C(NE)” Quality Category without any evidence of peer esteem or contribution to the research environment.

The exacting criteria for achieving an “A”

111 The standards required for achieving an “A” Quality Category, as stated in the *PBRF Guidelines 2006* and applied by the 12 peer review panels, were exacting. Many staff who produced research outputs of a world-class standard did not secure an “A” because they did not demonstrate either the necessary level of peer esteem or a contribution to the research environment to the standard required.¹¹

¹⁰ RO (research output), PE (peer esteem) and CRE (contribution to the research environment), which were weighted 70, 15, and 15 respectively.

¹¹ In order to achieve an “A”, EPs were required to demonstrate – among other things – leadership and accomplishment exemplified by a platform of world-class research, including highly original work ranking with the best of its kind and characterised by qualities such as:

- intellectual and creative advance;
- important new findings with wider implications;
- intellectual rigour, imaginative insight, or methodological skill;
- substantial impact or uptake; and
- dissemination through most appropriate and best channels.

- 112** Two other factors also contributed to some high-calibre researchers receiving a “B” rather than an “A”:
- a The assessment period covered only six years. In some cases, major research outputs were produced just before, or just after, the assessment period, with the result that the researcher in question received a lower score for their RO component than might otherwise have been the case.
 - b The EPs of some high-calibre researchers did not provide sufficient detail of their PE and/or CRE. While this was less of an issue than in 2003, the panels assessing such EPs were unable to score these two components as highly as might otherwise have been possible.

Other factors influencing the overall results

- 113** The PBRF is intended to provide powerful incentives for TEOs to enhance research quality, prioritise research, and to concentrate their research efforts around areas of excellence. The principal incentives associated with the Quality Evaluation measure are reputational and financial. The “ranking” of TEOs through their quality scores is a clear measure of the performance of each TEO relative to its peers. Performance in the Quality Evaluation also determines how 60% of PBRF funding will be allocated among TEOs from 2007 to 2012.¹² The differences between these incentives should not be underestimated. While reputational matters are clearly of some importance, the ability of TEOs to deliver the outcomes expected of them by the government and the community are largely determined by the proportion of the government’s investment in research funding and research training that each TEO is able to attract.
- 114** For individual staff, direct “feedback” in the form of Quality Categories based on the judgements of their peers may act as a powerful incentive. The fact that almost 40% of staff received a higher Quality Category than they did in 2003 can be argued as evidence that the assessment system is able to generate a positive response.
- 115** Over time, the combination of these factors at an institutional and individual level can be expected to result in an overall increase in research quality as measured through the PBRF. Nevertheless, as relatively little time has past since the introduction of the PBRF, the actual improvement in research quality is difficult to quantify. Certainly, it is reasonable to assume that some of the change in measured research quality will have been the result of other factors, such as:
- a the “partial” round provisions of the 2006 Quality Evaluation;
 - b improvements in the presentation of EPs;
 - c specific provision for new and emerging researchers;
 - d that not all TEO researchers were PBRF-eligible;
 - e changes in PBRF-eligible staff reported by TEOs;

¹² Current projections for the PBRF indicate that funding will rise to \$264m (GST inclusive) by 2010.

- f the results cover only participating TEOs;
- g the separate reporting of merged TEOs; and
- h the limited assessment period.

Each of these factors is discussed in more detail below.

“Partial” round provisions

- 116** The 2006 Quality Evaluation has been conducted on a “partial” basis. The “partial” round provision means that in most cases the Quality Categories assigned to the EPs of staff assessed in the 2003 Quality Evaluation have been “carried over” to the 2006 Quality Evaluation. In practical terms, this means that the Quality Categories assigned to 2,996 EPs in 2003 were “carried over” automatically to the 2006 Quality Evaluation.
- 117** A significant proportion (31% [919]) of the EPs carried over from 2003 were assigned an “R” or had their Quality Category updated to “R(NE)” in 2006, and so are unlikely to have achieved a higher Quality Category if they had resubmitted in 2006. Another 42% (1,245) in 2003 were assigned a total weighted score that was more than two points above the level required (excluding the effect of the holistic assessment) for the Quality Category that they were assigned in 2003. The remaining 832 were within two points of a lower Quality Category in 2003 and, if they had resubmitted in 2006, would have been more likely to have had that lower Quality Category assigned. Nevertheless, it is not possible to state definitively whether higher or lower Quality Categories would have been assigned if EPs had been resubmitted for these staff in the 2006 Quality Evaluation.
- 118** It is worth noting, however, that there was a reasonable level of consistency in the Quality Categories assigned to the EPs submitted for assessment in both Quality Evaluations. Of the 4,532 EPs assessed by the peer review panels in 2006, 2,310 were from researchers whose EPs had also been assessed in 2003. Of this group, 58% were assigned the same Quality Category as in 2003, 40% were assigned a higher Quality Category and 2% a lower Quality Category. This level of consistency is notable given that TEOs were much more likely to submit EPs for which they expected a higher Quality Category than in 2003.

Improvements in the presentation of EPs

- 119** All PBRF peer review panels commented uniformly on the improvement in the presentation of EPs compared with those submitted for assessment in the 2003 Quality Evaluation. These improvements might be expected to lead to higher Quality Categories being assigned – and given the high proportion of staff whose EPs were assigned a higher Quality Category this would appear to be the case.
- 120** Improvements in the presentation of EPs, however, may simply mean that the EPs submitted in 2006 provide a more accurate reflection of the research activities undertaken in the tertiary sector than did the EPs in 2003, as the information they contain is more complete and accurate.

Specific provision for new and emerging researchers

- 121** One of the key changes implemented for the 2006 Quality Evaluation was the establishment of a specific assessment pathway for new and emerging researchers. Almost 2,000 (22.2%) PBRF-eligible staff were reported by their TEOs as having met the eligibility criteria for new and emerging researchers, and the EPs of almost 1,000 of these staff were assigned a funded Quality Category in 2006. Of these 1,000, 84.0% were assigned a "C(NE)" and 11% an "A" or "B"; the remaining 5% had their funded Quality Categories "carried over" from 2003.
- 122** The recognition of new and emerging researchers is likely to have resulted in higher levels of assessed research quality than in 2003. This is because the EPs of a number of new and emerging researchers would most likely have been assigned an "R" Quality Category if the specific assessment pathway had not been implemented.
- 123** The decision on whether to report its researchers as new and emerging was at the discretion of the TEO. As a result, TEOs reported differing proportions of new and emerging researchers and may, in some cases, have understated their numbers. For example, while some established universities like the University of Canterbury and Victoria University of Wellington reported that new and emerging researchers made up more than 28% of all staff, the University of Auckland reported a figure of 9%. Where a TEO did not report a researcher as new and emerging, this may have influenced the Quality Category assigned to that researcher's EP and thus affected the TEO's quality score.

Not all TEO researchers were PBRF-eligible

- 124** As in 2003, not all TEO researchers were eligible to participate. While the eligibility criteria were adjusted for the 2006 Quality Evaluation, inevitably there were some active researchers in TEOs who were ineligible for inclusion. These included researchers who failed to meet the requirement of "a sufficiently substantive contribution" to degree-level teaching and/or research. Other staff who may have been affected were: those who had their primary place of research overseas or were sub-contracted to a TEO by a non-TEO, but had not fulfilled the requirement of an employment relationship of at least five years; those who had left their employment in a participating TEO before the PBRF Census date; those who were working under the strict supervision of another staff member; and those employed under an employment agreement that did not meet the general eligibility criteria.
- 125** Certainly in the case of some TEOs (Massey University and AUT are notable examples) a number of staff who were reported as eligible in 2003 were not reported as eligible in 2006 even though they were still employed by the TEO. If these staff had received an "R" Quality Category in 2003, the effect on the 2006 quality scores at the TEO level (and at other levels in the reporting framework) is likely to have been significant.

Changes in PBRF-eligible staff reported by TEOs

- 126** There has been some change in the numbers of PBRF-eligible staff reported by participating TEOs compared with those reported in the 2003 Quality Evaluation. Overall, there has been a reduction of 3.4% (1.9% FTE) in the numbers of PBRF-eligible staff reported by the universities. To give some indication of the range, AUT reported a 33.8% decrease in PBRF-eligible staff on an FTE basis; conversely, Victoria University of Wellington (excluding Wellington College of Education) reported a 22.3% increase in PBRF-eligible staff on an FTE basis.
- 127** The difference between the 3.4% fall in non-FTE terms and the 1.9% fall on an FTE basis indicates that many of the staff who are no longer PBRF-eligible were employed on a part-time basis. The most marked example of this is the University of Otago. The total staff reported by this TEO has dropped from 1,357 (1,174.94 FTE) in 2003 to 1,244 (1,144.66 FTE) in 2006, a drop of 8.1% on a non-FTE basis but only 2.6% on an FTE basis.¹³
- 128** There has also been a significant level of turnover in at least a part of the academic workforce since the 2003 Quality Evaluation. Of the 8,018 PBRF-eligible staff reported in the 2003 Quality Evaluation, almost 30% (approximately 2,500) were not PBRF-eligible in 2006 – either because they were no longer employed by a participating TEO or because their employment functions changed.
- 129** There is anecdotal evidence that TEOs actively recruited researchers either from overseas or from other TEOs in order to improve their research performance. Where TEOs have pursued such a strategy, the effect may have been to increase their quality scores. This is noted in the Report of the Moderation Panel (Appendix C) which suggests that approximately one-quarter of the staff whose EPs were assigned an “A” in 2006 were new appointments from overseas.
- 130** The TEC carefully audited the participating TEOs’ application of staff PBRF-eligibility criteria, and was satisfied that all participating TEOs complied with the *PBRF Guidelines 2006*. The details of this audit are described in Appendix D.
- 131** It should be noted that some of the changes described above are the result of amendments to the PBRF-eligibility criteria for the 2006 Quality Evaluation, or are the result of TEO responses to these amendments. Others may result from factors that relate only indirectly to the PBRF, such as increases in the numbers of students enrolled at particular TEOs.

The results cover only participating TEOs

- 132** Of the 46 PBRF-eligible TEOs, 31¹⁴ participated in the 2006 Quality Evaluation. This compares with 22 TEOs in the 2003 Quality Evaluation. These differences arose because of the participation for the first time of eight institutes of technology and polytechnics (ITPs), one additional wānanga, and three private training establishments (PTEs).¹⁵ Accordingly, the results of the 2006 Quality Evaluation provide a fuller picture of the quality and level of research activity across the whole tertiary education sector than did those of 2003.

¹³ It should be noted, however, that in 2006 the “average FTE” (expressed by dividing the reported total FTE by the total non-FTE of staff) of a staff member at the University of Otago was 0.92 – the lowest average FTE of any university. Otago also had the lowest average FTE of any university in 2003.

¹⁴ This total includes the four colleges of education that have merged with their local university.

¹⁵ One PTE that participated in 2003 chose not to participate in 2006.

- 133** To a large extent, however, the participation of additional TEOs has not resulted in significant changes in the number of EPs that were assigned a funded Quality Category. In fact, the main effect has been a higher number of EPs assigned either an “R” or “R(NE)” Quality Category.
- 134** In addition, it is important to stress that the PBRF is concerned with research performance in New Zealand’s tertiary education sector. It does not, therefore, assess the research performance of the many other governmental and non-governmental organisations that undertake research, such as the nine Crown research institutes (CRIs). Neither does the PBRF assess researchers working in the private sector. For this reason, the results of the 2006 Quality Evaluation do not provide a comprehensive overview of the quality of all the research being undertaken by New Zealand-based researchers.

Separate reporting of merged TEOs

- 135** As outlined earlier in this chapter, the 2006 Quality Evaluation provided for separate reporting of recently merged TEOs. This affects the reporting of results for the universities of Auckland, Victoria, Canterbury, and Otago – each of which has merged with the college of education in its respective region since 2003. It is important to note that the quality score of each of these four universities would have been different if its results had been merged with those of its college of education.

The limited assessment period

- 136** The results of the 2006 Quality Evaluation are based on research completed within a six-year assessment period (1 January 2000 – 31 December 2005). They do not represent a judgement of the quality of individuals’ research during the whole of their working lives. They also do not assess the many and varied contributions that staff of TEOs make outside the field of research (eg in teaching, administration, and service to the community).

Interpreting the results at the panel and subject-area levels

- 137** There are also a number of factors that need to be carefully considered when interpreting the results of the 2006 Quality Evaluation at panel and subject-area level. These factors include:
- a the multidisciplinary nature of panels and subject areas;
 - b the potentially very wide range of disciplines covered by the Māori Knowledge and Development Panel; and
 - c the meaning of the “R” and “R(NE)” Quality Categories.

The multidisciplinary nature of panels and subject areas

- 138** The 12 PBRF peer review panels varied significantly in terms of both the scope of the subject areas covered and the number of EPs assessed. Two of the panels, the Education Panel and the Māori Knowledge and Development Panel, embrace only one subject area. All other panels cover two or more subject areas, up to a maximum of six. For panels spanning more than one subject area, the research performance of the particular panel’s subject areas differed – sometimes significantly. The panel-level results thus mask considerable variation at the subject-area level.

- 139** It was recognised when determining the classification of the 42 subject areas that some subject areas did not relate directly to well established academic disciplines. Certain subject areas embrace two or more recognised disciplines (eg anthropology and archaeology) or cover a very large disciplinary area where it is common to make sub-disciplinary distinctions (eg engineering has a range of sub-disciplines such as civil, mechanical, electrical, and chemical engineering). Nor, of course, do the 42 subject areas accurately reflect the way research activity is organised and conducted within many TEOs – which is often through multi-disciplinary teams.
- 140** For such reasons, the quality scores and other aggregate results for a particular subject area may mask considerable variations in research performance at the disciplinary and sub-disciplinary levels. Many of these variations will be apparent if the performance of particular subject areas is compared with that of the relevant nominated academic units within TEOs.
- 141** A significant proportion of those submitting EPs for assessment undertake research that crosses two or more subject area boundaries (and in some cases two or more panel boundaries). Such staff (and/or their TEOs) were able to indicate under which subject-area their EP should be assessed and reported. For instance, a health economist could have asked to be assessed either by the Business and Economics Panel (and thus be reported under the subject area of economics), or by the Medicine and Public Health Panel (and thus be reported under the subject area of public health). Although there was scope for EPs to be transferred between subject areas and panels, in most cases the preferences indicated by staff determined the allocation and reporting of their EPs at the subject-area level. This, in turn, will have affected the nature and pattern of subject-level results in some instances.
- 142** Approximately 123 EPs (compared with 238 in 2003) were transferred after being received by the TEC, from one panel to another. They have therefore been reported under a subject area different from that originally chosen. This will have had an effect, albeit marginal, on subject-area (and panel) results.
- 143** In some subject areas, a significant proportion of PBRF-eligible staff are employed on a part-time basis. Many such staff are recruited primarily to teach rather than to conduct research. This inevitably has implications for the quality scores of subject areas where there is a high level of clinical or professional practice.

The results of the Māori Knowledge and Development Panel

- 144** Staff undertaking research based on Māori world-views (both traditional and contemporary) and Māori methods of research were able to submit their EPs either to the Māori Knowledge and Development Panel or to another appropriate panel. As a result, the results of the Māori Knowledge and Development Panel do not necessarily provide a complete picture of the quality of research conducted by Māori staff or the quality of research dealing with Māori themes and issues. Moreover, the EPs submitted to the Māori Knowledge and Development Panel covered a very wide range of academic disciplines. Hence, the aggregate results for this panel (and subject area) provide only a partial indication of the relative strength of the many and varied fields of academic inquiry where Māori researchers are actively engaged (or where Māori research methods are regularly employed).

The meaning of the “R” and “R(NE)” Quality Categories

145 The *PBRF Guidelines 2006* describe the “R” and “R(NE)” Quality Categories as follows:

Quality Category “R”: An EP will be assigned an “R” when it does not demonstrate the quality standard required for a “C” Quality Category or higher.

Quality Category “R(NE)”: An EP will be assigned an “R(NE)” when it does not demonstrate the quality standard required for a “C(NE)” Quality Category or higher.

146 The results of the 2006 Quality Evaluation (see Chapter 5) show that 33.5% of PBRF-eligible staff have received an “R” or “R(NE)”. It is important to understand that the assignment of such a Quality Category does not mean that the staff member in question has produced no research outputs during the six-year assessment period, or that none of the research outputs produced are of a sound (or even very good) quality. Rather, it simply means that they did not meet the standards required for the award of a funded Quality Category. It would be inappropriate to assume that all such staff were not active in research, or undertaking research of poor quality.

147 There are a number of possible reasons for the assignment of an “R”:

- a The EP contained no Research Outputs (ROs) other than a masters or doctoral thesis.
- b The score for the RO component of the EP was less than 2.
- c The RO component was awarded a score of 2 (thus demonstrating a platform of research activity based on sound/justifiable methodologies); but the combined score for the other two components (PE and CRE) was less than 4, and the relevant panel decided at the holistic assessment stage not to assign a “C” or higher Quality Category.
- d The EP did not include all the relevant information that the staff member could have provided. Peer review panels were not permitted to draw on any information about an individual’s research activities or personal circumstances that was not included in the relevant EP.

148 Similarly, there are a number of other specific reasons for the assignment of an “R(NE)”:

- a The RO component of the EP did not contain evidence of a PhD (or equivalent and two quality-assured research outputs, or research outputs equivalent to a PhD and two quality-assured research outputs).
- b The score for the RO component of the EP was less than 2.

149 Because of the nature of the assessment methods and the standards set for a “C”, those assigned an “R” or “R(NE)” include at least four different categories of staff. These are detailed below.

150 First, there are a number of researchers who were reported as new and emerging but whose EPs were not assigned a funded Quality Category. Some of these staff may have been only recently appointed to an academic/research position within a TEO, or only recently become active researchers. As a result, they will have produced few research outputs during the assessment period. This group of staff no doubt includes many researchers of considerable potential, most of whom can reasonably expect to secure a higher Quality Category in any future Quality Evaluation.

- 151** Second, some staff who met the eligibility criteria for new and emerging researchers were not reported as such by their TEO. These staff may have submitted EPs that met the assessment standard to be assigned a “C(NE)”; but, as they were not reported as new and emerging, their EPs could not be assigned this Quality Category. Many of these staff may not yet have acquired significant peer esteem, and they may have been unable to make a significant contribution to the research environment (either within their own institution or beyond). As a result, their EPs would not have been assigned a funded Quality Category.
- 152** Third, some staff may have held academic/research positions for a considerable time but for one reason or another have not produced many substantial research outputs during the assessment period (and/or have not acquired a significant level of peer esteem or made a considerable contribution to the research environment). In some cases, the staff in question may have produced one or more major research outputs just outside the assessment period, and so were unable to include them in their EPs.
- 153** Finally, some staff may have held academic positions for many years but have not chosen, been required or been able to undertake research.
- 154** The TEC has insufficient data to ascertain the relative proportion of staff who fall into each of these four categories. However, such information will be known within individual TEOs. It is crucial that TEOs interpret the results carefully, taking proper account of individual circumstances and implementing appropriate strategies for staff development.

Chapter 5

The results of the 2006 Quality Evaluation

Introduction

156 Of the total funding to be allocated through the PBRF each year, 60% is allocated according to the results of the periodic Quality Evaluation assessment.¹⁶ The following section outlines the results of the 2006 Quality Evaluation. It begins with a brief summary of the key results; this is followed by a more detailed analysis of the results for individual TEOs, panels, subject areas, and nominated academic units.

Summary of the key results

157 A summary of some of the key results of the 2006 Quality Evaluation is outlined in Table 5.1. A much fuller presentation of the statistical results can be found in Appendix A.

Overall quality scores

158 As Figure A-1 shows, the overall quality score of the 31 participating TEOs is 2.96 (FTE-weighted). This is out of a possible maximum of 10 – which is the score that would be achieved if all eligible staff were assigned an “A”. The quality score of 2.96 indicates that the average quality of the research produced by PBRF-eligible staff is towards the bottom of the “C”/“C(NE)” range (2.00 to 5.99). As explained in Chapter 4, however, the quality score data must be interpreted with appropriate care.

159 The quality scores obtained by participating TEOs reflect broad patterns identified in 2003. The overall variation in quality scores remains large, with a range from 4.23 to zero (see Figure 5.2; and Table A-1 in Appendix A). This compares to a range of 3.96 to zero in 2003. As was the case in 2003, the universities achieved much higher quality scores than other participating TEOs. However, a notable feature of the universities’ quality scores, compared with those reported in 2003, is a reduction in the difference between the highest- and lowest-scoring universities. In 2003, this difference was 3.19 (between the University of Auckland and AUT). By comparison, in 2006 the difference was 2.37 (between the University of Otago and AUT).

160 The quality scores also reveal large variations in the relative performance of the 42 subject areas. (Table A-3). Whereas the 12 highest-performing subject areas achieved quality scores in excess of 4.0, the eight lowest-performing had scores of 2 or less. This is consistent with the broad trends identified in the 2003 Quality Evaluation. As in 2003, long-established subject areas with well developed research cultures (such as earth sciences and philosophy) achieved much higher quality scores than less well established subject areas (such as design, and nursing).

¹⁶ Chapter 8 contains detail on the PBRF funding attracted by participating TEOs

Figure 5.1: Subject-Area Ranking – All Subject Areas

Numbers above bars indicate FTE-weighted quality scores

Numbers in parentheses indicate total number of PBRF-eligible FTE-weighted staff

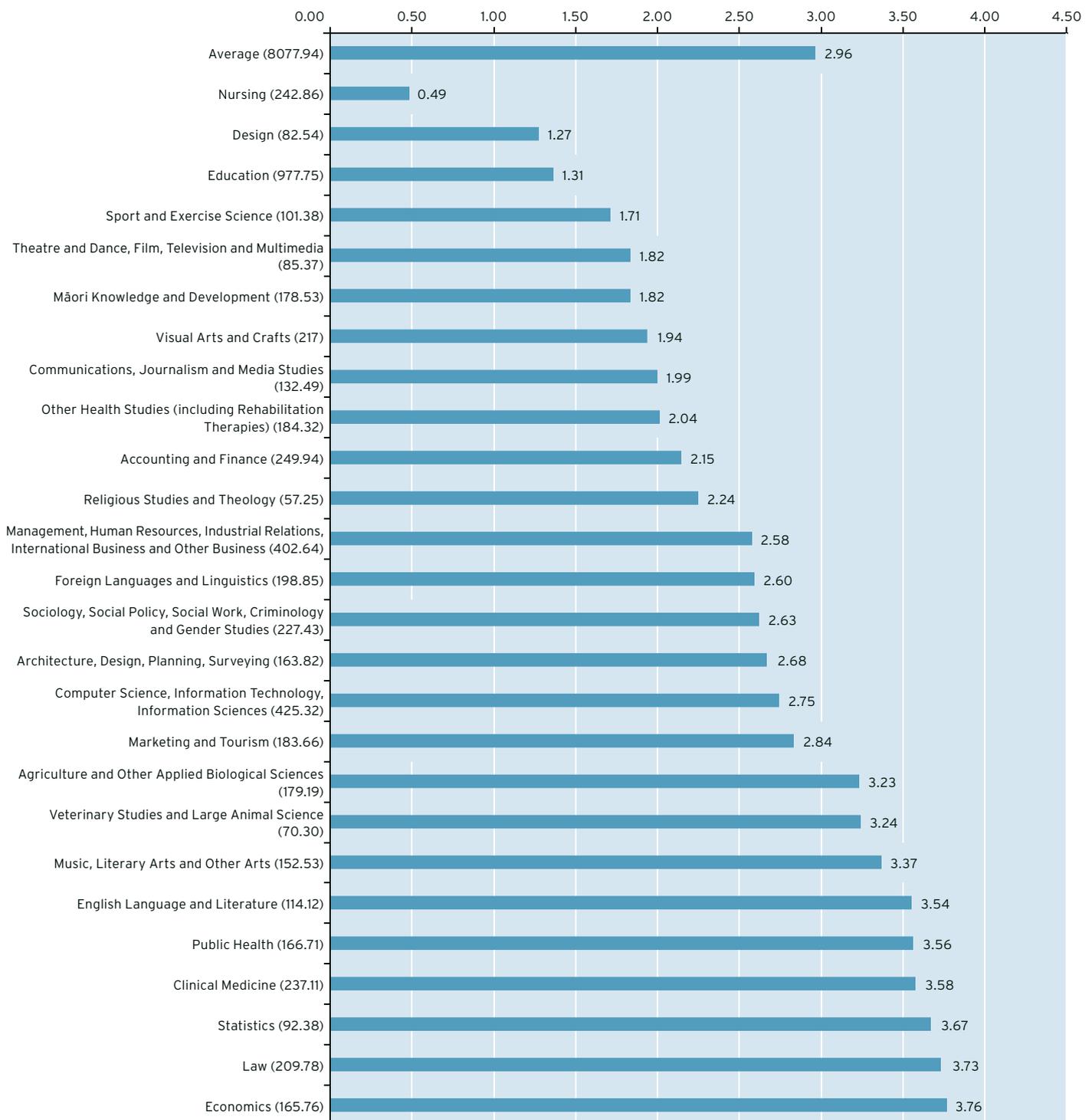


Figure 5.1: Subject-Area Ranking – All Subject Areas – continued

Numbers above bars indicate FTE-weighted quality scores

Numbers in parentheses indicate total number of PBRF-eligible FTE-weighted staff

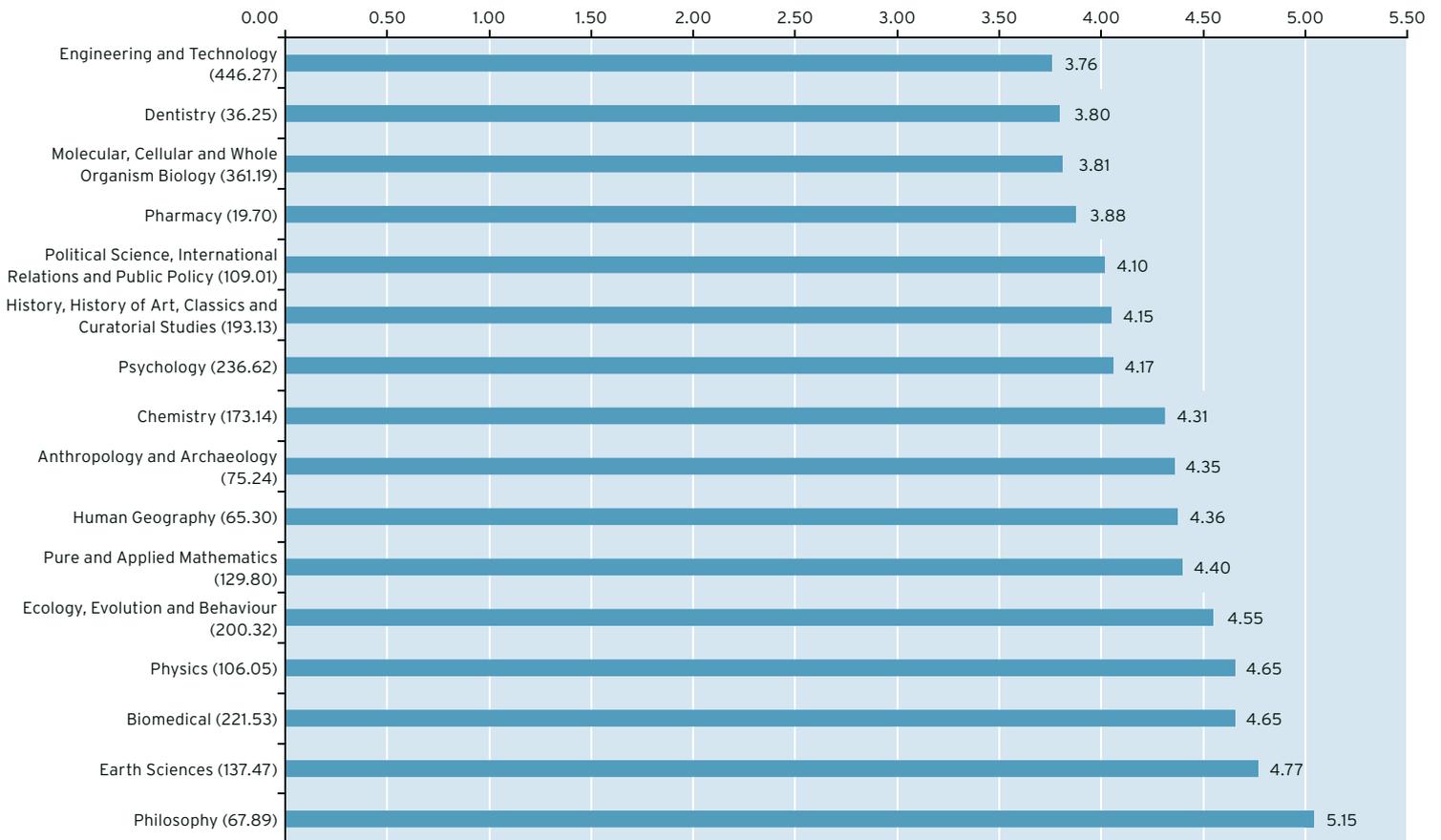


Figure 5.2: TEO Ranking – All TEOs

Numbers above bars indicate FTE-weighted quality scores

Numbers in parentheses indicate total number of PBRF-eligible FTE-weighted staff

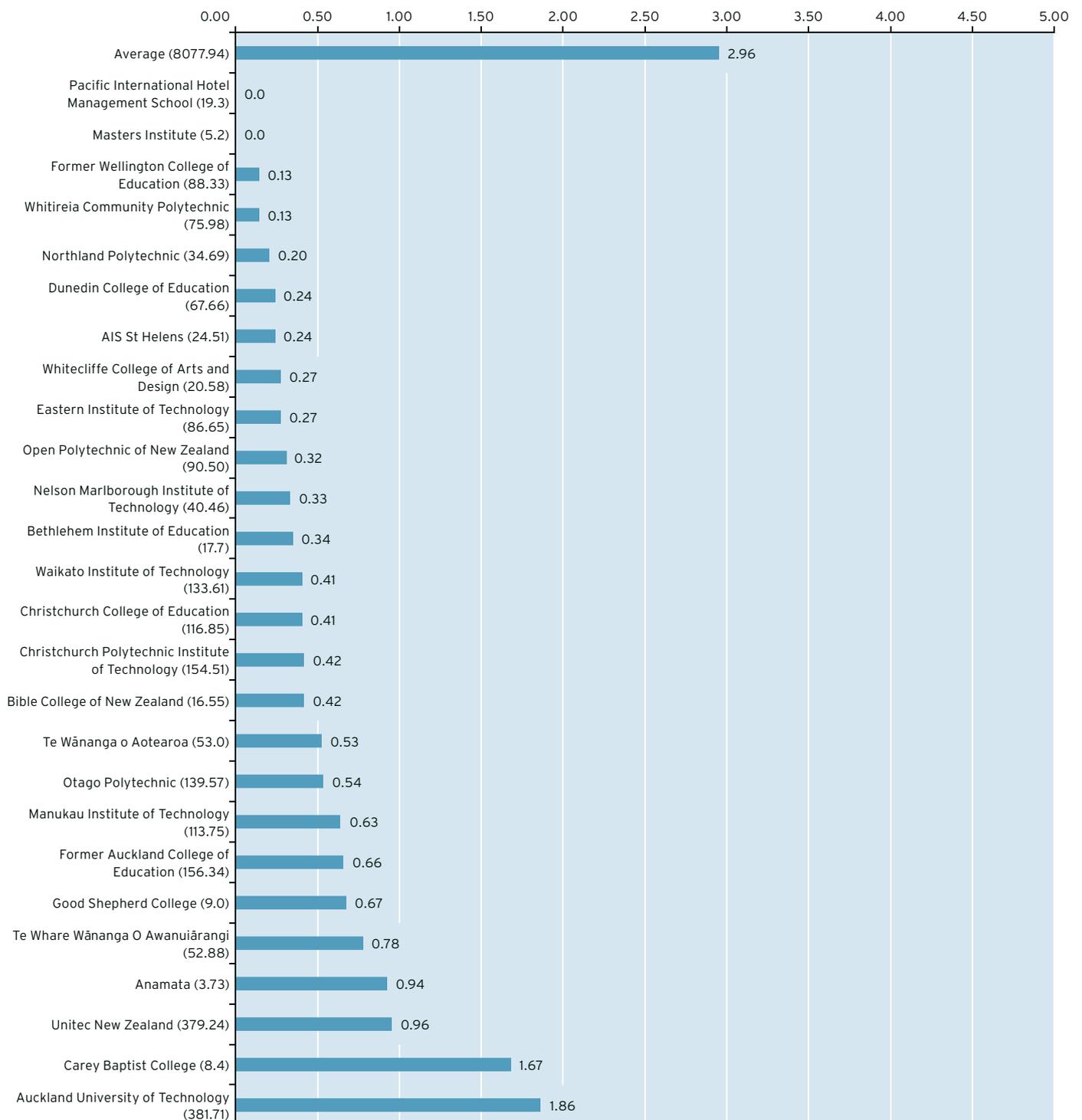


Figure 5.2: TEO Ranking – All TEOs – continued

Rank based on Quality Score (FTE-weighted)

Numbers in parentheses indicate total number of PBRF-eligible staff (FTE-weighted)

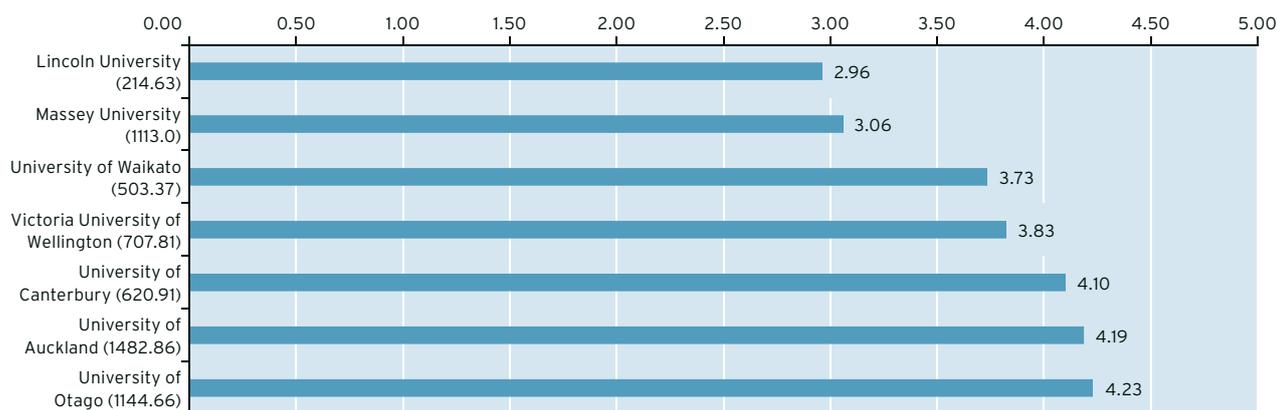


Table 5.1: The Distribution of Quality Categories 2003 and 2006 Quality Evaluations

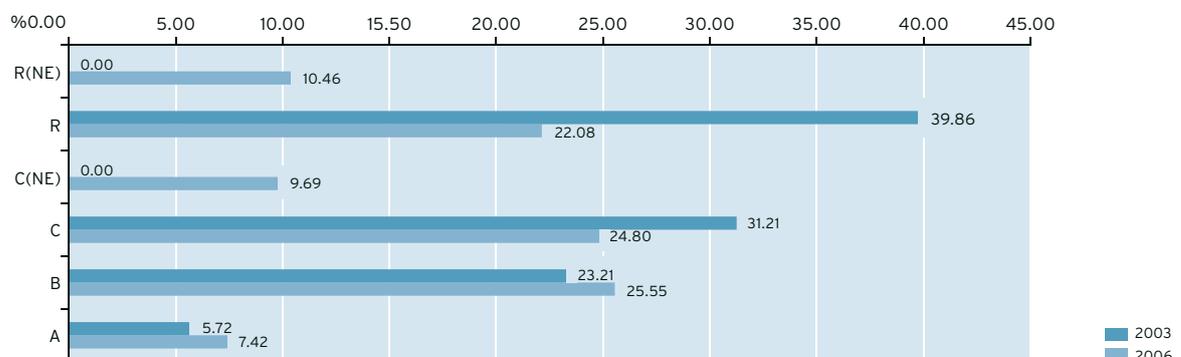
Quality Category	Quality Categories – 2003 Quality Evaluation		Quality Categories – 2003 Quality Evaluation (FTE-weighted)		Quality Categories – 2006 Quality Evaluation		Quality Categories – 2006 Quality Evaluation (FTE-weighted)	
	%	Number	%	Number	%	Number	%	Number
A	5.54	444	5.72	424.15	7.27	630	7.42	599.75
B	22.57	1,810	23.21	1,720.85	25.00	2,168	25.55	2,063.55
C	31.01	2,486	31.21	2,313.82	24.67	2,139	24.80	2,003.08
C(NE)	N/A	N/A	N/A	N/A	9.53	826	9.69	782.99
R	40.88	3,278	39.86	2,955.75	22.65	1,964	22.08	1,783.58
R(NE)	N/A	N/A	N/A	N/A	10.89	944	10.46	844.99
A + B	28.11	2,254	28.93	2,145.00	32.27	2,798	32.97	2,663.30
B + C + C(NE)	53.58	4,296	54.42	4,034.67	59.20	5,133	60.04	4,849.62
A Universities only	6.53	443	6.74	423.15	9.57	627	9.68	597.15

Distribution of Quality Categories

- 161** Of the 8,671¹⁷ PBRF-eligible staff (non-FTE-weighted), 630 (7.27%) received a Quality Category of “A”, 2,168 (25.00%) received a “B”, 2,139 (24.67%) a “C”, 826 (9.53%) a “C(NE)”, 1,964 (22.65%) an “R”, and 944 (10.89%) an “R(NE)”. This means that in 2006 the EPs of 32% of PBRF-eligible staff were assigned an “A” or a “B” – compared with 28% in 2003. The proportion of PBRF-eligible staff whose EPs were assigned a funded Quality Category (“A”, “B”, “C”, or “C(NE)”) increased from 59.1% to 66.5%. The distribution of Quality Categories is shown in Table 5.1; and the overall distribution is graphically depicted in Figure 5.3. More detailed data are presented in Appendix A: Tables A-1, A-2 and A-3; and Figures A-1, A-2 and A-3.
- 162** When the results of the 2006 Quality Evaluation are calculated on a FTE basis, the relative proportion of “A”, “B”, “C”, and “C(NE)” Quality Categories increases, while the proportion of “R”s decreases. The use of FTE-weighted data tends to enhance the scores of TEOs with a high proportion of part-time staff (eg the University of Otago). This effect is due partly to the fact that, on average, part-time staff received lower Quality Categories than full-time staff did. However, the rankings of TEOs, panels and subject areas do not change when considered on an FTE-weighted, rather than a non-FTE-weighted, basis.
- 163** The proportional distribution of Quality Categories conceals to some extent the actual level of change in the tertiary sector, because of the participation of a number of TEOs for the first time. The number of staff whose EPs were assigned a funded Quality Category in 2006 was 5,763. This is a substantial increase on the 4,740 staff whose EPs were assigned a funded Quality Category in 2003. In terms of volume, the largest increase occurred at the “C”/“C(NE)” level. In 2003, 2,486 staff received a “C” Quality Category. In 2006, 2,965 staff received a “C” or “C(NE)” Quality Category.

Figure 5.3: Distribution of Quality Categories

(PBRF-Eligible FTE-weighted Staff)



¹⁷ The figures in the text above and in Table 5.1 indicate that there were 8,671 PBRF-eligible staff, and that 4,532 Evidence Portfolios were assessed. But both these figures include four duplicates (ie there were four staff concurrently employed by two different TEOs at the time of the PBRF Census [Staffing Return]). In addition, one further staff member was employed by two participating TEOs on the PBRF Census date but had a Quality Category “carried over” from the 2003 Quality Evaluation. So there were 8,666 PBRF-eligible staff; and 4,528 separate EPs were assessed.

- 164** As in 2003, the distribution of "A"s is highly skewed across the tertiary education sector (see Figure 5.4). Of the 630 "A"s, only three were assigned to a researcher outside the university sector (up from one in 2003). Overall, a third (33.3%) of A-rated staff are concentrated in a single institution (the University of Auckland), and just over 68% are located in three universities (Auckland, Otago and Canterbury).
- 165** The distribution of "R"s and "R(NE)"s across the tertiary education sector is also very uneven. The TEOs with the lowest proportions of "R"s and "R(NE)"s are the University of Canterbury (11.4% of PBRF-eligible staff, FTE-weighted) and the University of Otago (13.5% of PBRF-eligible staff, FTE-weighted). At the other end of the spectrum, the proportions of "R"s and "R(NE)"s exceeds 90% in five TEOs – Masters Institute, Northland Polytechnic, Pacific International Hotel Management School, the former Wellington College of Education, and Whitireia Community Polytechnic.
- 166** The distribution of "A"s at the subject-area level is highly variable. The proportion of "A"s exceeds 15% (FTE-weighted) in five subject areas: biomedical; dentistry; philosophy; psychology; and pure and applied mathematics. By contrast, the proportion of "A"s is under 2% (FTE-weighted) in four subject areas: communications, journalism and media studies; design; nursing; and sport and exercise science.

Organisational share of staff assigned a funded Quality Category

- 167** The relative research performance of TEOs can be considered in a number of ways. Research performance across TEOs can be compared by calculating their respective shares of PBRF-funded staff (ie those who received a funded Quality Category).
- 168** The results of weighting the Quality Categories received by staff (by assigning a value of 10 to an "A", 6 to a "B", and 2 to a "C" or "C(NE)") are depicted in Figure 5.5. As in 2003, the University of Auckland has the highest proportion of PBRF-funded staff. However, its share of all PBRF-funded staff (quality-weighted) has fallen from 29% in 2003 to 27% in 2006. Similar trends occurred at the universities of Canterbury and Waikato. Even though the numbers of PBRF-funded staff at these TEOs have increased since 2003, the numbers of PBRF-funded staff at other TEOs have increased at a much faster rate. For example, while the number of PBRF-funded staff at the University of Auckland increased by 7%, the relevant figure for AUT was 66%.
- 169** When TEOs are ranked on the basis of their quality scores, the University of Canterbury is ranked third. However, when rankings are determined on the basis of the organisational shares of PBRF-funded staff, Massey University moves into third place. This reflects the fact that Massey is a much larger organisation (with far more PBRF-eligible staff) than Canterbury.
- 170** As shown in Figure 5.5, more than 86% of the PBRF-funded staff within the tertiary education sector is located in just six TEOs. There has been only a modest change since the 2003 Quality Evaluation, when the same six TEOs' proportion of PBRF-funded staff was 90%.

Figure 5.4: Organisational Share of PBRF-Eligible FTE-weighted Staff Rated "A", "B", "C", "C(NE)"

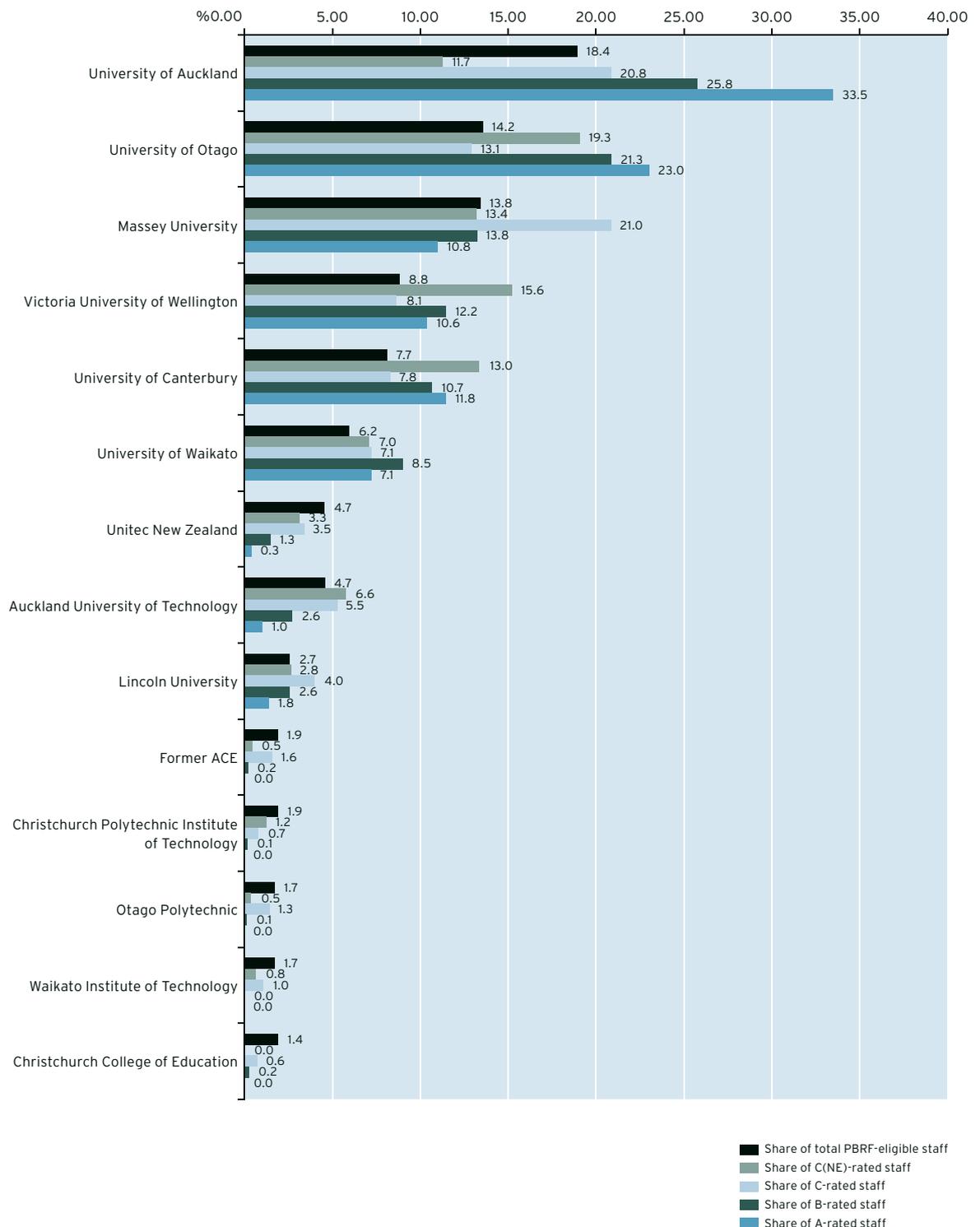


Figure 5.4: Organisational Share of PBRF-Eligible FTE-weighted Staff Rated "A", "B", "C", "C(NE)" – continued

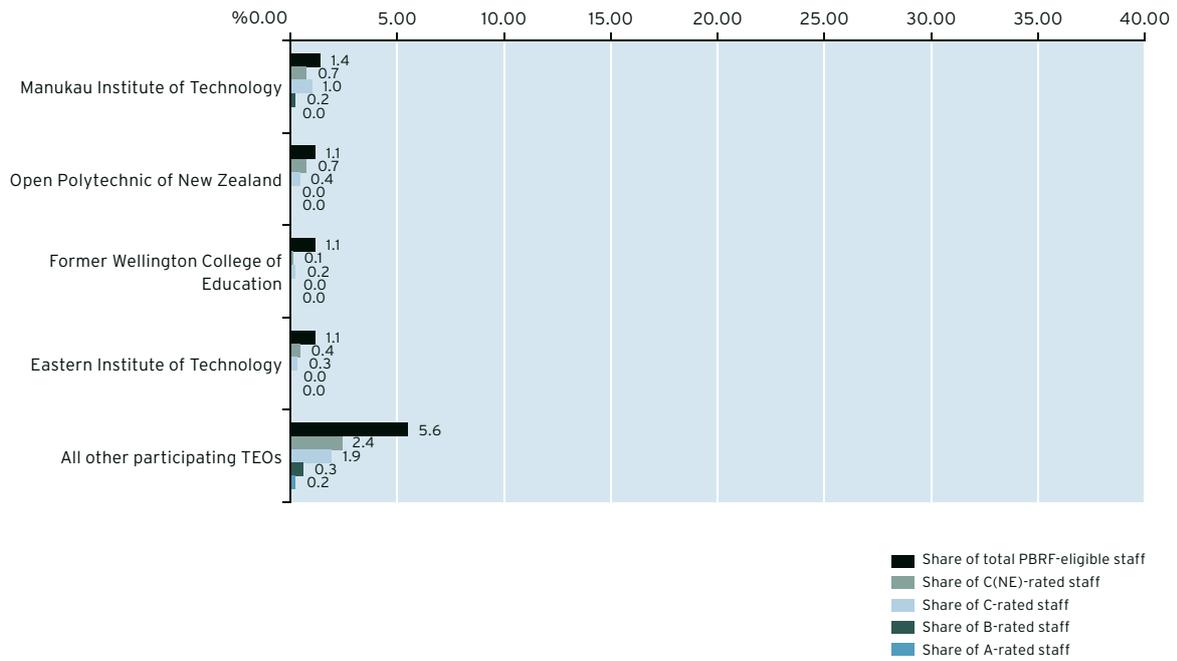


Figure 5.5: Organisational Share of Quality-weighted Staff

(FTE-weighted) %

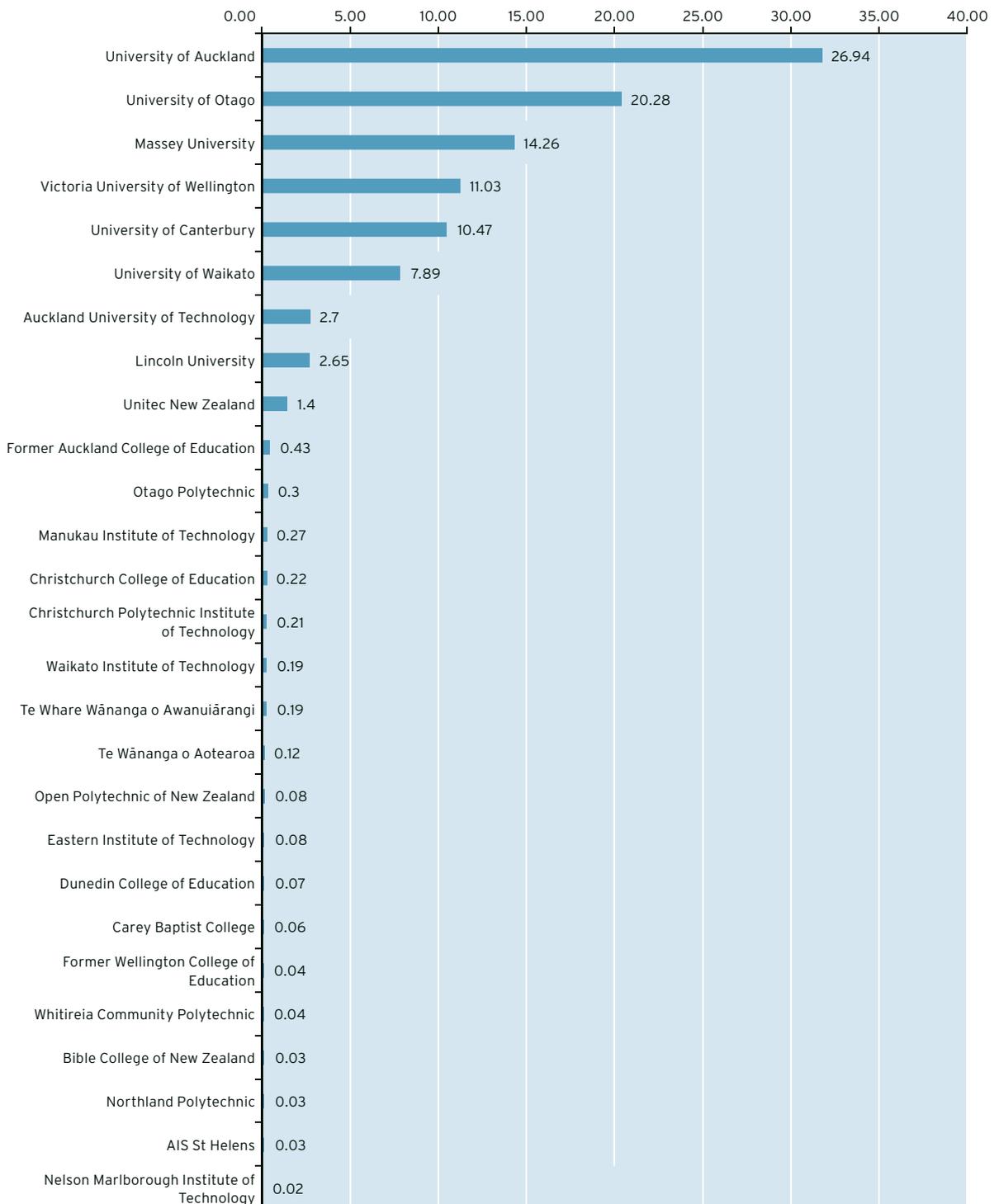
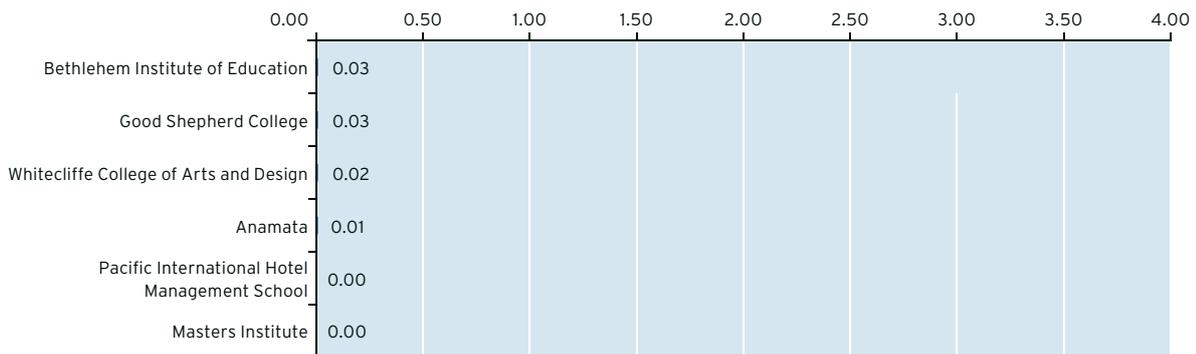


Figure 5.5: Organisational Share of Quality-weighted Staff – continued

(FTE-weighted) %



More detailed analysis: the relative performance of TEOs

- 171** As noted above, the 2006 Quality Evaluation data reveal major differences in the research performance of participating TEOs – whether judged on the basis of quality scores, the distribution of “A”s, or the organisational share of PBRF-funded staff.
- 172** Of the 21 TEOs that participated in both Quality Evaluations, 17 recorded higher quality scores in 2006. The change in quality scores between the two Quality Evaluations is shown in Table 5.2.

Table 5.2: Change in quality score (FTE-weighted) from 2003 to 2006

TEO Name	2006 quality score (FTE-weighted)	2003 quality score (FTE-weighted)	Change (no.)	Change (%)
Auckland University of Technology	1.86	0.77	1.09	141.6%
University of Otago	4.23	3.23	1.00	31.0%
Massey University	3.06	2.11	0.95	45.0%
University of Waikato	3.73	2.98	0.75	25.2%
Carey Baptist College	1.67	1.16	0.51	44.0%
Victoria University of Wellington	3.83	3.39	0.44	13.0%
Lincoln University	2.96	2.56	0.40	15.6%
Bethlehem Institute of Education	0.34	0	0.34	N/A
University of Canterbury	4.10	3.83	0.27	7.3%
Former Auckland College of Education	0.66	0.39	0.27	69.2%
Unitec New Zealand	0.96	0.71	0.25	35.2%
University of Auckland	4.19	3.96	0.23	5.8%
Te Wānanga o Aotearoa	0.53	0.32	0.21	65.6%
Christchurch College of Education	0.41	0.2	0.21	105.0%
Former Wellington College of Education	0.13	0.03	0.10	333.3%
Waikato Institute of Technology	0.41	0.32	0.09	28.1%
AIS St Helens	0.24	0.22	0.02	9.1%
Dunedin College of Education	0.24	0.27	-0.03	-11.1%
Anamata	0.94	1	-0.06	-6.0%
Whitecliffe College of Arts and Design	0.26	0.36	-0.10	-27.8%
Bible College of New Zealand	0.42	0.83	-0.41	-49.4%
Average (all universities)	3.71	2.98	0.73	24.5%
Average (TEOs that participated in both Quality Evaluations)	3.25	2.59	0.66	25.5%
Average (all TEOs)	2.96	2.59	0.37	14.3%

- 173** There are clearly two significant patterns in relation to the relative performance of TEOs. Firstly, the performance of most of the country's eight universities is markedly better than that of the other participating TEOs (see Figures 5.2, 5.4, and 5.5; and Table A-1). Virtually all those rated "A" were university staff; similarly, of the 2,168 "B"s, only 58 were received by staff in TEOs outside the university sector.
- 174** Secondly, there has been a change in the relative ranking of the universities. As noted earlier, the degree of difference between the highest- and lowest-ranked university has decreased. In addition, each participating university has achieved a higher quality score than in 2003 – an average increase of 0.73; a percentage increase of 24.5%. The most significant improvements were by AUT and the University of Otago (increases of 1.09 and 1.00 respectively). The three top-ranked TEOs in the 2003 Quality Evaluation (the universities of Auckland, Canterbury and Victoria) reported increases in their quality scores below the average for all universities.
- 175** The most notable change in ranking is that of the University of Otago (ranked fourth in the 2003 Quality Evaluation and first in the 2006 Quality Evaluation). This university achieved the second-highest increase in quality score, moving from 3.23 to 4.23. A significant factor in this increase was the reduction in its reported number of PBRF-eligible staff, which dropped from 1,357 in 2003 to 1,244 in 2006 (a decrease of 8.3%) – although this is less dramatic when considered on an FTE basis (a decrease of 2.6%).
- 176** Of the University of Otago staff who were no longer PBRF-eligible in 2006, a significant proportion were part-time and their EPs had been assigned an "R" Quality Category in 2003.¹⁸ There were a number of reasons why these staff members were no longer eligible in 2006 – and these reasons applied to a greater or lesser extent to all TEOs that participated in both Quality Evaluations. Firstly, staff may have left the TEO where they were employed at the time of the 2003 PBRF Census. Secondly, there may have been some change to their employment agreements which meant that in 2006 they did not meet the staff PBRF-eligibility criteria. Thirdly, the changes in staff PBRF-eligibility criteria for the 2006 Quality Evaluation may have meant that they were no longer PBRF-eligible. A practical effect of this change was to reduce the proportion of staff (FTE-weighted) assigned an "R" or "R(NE)" from 28.1% to 13.5%.¹⁹
- 177** It is worth noting that the difference in quality scores between the top-ranked University of Otago and the second-ranked University of Auckland is very small – 0.04. In 2003, the difference between the two top-ranked TEOs (the universities of Auckland and Canterbury) was 0.13.
- 178** The two top-ranking universities have considerable depth and breadth of research activity. They were ranked first or second in a significant number of the 42 subject areas assessed in the 2006 Quality Evaluation – 23 in the case of the University of Otago; 22 in the case of the University of Auckland). In addition, a high proportion of their nominated academic units achieved quality scores above the sector average (42 of 49 in the case of the University of Otago; 49 of 60 in the

¹⁸ In 2003, 329.92 staff (FTE-weighted) from the university were assigned an "R" Quality Category. In 2006, 53% of these staff were no longer PBRF-eligible.

¹⁹ Within the universities, an average of 49.9% of PBRF-eligible staff in 2003 who were assigned an "R" were no longer PBRF-eligible in 2006. There are likely to be a multitude of reasons for this. A significant number of staff assigned an "R" in 2003 were working under fixed-term, often part-time, employment agreements. The highest proportional drop was recorded by AUT (66.5%), followed by Otago (53%), Massey (52.4%) and then the University of Auckland (39.9%). The lowest drop was recorded by Victoria University of Wellington (28.8%).

case of the University of Auckland). The University of Auckland had 21 nominated academic units with quality scores in excess of 5.0, while the University of Otago had 14. As a result, the measured research quality of the University of Otago and the University of Auckland is broadly the same.

- 179** The University of Canterbury was ranked third in the 2006 Quality Evaluation, with a quality score of 4.10 (FTE-weighted). As in 2003, Canterbury's strong showing has been underpinned by a relatively low proportion of staff rated "R" or "R(NE)" – a proportion that dropped from 15.7% in 2003 to 11.4% in 2006. Interestingly, the University of Canterbury reported 28.4% of its staff as new and emerging researchers (compared with a sector average of 22.1%). More than 80% of these researchers were assigned a funded Quality Category in 2006 – the highest such proportion in the university sector. At the subject-area level, Canterbury ranked first or second in six subject areas: engineering and technology; earth sciences; molecular biology; philosophy; foreign languages and linguistics; and other health studies (including rehabilitation therapies). Of Canterbury's 32 nominated academic units, six achieved quality scores of 5.0 or higher and a further 14 achieved quality scores between 4.0 and 5.0.
- 180** Victoria University of Wellington achieved a quality score of 3.83 (FTE-weighted) and a ranking of fourth. A notable factor influencing the performance of Victoria was the 22.3% increase in its number of PBRF-eligible (FTE-weighted) staff since 2003 – which is partly the result of its high level of enrolment growth in the past few years. This increase in PBRF-eligible staff may have contributed to its high proportion of new and emerging researchers (28.3%). More than 70% of these researchers were assigned a funded Quality Category in 2006. Victoria ranked first or second in 13 subject areas (only two other TEOs exceeded this). These subject areas were: music, literary arts and other arts; theatre and dance, film and television and multimedia; design; psychology; history, history of art, classics and curatorial studies; Māori knowledge and development; human geography; management, human resources, industrial relations, international business and other business; religious studies and theology; sociology, social policy, social work, criminology and gender studies; physics; biomedical; and nursing. Six of Victoria's 40 nominated academic units achieved a quality score in excess of 5.0; another 14 achieved scores between 4.0 and 5.0. Only 12 units had scores below the tertiary sector average.
- 181** The University of Waikato achieved a quality score of 3.73 (FTE-weighted) thus giving it a ranking of fifth. As in 2003, the proportion of "A"s at Waikato was just above the tertiary sector average; however, in 2006, its proportion of "R" and "R(NE)"s fell from 31% (FTE-weighted) to 17.3%. This is slightly below the average for all universities (18%). Waikato is ranked first in nine subject areas: accounting and finance; chemistry; communications, journalism and media studies; computer science, information technology, information sciences; ecology, evolution and behaviour; management, human resources, industrial relations, international business and other business; pure and applied mathematics; molecular, cellular and whole organism biology; and music, literary arts and other arts. The University of Waikato has aggregated its staff into eight relatively large nominated academic units – six achieved quality scores above the tertiary sector average, with the scores of three being between 4.0 and 5.0.
- 182** Massey University, with a quality score of 3.06, ranks sixth. This is a substantial increase on its 2003 quality score (2.11); and the most significant factor in this has been a reduction in its number of PBRF-eligible staff. The overall reduction of 9.2% in Massey's PBRF-eligible staff (FTE-weighted) is similar to that of Otago's. In 2003, the EPs of 536.5 staff (FTE-weighted) from Massey were

assigned an “R” Quality Category; in 2006, 52% of these staff were no longer PBRF-eligible. A practical effect of this change has been to reduce the proportion of staff assigned an “R” or “R(NE)” from 44.7% to 21.5%. Nevertheless, Massey has demonstrated a relatively strong performance in a number of subject areas, being ranked first in two subject areas and second in seven subject areas. Of the 39 subject areas in which Massey was represented, 19 achieved a quality score above the sector average – and seven of these achieved a quality score of between 4.0 and 5.0. The seven are: chemistry; ecology, evolution and behaviour; earth sciences; engineering and technology; pure and applied mathematics; physics; and visual arts and crafts. Massey University has also aggregated its staff into (five) relatively large nominated academic units. One of these academic units, the College of Sciences, achieved a quality score above the tertiary sector average.

- 183** The country’s smallest university – Lincoln – achieved a quality score of 2.96, identical to the tertiary sector average. Lincoln reported 214 PBRF-eligible staff (FTE-weighted) – an increase of 20 (10%) since 2003. The strongest subject areas at Lincoln were: architecture, design, planning, surveying; ecology, evolution and behaviour; economics; agriculture and other applied biological sciences; and earth sciences. All these achieved a quality score of 3.0 or higher. The greatest concentration of PBRF-funded researchers at Lincoln is in the subject area of agriculture and other applied biological sciences, which has 53.5 staff (FTE-weighted) whose EPs were assigned a funded Quality Category in 2006. Lincoln’s strongest-performing nominated academic units were Food and Health (with a quality score of 4.3) and Agricultural and Primary Products (with a quality score of 3.7). Overall, four of Lincoln’s eight nominated academic units received scores above the tertiary sector average.
- 184** The country’s newest university – AUT – achieved a quality score of 1.86 (FTE-weighted) and was ranked eighth overall. In 2003, its quality score was 0.77. A significant factor in its improvement since 2003 has been the reduction in its number of PBRF-eligible staff from 617 to 410, a decrease of 33%. In 2003, 432.47 staff (FTE-weighted) from AUT received an “R” Quality Category. In 2006, 66.5% (FTE-weighted) of these staff were no longer PBRF-eligible. A practical effect of this change has been to reduce the proportion of staff assigned an “R” or “R(NE)” from 77.3% to 43%.
- 185** Nevertheless, the number of PBRF-funded researchers at AUT has increased from 140 in 2003 to 233 in 2006. Notably, the number of AUT’s nominated academic units with a quality score above 2.0 has increased from zero in 2003 to 11 in 2006. These 11 include three academic units (Accounting and Finance, Management, and Marketing) with quality scores above the tertiary sector average. Similarly, the number of subject areas where AUT has more than five FTE staff and a quality score of 2.0 or higher has increased from one in 2003 to nine in 2006 (including all four subject areas covered by the Business and Economics Panel).
- 186** As noted in Chapter 4, the results of all four colleges of education are reported separately from the universities with which they have recently merged. The quality scores of all four colleges of education are low – in each case under 0.7 (FTE-weighted). The highest-ranked of the four is the Auckland College of Education (0.66), followed by Christchurch College of Education (0.41), Dunedin College of Education (0.24), and Wellington College of Education (0.13). Altogether, nine out of 471 (non-FTE-weighted) staff within the colleges of education received a “B”, 61 received a “C”, and 6 a “C(NE)”.

- 187** A notable feature of the 2006 Quality Evaluation was the participation of 10 ITPs, eight of which participated for the first time. There is a significant difference between the highest quality score in the ITP sector (Unitec New Zealand with 0.96) and the lowest (Whitireia Community Polytechnic with 0.13). The average quality score for the ITP sector was 0.57 (FTE-weighted). The low quality scores achieved by these TEOs is perhaps not surprising, given their history and role in the tertiary sector. What is notable, however, is their relatively large number of PBRF-funded researchers (311) in 2006.²⁰ Almost half of these PBRF-funded staff are found in just five subject areas: visual arts and crafts (71); computer science, information technology, information sciences (35); engineering and technology (24); education (22) and management, human resources, industrial relations, international business and other business (21).
- 188** Two of New Zealand's three wānanga, Te Wānanga o Aotearoa and Te Whare Wānanga o Awanuiārangi, participated in the 2006 Quality Evaluation. Te Whare Wānanga o Awanuiārangi ranked twelfth overall, with a quality score of 0.78. Te Wānanga o Aotearoa ranked 17th (equal with Christchurch Polytechnic Institute of Technology), with a quality score of 0.42. Of the 109 PBRF-eligible staff in the wānanga sector, one received an "A", four a "B", 14 a "C", and four a "C(NE)". PBRF-funded staff from the wānanga sector are concentrated in three subject areas: visual arts and crafts (8); Māori knowledge and development (5); and education (5). It should be noted that 35.7% of staff at the participating wānanga were reported as new and emerging researchers.
- 189** Amongst the nine PTEs that participated in the 2006 Quality Evaluation, quality scores ranged from 1.67 for Carey Baptist College to zero for Masters Institute and the Pacific International Hotel Management School. Three PTEs participated for the first time in 2006 (Good Shepherd College, Masters Institute, and Pacific International Hotel Management School), and one PTE that participated in the 2003 Quality Evaluation (Te Whare Wānanga o Pihopatanga) did not participate in 2006. These PTEs have relatively few (144) PBRF-eligible staff, and only 23 of these received a funded Quality Category. As in 2003, the difference between the PTEs, in terms of their quality scores, appears to be partly related to the "age" of the provider: long-established PTEs generally performed better than those more recently established.
- 190** The relative rankings of TEOs are broadly similar, regardless of whether the quality scores are calculated on a FTE-weighted or non-FTE-weighted basis.

More detailed analysis: panel-level results

- 191** Another way of examining the results of the 2006 Quality Evaluation is to consider the relative performance of the groupings of subject areas under the responsibility of each peer review panel. It is important to stress that the performance in question here is not that of panel members or panels (eg how well they undertook their tasks), but rather that of the 12 groupings of between one and six subject areas that were assessed by each panel. For simplicity, however, this will be referred to as performance at the panel level.

²⁰ Although 133 of these are found in one TEO (Unitec New Zealand) and this overall total includes only 2 As.

- 192** The quality scores on an FTE-weighted basis of the 12 panels (ie the groupings of subject areas) ranged from 4.55 for the Physical Sciences Panel to 1.31 for the Education Panel – see Table A-2 and Figure A-2 in Appendix A. Only Physical Sciences achieved a quality score above 4.0; six panels (Biological Sciences; Engineering, Technology and Architecture; Humanities and Law; Medicine and Public Health; Mathematical and information Sciences and Technology; and Social Sciences and Other Cultural/Social Studies) achieved quality scores between 3.0 and 4.0.
- 193** The remaining five panels (Business and Economics; Creative and Performing Arts; Māori Knowledge and Development; Health; and Education) achieved quality scores below the average (2.96). The Business and Economics Panel, which ranked eighth, achieved a quality score of 2.72 (well above that of the next-ranked panel). The overall score of the Business and Economics Panel masks a relatively strong performance by the subject area of economics and a rather more modest score for the subject area of accounting and finance.
- 194** The quality score of the ninth-ranked Creative and Performing Arts Panel (2.22 FTE-weighted) concealed a strong performance by the subject area of music, literary arts and other arts (which achieved a quality score of 3.37). Similarly, three subject areas within the Health Panel (dentistry; pharmacy; and veterinary studies and large animal science) achieved quality scores well above those of the other subject areas covered by the panel.
- 195** The only panel whose quality score in 2006 was lower than in 2003 was the Māori Knowledge and Development Panel. Its quality score (FTE-weighted) fell from 1.94 to 1.82. However, the number of PBRF-eligible staff (FTE-weighted) reported under this panel increased from 142.34 in 2003 to 178.53 in 2006 (and these staff tended to come from TEOs without traditions of research).
- 196** As in 2003, the highest proportions of “R” and “R(NE)” Quality Categories were recorded in the Health and Education panels. These proportions are, however, lower than in 2003. In Education, 65% of all PBRF-eligible staff (FTE-weighted) received an “R” or “R(NE)” in 2006 – compared with 73.1% who received an “R” in 2003. In Health, 55.4% of PBRF-eligible staff received an “R” or “R(NE)” in 2006; 67.6% received an “R” in 2003. The largest drops were, however, recorded by the Business and Economics Panel and the Mathematical and Information Sciences and Technology Panel (from 46.1% to 33.3% and from 38.3% to 27.4%, respectively). In each of these, much of the change is explained by the assessment provisions for new and emerging researchers.
- 197** Perhaps unsurprisingly, the three highest-ranked panels (Physical Sciences; Medicine and Public Health; and Biological Sciences) had the lowest proportion of staff whose EPs were assigned an “R” or “R(NE)”. For example, the proportion of “R”s and “R(NE)”s in the Physical Sciences Panel was 8.5% (FTE-weighted) in 2006.
- 198** The highest proportion of “A”s (FTE-weighted) was assigned by the Physical Sciences Panel and the Medicine and Public Health Panel, while the lowest proportion of “A”s was assigned by the Education Panel and the Māori Knowledge and Development Panel. There is, however, a significant number of “A” Quality Categories in all other panels, as well as large numbers of “B”s.
- 199** There is only one difference in the rankings when the results are compared on a non-FTE-weighted and FTE-weighted basis. The Medicine and Public Health Panel, ranked third under non-FTE-weighting, rises to second when FTE-weighted; and the Biological Sciences Panel falls from second to third. The higher ranking of the Medicine and Public Health Panel when an FTE-weighting is used

can be attributed to the large proportion of staff in part-time academic positions, especially in clinical medicine. This reflects a similar pattern to that noted in 2003.

More detailed analysis: subject-area results

- 200** As previously noted, there are large differences in research quality between the 42 subject areas – whether judged on quality scores or the distribution of Quality Categories.
- 201** As shown in Figure 5.1, and in Table A-3 in Appendix A, the 10 highest-scoring research subject areas are: philosophy; earth sciences; physics; biomedical; ecology, evolution and behaviour; pure and applied mathematics; human geography; anthropology and archaeology; chemistry; and psychology. The 10 lowest-scoring are: nursing; design; education; sport and exercise science; Māori knowledge and development; theatre and dance, film and television and multimedia; visual arts and crafts; other health studies (including rehabilitation therapies); communications, journalism and media studies; and accounting and finance.
- 202** Overall there was a high correlation between the 2003 and 2006 rankings of the subject areas, with few subjects making major changes.²¹ Three subject areas (dentistry; design; and veterinary studies and large animal science) increased their average quality score by more than 50%. Four subject areas (anthropology and archaeology; Māori knowledge and development; visual arts and crafts; and religious studies and theology) decreased their average quality score – but none had more than a 14% decrease, which is small indeed.
- 203** There has been very little change in the 10 highest-scoring and lowest-scoring subject areas since 2003. The subject area of history, history of art, classics and curatorial studies, which ranked 10th in 2003, was 11th in 2006. Pure and applied mathematics, which was 12th in 2003, ranked sixth in 2006. Dentistry and veterinary studies and large animal science have shown the most significant changes in rankings. Dentistry rose from 32nd to 14th in 2006; and veterinary studies and large animal science rose from 33rd to 24th. Māori knowledge and development and visual arts and crafts both joined the 10 lowest-scoring subject areas in 2006. For visual arts and crafts, this may be due to the participation for the first time of a number of ITPs that had relatively large numbers of PBRF-eligible staff in this subject area.
- 204** Ranking by quality scores provides only part of the picture. In each subject area, it is also important to consider the number of “A” or “B” Quality Categories that have been assigned. For example, education, with a relatively low quality score of 1.31 (FTE-weighted), has 28 researchers whose EPs were assigned an “A”. By contrast, human geography, which has a relatively high quality score of 4.36, has only nine “A”s.
- 205** Altogether, 18 of the subject areas have fewer than 10 FTE-weighted researchers who received an “A”. A further eight subject areas have between 10 and 15 “A”s. Only 16 subject areas have more than 15 “A”s (although this represents a significant increase on 2003, when there were 10 such subject areas). In short, there are relatively few subject areas with a significant number of A-rated researchers. The largest such concentrations are in engineering and technology (56.85); psychology (41.7); biomedical (35.6); molecular, cellular and whole organism biology (29.5); ecology, evolution and behaviour (28.89); and education (25.86).

²¹ The correlation between the subject area ranking in 2003 and 2006 was 0.93.

- 206** There are 10 subject areas with more than 100 “A”s or “B”s (FTE-weighted). These are: engineering and technology (187.45); molecular, cellular and whole organism biology (164.59); computer science, information technology, information sciences (126.4); education (122.63); biomedical (121.27); management, human resources, industrial relations, international business and other business (110.24); psychology (110.01); ecology, evolution and behaviour (104.89); clinical medicine (102.39); and law (101.6).
- 207** At the other end of the spectrum, there are seven subject areas with fewer than 20 “A”s or “B”s (FTE-weighted). These are: nursing (7.4); design (8); pharmacy (10); theatre and dance, film and television and multimedia (12.74); sport and exercise science (13.9); dentistry (13.05); and religious studies and theology (15.25). Apart from dentistry, all these subject areas have fewer than five (FTE-weighted) staff whose EPs were assigned an “A” Quality Category. This raises the question of whether some subject areas lack a critical mass of experienced and highly respected researchers capable of providing strong leadership in their respective disciplines.
- 208** In order to undertake a more comprehensive assessment of the research performance of particular subject areas, it would be necessary to consider the relative performance of different disciplines or sub-disciplines within these subject areas. The aggregate data available in this report do not permit such an analysis. Take, for example, the subject area of political science, international relations and public policy: it is not possible to ascertain on the basis of the data in Appendix A whether there are significant differences in the research strength of the various disciplines that comprise this subject area. Thus, it cannot be determined whether the main strength (or weakness) lies in comparative government, political theory, electoral behaviour, international relations, or policy studies.
- 209** Observers interested in securing a more complete picture of the state of particular disciplines (or sub-disciplines) may need to undertake their own analysis using PBRF data, or other data sources. Interested parties are invited to seek access to the data collected as part of the 2003 and 2006 Quality Evaluations.²²

The assessment of Māori and Pacific researchers

- 210** The PBRF was designed to enable Māori research and researchers to be assessed by Māori within an appropriate framework, as determined by the Māori Knowledge and Development Panel. To this end, the Māori Knowledge and Development Panel developed detailed panel-specific guidelines (see *PBRF Guidelines 2006* Chapter 2, Section H).
- 211** There has been no analysis undertaken of the performance of staff based on their ethnicity. As a result, it is not possible to determine at this time how many Māori staff had EPs submitted to peer review panels for assessment. Nevertheless, a total of 89 EPs (including three re-allocated from other panels) were assessed by the Māori Knowledge and Development Panel; another 57 were cross-referred from other panels for advice. A further 53 EPs had their Quality Categories “carried over” to the 2006 Quality Evaluation.

²² For information on the TEC’s Data Access Policy in relation to the PBRF, please refer to <http://www.tec.govt.nz/templates/standard.aspx?id=588>.

- 212** As noted above, the quality score for the Māori Knowledge and Development Panel was lower in 2006 (1.82) than it had been in 2003 (1.94). Nevertheless – as in 2003 – the Māori Knowledge and Development Panel ranked 10th, with a quality score similar to that of the Creative and Performing Arts Panel. As a subject area, Māori knowledge and development ranked 37th (out of 42). It should be noted that, in the EPs assessed by the Māori Knowledge and Development Panel, a number of sub-doctoral theses were put forward as NROs: this indicates the developing nature of research in the Māori knowledge and development subject area.
- 213** The Report of the Māori Knowledge and Development Panel notes that the 2006 Quality Evaluation generated a range of issues about the assessment of Māori research and researchers. There is, however, no suggestion that the panel had any serious concerns about the overall fairness and credibility of the results.
- 214** With reference to Pacific research and researchers, there were three Pacific panel members spread over three panels – and a number of other panel members also had expertise relevant to Pacific research. There was only one EP referred to a Pacific specialist adviser.
- 215** A relatively high proportion of EPs (12.4% [562]) were identified as containing Pacific research. The Moderation Panel has noted, however, that a high proportion (approximately 80%) of these EPs appeared not to contain research that met the criteria for Pacific research outlined in the *PBRF Guidelines 2006*. It appears that, as in 2003, the actual volume of EPs containing Pacific research was low and that panel members generally felt able to assess these EPs.

The reliability of the results

- 216** The TEC, the Moderation Panel and the 12 peer review panels have made strenuous efforts to ensure that the results of the 2006 Quality Evaluation are reliable, appropriate, fair, and robust. In this regard, it is important to consider the following:
- a In the view of the TEC and the Moderation Panel, the peer review panels conducted their assessments appropriately, fairly, and consistently – and they applied the PBRF guidelines in a reasonable manner. Accordingly, the results provide an accurate picture of the relative research performance of TEOs, subject areas, and nominated academic units.
 - b There was a significant measure of agreement across all panels, including those that spanned many different subject areas, on where the boundaries should be drawn between Quality Categories.
 - c All panels included experts from outside New Zealand, most of whom were from overseas universities. Such panel members constituted about a quarter of all panel members.
 - d The TEC has carefully audited the application of the *PBRF Guidelines 2006* to ensure that the information supplied by participating TEOs was accurate.

Changes in measured research quality between the 2003 and 2006 Quality Evaluations

- 217** As highlighted in Chapter 4, there were a number of important differences between the 2003 and 2006 Quality Evaluations. In particular, the 2006 Quality Evaluation was conducted on a “partial” basis and made specific provision for the assessment of new and emerging researchers. In addition, significantly more TEOs participated in 2006 than in 2003. Such differences mean that considerable care is needed in making comparisons between the research performance reported in these two Quality Evaluations.
- 218** Overall, the results show that the quality score for the tertiary education sector has increased from 2.59 in 2003 to 2.96 (FTE-weighted) in 2006. This represents a 14.3% improvement in measured research quality. It would, however, be erroneous to suggest that research quality has improved by this precise magnitude. Nor is the quality score the only relevant measure of research quality.
- 219** To make an appropriate and meaningful comparison between the 2003 and 2006 Quality Evaluations, it is necessary to exclude those TEOs that participated for the first time in 2006 and those that participated in 2003 but chose not do so in 2006. The average quality score for the 21 TEOs that participated in both Quality Evaluations was 3.25 in 2006, a net increase of 0.66 (25.5%) since 2003. However, various factors contributed to this improvement and an actual improvement in research quality is but one of them. Four of these factors deserve particular attention:
- changes to staff-eligibility criteria, and TEOs' application of these criteria;
 - the revised assessment provisions for new and emerging researchers;
 - the impact of the “partial” round; and
 - the improved quality of the information provided in EPs.
- 220** There were some minor, but potentially significant, changes to the PBRF staff-eligibility criteria for the 2006 Quality Evaluation which had the effect of clarifying the nature of the eligibility rules. These changes included specific definitions of the minimum contribution to degree-level teaching and/or research required of PBRF-eligible staff (ie the substantiveness test). Additional criteria were also introduced covering TEO staff based overseas and those sub-contracted to a TEO by a non-TEO. The net effect of these changes was to reduce, albeit slightly, the number of TEO staff eligible to participate in the 2006 Quality Evaluation.
- 221** More important, there is reason to believe that TEOs had a more complete understanding of the staff-eligibility rules in 2006 than in 2003. This has been reflected in their various approaches to human resource management. For example, the employment agreements of some staff have been changed to clarify that their contribution to degree-level teaching and/or research, if any, falls outside the bounds of the PBRF's substantiveness test. In some other cases, TEOs have carefully defined where staff are working under the strict supervision of another staff member.
- 222** Such changes almost certainly led to the exclusion by TEOs in 2006 of some staff who were included in the 2003 Quality Evaluation. The evidence suggests that a disproportionate number of these staff members were rated “R” in 2003. Had there been no changes to the eligibility criteria or their application by TEOs, there can be no doubt that the overall quality score would have been lower in 2006. But it is difficult to accurately quantify the impact of this change.

- 223** The 2006 Quality Evaluation made provision for new and emerging researchers to be assessed differently from how they had been in 2003. Had the provision for new and emerging researchers not been included, the improvement in measured research quality would have been lower – but only modestly so.
- 224** Because the 2006 Quality Evaluation was a “partial” round, a significant proportion of those assessed in 2003 were not reassessed in 2006. Had all PBRF-eligible staff been assessed in 2006, the quality score is likely to have been lower. It is extremely difficult to ascertain what the effect of a full round would have been, however there is some discussion of the possible impact in Chapter 4.
- 225** Further, the average quality of the information provided in EPs in 2006 was higher than in 2003. To the extent that this reflected a greater understanding of the expectations of the assessment processes of the Quality Evaluation, it will have resulted in a more complete and accurate picture of research quality in the tertiary sector. Its impact on the average quality score is difficult to quantify, but it is certainly likely to have been at least a moderate factor.
- 226** At least two broad conclusions emerge from this brief analysis. First, whatever the actual improvement in average research quality, there can be little doubt that there has been an increase in research activity and in the quantity of research output since 2003. This is reflected in the increase between 2003 and 2006 in the number of staff whose EPs were assigned a funded Quality Category, and in the continuing improvement in research performance as measured by the volume of external research income and research degree completions. Second, it is difficult at this stage to provide a precise estimate of the actual (as opposed to measured) improvement that has occurred between 2003 and 2006 in the average quality of research being undertaken in the tertiary education sector.
- 227** It is important to emphasise that a large improvement in actual research quality in 2006 would have been surprising – given that there were only three years separating the first and second Quality Evaluations, and only 20 months between the publication of the results of the 2003 Quality Evaluation and the end of the assessment period for the 2006 Quality Evaluation. Improvement in research quality – the goal of the PBRF – is something that requires a long-term commitment from researchers, TEOs and the government; and this is reflected in the periodic nature of the Quality Evaluation and the relative funding stability that the PBRF engenders.
- 228** As part of Phase II of the evaluation of the PBRF (see Audit section), the TEC and Ministry of Education intend to conduct a range of analyses using the results of the 2003 and 2006 Quality Evaluations and other data sources. It is hoped that detailed analysis such as this can draw reliable conclusions about the change in research quality between the first and second Quality Evaluations.

Chapter 6

External research income

Introduction

- 229** The external research income (ERI) measure accounts for 15% of the total funds allocated through the PBRF each year. ERI is included as a performance measure in the PBRF on the basis that it provides a good proxy for research quality. The underlying assumption is that external research funders are discriminating in their choice of who to fund and that they will allocate their limited resources to those they see as undertaking research of a high quality.
- 230** ERI is defined as the total of research income received by a TEO (and/or any 100% owned subsidiary), *excluding* income from:
- TEO employees who receive external research income in their personal capacity (ie the external research income is received by them and not their employer);
 - controlled trusts;
 - partnerships; and
 - joint ventures.
- 231** A complete description of inclusions and exclusions is given in Chapter 5 of the *PBRF Guidelines 2006*, along with guidance on the status of joint or collaborative research.
- 232** According to the *PBRF Guidelines 2006*, income cannot be included in the ERI calculation until the work has been “undertaken”.
- 233** Each participating TEO submits a return to the TEC. This return shows the TEO’s total PBRF-eligible ERI for the 12 months ending 31 December of the preceding year. In addition, in support of each ERI calculation, the TEO provides the TEC with an independent audit opinion and a declaration signed by the TEO’s Chief Executive.

Funding allocations

- 234** Within the ERI component of PBRF funding, a funding allocation ratio determines the amount paid to each TEO. The 2007 funding allocation ratio for each TEO is based on 15% of its ERI figure for 2003, 35% of its ERI figure for 2004, and 50% of its ERI figure for 2005.
- 235** The ERI measure includes returns from 11 TEOs that are participating in the PBRF for the first time. The total ERI for the 2003, 2004 and 2005 calendar years has been updated to reflect these returns and so may differ from that previously reported. ERI submitted by the former colleges of education has been reported separately.
- 236** In 2005, the total ERI declared by the 33 TEOs then participating in the ERI measure²³ was \$286.4 million (see Table 6.1). Seven of the eight universities dominated the generation of ERI, reporting figures in excess of \$15 million in their ERI returns. The remaining 26 TEOs reported combined ERI of less than \$8.1 million.²⁴

²³ Prior to 2007, TEOs could participate in one component of the PBRF (eg ERI) without participating in the others (eg Quality Evaluation or RDC).

²⁴ Where TEOs merged before to the PBRF Census date for the 2006 Quality Evaluation, their ERI and RDC figures have been combined retrospectively. For example, the ERI and RDC figures in the Wellington College of Education returns for 2002 and 2003 have been included in the figures for Victoria University of Wellington.

237 ERI reported by TEOs increased overall by 10.7% between 2004 and 2005. The most significant increases in dollar terms were achieved by the universities of Otago, Canterbury and Auckland; these accounted for 68% of the overall increase in ERI reported by TEOs. Four TEOs reported a drop in ERI.

238 In terms of ERI generation:

- a A significant gap exists between the ERI reported by the university earning the largest amount, and that reported by the other seven universities.
- b Non-universities' ERI was considerably less in total than that reported by any one university.

Table 6.1: External Research Income 2003-2005

TEO	2003 (\$)	2004 (\$)	2005 (\$)	Change 2004-2005 (%)	PBRF-weighted (\$)
AIS St Helens	\$0	\$0	\$0	N/A	0.00
Anamata	\$0	\$224,750	\$437,363	94.60%	297,344.00
Auckland University of Technology	\$2,021,902	\$3,004,814	\$4,824,164	60.55%	3,767,052.29
Bethlehem Institute	\$0	\$87,561	\$60,000	-31.48%	60,646.35
Bible College	\$0	\$0	\$22,000	N/A	11,000.00
Carey Baptist College	\$0	\$0	\$0	N/A	0.00
Christchurch College of Education	\$253,966	\$58,823	\$0	-100.00%	58,682.76
Christchurch Polytechnic Institute of Technology	\$0	\$124,559	\$0	-100.00%	43,595.65
Dunedin College of Education	\$78,326	\$5,355.56	\$77,595	1348.87%	52,420.85
Eastern Institute of Technology	\$0	\$0.00	\$10,955	N/A	5,477.50
Good Shepherd College	\$0	\$0.00	\$0	N/A	0.00
Lincoln University	\$12,959,427	\$17,569,105	\$16,354,761	-6.91%	16,270,481.30
Manukau Institute of Technology	\$0	\$79,522	\$265,652	234.06%	160,658.70
Massey University	\$31,255,104	\$33,597,945	\$36,392,947	8.32%	34,644,019.85
Masters Institute	\$0	\$0	\$0	N/A	0.00
Nelson Marlborough Institute of Technology	\$0	\$0	\$0	N/A	0.00
Northland Polytechnic	\$0	\$0	\$27,000	N/A	13,500.00
Open Polytechnic	\$0	\$0	\$699,653	N/A	349,826.50
Otago Polytechnic	\$0	\$0	\$242,034	N/A	121,017.00
Pacific International Hotel Management School	\$0	\$0	\$0	N/A	0.00
Te Wānanga o Aotearoa	\$0	\$105,670	88,834	-15.93%	81,401.50
Te Whare Wānanga o Awanuiārangi	\$0	\$0	88,333	N/A	44,166.50
Unitec NZ	\$733,785	\$535,677	\$602,563	12.49%	598,836.20
University of Auckland	\$86,152,367	\$101,119,426	\$106,147,979	4.97%	101,388,643.65
University of Canterbury	\$15,502,437	\$11,624,014	\$17,407,993	49.76%	15,097,766.95
University of Otago	\$50,455,614	\$59,405,816	\$67,404,653	13.46%	62,062,704.20
University of Waikato	\$12,611,012	\$14,394,986	\$15,592,836	8.32%	14,726,314.90
Victoria University of Wellington	\$11,214,207	\$15,665,303	\$18,406,557	17.50%	16,368,265.60
Waikato Institute of Technoloy	\$106,307	\$509,264	\$585,279	14.93%	486,827.95
Whitecliffe College of Arts and Design	\$0	\$0	\$0	N/A	0.00
Whitireia Community Polytechnic	\$74,916	\$15,780	\$48,829	209.44%	41,174.90
Totals	223,419,370	258,128,370	285,787,980	10.72%	266,751,825.09

Chapter 7

Research degree completions

Introduction

- 239** The research degree completions (RDC) measure accounts for 25% of the total funds to be allocated through the PBRF each year. The use of RDC as a performance measure in the PBRF serves two key purposes:
- It captures, at least to some degree, the connection between staff research and research training – thus providing some assurance of the future capability of tertiary education research.
 - It provides a proxy for research quality. The underlying assumption is that students choosing to undertake lengthy, expensive and advanced degrees (especially doctorates) will tend to search out departments and supervisors who have reputations in the relevant fields for high-quality research and research training.
- 240** To be eligible for the RDC measure, research-based postgraduate degrees (eg masters and doctorates) must be completed within a TEO and must meet the following criteria:
- The degree has a research component of 0.75 equivalent full-time student (EFTS) value or more.
 - The student who has completed the degree has met all compulsory academic requirements by 31 December of the year preceding the return.
 - The student has completed the course successfully.

Funding formula and allocations

- 241** Within the RDC component of PBRF funding, a funding allocation ratio determines the amount allocated to each TEO. The 2006 funding allocation ratio for each TEO was based on 15% of its RDC figure for 2003, 35% of its RDC figure for 2004, and 50% of its RDC figure for 2005.
- 242** The funding formula for the RDC component includes weightings for the following factors:
- the funding category of the subject area (a cost weighting);
 - Māori and Pacific student completions (an equity weighting); and
 - the volume of research in the degree programme (a research-component weighting).
- 243** The cost weighting (for the subject area) is the same as that applied in the Quality Evaluation part of the PBRF, and is determined by the course's funding category as set down in the course register (see Table 7.1).

Table 7.1: Cost weighting

Student Component – Funding Category	Weighting
A, I, J	1
B, L	2
C, G, H, M, Q	2.5

244 Table 7.2 shows the equity weighting applied to each individual completion. This weighting aims to encourage TEOs to enrol and support Māori and Pacific students, as they have little representation at higher levels of the qualifications framework. Ethnicity is taken from the student enrolments file, using the latest enrolments in the course.

Table 7.2: Equity weighting

Ethnicity	Weighting
Māori	2
Pacific	2
All other ethnicities	1

245 The research-component weighting uses a “volume of research factor” (VRF). The VRF is based on the volume of research included in the degree programme that has been completed, as shown in Table 7.3.

Table 7.3: Research-component weighting

Research-Component Weighting	Weighting
Less than 0.75 EFTS	0
0.75-1.0 EFTS of masters	EFTS value
Masters course of 1.0 EFTS thesis or more	1
Doctorate	3

Results

246 A total of 2,574 eligible research degree completions were reported by 15 TEOs in 2005, compared with 2,264 by 15 TEOs in 2004 (see Figure 7.1). Reported research degree completions increased by 13.7% (310) between 2004 and 2005.²⁵

247 In the 2005 calendar year, the majority of the completions were masters courses; approximately one quarter were doctorates. Doctorate completions were reported by all universities except AUT.

248 Half of the universities reported growth in research degree completions in the 2005 calendar year. Overall, seven TEOs reported increases.

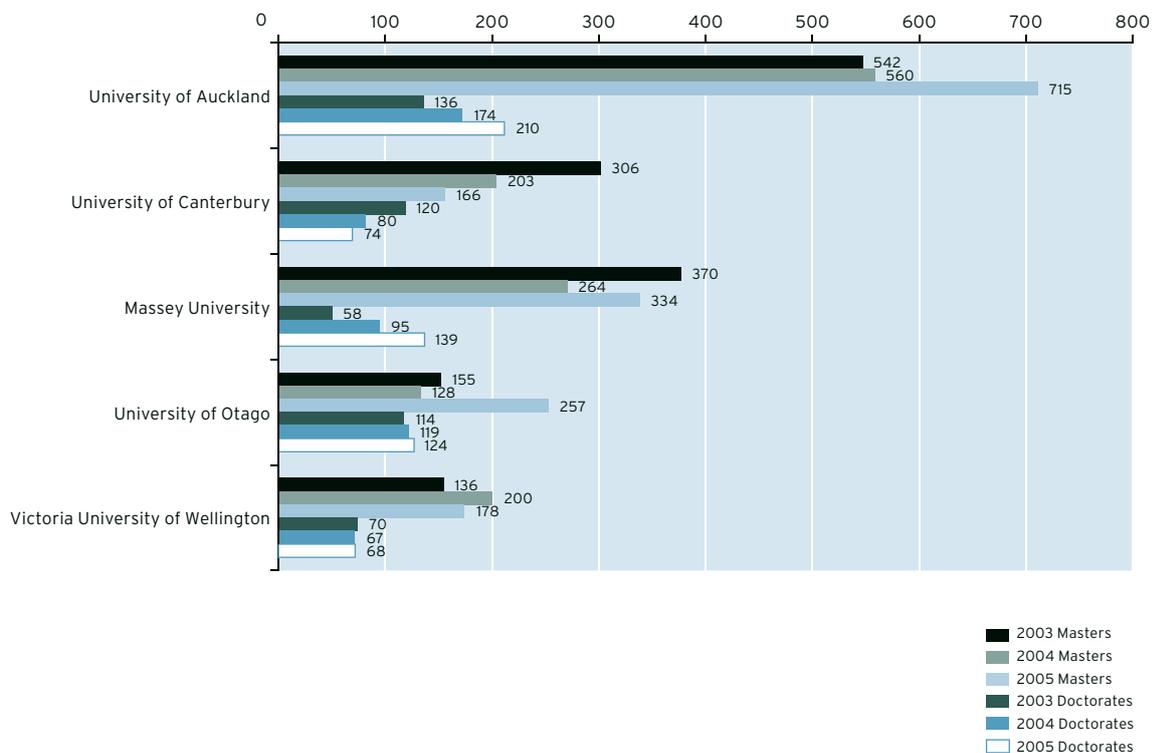
249 Auckland, Massey and Otago universities each reported more than 300 research degree completions during 2005. The University of Auckland reported the highest number of completions overall.

250 The University of Auckland reported more masters completions than any other TEO in 2005.

²⁵ Completions figures are subject to change as updated information is provided by participating TEOs.

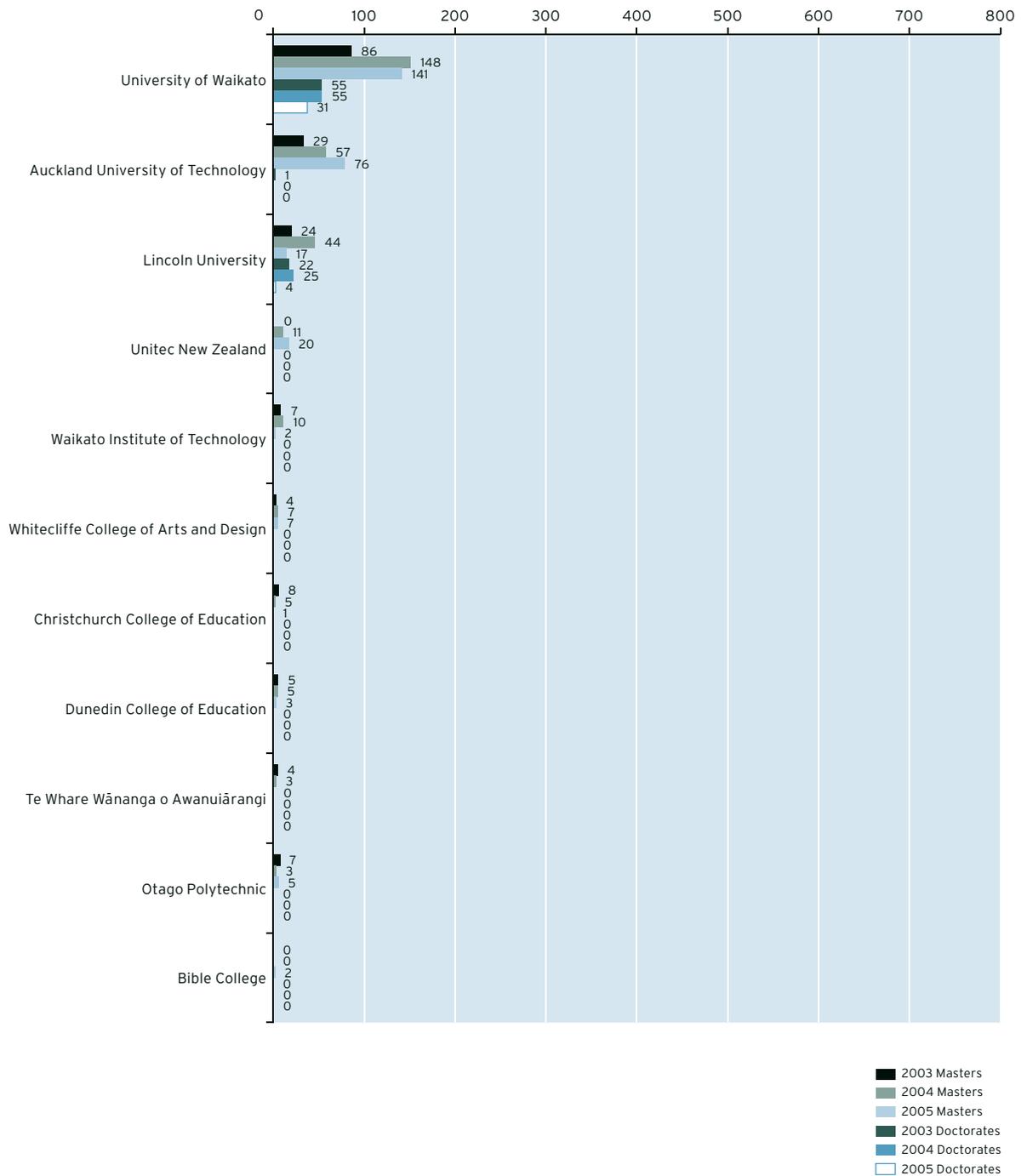
- 251** Some universities (eg Massey, Canterbury and Otago) had relatively more doctorate completions; Lincoln, Otago and Canterbury universities had relatively more completions in higher-weighted subject areas. These universities' funding allocation ratios for the RDC component were therefore higher than those of other TEOs with similar numbers of completions overall. (See Chapter 8 for detail on the 2007 indicative allocations.)
- 252** Demographically, the RDC results show:²⁶
- a Of the completions in 2005, 60.6% were by European/Pākehā students. This compares with 60.2% in 2004, and represents a numerical increase of 199.
 - b The proportion of completions by Māori students increased from 6.1% in 2004 to 6.2% in 2005 (representing a numerical increase of 22).
 - c Completions by Pacific students decreased slightly, from 1.8% in 2004 to 1.7% of all completions in 2005 (a numerical increase of 22).
- 253** Because of changes to the mechanism for collecting RDC information, data on the gender of completing students was not available when this report was prepared. The TEC will provide the information as it becomes available.

Figure 7.1: Research Degree Completions Results by TEO – Volume of Masters and Doctorates – continued over page



²⁶ The figures for 2003 and 2004 vary from those stated in the *PBRF's 2005 Annual Report* because of the provision of updated information by participating TEOs.

Figure 7.1: Research Degree Completions Results by TEO – Volume of Masters and Doctorates – continued



Chapter 8

PBRF funding apportionment

Introduction

- 254** The amount of PBRF funding that each TEO receives is determined by its performance in the three components of the PBRF:
- a the 2006 Quality Evaluation (60%);
 - b RDC (25%); and
 - c ERI (15%).
- 255** Each TEO's share of funding for each of these three components is determined by its performance relative to other participating TEOs.

The funding formula for the quality measure

- 256** Funding in relation to the Quality Evaluation is based on:
- a the Quality Categories assigned to EPs;
 - b the funding weighting for the subject area to which EPs have been assigned; and
 - c the full-time-equivalent (FTE) status of the participating TEOs' PBRF-eligible staff as at the date of the PBRF Census: Staffing Return (with the qualifications as outlined below in the section "FTE status of staff").

The Quality Categories

- 257** The PBRF funding generated by way of the staff who participate in the Quality Evaluation is determined by the Quality Category assigned to their EP by the relevant peer review panel. These Quality Categories are then given a numerical weighting known as a "quality weighting". The quality weightings used in the 2006 Quality Evaluation are outlined in Table 8.1.

Table 8.1: Quality-Category weightings

Quality-Category	Quality Weighting
A	5
B	3
C	1
C(NE)	1
R	0
R(NE)	0

Funding weighting for subject areas

258 Subject-area weightings are based on an EP's primary subject area of research. The current funding weightings for subject areas are shown in Table 8.2.

Table 8.2: Subject-Area weightings

Subject Areas	Funding Category	Weighting
Māori knowledge and development; law; history, history of art, classics and curatorial studies; English language and literature; foreign languages and linguistics; philosophy; religious studies and theology; political science, international relations and public policy; human geography; sociology, social policy, social work, criminology and gender studies; anthropology and archaeology; communications, journalism and media studies; education; pure and applied mathematics; statistics; management, human resources, industrial relations, international business and other business; accounting and finance; marketing and tourism; and economics.	A, I	1
Psychology; chemistry; physics; earth sciences; molecular, cellular and whole organism biology; ecology, evolution and behaviour; computer science, information technology, information sciences; nursing; sport and exercise science; other health studies (including rehabilitation therapies); music, literary arts and other arts; visual arts and crafts; theatre and dance, film and television and multimedia; and design.	B, L	2
Engineering and technology; agriculture and other applied biological sciences; architecture, design, planning, surveying; biomedical; clinical medicine; pharmacy; public health; veterinary studies and large animal science; and dentistry.	C, G, H, M, Q	2.5

FTE status of staff

259 The FTE status of each staff member is also a factor in the formula. Funding is generated in proportion to FTE status (as stated in the PBRF Census: Staffing Return). Four particular considerations apply to FTE calculations.

- a When staff were concurrently employed at two TEOs, they generated an FTE entitlement for each organisation based on their FTE status in their employment agreement with each TEO.
- b For most staff, their FTE status was that of the week 12 June 2006 to 16 June 2006. However, if staff had changed their employment status within the TEO during the previous 12 months, their FTE status was their average FTE status over the period (eg six months at 0.5 FTE and six months at 1 FTE = 0.75 FTE).
- c When a staff member started employment in the 12-month period before the PBRF Census and was previously not employed by a participating TEO, then (providing they had an employment agreement of one year or more) their FTE status was what their employment agreement stated it to be at the time of the Census.
- d When a staff member left one participating TEO to take up a position in another participating TEO in the 12 months before the PBRF Census, both TEOs had a proportional FTE entitlement.

Quality Evaluation funding formula

260 The funding formula for the Quality Evaluation measure is:

$$\frac{\sum \text{TEO} [(numerical\ quality\ score) \times (FTE\ status\ of\ researcher) \times (funding\ weighting\ for\ relevant\ subject\ area)]}{\sum \text{all\ TEOs} [(numerical\ quality\ score) \times (FTE\ status\ of\ researcher) \times (funding\ weighting\ for\ relevant\ subject\ area)]} \times \text{Total amount of funding available for the Quality Evaluation component of the PBRF}$$

Funding formulae for the RDC and ERI measures

261 The formula used to calculate funding for the RDC measure for each TEO is:

$$\sum RDC = [(research\ component\ weighting) \times (cost\ weighting\ for\ relevant\ subject\ area) \times (equity\ weighting)]$$

262 The funding formula for the RDC measure is:

$$\frac{\sum [(RDC\ for\ TEO2003 \times 0.15) + (RDC\ for\ TEO2004 \times 0.35) + (RDC\ for\ TEO2005 \times 0.5)]}{\sum [(Total\ RDC\ for\ TEOs2003 \times 0.15) + (Total\ RDC\ for\ TEOs2004 \times 0.35) + (RDC\ for\ TEO2005 \times 0.5)]} \times \text{Total amount of funding available for the RDC component of the PBRF}$$

263 The ERI measure allocates funding to TEOs in proportion to the extent to which they attract external research income. The funding formula for the ERI measure is:

$$\frac{\sum [ERI\ for\ TEO2003 \times 0.15) + (ERI\ for\ TEO2004 \times 0.35) + (ERI\ for\ TEO2005 \times 0.5)]}{\sum [(Total\ RDC\ for\ TEOs2003 \times 0.15) + (Total\ RDC\ for\ TEOs2004 \times 0.35) + (RDC\ for\ TEO2005 \times 0.5)]} \times \text{Total amount of funding available for the ERI component of the PBRF}$$

Applying the funding formulae

264 The PBRF has been progressively implemented. This process involved reallocating much of the research funding available through degree “top ups” (ie on the basis of student enrolments) by gradually phasing it into the PBRF. This “top up” funding for undergraduate degrees and research postgraduate degrees reduced to 90% of its 2003 rates in 2004, to 80% in 2005, and to 50% in 2006. Funding through degree “top-ups” was completely phased out by the beginning of 2007.

265 For the 2007 funding year, the total funding allocated by means of the three PBRF performance measures is \$230.7 million (based on current forecasts). This is derived from 100% of the degree “top up” funding, plus approximately \$62.6 million of additional funding allocated by the government through the budget process.

266 TEOs that are entitled to PBRF funding will receive monthly PBRF payments through the tertiary funding system, with each monthly payment normally being of an equal amount.

- 267** The amount of a TEO's *overall* PBRF entitlement may vary for a number of reasons including:
- a A TEO may leave the PBRF during the course of a year by ceasing operation or changing course offerings, which may increase the value of the share of each remaining TEO even though it reduces the total fund size.²⁷
 - b Errors may be found in PBRF data as a result of checks; and these, when corrected, will result in an increase or a decrease in the share of a TEO (with a corresponding adjustment for other TEOs).
 - c The number of students at degree and postgraduate degree level may increase or decrease, affecting the total size of the fund.
- 268** A final "wash up" payment for each year will be made with the April payment of the following year. This will take into account any changes in a TEO's overall PBRF entitlement.

Results for 2007

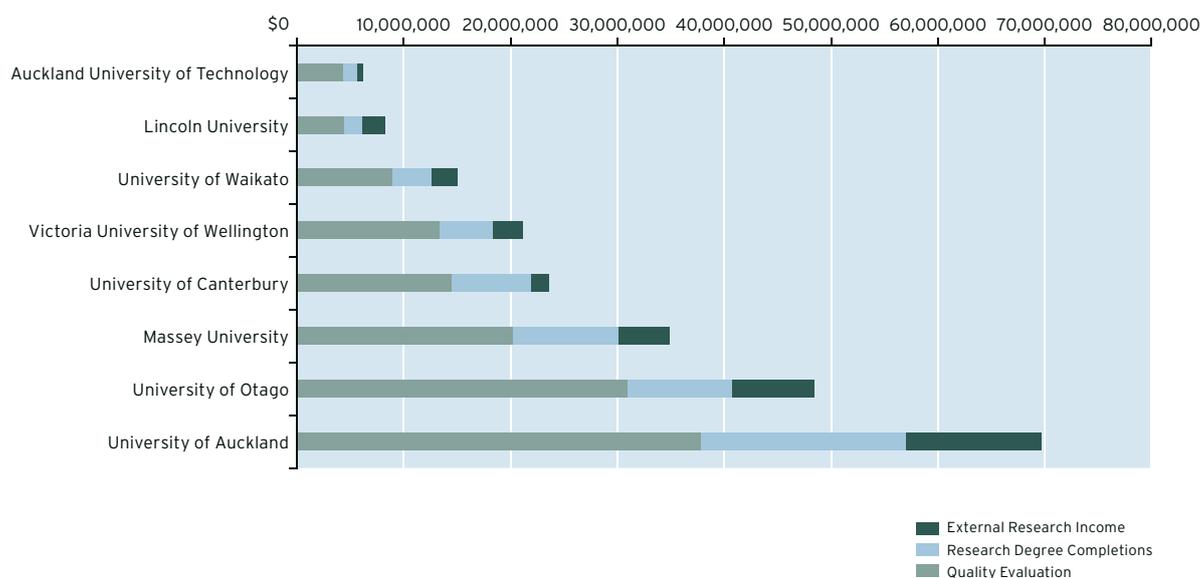
- 269** Table 8.3 and Figures 8.1 and 8.2 show the 2007 PBRF allocations for participating TEOs. The allocation ratios and funding allocations are indicative only; actual figures will be advised separately to each TEO before the first payment is made.
- 270** Universities will receive the bulk of PBRF funding in 2007. Of the non-universities, only Unitec New Zealand will receive greater than 1% of the total PBRF.
- 271** The University of Auckland (30.3%) and University of Otago (21%) dominate the overall funding allocations, showing significant levels of achievement in all three components of the PBRF. Their performance is particularly strong for the ERI measure; and they will receive 61% of the 2006 ERI funding, with the other universities receiving approximately 37.8% (Figure 8.3). The six remaining TEOs that received external research income (and therefore submitted ERI returns) will receive less than 1% of this component's funding in 2007 – a total of approximately \$172,000 between them.
- 272** The universities of Auckland, Otago, Massey and Canterbury demonstrated the strongest performance in the RDC measure, and will secure 79% of the funding for this component. As was the case in 2006, the eight universities will receive almost 99% of the RDC funding for 2007. The seven remaining TEOs that reported PBRF-eligible research degree completions (and therefore submitted RDC returns) will receive just over 1% of this component's funding for 2007 – a total of approximately \$608,000 between them.

²⁷ For more information on the mechanism for allocating PBRF funding, see the TEC paper "Allocating PBRF funding" (available online at <http://www.tec.govt.nz/funding/research/pbrf/tools.htm>).

Table 8.3: 2007 PBRF Indicative Funding

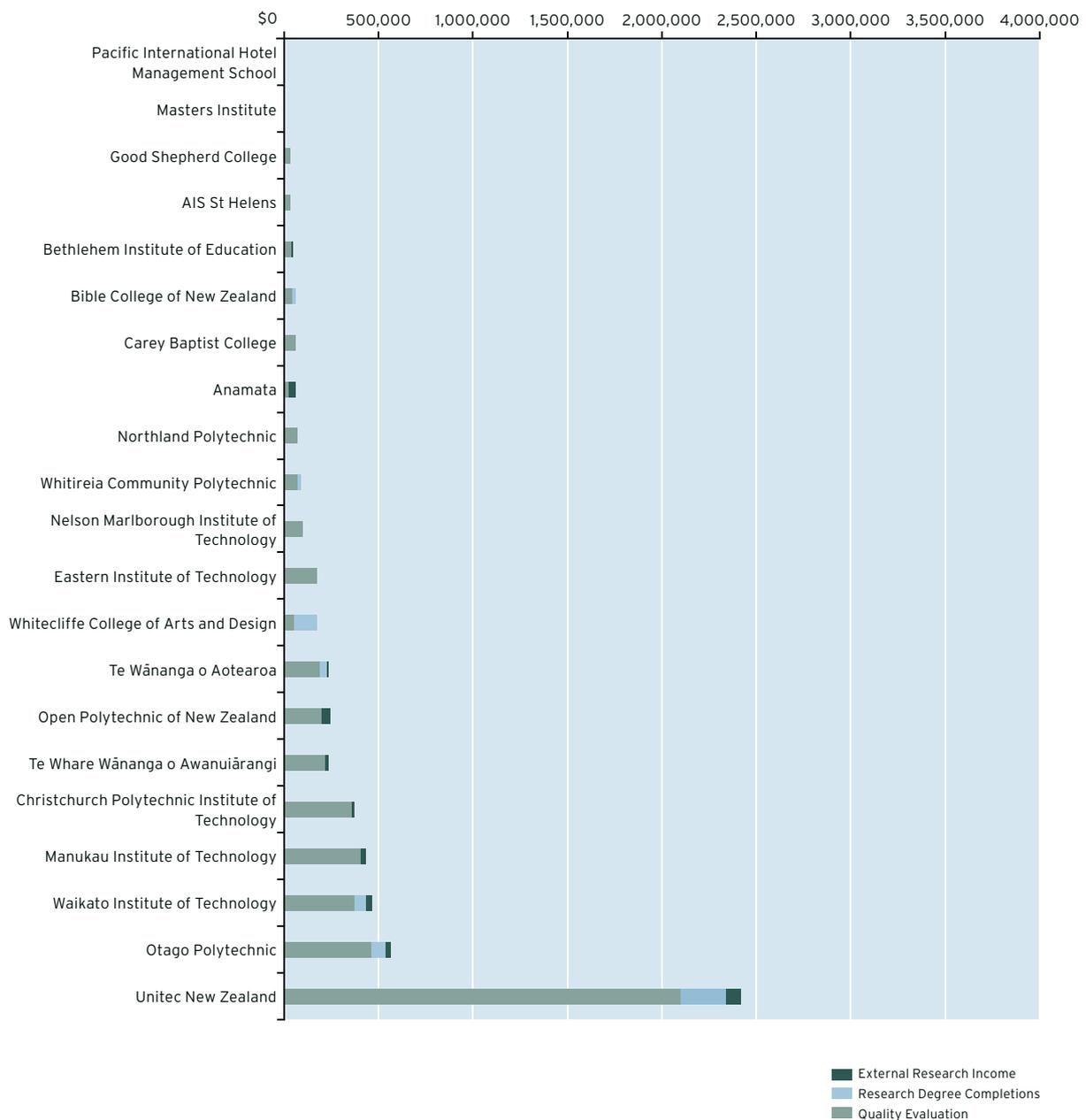
TEO	Quality Evaluation	Research Degree Completions	External Research Income	Total	Percentage of Total PBRF Funding
University of Auckland	\$37,442,726	\$19,265,406	\$13,153,591.00	\$69,861,723	30.28%
University of Otago	\$30,944,018	\$9,502,337	\$8,051,667.00	\$48,498,022	21.02%
Massey University	\$20,122,794	\$9,964,081	\$4,494,520.50	\$34,581,396	14.99%
University of Canterbury	\$14,468,664	\$6,984,796	\$1,958,699.38	\$23,412,159	10.15%
Victoria University of Wellington	\$13,492,715	\$5,057,858	\$2,123,526.75	\$20,674,100	8.96%
University of Waikato	\$8,840,939	\$4,076,049	\$1,910,509.13	\$14,827,497	6.42%
Lincoln University	\$4,323,681	\$1,179,007	\$2,110,840.75	\$7,613,528	3.30%
Auckland University of Technology	\$3,797,089	\$1,042,630	\$488,716.31	\$5,328,435	2.31%
Unitec New Zealand	\$2,154,291	\$218,203	\$77,689.67	\$2,450,184	1.06%
Otago Polytechnic	\$462,783	\$83,185	\$15,700.10	\$561,668	0.24%
Waikato Institute of Technology	\$335,576	\$90,458	\$63,158.25	\$489,192	0.21%
Manukau Institute of Technology	\$411,272	\$0	\$20,843.03	\$432,115	0.19%
Christchurch Polytechnic Institute of Technology	\$347,531	\$0	\$5,655.80	\$353,187	0.15%
Christchurch College of Education	\$192,109	\$26,857	\$7,613.17	\$226,579	0.10%
Te Wānanga o Aotearoa	\$170,794	\$27,589	\$10,560.64	\$208,943	0.08%
Open Polytechnic of New Zealand	\$161,503	\$0	\$45,384.50	\$206,887	0.09%
Te Whare Wānanga o Awanuiārangi	\$184,321	\$0	\$5,729.86	\$190,051	0.09%
Whitecliff College of Arts and Design	\$31,426	\$117,880	\$0.00	\$149,306	0.06%
Eastern Institute of Technology	\$147,566	\$0	\$710.48	\$148,276	0.06%
Dunedin College of Education	\$62,511	\$33,441	\$6,800.94	\$102,753	0.04%
Nelson Marlborough Institute of Technology	\$78,873	\$0	\$0.00	\$78,873	0.03%
Whitireia Community Polytechnic	\$58,753	\$0	\$5,341.92	\$64,095	0.03%
Northland Polytechnic	\$50,418	\$0	\$1,751.45	\$52,170	0.02%
Anamata	\$11,956	\$0	\$38,575.60	\$50,531	0.02%
Carey Baptist College	\$47,822	\$0	\$0.00	\$47,822	0.02%
Bible College of New Zealand	\$23,911	\$8,360	\$1,427.19	\$33,699	0.01%
Bethlehem Institute of Education	\$20,495	\$0	\$7,867.87	\$28,363	0.01%
AIS St Helens	\$20,495	\$0	\$0.00	\$20,495	0.01%
Good Shepherd College	\$20,495	\$0	\$0.00	\$20,495	0.01%
Masters Institute	\$0	\$0	\$0.00	\$0	0.00%
Pacific International Hotel Management School	\$0	\$0	\$0.00	\$0	0.00%
Totals	\$138,427,526	\$57,678,137	\$34,606,881	\$230,712,544	100.00%

Figure 8.1: 2007 PBRF Indicative Funding – Universities



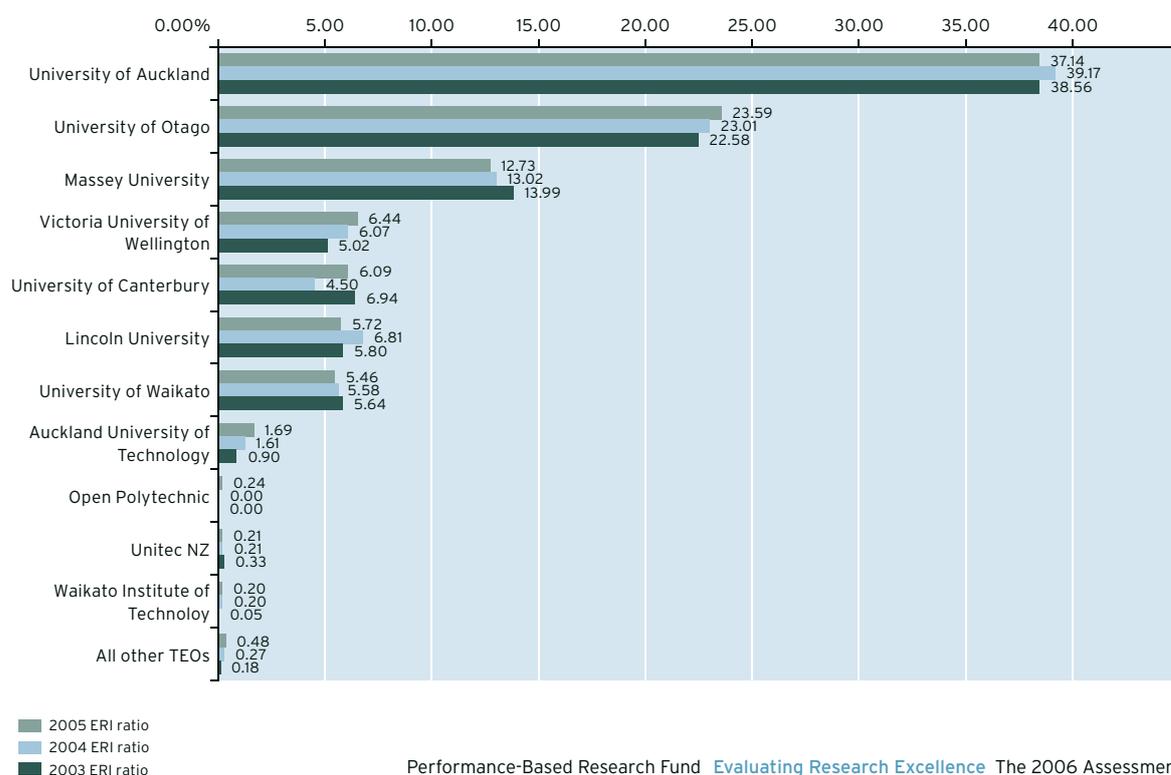
TEO	External Research Income	Research Degree Completions	Quality Evaluation
University of Auckland	\$13,153,591	\$19,265,406	\$37,442,726
University of Otago	\$8,058,468	\$9,535,778	\$31,006,529
Massey University	\$4,494,521	\$9,964,081	\$20,122,794
University of Canterbury	\$1,966,313	\$7,011,653	\$14,660,773
Victoria University of Wellington	\$2,123,527	\$5,057,858	\$13,492,715
University of Waikato	\$1,910,509	\$4,076,049	\$8,840,939
Lincoln University	\$2,110,841	\$1,179,007	\$4,323,681
Auckland University of Technology	\$488,716	\$1,042,630	\$3,797,089

Figure 8.2: 2007 PBRF Indicative Funding – Other TEOs



TEO	Quality Evaluation	Research Degree Completions	External Research Income
Unitec New Zealand	\$2,154,291	\$218,203	\$77,690
Otago Polytechnic	\$462,783	\$83,185	\$15,700
Waikato Institute of Technology	\$335,576	\$90,458	\$63,158
Manukau Institute of Technology	\$411,272	\$0	\$20,843
Christchurch Polytechnic Institute of Technology	\$347,531	\$0	\$5,656
Te Whare Wānanga o Awanuiārangi	\$184,321	\$0	\$5,730
Open Polytechnic of New Zealand	\$161,503	\$0	\$45,385
Te Wānanga o Aotearoa	\$170,794	\$27,589	\$10,561
Whitecliffe College of Arts and Design	\$31,426	\$117,880	\$0
Eastern Institute of Technology	\$147,566	\$0	\$710
Nelson Marlborough Institute of Technology	\$78,873	\$0	\$0
Whitireia Community Polytechnic	\$58,753	\$0	\$5,342
Northland Polytechnic	\$50,418	\$0	\$1,751
Anamata	\$11,956	\$0	\$38,576
Carey Baptist College	\$47,822	\$0	\$0
Bible College of New Zealand	\$23,911	\$8,360	\$1,427
Bethlehem Institute of Education	\$20,495	\$0	\$7,868
AIS St Helens	\$20,495	\$0	\$0
Good Shepherd College	\$20,495	\$0	\$0
Masters Institute	\$0	\$0	\$0
Pacific International Hotel Management School	\$0	\$0	\$0

Figure 8.3: ERI Allocation Ratios



Net effect on TEO funding allocations

- 273** Tables 8.4, 8.5 and 8.6 show the net effect of the introduction of the PBRF on the funding that each of the *PBRF-eligible* TEOs will receive in 2007. Note that the figures are indicative only, and so are subject to change (because of the reasons outlined earlier).
- 274** The first column of figures in each table indicates the funding each TEO would have received in 2007 if the PBRF had not been introduced; it is based on the forecast degree “top ups” for 2007. The second column shows the amount of funding each TEO will receive based on the results of the 2006 Quality Evaluation plus the RDC and ERI measures. The third column shows the net impact of the PBRF. The final column shows (in percentage terms) the net difference that the PBRF has made to the TEO’s research funding for 2007.
- 275** Of the TEOs participating in the PBRF, nine can expect to receive a net increase in their 2007 funding levels. The average increase for these TEOs is 39.1%. The University of Auckland is expected to receive the largest net increase in funding (\$21.2 million). Of those TEOs receiving more than \$1 million through the PBRF, the largest projected percentage increase is that of Lincoln University (at 65%).
- 276** A further 20 of the TEOs that participated in the PBRF will receive lower funding than they would if they PBRF had not been implemented. Both AUT and Victoria University of Wellington feature in this group (see Table 8.5). Victoria University of Wellington’s result is influenced by its very strong enrolment growth since 2004 (degree “top up” funding for Victoria increased significantly between 2004 and 2006). The slight reduction in research funding for Victoria should be considered in the context of the relative stability of funding offered by the PBRF.
- 277** Because all degree “top up” funding has been transferred to the PBRF, TEOs that did not participate in the PBRF will not receive research funding. Of these TEOs (See table 8.6), Southland Polytechnic will experience the largest loss in dollar terms.

Table 8.4: Research Funding Increases – PBRF Participants

TEO	2007 Forecast Degree Top-ups	2007 PBRF Indicative Allocation	Net Impact of PBRF on Research Funding 2007	Net Change
University of Auckland	\$48,701,553	\$69,861,723	\$21,160,171	43.45%
University of Otago	\$31,505,433	\$48,600,775	\$17,095,342	54.26%
Massey University	\$26,553,225	\$34,581,396	\$8,028,170	30.23%
University of Waikato	\$10,833,001	\$14,827,497	\$3,994,496	36.87%
Lincoln University	\$4,625,585	\$7,613,528	\$2,987,943	64.60%
University of Canterbury	\$20,999,457	\$23,638,738	\$2,639,281	12.57%
Te Wānanga o Aotearoa	\$78,275	\$208,943	\$130,668	166.94%
Anamata	\$4,360	\$50,531	\$46,172	1059.08%
Good Shepherd College	\$5,691	\$20,495	\$14,804	260.13%
Totals	\$143,306,579	\$199,403,627	\$56,097,047	39.14%

Table 8.5: Research Funding Decreases – PBRF Participants

TEO	2007 Forecast Degree Top-ups	2007 PBRF Indicative Allocation	Net Impact of PBRF on Research Funding 2007	Net Change
Unitec New Zealand	\$6,819,846	\$2,450,184	-\$4,369,662	-64.07%
Auckland University of Technology	\$8,794,515	\$5,328,435	-\$3,466,080	-39.41%
Whitireia Community Polytechnic	\$1,108,167	\$64,095	-\$1,044,072	-94.22%
Otago Polytechnic	\$1,106,381	\$561,668	-\$544,714	-49.23%
Victoria University of Wellington	\$21,193,097	\$20,674,100	-\$518,997	-2.45%
Christchurch Polytechnic Institute of Technology	\$727,129	\$353,187	-\$373,942	-51.43%
Whitecliffe College of Arts and Design	\$463,876	\$149,306	-\$314,571	-67.81%
Waikato Institute of Technology	\$769,307	\$489,192	-\$280,115	-36.41%
Eastern Institute of Technology	\$418,205	\$148,276	-\$269,929	-64.54%
Te Whare Wānanga o Awanuiārangi	\$465,012	\$190,051	-\$274,961	-59.13%
The Open Polytechnic of New Zealand	\$389,987	\$206,887	-\$183,100	-46.95%
Northland Polytechnic	\$144,790	\$52,170	-\$92,620	-63.97%
Bible College of New Zealand	\$122,988	\$33,699	-\$89,289	-72.60%
Nelson Marlborough Institute of Technology	\$120,695	\$78,873	-\$41,822	-34.65%
AIS St Helens	\$57,598	\$20,495	-\$37,103	-64.42%
Carey Baptist College	\$60,473	\$47,822	-\$12,650	-20.92%
Bethlehem Institute of Education	\$39,569	\$28,363	-\$11,205	-28.32%
Masters Institute	\$10,835	\$0	-\$10,835	-100.00%
Manukau Institute of Technology	\$436,767	\$432,115	-\$4,653	-1.07%
Pacific International Hotel Management School	\$2,846	\$0	-\$2,846	-100.00%
Total	\$43,252,081	\$31,308,917	-\$11,943,164	-27.61%

Table 8.6: Research Funding Decreases – PBRF Non-Participants

TEO	2007 Forecast Degree Top-ups	2007 PBRF Indicative Allocation	Net Impact of PBRF on Research Funding 2007	Net Change
Southern Institute of Technology	\$780,038	\$0	-\$780,038	-100%
Te Wānanga o Raukawa	\$775,030	\$0	-\$775,030	-100%
Universal College of Learning	\$683,679	\$0	-\$683,679	-100%
Wellington Institute of Technology	\$206,298	\$0	-\$206,298	-100%
Waiariki Institute of Technology	\$174,878	\$0	-\$174,878	-100%
Western Institute of Technology Taranaki	\$122,777	\$0	-\$122,777	-100%
Media Design School	\$92,595	\$0	-\$92,595	-100%
New Zealand College of Chiropractic	\$70,809	\$0	-\$70,809	-100%
International Pacific College	\$45,299	\$0	-\$45,299	-100%
Tairāwhiti Polytechnic	\$36,921	\$0	-\$36,921	-100%
New Zealand Graduate School of Education	\$21,436	\$0	-\$21,436	-100%
Ames Training and Resource Centre Limited	\$16,040	\$0	-\$16,040	-100%
Natcoll Design Technology	\$12,454	\$0	-\$12,454	-100%
ATC New Zealand	\$9,053	\$0	-\$9,053	-100%
The New Zealand College of Massage	\$6,027	\$0	-\$6,027	-100%
New Zealand Drama School	\$4,598	\$0	-\$4,598	-100%
Auckland College of Natural Medicine	\$2,006	\$0	-\$2,006	-100%
Bay of Plenty Polytechnic	\$687	\$0	-\$687	-100%
Eastwest College of Intercultural Studies	\$160	\$0	-\$160	-100%
Apostolic Training Centres	\$0	\$0	\$0	N/A
Totals	\$3,060,787	\$0	-\$3,060,787	-100%

Chapter 9

Looking ahead

A valuable exercise

- 278** The 2006 Quality Evaluation is the second comprehensive assessment of research quality within New Zealand's tertiary education sector. It contributes to our understanding of the distribution of research quality by building on the valuable information obtained through the first Quality Evaluation in 2003.
- 279** The Quality Evaluation is a complex undertaking that involves the assessment of thousands of individual researchers by their peers. As a result, it carries with it significant costs both in terms of time and resources. Nevertheless, the TEC firmly believes that the longer-term benefits of the PBRF – both to the tertiary education sector and to the building of a knowledge society – will significantly outweigh the short-term costs. This is particularly true when the costs are considered in the context of the almost two billion dollars that will be allocated over the next six years through the PBRF.
- 280** The results of the 2006 Quality Evaluation, together with the updated results of ERI and RDC, present a systematic, authoritative and up-to-date account of the research performance of the participating TEOs. In addition, the participation of many additional TEOs in the 2006 Quality Evaluation provides a more complete picture of research quality in the tertiary education sector. The higher level of participation in 2006 enables stakeholders to make more-informed judgements about the likely research performance of the remaining PBRF-eligible TEOs. As a result, the 2006 Quality Evaluation provides a good indication of the research performance of the tertiary education sector as a whole.
- 281** While the results are important in terms of what they reveal about the performance of different TEOs and different types of TEO, they are equally significant in showing the relative performance of different subject areas both nationally and within individual TEOs. In addition, the results provide valuable information for assessing trends in research performance over the coming decades and for comparison with the first (2003) Quality Evaluation.
- 282** This report highlights some of the key findings of the 2006 Quality Evaluation – at the organisational, sub-organisational, panel, and subject-area levels. However, the analysis of the results is designed to encourage further inquiry and reflection. The statistical information contained in Tables A-1 to A-139 of Appendix A provides a rich and valuable source of data. The TEC welcomes further analysis of these data by interested parties. In particular, it encourages researchers to take advantage of the data collected as part of the Quality Evaluation process and to use these to inform analysis – of the PBRF and its impact, or in relation to broader questions about research in New Zealand.
- 283** Among the many issues that are likely to attract particular attention are the following:
- the major differences in the assessed research performance between different TEOs (and types of TEOs), and between the nominated academic units within TEOs, and the reasons for these differences;
 - the major differences in the assessed research performance between the 42 different subject areas, and the reasons for these differences;
 - the relatively low proportion of researchers (7.4%) whose EPs were rated "A" in 2006, and what action can and should be taken to improve upon this result;
 - the relatively high proportion of researchers (about 32%) whose EPs were rated "R" or "R(NE)" in 2006, and what action can and should be taken to address this situation;

- e the reasons for the relatively high quality scores of some subject areas, and what could be done to sustain and build upon these results;
- f the reasons for the relatively low quality scores of some subject areas, and what can and should be done to improve the quality of research being undertaken in these areas;
- g the adequacy of the resources currently available for supporting and building research capability in the tertiary education sector;
- h the question of whether specific government action may be required in order to assist TEOs in improving their quality of research in areas of strategic importance and/or weakness;
- i the nature of the various changes in performance in subject areas and TEOs, and the reasons for these changes;
- j the implications of the results of the 2006 Quality Evaluation for the quality of degree-level provision in parts of the tertiary education sector (especially at the postgraduate level), including whether certain TEOs are fulfilling their statutory obligations and “distinctive contributions”;
- k the extent to which the PBRF will achieve an appropriate degree of concentration in the allocation of research funding; and
- l the overall improvement in terms of measured research quality since the 2003 Quality Evaluation, and what actions can be taken to encourage this trend.

Placing the results in context

- 284** In exploring these and related issues, it is important that the limitations of the data be properly recognised. In particular, as already highlighted in Chapter 4, it is vital to bear in mind that the 2006 Quality Evaluation constitutes a retrospective assessment of research performance, based primarily on the research outputs produced during a six-year period (1 January 2000 – 31 December 2005). More than a year has elapsed since the end of this assessment period. In the intervening period, there has been much research activity within the tertiary education sector – activity that in many cases is likely to contribute to a different (and hopefully improved) set of results in the next Quality Evaluation. In addition, the provision for new and emerging researchers and the higher quality of the EPs submitted for assessment in 2003 mean that a more complete and accurate picture of research quality in the tertiary sector is now available.
- 285** It must be emphasised that exacting standards were set for the attainment of an “A” Quality Category. The TEC makes no apologies for establishing a high benchmark for the achievement of world-class standing and for requiring the 12 peer review panels to apply the agreed assessment framework in a rigorous and consistent manner. A relentless focus on verifiable quality is essential if the tertiary education sector is to achieve and sustain internationally competitive levels of research excellence.
- 286** However, the TEC readily acknowledges that the approach taken has influenced the overall shape and pattern of the results. Three matters (outlined below) deserve particular emphasis in this regard.

- 287** First, included among the EPs assessed as “B” and (to a lesser extent) “C” or “C(NE)” are those of excellent researchers and scholars who have been making valuable and important contributions to their respective disciplines and the wider research environment.
- 288** Second, a significant proportion of staff whose EPs were rated “R” or “R(NE)” are still at a relatively early stage of their careers as researchers. As emphasised elsewhere in this report, these researchers have not yet had time to produce a substantial body of research outputs, acquire significant peer esteem, or make a major contribution to the research environment. It can be expected that many of these researchers will secure higher Quality Categories in future Quality Evaluations.
- 289** Third, the Quality Evaluation process is complex, and relatively little time has passed since the first Quality Evaluation in 2003. As a result, the process continues to present challenges – for participating TEOs as they strive to ensure completeness of information on their staff members’ research, and for academic disciplines as they respond to the new incentives generated by the PBRF.

Building on the foundations of the 2006 Quality Evaluation

- 290** The next Quality Evaluation is scheduled for 2012. In preparing for this, the TEC will draw upon the findings of Phase II evaluation of the PBRF, which is due for completion in mid 2008 (see Appendix E). It will also take full account of the direct feedback received from participants in the 2006 Quality Evaluation (including the reports of the peer review panels), as well as feedback from many other interested stakeholders. In addition, the TEC will continue to monitor the impact of the new funding regime on TEOs.
- 291** In reviewing how the 2012 Quality Evaluation should be designed and conducted, consideration will be given to the following:
- a rules governing staff eligibility;
 - b number and structure of the peer review panels;
 - c number and classification of subject areas;
 - d overall assessment framework (including the generic descriptors and tie-points, the scoring system used to guide the decisions of the peer review panels, the nature of the holistic assessment stage, and the logistics of providing NROs to panel members for assessment);
 - e eligibility and assessment criteria for new and emerging researchers;
 - f most effective and appropriate ways of addressing issues associated with Māori and Pacific research and researchers;
 - g design of EPs, the nature of the information to be included, and the mechanism for collection;
 - h management of conflicts of interest;
 - i treatment of special circumstances;
 - j capture and reporting of information in relevant databases;
 - k assessment timetable;

- l moderation process;
- m checking and verification of the information contained in EPs;
- n reporting of results;
- o complaints process;
- p PBRF funding formula and weightings;
- q operational arrangements for the conduct of Quality Evaluations (including the provision of training, staffing, and logistical and electronic support); and
- r ways of reducing the compliance and administrative costs associated with the PBRF.

Any policy changes required will be made following consultation with the sector.

- 292** The TEC, in consultation with the Ministry of Education and the tertiary education sector, will also be reviewing the guidelines relating to the ERI and RDC measures. Again, any policy changes required will be made following consultation with the sector.
- 293** The design of the PBRF has benefited from the keen interest and extensive contributions of many groups and individuals in the tertiary sector. The important contribution that the sector has made to the design of the PBRF will be critical into the future as the TEC works with the sector to improve the PBRF and ensure that it remains relevant over time.
- 294** It is important, when considered in the context of New Zealand's aspirations, for there to be a relentless commitment to research excellence. This commitment – combined with the incentives provided by the PBRF – should underpin future improvements in the actual quality of research in the tertiary education sector. This, in turn, can be expected to yield significant economic, social and cultural dividends.
- 295** The results of the 2006 Quality Evaluation provide further evidence that New Zealand has significant research strength in a substantial number of subject areas and in most of the country's universities. This information will be extremely valuable for stakeholders in the tertiary education sector. For example, information on the distribution of research excellence might be used by TEOs when considering what role they may play in the network of provision of tertiary education.
- 296** The results of the 2006 Quality Evaluation also suggest there has been some degree of improvement in research quality. This reflects the experience in other countries that have conducted periodic evaluations of research performance, such as Britain and Hong Kong, where significant improvements have occurred in the quality of research since the commencement of the assessment regimes.
- 297** The measured improvement in research quality cannot be solely attributed to improvements in actual research quality as there are likely to be a number of factors influencing the results of the 2006 Quality Evaluation. Nevertheless, the increase in average quality scores, and the marked increase in the number of staff whose EPs were assigned a funded Quality Category between 2003 and 2006 suggests that there has been some increase in the actual level of research quality. This is very promising trend and indicates that the PBRF is having its desired effect on the New Zealand tertiary education sector.

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Appendix A

Statistical information

Note on interpretation of results

Chapter 4 of this report provides detailed guidance on how to interpret the results reported in this Appendix. Readers are advised to consult Chapter 4 where necessary.

The following points should be noted:

Rankings in tables and figures have been based on the actual results (often to four or five decimal places) rather than the rounded results. This means that where TEOs have the same rounded score their ranking in the table or figure is determined by the actual score they received. In cases where actual scores are identical, TEOs have been ranked alphabetically.

Minor discrepancies may be identified in some totals in the bottom row of tables. These can be attributed to rounding.

All Figures are on a scale of 7 (out of a possible 10) – the exceptions are A-1, A-2 (scale of 5), A-3 (scale of 5.5), and A-33 which is on a scale of 7.5 out of 10.

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	TEO Name	Quality Score	Quality Score*	Staff rated A %	Staff rated A* %	No of A's	No of A's*	Staff rated B %	Staff rated B* %	No of B's	No of B's*	Staff rated C %	Staff rated C* %	No of C's
1	AIS St Helens	0.22	0.24	0.00%	0.00%	0	0.00	0.00%	0.00%	0	0.00	11.11%	12.24%	3
2	Anamata	0.80	0.94	0.00%	0.00%	0	0.00	0.00%	0.00%	0	0.00	20.00%	20.11%	1
3	Auckland University of Technology	1.80	1.86	1.46%	1.57%	6	6.00	13.66%	14.25%	56	54.40	28.54%	28.67%	117
4	Bethlehem Institute of Education	0.30	0.34	0.00%	0.00%	0	0.00	0.00%	0.00%	0	0.00	0.00%	0.00%	0
5	Bible College of New Zealand	0.38	0.42	0.00%	0.00%	0	0.00	0.00%	0.00%	0	0.00	19.05%	21.15%	4
6	Carey Baptist College	1.40	1.67	0.00%	0.00%	0	0.00	20.00%	23.81%	2	2.00	10.00%	11.90%	1
7	Christchurch College of Education	0.37	0.41	0.00%	0.00%	0	0.00	2.88%	3.29%	4	3.85	10.07%	10.76%	14
8	Christchurch Polytechnic Institute of Technology	0.42	0.42	0.00%	0.00%	0	0.00	1.80%	1.94%	3	3.00	9.58%	9.26%	16
9	Dunedin College of Education	0.25	0.24	0.00%	0.00%	0	0.00	0.00%	0.00%	0	0.00	11.11%	11.07%	8
10	Eastern Institute of Technology	0.26	0.27	0.00%	0.00%	0	0.00	1.06%	1.15%	1	1.00	6.38%	6.92%	6
11	Former Auckland College of Education	0.63	0.66	0.00%	0.00%	0	0.00	2.99%	3.20%	5	5.00	20.36%	20.85%	34
12	Former Wellington College of Education	0.13	0.13	0.00%	0.00%	0	0.00	0.00%	0.00%	0	0.00	5.38%	5.43%	5
13	Good Shepherd College	0.55	0.67	0.00%	0.00%	0	0.00	0.00%	0.00%	0	0.00	9.09%	11.11%	1
14	Lincoln University	2.94	2.96	4.91%	5.13%	11	11.00	25.00%	25.17%	56	54.02	37.05%	36.94%	83
15	Manukau Institute of Technology	0.69	0.63	0.00%	0.00%	0	0.00	4.13%	3.16%	5	3.60	16.53%	17.14%	20
16	Massey University	3.05	3.06	5.85%	5.82%	68	64.74	25.62%	25.53%	298	284.14	37.40%	37.74%	435
17	Masters Institute	0.00	0.00	0.00%	0.00%	0	0.00	0.00%	0.00%	0	0.00	0.00%	0.00%	0
18	Nelson Marlborough Institute of Technology	0.37	0.33	0.00%	0.00%	0	0.00	0.00%	0.00%	0	0.00	6.12%	5.36%	3
19	Northland Polytechnic	0.30	0.20	0.00%	0.00%	0	0.00	2.50%	1.15%	1	0.40	7.50%	6.46%	3
20	Open Polytechnic of New Zealand	0.32	0.32	0.00%	0.00%	0	0.00	0.00%	0.00%	0	0.00	9.09%	9.94%	9
21	Otago Polytechnic	0.57	0.54	0.00%	0.00%	0	0.00	1.75%	1.50%	3	2.10	19.88%	19.30%	34
22	Pacific International Hotel Management School	0.00	0.00	0.00%	0.00%	0	0.00	0.00%	0.00%	0	0.00	0.00%	0.00%	0
23	Te Wānanga o Aotearoa	0.52	0.53	1.85%	1.89%	1	1.00	1.85%	1.89%	1	1.00	9.26%	9.43%	5
24	Te Whare Wānanga o Awanuiārangi	0.76	0.78	0.00%	0.00%	0	0.00	5.45%	5.67%	3	3.00	16.36%	16.55%	9
25	Unitec New Zealand	0.95	0.96	0.48%	0.42%	2	1.60	6.92%	6.92%	29	26.26	17.90%	18.48%	75
26	University of Auckland	4.09	4.19	13.14%	13.54%	209	200.72	34.82%	35.85%	554	531.57	28.41%	28.14%	452
27	University of Canterbury	4.07	4.10	11.47%	11.36%	75	70.51	35.02%	35.60%	229	221.07	25.08%	25.20%	164
28	University of Otago	4.17	4.23	11.58%	12.04%	144	137.85	38.02%	38.38%	473	439.37	23.55%	22.88%	293
29	University of Waikato	3.74	3.73	8.54%	8.45%	45	42.51	35.10%	34.98%	185	176.06	27.89%	28.34%	147
30	Victoria University of Wellington	3.83	3.83	9.31%	9.02%	69	63.82	34.95%	35.49%	259	251.21	23.08%	22.84%	171
31	Waikato Institute of Technology	0.42	0.41	0.00%	0.00%	0	0.00	0.69%	0.37%	1	0.50	14.58%	14.64%	21
32	Whitecliffe College of Arts and Design	0.26	0.27	0.00%	0.00%	0	0.00	0.00%	0.00%	0	0.00	13.04%	13.61%	3
33	Whitireia Community Polytechnic	0.16	0.13	0.00%	0.00%	0	0.00	0.00%	0.00%	0	0.00	2.25%	1.58%	2
	Averages & totals	2.91	2.96	7.27%	7.42%	630	599.75	25.00%	25.55%	2168	2063.55	24.67%	24.80%	2139

* Weighted on a FTE basis

No of C's*	Staff rated C(NE)* %	Staff rated C (NE)* %	No of C (NE)'s	No of C (NE)'s*	Staff rated R %	Staff rated R* %	No of R's	No of R's*	Staff rated R (NE) %	Staff rated R (NE)* %	No of R (NE)'s	No of R (NE)'s*	No of eligible staff	No of eligible staff*	No of Evidence Portfolios Assessed
3.00	0.00%	0.00%	0	0.00	51.85%	57.12%	14	14.00	37.04%	30.64%	10	7.51	27	24.51	7
0.75	20.00%	26.81%	1	1.00	20.00%	14.75%	1	0.55	40.00%	38.34%	2	1.43	5	3.73	5
109.43	13.17%	13.62%	54	52.00	26.34%	25.56%	108	97.56	16.83%	16.33%	69	62.32	410	381.71	243
0.00	15.00%	16.95%	3	3.00	15.00%	14.69%	3	2.60	70.00%	68.36%	14	12.10	20	17.70	6
3.50	0.00%	0.00%	0	0.00	80.95%	78.85%	17	13.05	0.00%	0.00%	0		21	16.55	5
1.00	0.00%	0.00%	0	0.00	60.00%	52.38%	6	4.40	10.00%	11.90%	1	1.00	10	8.40	5
12.57	0.00%	0.00%	0	0.00	56.83%	57.11%	79	66.73	30.22%	28.84%	42	33.70	139	116.85	16
14.30	5.99%	6.15%	10	9.50	47.90%	47.96%	80	74.11	34.73%	34.69%	58	53.60	167	154.51	47
7.49	1.39%	0.98%	1	0.66	50.00%	51.73%	36	35.00	37.50%	36.23%	27	24.51	72	67.66	22
6.00	3.19%	3.23%	3	2.80	77.66%	77.26%	73	66.95	11.70%	11.43%	11	9.90	94	86.65	47
32.60	2.40%	2.56%	4	4.00	66.47%	66.34%	111	103.71	7.78%	7.06%	13	11.03	167	156.34	77
4.80	1.08%	1.13%	1	1.00	47.31%	47.68%	44	42.12	46.24%	45.75%	43	40.41	93	88.33	12
1.00	18.18%	22.22%	2	2.00	72.73%	66.67%	8	6.00	0.00%	0.00%	0	0.00	11	9.00	9
79.29	10.27%	10.07%	23	21.61	16.07%	15.89%	36	34.10	6.70%	6.81%	15	14.61	224	214.63	121
19.50	5.79%	4.75%	7	5.40	70.25%	72.22%	85	82.15	3.31%	2.73%	4	3.10	121	113.75	54
420.03	9.20%	9.40%	107	104.67	14.53%	14.44%	169	160.73	7.39%	7.07%	86	78.69	1163	1113.00	711
0.00	0.00%	0.00%	0	0.00	100.00%	100.00%	6	5.20	0.00%	0.00%	0	0.00	6	5.20	3
2.17	12.24%	11.30%	6	4.57	69.39%	71.73%	34	29.02	12.24%	11.62%	6	4.70	49	40.46	22
2.24	0.00%	0.00%	0	0.00	87.50%	90.95%	35	31.55	2.50%	1.44%	1	0.50	40	34.69	16
9.00	7.07%	6.30%	7	5.70	40.40%	42.43%	40	38.40	43.43%	41.33%	43	37.40	99	90.50	37
26.94	3.51%	3.01%	6	4.20	47.95%	48.66%	82	67.91	26.90%	27.53%	46	38.42	171	139.57	67
0.00	0.00%	0.00%	0	0.00	23.81%	22.02%	5	4.25	76.19%	77.98%	16	15.05	21	19.30	6
5.00	1.85%	1.89%	1	1.00	77.78%	77.36%	42	41.00	7.41%	7.55%	4	4.00	54	53.00	4
8.75	5.45%	5.67%	3	3.00	16.36%	17.02%	9	9.00	56.36%	55.09%	31	29.13	55	52.88	20
70.10	6.44%	6.76%	27	25.64	45.82%	45.70%	192	173.32	22.43%	21.71%	94	82.32	419	379.24	113
417.34	5.97%	6.18%	95	91.59	15.08%	13.80%	240	204.67	2.58%	2.49%	41	36.97	1591	1482.86	991
156.48	16.21%	16.41%	106	101.92	6.57%	6.21%	43	38.56	5.66%	5.21%	37	32.37	654	620.91	337
261.94	13.02%	13.18%	162	150.86	7.96%	7.65%	99	87.52	5.87%	5.86%	73	67.12	1244	1144.66	700
142.66	11.20%	10.95%	59	55.11	10.82%	11.06%	57	55.67	6.45%	6.23%	34	31.36	527	503.37	263
161.64	17.14%	17.22%	127	121.86	7.29%	7.47%	54	52.90	8.23%	7.97%	61	56.38	741	707.81	477
19.56	4.17%	4.49%	6	6.00	75.69%	75.56%	109	100.95	4.86%	4.94%	7	6.60	144	133.61	44
2.80	0.00%	0.00%	0	0.00	52.17%	50.05%	12	10.30	34.78%	36.35%	8	7.48	23	20.58	10
1.20	5.62%	5.13%	5	3.90	39.33%	38.96%	35	29.60	52.81%	54.33%	47	41.28	89	75.98	35
2003.08	9.53%	9.69%	826	782.99	22.65%	22.08%	1964	1783.58	10.89%	10.46%	944	845.00	8671	8077.94	4532

Figure A-1: TEO Ranking – All TEOs

Numbers above bars indicate FTE-weighted quality scores

Numbers in parentheses indicate total number of PBRF-eligible FTE-weighted staff

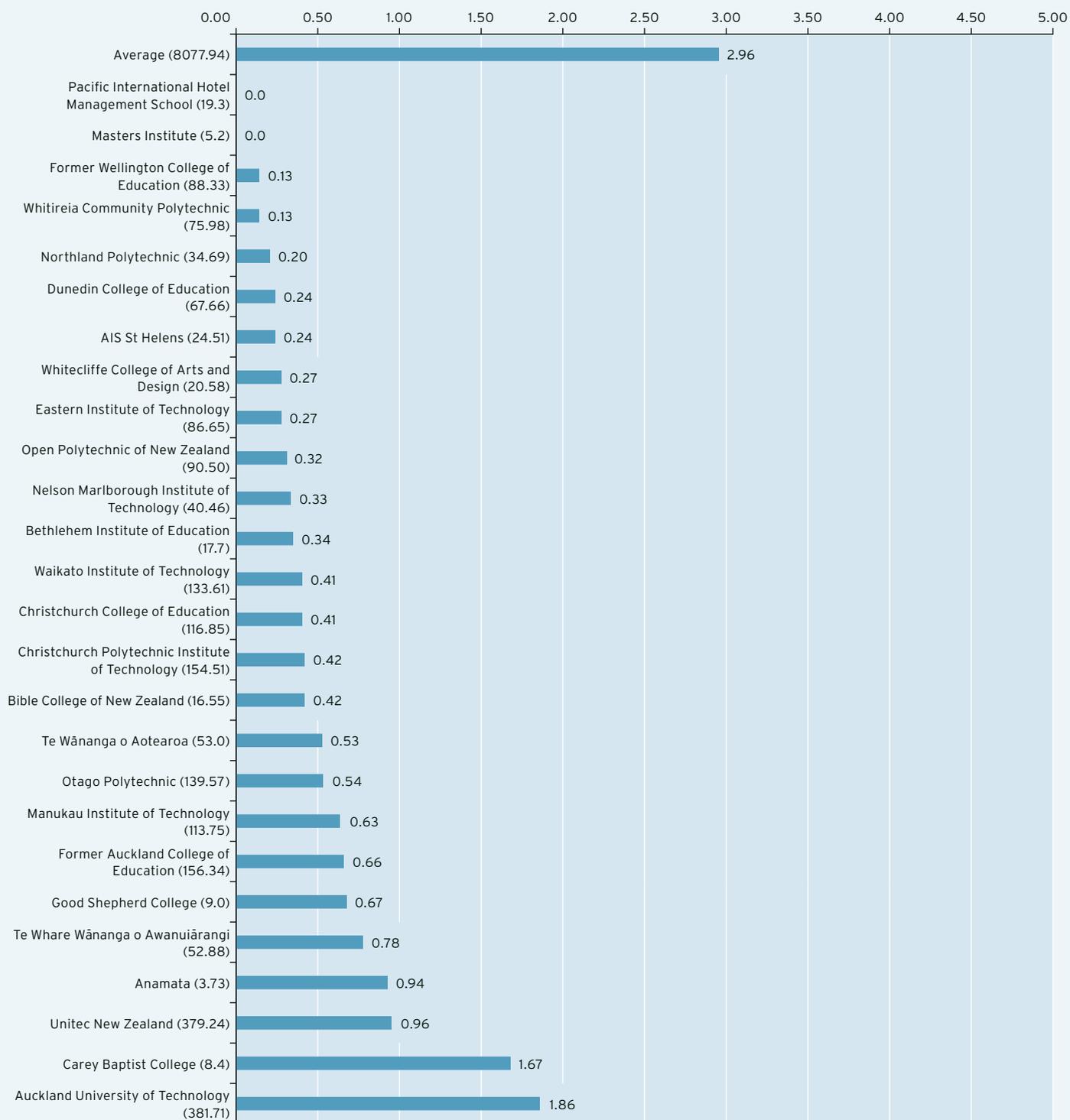


Figure A-1: TEO Ranking – All TEOs – continued

Rank based on Quality Score (FTE-weighted)

Numbers in parentheses indicate total number of PBRF-eligible staff (FTE-weighted)

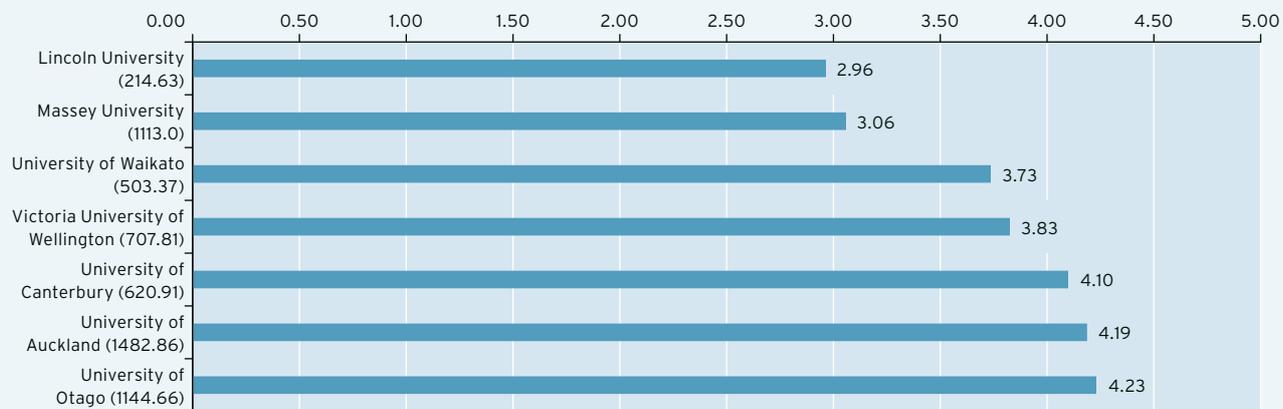


Table A-2: Panel Results – All Panels

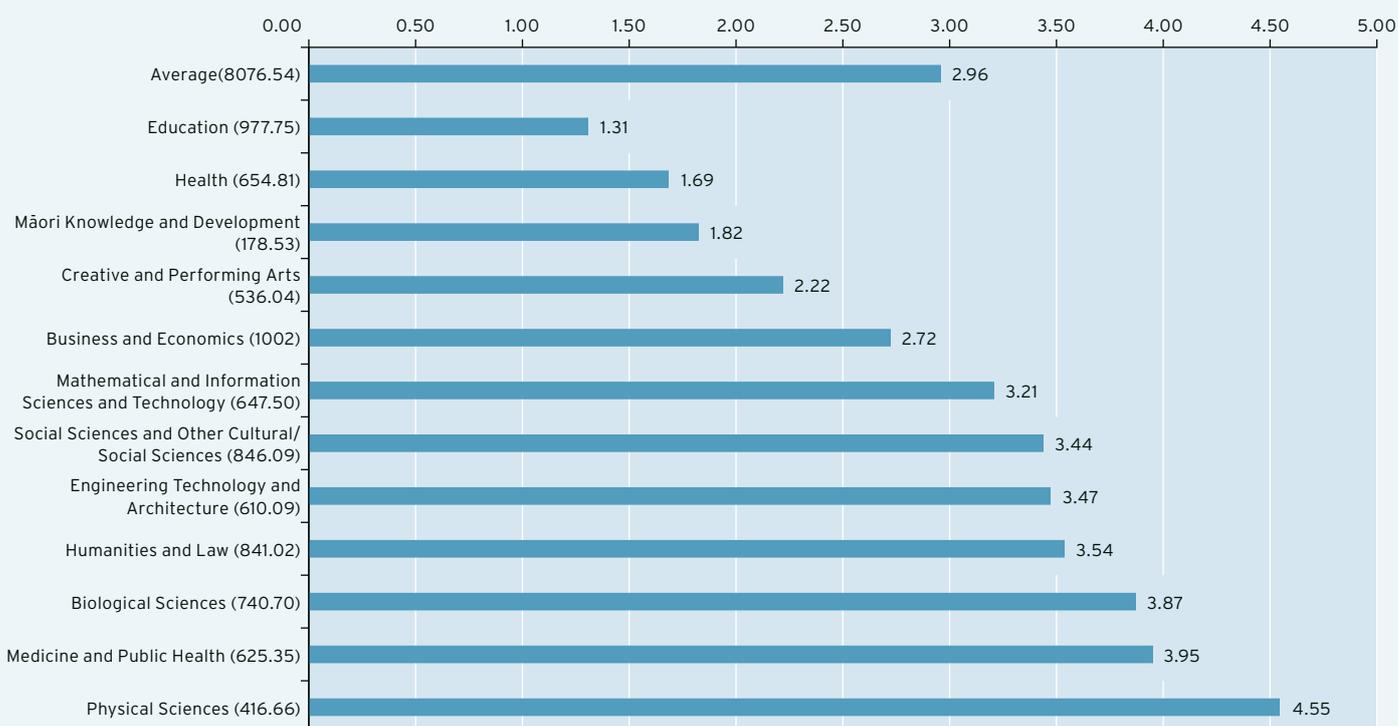
	Panel	Quality Score	Quality Score*	Staff rated A %	Staff rated A* %	No of A's	No of A's*	Staff rated B %	Staff rated B* %	No of B's	No of B's*	Staff rated C %	Staff rated C* %	No of C's
1	Biological Sciences	3.84	3.87	9.03%	9.23%	70	68.39	35.74%	35.83%	277	265.42	28.77%	28.94%	223
2	Business and Economics	2.70	2.72	5.11%	5.06%	53	50.75	24.18%	24.45%	251	244.99	25.92%	26.11%	269
3	Creative and Performing Arts	2.20	2.22	3.47%	3.51%	21	18.85	18.15%	18.17%	110	97.63	25.74%	26.54%	156
4	Education	1.27	1.31	2.65%	2.64%	28	25.86	9.46%	9.90%	100	96.77	18.07%	18.38%	191
5	Engineering Technology and Architecture	3.44	3.47	10.53%	10.55%	67	64.35	27.67%	28.17%	176	171.87	26.89%	26.86%	171
6	Health	1.66	1.69	3.72%	3.76%	27	24.62	12.26%	12.55%	89	82.15	21.21%	21.71%	154
7	Humanities and Law	3.48	3.54	9.12%	9.32%	81	78.40	31.64%	32.29%	281	271.55	22.75%	23.02%	202
8	Māori Knowledge and Development	1.79	1.82	2.09%	2.13%	4	3.80	17.80%	18.14%	34	32.38	18.32%	18.65%	35
9	Mathematical and Information Sciences and Technology	3.20	3.21	8.92%	8.73%	60	56.55	26.15%	26.55%	176	171.90	26.75%	27.01%	180
10	Medicine and Public Health	3.73	3.95	9.97%	11.37%	74	71.08	32.48%	34.28%	241	214.35	30.05%	28.51%	223
11	Physical Sciences	4.59	4.55	13.65%	12.94%	61	53.90	41.83%	42.15%	187	175.61	22.15%	22.29%	99
12	Social Sciences and Other Cultural/Social Sciences	3.35	3.44	9.42%	9.83%	84	83.20	27.58%	28.24%	246	238.93	26.46%	26.68%	236
	Averages & totals	2.91	2.96	7.27%	7.42%	630	599.75	25.00%	25.55%	2168	2063.55	24.67%	24.80%	2139

* Weighted on a FTE basis

Figure A-2: Panel Ranking – All Panels

Numbers alongside bars indicate FTE-weighted quality scores

Numbers in parentheses indicate total number of PBRF-eligible FTE-weighted staff



No of C's*	Staff rated C(NE) %	Staff rated C(NE)* %	No of C(NE)'s	No of C(NE)'s*	Staff rated R %	Staff rated R* %	No of R's	No of R's*	Staff rated R(NE) %	Staff rated R(NE)* %	No of R(NE)'s	No of R(NE)'s*	No of eligible staff	No of eligible staff*	No of Evidence Portfolios Assessed
214.36	10.84%	10.86%	84	80.45	9.55%	9.01%	74	66.73	6.06%	6.12%	47	45.35	775	740.70	434
261.65	10.79%	11.05%	112	110.70	23.89%	23.56%	248	236.07	10.12%	9.76%	105	97.84	1038	1002.00	585
142.63	12.38%	12.47%	75	67.00	24.75%	24.26%	150	130.37	15.51%	15.06%	94	80.96	606	537.44	353
179.72	3.97%	4.05%	42	39.63	42.01%	42.19%	444	412.49	23.84%	22.84%	252	223.28	1057	977.75	419
163.86	9.59%	9.47%	61	57.80	19.03%	18.74%	121	114.35	6.29%	6.21%	40	37.86	636	610.09	307
142.17	6.34%	6.55%	46	42.88	40.50%	40.10%	294	262.60	15.98%	15.33%	116	100.39	726	654.81	348
193.61	10.70%	10.75%	95	90.39	17.68%	16.99%	157	142.92	8.11%	7.63%	72	64.15	888	841.02	512
33.30	7.33%	7.44%	14	13.28	25.13%	25.65%	48	45.80	29.32%	27.99%	56	49.97	191	178.53	89
174.88	10.25%	10.32%	69	66.83	22.14%	21.60%	149	139.89	5.79%	5.78%	39	37.45	673	647.50	342
178.31	9.30%	9.52%	69	59.55	13.34%	11.42%	99	71.42	4.85%	4.90%	36	30.64	742	625.35	434
92.88	13.42%	14.11%	60	58.81	7.83%	7.44%	35	30.99	1.12%	1.07%	5	4.47	447	416.66	240
225.71	11.10%	11.31%	99	95.67	16.26%	15.36%	145	129.95	9.19%	8.58%	82	72.63	892	846.09	469
2003.08	9.53%	9.69%	826	782.99	22.65%	22.08%	1964	1783.58	10.89%	10.46%	944	845.00	8671	8077.94	4532

Table A-3: Subject-Area Results – All Subject Areas

	Subject Area	Quality Score	Quality Score*	Staff rated A %	Staff rated A* %	No of A's	No of A's*	Staff rated B %	Staff rated B* %	No of B's	No of B's*	Staff rated C %	Staff rated C* %	No of C's
1	Accounting and Finance	2.10	2.15	4.69%	4.80%	12	12.00	16.80%	17.20%	43	43.00	22.27%	22.57%	57
2	Agriculture and Other Applied Biological Sciences	3.20	3.23	5.26%	5.58%	10	10.00	30.53%	30.32%	58	54.33	35.26%	35.62%	67
3	Anthropology and Archaeology	4.29	4.35	10.39%	10.63%	8	8.00	41.56%	42.53%	32	32.00	28.57%	28.10%	22
4	Architecture, Design, Planning, Surveying	2.65	2.68	4.49%	4.58%	8	7.50	24.72%	25.19%	44	41.27	28.65%	29.24%	51
5	Biomedical	4.62	4.65	15.16%	16.07%	37	35.60	39.75%	38.67%	97	85.67	22.95%	23.09%	56
6	Chemistry	4.39	4.31	15.14%	14.12%	28	24.45	35.68%	35.75%	66	61.90	26.49%	26.91%	49
7	Clinical Medicine	3.26	3.58	6.62%	8.07%	20	19.14	31.46%	35.11%	95	83.25	30.13%	27.59%	91
8	Communications, Journalism and Media Studies	1.94	1.99	0.72%	0.75%	1	1.00	19.57%	20.24%	27	26.82	24.64%	24.24%	34
9	Computer Science, Information Technology, Information Sciences	2.72	2.75	5.45%	5.45%	24	23.20	23.86%	24.26%	105	103.20	26.59%	27.04%	117
10	Dentistry	3.85	3.80	17.95%	17.24%	7	6.25	17.95%	18.76%	7	6.80	41.03%	40.55%	16
11	Design	1.23	1.27	1.14%	1.21%	1	1.00	7.95%	8.48%	7	7.00	22.73%	22.17%	20
12	Earth Sciences	4.79	4.77	11.33%	11.06%	17	15.20	50.00%	50.00%	75	68.73	22.00%	21.96%	33
13	Ecology, Evolution and Behaviour	4.53	4.55	14.35%	14.42%	30	28.89	37.80%	37.94%	79	76.00	26.32%	27.07%	55
14	Economics	3.78	3.76	7.02%	6.87%	12	11.38	38.60%	38.32%	66	63.52	22.22%	22.51%	38
15	Education	1.27	1.31	2.65%	2.64%	28	25.86	9.46%	9.90%	100	96.77	18.07%	18.38%	191
16	Engineering and Technology	3.75	3.76	12.88%	12.74%	59	56.85	28.82%	29.26%	132	130.60	26.20%	25.98%	120
17	English Language and Literature	3.48	3.54	9.17%	9.20%	11	10.50	28.33%	29.24%	34	33.37	27.50%	28.48%	33
18	Foreign Languages and Linguistics	2.54	2.60	6.73%	7.04%	14	14.00	18.75%	19.05%	39	37.88	25.00%	25.21%	52
19	History, History of Art, Classics and Curatorial Studies	4.10	4.15	8.46%	8.80%	17	17.00	40.80%	41.19%	82	79.55	26.37%	25.94%	53
20	Human Geography	4.35	4.36	13.04%	13.78%	9	9.00	36.23%	35.38%	25	23.10	24.64%	23.89%	17
21	Law	3.70	3.73	9.05%	8.91%	20	18.70	38.91%	39.52%	86	82.90	19.00%	18.96%	42
22	Management, Human Resources, Industrial Relations, International Business and Other Business	2.56	2.58	4.51%	4.31%	19	17.37	22.57%	23.07%	95	92.87	29.22%	29.58%	123
23	Māori Knowledge and Development	1.79	1.82	2.09%	2.13%	4	3.80	17.80%	18.14%	34	32.38	18.32%	18.65%	35
24	Marketing and Tourism	2.82	2.84	5.26%	5.44%	10	10.00	24.74%	24.83%	47	45.60	26.84%	26.57%	51
25	Molecular, Cellular and Whole Organism Biology	3.78	3.81	7.98%	8.17%	30	29.50	37.23%	37.40%	140	135.09	26.86%	26.66%	101
26	Music, Literary Arts and Other Arts	3.38	3.37	5.88%	5.74%	10	8.75	35.29%	34.90%	60	53.24	21.18%	22.55%	36
27	Nursing	0.48	0.49	0.37%	0.41%	1	1.00	2.58%	2.64%	7	6.40	11.44%	11.61%	31
28	Other Health Studies (including Rehabilitation Therapies)	1.98	2.04	4.27%	4.50%	9	8.30	16.11%	16.25%	34	29.95	22.75%	23.38%	48
29	Pharmacy	3.71	3.88	9.52%	10.15%	2	2.00	38.10%	40.61%	8	8.00	4.76%	5.08%	1
30	Philosophy	5.11	5.15	23.61%	23.86%	17	16.20	36.11%	36.24%	26	24.60	20.83%	21.51%	15
31	Physics	4.64	4.65	14.29%	13.44%	16	14.25	41.07%	42.41%	46	44.98	15.18%	15.18%	17
32	Political Science, International Relations and Public Policy	4.05	4.10	12.61%	12.84%	14	14.00	33.33%	33.76%	37	36.80	22.52%	22.11%	25
33	Psychology	4.06	4.17	16.94%	17.62%	42	41.70	28.23%	28.87%	70	68.31	21.77%	22.36%	54
34	Public Health	3.36	3.56	8.67%	9.80%	17	16.34	25.00%	27.25%	49	45.43	38.78%	37.03%	76
35	Pure and Applied Mathematics	4.37	4.40	18.52%	18.57%	25	24.10	31.11%	31.63%	42	41.05	20.74%	20.57%	28
36	Religious Studies and Theology	2.03	2.24	3.03%	3.49%	2	2.00	21.21%	23.14%	14	13.25	10.61%	11.35%	7
37	Sociology, Social Policy, Social Work, Criminology and Gender Studies	2.54	2.63	4.02%	4.18%	10	9.50	22.09%	22.82%	55	51.90	33.73%	35.11%	84
38	Sport and Exercise Science	1.73	1.71	0.91%	0.79%	1	0.80	13.64%	12.92%	15	13.10	26.36%	27.11%	29
39	Statistics	3.76	3.67	11.22%	10.01%	11	9.25	29.59%	29.93%	29	27.65	35.71%	35.92%	35
40	Theatre and Dance, Film, Television and Multimedia	1.73	1.82	3.16%	3.51%	3	3.00	11.58%	11.41%	11	9.74	21.05%	22.78%	20
41	Veterinary Studies and Large Animal Science	3.22	3.24	9.46%	8.92%	7	6.27	24.32%	25.46%	18	17.90	39.19%	39.40%	29
42	Visual Arts and Crafts	1.92	1.94	2.77%	2.81%	7	6.10	12.65%	12.74%	32	27.65	31.62%	32.48%	80
	Averages & totals	2.91	2.96	7.27%	7.42%	630	599.75	25.00%	25.55%	2168	2063.55	24.67%	24.80%	2139

* Weighted on a FTE basis

No of C's*	Staff rated C (NE) %	Staff rated C (NE)* %	No of C (NE)'s	No of C (NE)'s*	Staff rated R %	Staff rated R* %	No of R's	No of R's*	Staff rated R (NE) %	Staff rated R (NE)* %	No of R (NE)'s	No of R (NE)'s*	No of eligible staff	No of eligible staff*	No of Evidence Portfolios Assessed
56.42	8.98%	9.16%	23	22.90	34.38%	33.79%	88	84.46	12.89%	12.47%	33	31.16	256	249.94	139
63.83	6.84%	6.98%	13	12.50	14.21%	13.27%	27	23.78	7.89%	8.23%	15	14.75	190	179.19	108
21.14	9.09%	8.77%	7	6.60	6.49%	6.65%	5	5.00	3.90%	3.32%	3	2.50	77	75.24	53
47.90	7.30%	6.45%	13	10.56	25.28%	25.17%	45	41.23	9.55%	9.38%	17	15.36	178	163.82	73
51.15	13.11%	13.15%	32	29.14	6.56%	6.31%	16	13.97	2.46%	2.71%	6	6.00	244	221.53	179
46.59	10.27%	10.95%	19	18.96	10.81%	10.84%	20	18.77	1.62%	1.43%	3	2.47	185	173.14	94
65.43	5.30%	5.57%	16	13.20	20.86%	17.82%	63	42.25	5.63%	5.84%	17	13.84	302	237.11	141
32.12	10.14%	10.57%	14	14.00	34.06%	33.06%	47	43.80	10.87%	11.13%	15	14.75	138	132.49	62
115.00	10.45%	10.53%	46	44.77	26.36%	25.56%	116	108.70	7.27%	7.16%	32	30.45	440	425.32	222
14.70	7.69%	6.90%	3	2.50	10.26%	11.03%	4	4.00	5.13%	5.52%	2	2.00	39	36.25	22
18.30	9.09%	9.69%	8	8.00	29.55%	28.94%	26	23.89	29.55%	29.50%	26	24.35	88	82.54	51
30.19	10.67%	11.17%	16	15.35	4.67%	4.36%	7	6.00	1.33%	1.45%	2	2.00	150	137.47	78
54.22	14.83%	14.48%	31	29.01	4.31%	3.59%	9	7.20	2.39%	2.50%	5	5.00	209	200.32	135
37.32	15.79%	16.29%	27	27.00	12.87%	12.75%	22	21.14	3.51%	3.26%	6	5.40	171	165.76	106
179.72	3.97%	4.05%	42	39.63	42.01%	42.19%	444	412.49	23.84%	22.84%	252	223.28	1057	977.75	419
115.96	10.48%	10.59%	48	47.24	16.59%	16.38%	76	73.12	5.02%	5.04%	23	22.50	458	446.27	234
32.50	15.83%	14.88%	19	16.98	14.17%	13.64%	17	15.57	5.00%	4.56%	6	5.20	120	114.12	72
50.14	12.02%	12.19%	25	24.24	20.67%	20.69%	43	41.15	16.83%	15.81%	35	31.44	208	198.85	114
50.10	13.93%	13.92%	28	26.88	8.46%	8.34%	17	16.10	1.99%	1.81%	4	3.50	201	193.13	129
15.60	18.84%	19.30%	13	12.60	4.35%	4.59%	3	3.00	2.90%	3.06%	2	2.00	69	65.30	45
39.77	4.07%	4.29%	9	9.00	20.81%	20.59%	46	43.20	8.14%	7.73%	18	16.21	221	209.78	127
119.12	8.55%	8.84%	36	35.60	25.89%	25.28%	109	101.80	9.26%	8.91%	39	35.88	421	402.64	225
33.30	7.33%	7.44%	14	13.28	25.13%	25.65%	48	45.80	29.32%	27.99%	56	49.97	191	178.53	89
48.79	13.68%	13.72%	26	25.20	15.26%	15.61%	29	28.67	14.21%	13.83%	27	25.40	190	183.66	115
96.31	10.64%	10.78%	40	38.94	10.11%	9.90%	38	35.75	7.18%	7.09%	27	25.60	376	361.19	191
34.40	12.35%	12.42%	21	18.95	14.12%	14.33%	24	21.86	11.18%	10.05%	19	15.33	170	152.53	97
28.20	2.95%	2.80%	8	6.80	64.58%	64.40%	175	156.41	18.08%	18.14%	49	44.05	271	242.86	91
43.09	6.64%	7.26%	14	13.38	33.65%	33.72%	71	62.16	16.59%	14.89%	35	27.44	211	184.32	99
1.00	19.05%	16.24%	4	3.20	9.52%	7.61%	2	1.50	19.05%	20.30%	4	4.00	21	19.70	21
14.60	8.33%	7.79%	6	5.29	2.78%	2.50%	2	1.70	8.33%	8.10%	6	5.50	72	67.89	36
16.10	22.32%	23.10%	25	24.50	7.14%	5.87%	8	6.22	0.00%	0.00%	0	0.00	112	106.05	68
24.10	17.12%	17.44%	19	19.01	9.91%	9.45%	11	10.30	4.50%	4.40%	5	4.80	111	109.01	63
52.90	11.69%	11.61%	29	27.47	11.29%	10.14%	28	24.00	10.08%	9.40%	25	22.24	248	236.62	126
61.73	10.71%	10.32%	21	17.21	10.20%	9.12%	20	15.20	6.63%	6.48%	13	10.80	196	166.71	114
26.70	11.85%	11.60%	16	15.06	14.81%	14.55%	20	18.89	2.96%	3.08%	4	4.00	135	129.80	66
6.50	12.12%	13.97%	8	8.00	48.48%	44.02%	32	25.20	4.55%	4.02%	3	2.30	66	57.25	34
79.85	6.83%	7.03%	17	15.99	20.48%	19.28%	51	43.85	12.85%	11.58%	32	26.34	249	227.43	120
27.48	14.55%	15.78%	16	16.00	25.45%	25.74%	28	26.10	19.09%	17.66%	21	17.90	110	101.38	65
33.18	7.14%	7.58%	7	7.00	13.27%	13.31%	13	12.30	3.06%	3.25%	3	3.00	98	92.38	54
19.45	14.74%	16.40%	14	14.00	24.21%	22.55%	23	19.25	25.26%	23.35%	24	19.93	95	85.37	47
27.70	1.35%	1.42%	1	1.00	18.92%	17.68%	14	12.43	6.76%	7.11%	5	5.00	74	70.30	50
70.48	12.65%	12.00%	32	26.05	30.43%	30.12%	77	65.37	9.88%	9.84%	25	21.35	253	217.00	158
2003.08	9.53%	9.69%	826	782.99	22.65%	22.08%	1964	1783.58	10.89%	10.46%	944	845.00	8671	8077.94	4532

Figure A-3: Subject-Area Ranking – All Subject Areas

Numbers above bars indicate FTE-weighted quality scores

Numbers in parentheses indicate total number of PBRF-eligible FTE-weighted staff

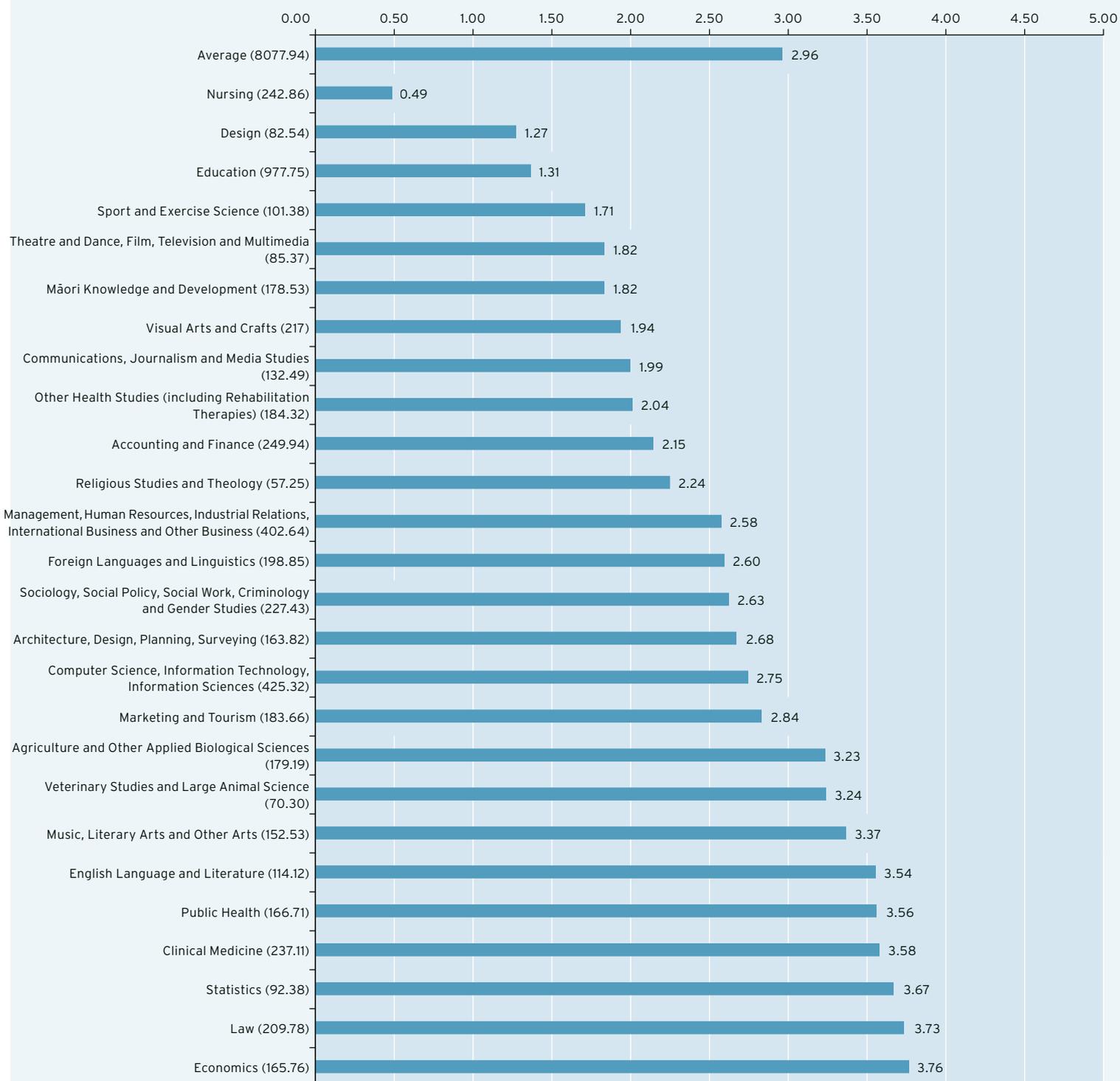


Figure A-3: Subject-Area Ranking – All Subject Areas – continued

Numbers above bars indicate FTE-weighted quality scores

Numbers in parentheses indicate total number of PBRF-eligible FTE-weighted staff

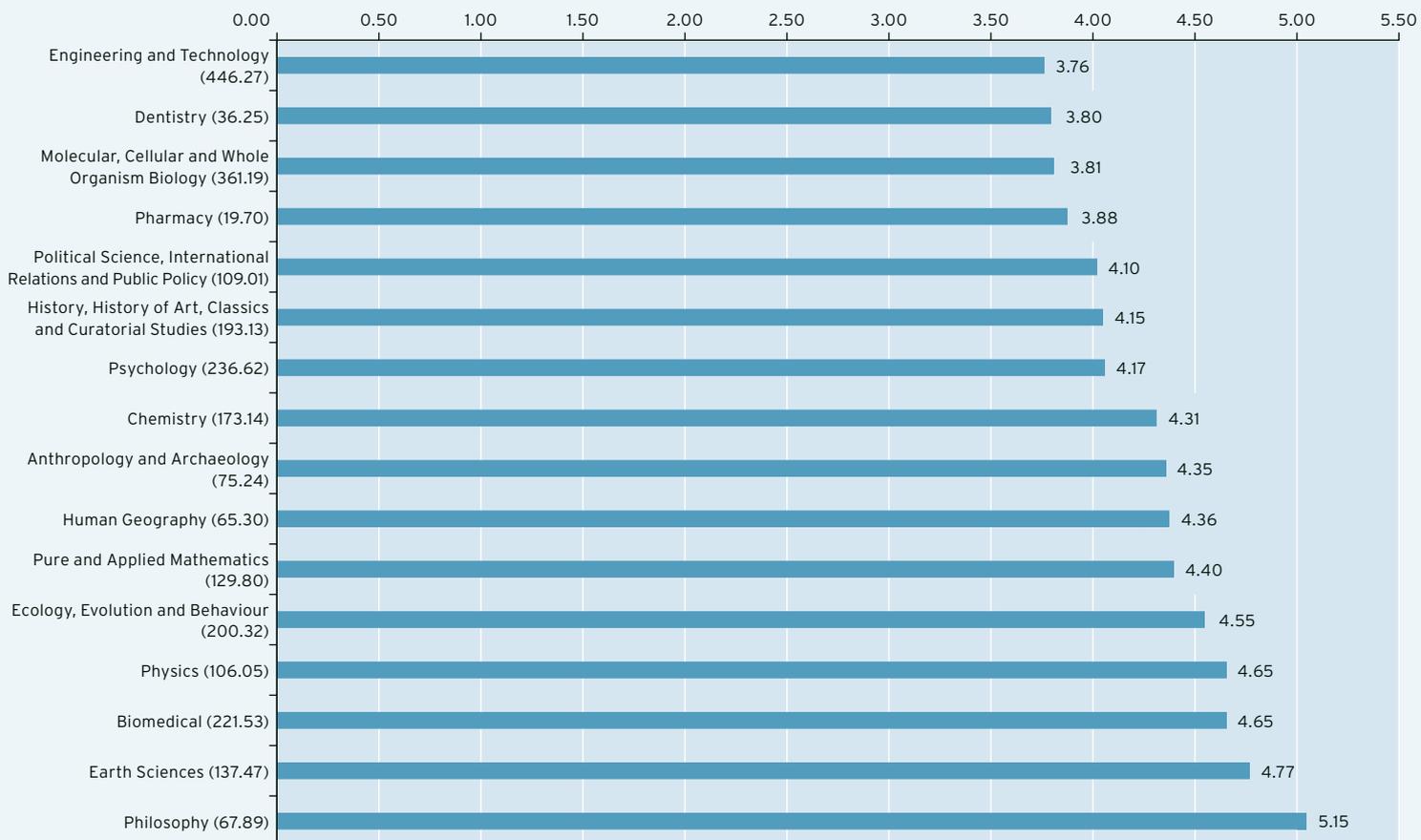


Table A-4: Subject-Area Results – Accounting and Finance

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Auckland University of Technology	3.4	6.3%	1.00	31.3%	5.00	43.8%	7.00	18.8%	3.00	16.00
2 Lincoln University	0.8	0.0%	0.00	0.0%	0.00	40.6%	4.00	59.4%	5.86	9.86
3 Massey University	2.6	9.5%	5.00	11.4%	6.00	49.4%	25.92	29.6%	15.50	52.42
4 Open Polytechnic of New Zealand	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	11.00	11.00
5 Unitec New Zealand	0.4	0.0%	0.00	5.0%	1.00	5.0%	1.00	90.1%	18.11	20.11
6 University of Auckland	3.3	11.0%	3.00	29.3%	8.00	20.1%	5.50	39.6%	10.80	27.30
7 University of Canterbury	2.5	4.5%	1.00	17.9%	4.00	49.2%	11.00	28.4%	6.35	22.35
8 University of Otago	1.7	4.8%	1.00	9.6%	2.00	33.7%	7.00	51.8%	10.75	20.75
9 University of Waikato	3.5	0.0%	0.00	45.2%	9.00	39.7%	7.90	15.1%	3.00	19.90
10 Victoria University of Wellington	2.8	3.8%	1.00	30.8%	8.00	26.9%	7.00	38.5%	10.00	26.00
11 Waikato Institute of Technology	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	6.80	6.80
Other#	0.3	0.0%	0.00	0.0%	0.00	17.2%	3.00	82.8%	14.45	17.45
Averages & totals	2.15	4.8%	12.00	17.2%	43.00	31.7%	79.32	46.3%	115.62	249.94

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-4: TEO Ranking by Subject Area – Accounting and Finance

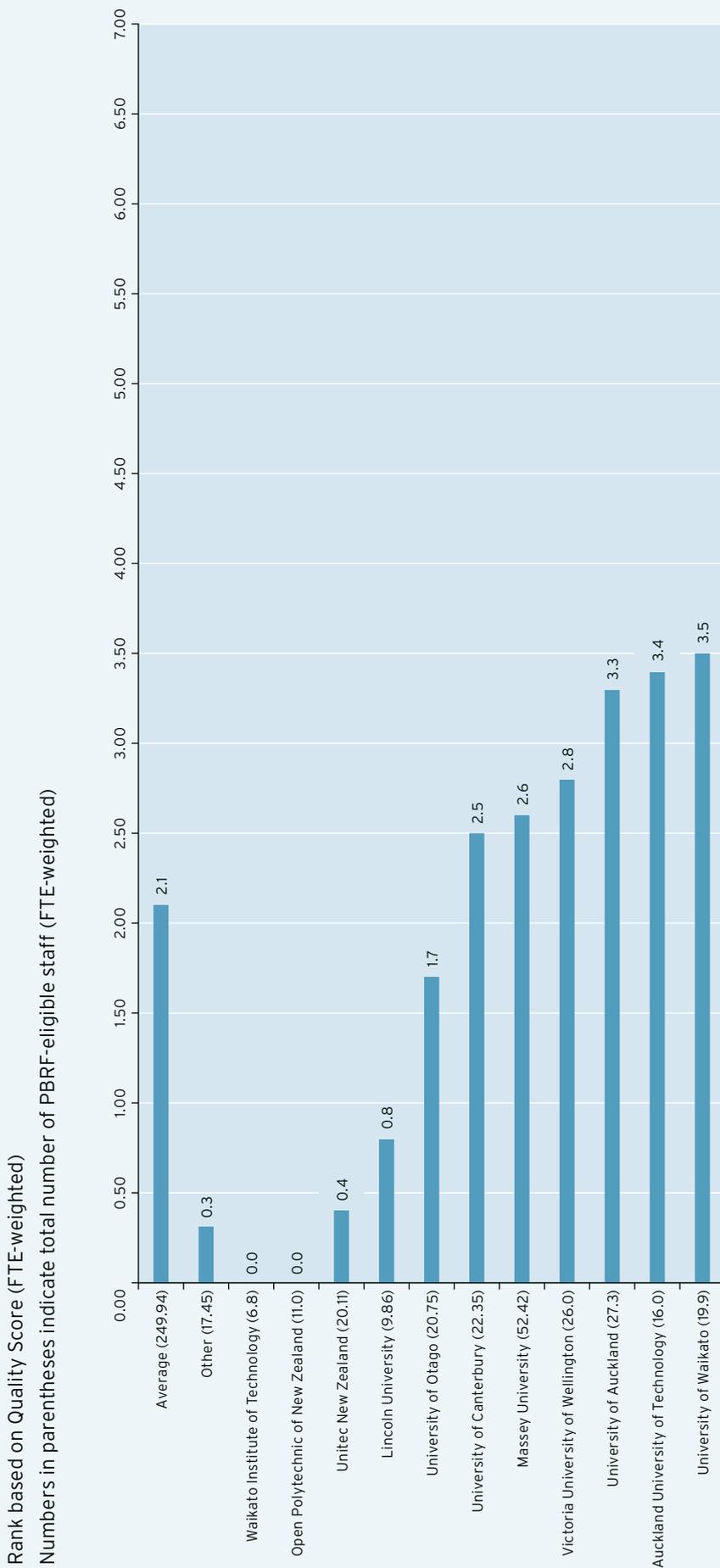


Table A-5: Subject-Area Results – Agriculture and Other Applied Biological Sciences

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Lincoln University	3.3	5.9%	4.00	30.8%	20.72	42.7%	28.76	20.5%	13.83	67.31
2 Massey University	3.8	8.0%	5.00	32.4%	20.31	53.3%	33.45	6.4%	4.00	62.76
3 Otago Polytechnic	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	5.55	5.55
4 Unitec New Zealand	1.0	0.0%	0.00	9.5%	0.50	19.0%	1.00	71.4%	3.75	5.25
5 University of Canterbury	3.8	14.8%	1.00	14.8%	1.00	70.4%	4.75	0.0%	0.00	6.75
6 University of Otago	4.3	0.0%	0.00	66.7%	8.00	16.7%	2.00	16.7%	2.00	12.00
Other [#]	1.8	0.0%	0.00	19.4%	3.80	32.5%	6.37	48.0%	9.40	19.57
Averages & totals	3.23	5.6%	10.00	30.3%	54.33	42.6%	76.33	21.5%	38.53	179.19

* Weighted on a FTE basis

[#] Includes all TEOs with fewer than 5 FTE

Figure A-5: TEO Ranking by Subject Area – Agriculture and Other Applied Biological Sciences

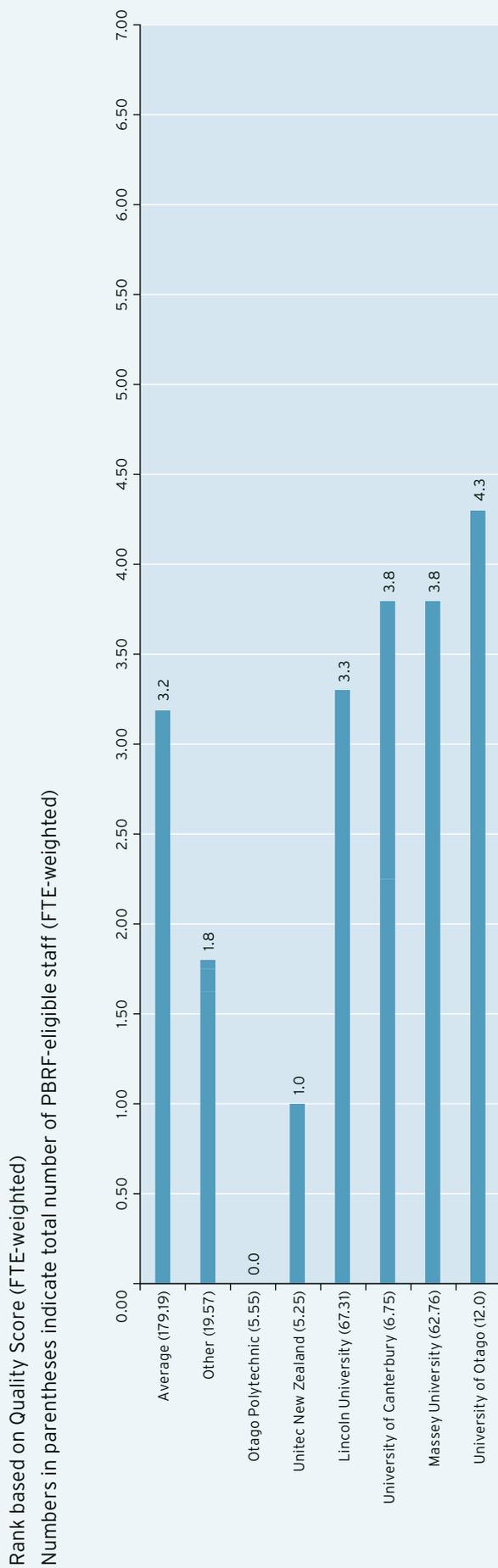


Table A-6: Subject-Area Results – Anthropology and Archaeology

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Massey University	3.3	0.0%	0.00	36.4%	4.00	54.5%	6.00	9.1%	1.00	11.00
2 University of Auckland	5.6	20.5%	5.00	49.3%	12.00	28.1%	6.84	2.1%	0.50	24.34
3 University of Canterbury	3.5	12.5%	1.00	25.0%	2.00	37.5%	3.00	25.0%	2.00	8.00
4 University of Otago	4.3	12.7%	2.00	38.0%	6.00	36.7%	5.80	12.7%	2.00	15.80
5 University of Waikato	4.5	0.0%	0.00	61.5%	4.00	38.5%	2.50	0.0%	0.00	6.50
6 Victoria University of Wellington	3.2	0.0%	0.00	40.0%	2.00	40.0%	2.00	20.0%	1.00	5.00
Other [#]	3.3	0.0%	0.00	43.5%	2.00	34.8%	1.60	21.7%	1.00	4.60
Averages & totals	4.35	10.6%	8.00	42.5%	32.00	36.9%	27.74	10.0%	7.50	75.24

* Weighted on a FTE basis

[#] Includes all TEOs with fewer than 5 FTE

Figure A-6: TEO Ranking by Subject Area – Anthropology and Archaeology

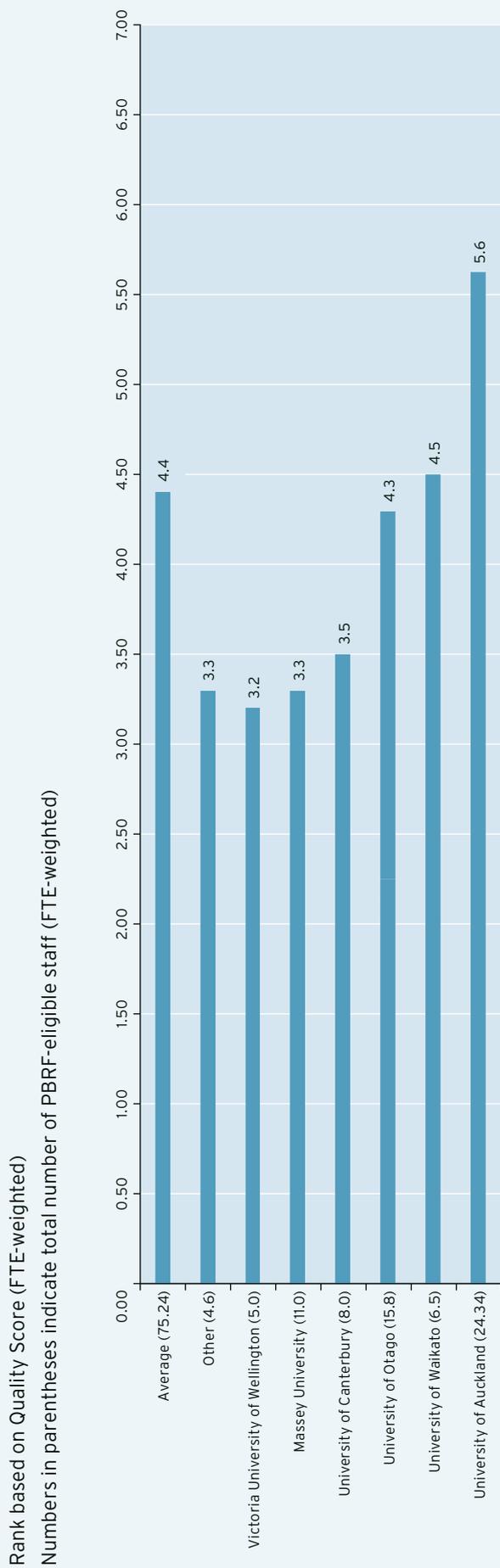


Table A-7: Subject-Area Results – Architecture, Design, Planning, Surveying

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Christchurch Polytechnic Institute of Technology	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	5.70	5.70
2 Lincoln University	4.6	14.3%	2.00	42.9%	6.00	28.6%	4.00	14.3%	2.00	14.00
3 Massey University	1.4	4.7%	1.00	4.7%	1.00	30.5%	6.50	60.2%	12.83	21.33
4 Unitec New Zealand	1.1	0.0%	0.00	6.1%	2.50	36.5%	14.86	57.3%	23.30	40.66
5 University of Auckland	4.5	10.2%	2.50	47.1%	11.57	32.6%	8.00	10.2%	2.50	24.57
6 University of Otago	3.5	5.9%	1.00	35.3%	6.00	41.2%	7.00	17.6%	3.00	17.00
7 Victoria University of Wellington	3.6	3.0%	1.00	40.1%	13.20	45.9%	15.10	10.9%	3.60	32.90
Other#	1.6	0.0%	0.00	13.1%	1.00	39.2%	3.00	47.8%	3.66	7.66
Averages & totals	2.68	4.6%	7.50	25.2%	41.27	35.7%	58.46	34.5%	56.59	163.82

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-7: TEO Ranking by Subject Area – Architecture, Design, Planning, Surveying

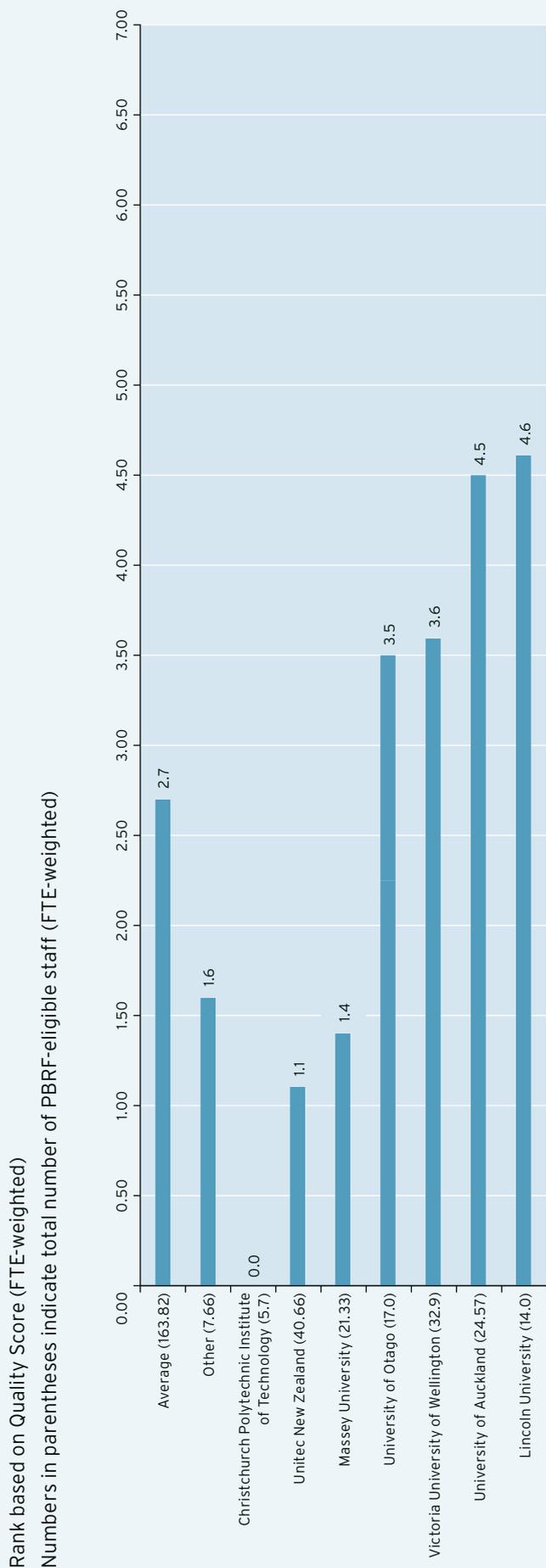


Table A-8: Subject-Area Results – Biomedical

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 University of Auckland	4.8	18.7%	22.30	35.0%	41.70	40.2%	47.85	6.0%	7.17	119.02
2 University of Otago	5.1	15.3%	12.30	48.5%	38.97	30.9%	24.80	5.4%	4.30	80.37
3 Victoria University of Wellington	5.1	14.3%	1.00	57.1%	4.00	14.3%	1.00	14.3%	1.00	7.00
Other#	1.3	0.0%	0.00	6.6%	1.00	43.9%	6.64	49.5%	7.50	15.14
Averages & totals	4.65	16.1%	35.60	38.7%	85.67	36.2%	80.29	9.0%	19.97	221.53

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-8: TEO Ranking by Subject Area – Biomedical

Rank based on Quality Score (FTE-weighted)

Numbers in parentheses indicate total number of PBRF-eligible staff (FTE-weighted)

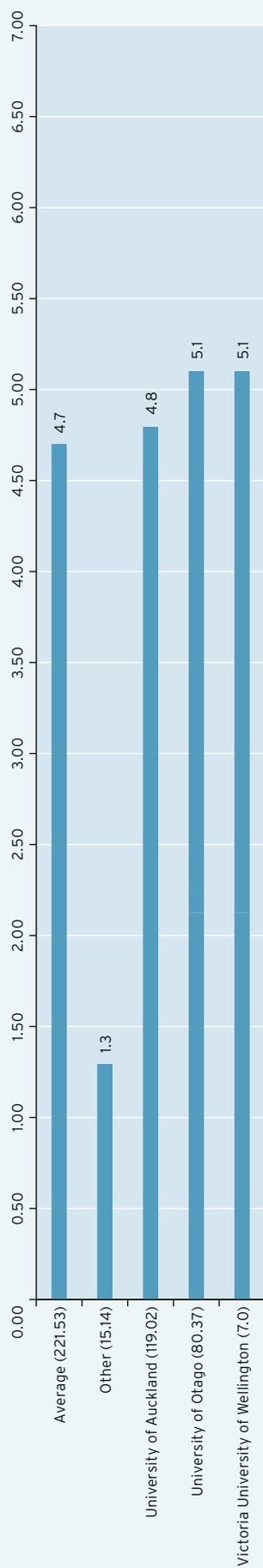


Table A-9: Subject-Area Results – Chemistry

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*	No of eligible staff*
1 Massey University	4.3	13.9%	3.20	33.1%	7.62	48.7%	11.21	4.3%	1.00	23.03
2 University of Auckland	3.4	7.7%	5.25	30.0%	20.48	43.0%	29.34	19.3%	13.17	68.24
3 University of Canterbury	5.3	23.6%	6.00	35.3%	9.00	39.3%	10.00	1.8%	0.47	25.47
4 University of Otago	5.3	21.0%	6.00	44.8%	12.80	24.5%	7.00	9.8%	2.80	28.60
5 University of Waikato	5.8	18.2%	2.00	63.6%	7.00	9.1%	1.00	9.1%	1.00	11.00
6 Victoria University of Wellington	4.3	15.4%	2.00	30.8%	4.00	46.2%	6.00	7.7%	1.00	13.00
Other [#]	2.1	0.0%	0.00	26.3%	1.00	26.3%	1.00	47.4%	1.80	3.80
Averages & totals	4.31	14.1%	24.45	35.8%	61.90	37.9%	65.55	12.3%	21.24	173.14

* Weighted on a FTE basis

[#] Includes all TEOs with fewer than 5 FTE

Figure A-9: TEO Ranking by Subject Area – Chemistry

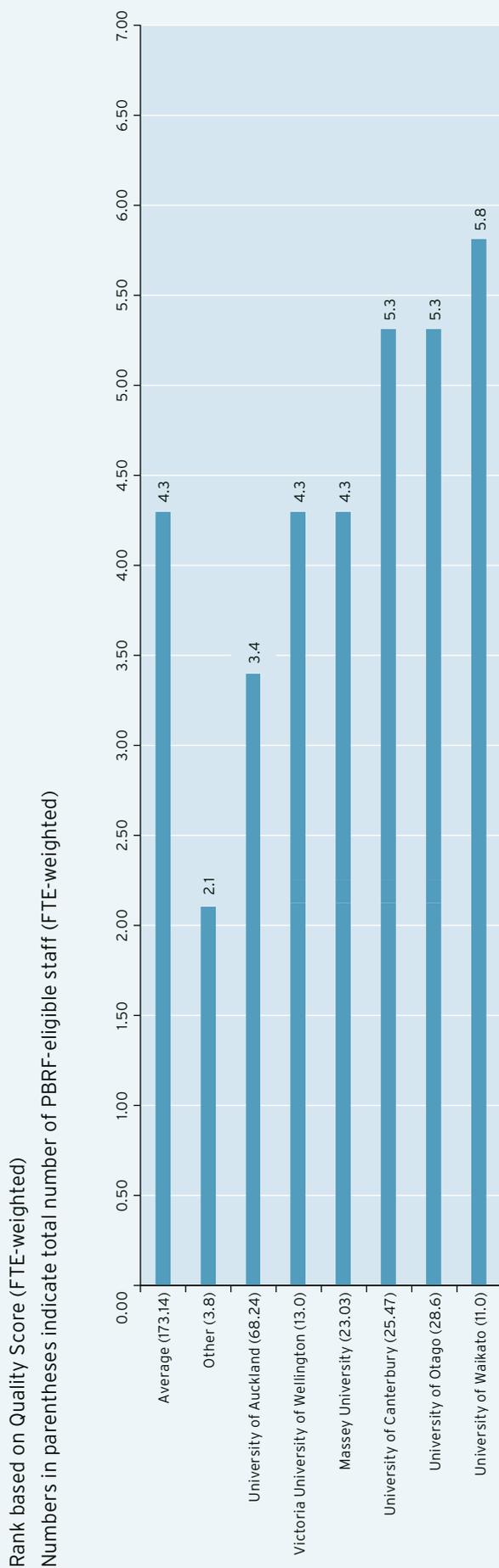


Table A-10: Subject-Area Results – Clinical Medicine

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*	No of eligible staff*
1 Massey University	0.1	0.0%	0.00	0.0%	0.00	7.3%	1.20	92.7%	15.22	16.42
2 University of Auckland	3.7	9.5%	8.64	32.6%	29.70	39.0%	35.50	18.9%	17.21	91.05
3 University of Otago	4.0	7.9%	9.50	43.5%	52.55	32.6%	39.33	16.0%	19.36	120.74
Other#	2.4	11.2%	1.00	11.2%	1.00	29.2%	2.60	48.3%	4.30	8.90
Averages & totals	3.58	8.1%	19.14	35.1%	83.25	33.2%	78.63	23.7%	56.09	237.11

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-10: TEO Ranking by Subject Area – Clinical Medicine

Rank based on Quality Score (FTE-weighted)

Numbers in parentheses indicate total number of PBRF-eligible staff (FTE-weighted)

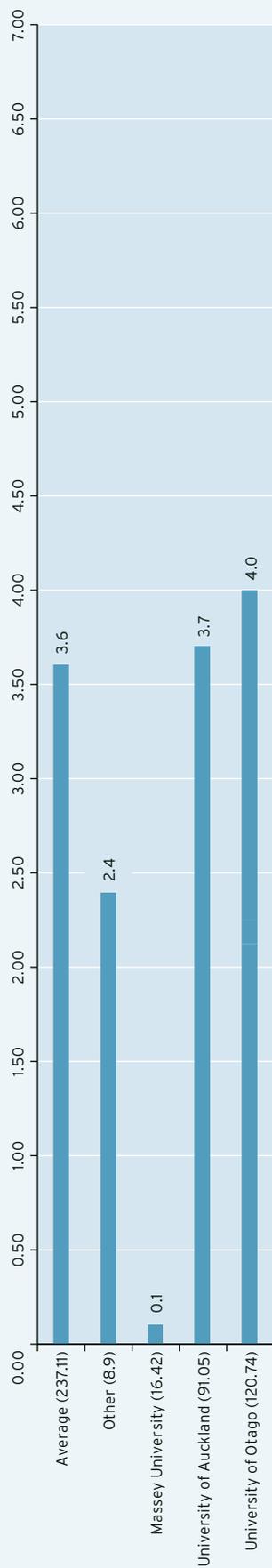


Table A-11: Subject-Area Results – Communications, Journalism and Media Studies

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*	No of eligible staff*
1 Auckland University of Technology	0.8	0.0%	0.00	4.8%	1.00	23.9%	5.00	71.3%	14.90	20.90
2 Christchurch Polytechnic Institute of Technology	1.6	0.0%	0.00	19.2%	2.00	23.1%	2.40	57.7%	6.00	10.40
3 Manukau Institute of Technology	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	9.50	9.50
4 Massey University	1.8	0.0%	0.00	7.7%	1.00	69.1%	8.95	23.2%	3.00	12.95
5 Unitec New Zealand	2.3	0.0%	0.00	28.6%	2.00	28.6%	2.00	42.9%	3.00	7.00
6 University of Auckland	3.6	0.0%	0.00	45.5%	5.00	45.5%	5.00	9.1%	1.00	11.00
7 University of Canterbury	2.6	0.0%	0.00	28.6%	3.00	42.9%	4.50	28.6%	3.00	10.50
8 University of Otago	1.9	0.0%	0.00	9.8%	1.00	63.2%	6.45	27.0%	2.75	10.20
9 University of Waikato	4.1	7.3%	1.00	42.7%	5.82	42.7%	5.82	7.3%	1.00	13.64
10 Victoria University of Wellington	3.5	0.0%	0.00	46.2%	6.00	38.5%	5.00	15.4%	2.00	13.00
11 Waikato Institute of Technology	0.2	0.0%	0.00	0.0%	0.00	11.4%	1.00	88.6%	7.80	8.80
Other#	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	4.60	4.60
Averages & totals	1.99	0.8%	1.00	20.2%	26.82	34.8%	46.12	44.2%	58.55	132.49

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-11: TEO Ranking by Subject Area – Communications, Journalism and Media Studies

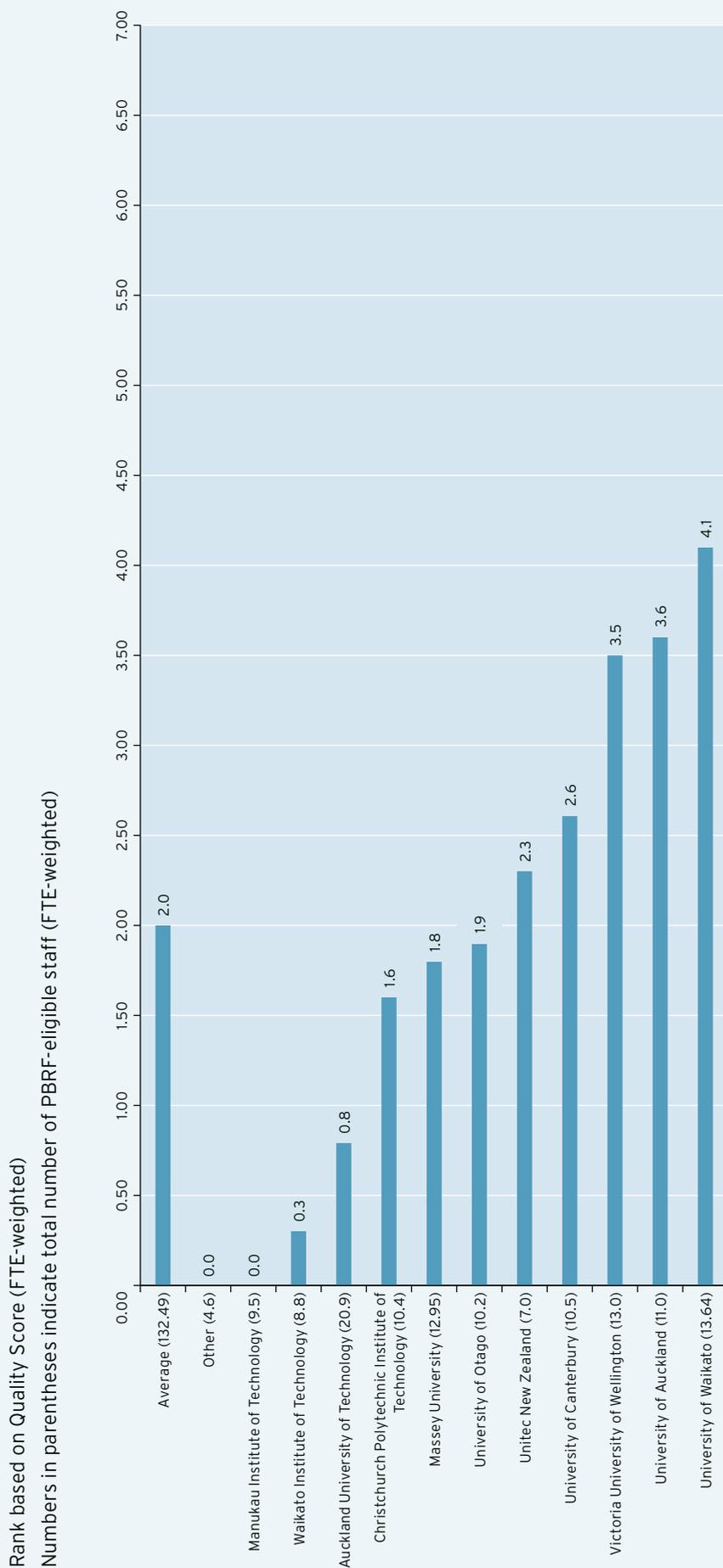


Table A-12: Subject-Area Results – Computer Science, Information Technology, Information Sciences

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*	No of eligible staff*
1 Auckland University of Technology	3.1	7.1%	2.00	28.6%	8.00	35.7%	10.00	28.6%	8.00	28.00
2 Christchurch Polytechnic Institute of Technology	0.4	0.0%	0.00	0.0%	0.00	18.9%	3.00	81.1%	12.86	15.86
3 Eastern Institute of Technology	0.8	0.0%	0.00	0.0%	0.00	38.5%	4.00	61.5%	6.40	10.40
4 Lincoln University	2.9	0.0%	0.00	27.9%	3.00	62.8%	6.75	9.3%	1.00	10.75
5 Manukau Institute of Technology	0.1	0.0%	0.00	0.0%	0.00	4.1%	1.00	95.9%	23.40	24.40
6 Massey University	3.5	1.8%	1.00	38.5%	21.60	52.6%	29.47	7.1%	4.00	56.07
7 Nelson Marlborough Institute of Technology	0.2	0.0%	0.00	0.0%	0.00	11.9%	1.00	88.1%	7.38	8.38
8 Northland Polytechnic	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	7.00	7.00
9 Open Polytechnic of New Zealand	0.5	0.0%	0.00	0.0%	0.00	26.5%	3.50	73.5%	9.70	13.20
10 Otago Polytechnic	0.7	0.0%	0.00	0.0%	0.00	36.4%	4.00	63.6%	7.00	11.00
11 Unitec New Zealand	1.5	0.0%	0.00	10.5%	3.00	45.5%	13.00	44.1%	12.60	28.60
12 University of Auckland	4.2	12.7%	8.00	35.8%	22.6	41.7%	26.35	9.9%	6.25	63.20
13 University of Canterbury	4.1	11.8%	2.00	29.4%	5.00	58.8%	10.00	0.0%	0.00	17.00
14 University of Otago	3.6	10.9%	4.00	27.3%	10.00	43.7%	16.00	18.1%	6.61	36.61
15 University of Waikato	4.9	12.7%	3.20	47.6%	12.00	39.7%	10.00	0.0%	0.00	25.20
16 Victoria University of Wellington	3.9	6.9%	3.00	38.9%	17.00	45.1%	19.70	9.2%	4.00	43.70
17 Waikato Institute of Technology	0.2	0.0%	0.00	0.0%	0.00	12.3%	2.00	87.7%	14.20	16.20
Other#	0.6	0.0%	0.00	10.3%	1.00	0.0%	0.00	89.7%	8.75	9.75
Averages & totals	2.75	5.5%	23.20	24.3%	103.20	37.6%	159.77	32.7%	139.15	425.32

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-12: TEO Ranking by Subject Area – Computer Science, Information Technology, Information Sciences

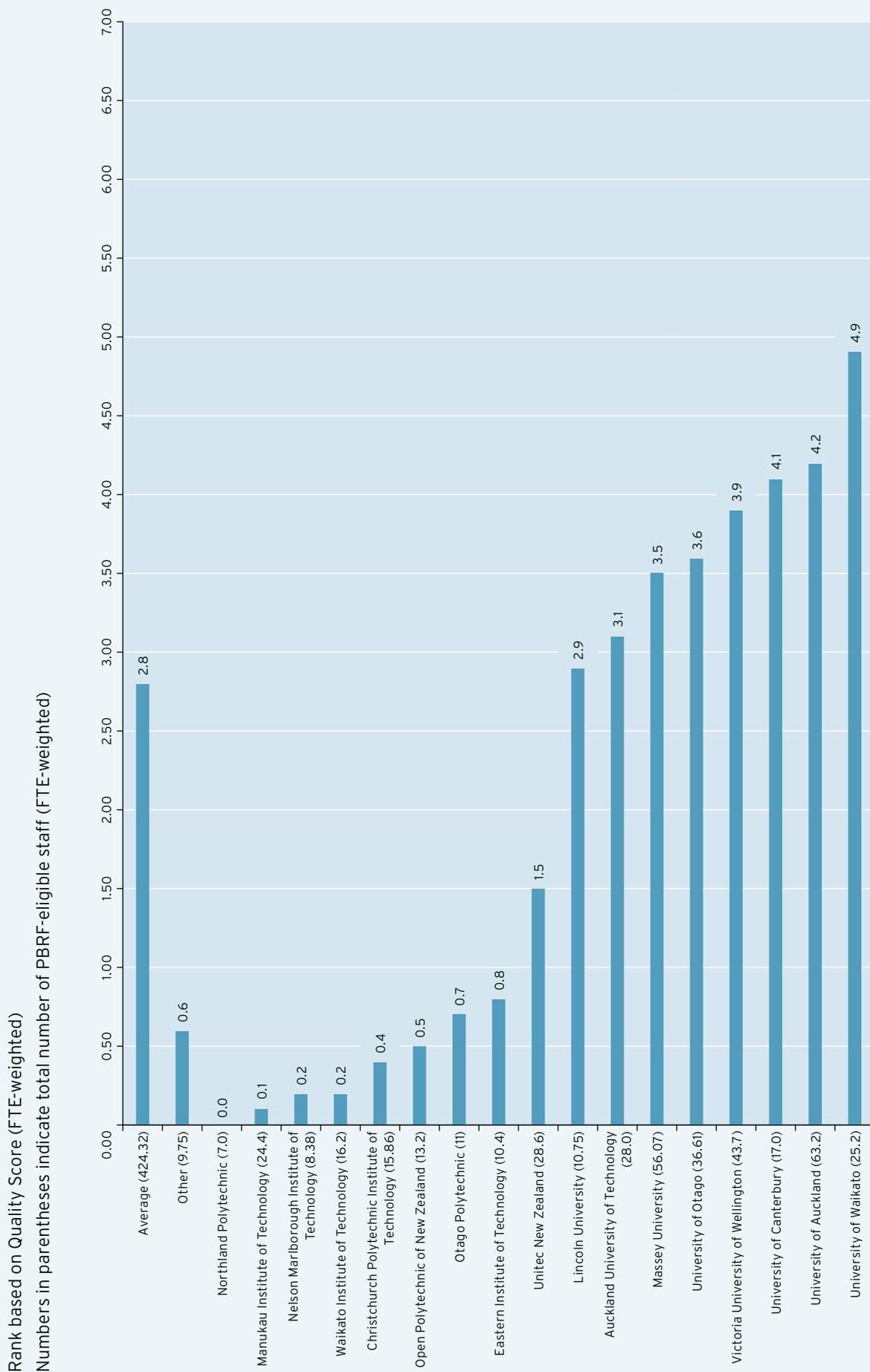


Table A-13: Subject-Area Results – Dentistry

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 University of Otago	3.8	17.3%	6.25	18.9%	6.80	47.2%	17.00	16.6%	6.00	36.05
Other#	2.0	0.0%	0.00	0.0%	0.00	100.0%	0.20	0.0%	0.00	0.20
Averages & totals	3.80	17.2%	6.25	18.8%	6.80	47.4%	17.20	16.6%	6.00	36.25

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-13: TEO Ranking by Subject Area – Dentistry

Rank based on Quality Score (FTE-weighted)

Numbers in parentheses indicate total number of PBRF-eligible staff (FTE-weighted)

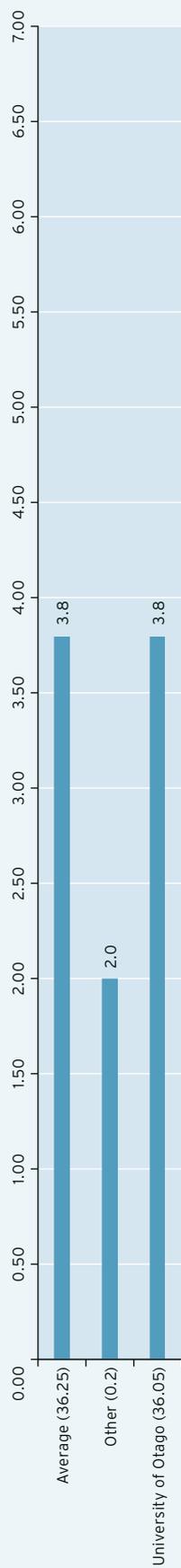


Table A-14: Subject-Area Results – Design

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Auckland University of Technology	1.6	0.0%	0.00	18.2%	2.00	27.3%	3.00	54.5%	6.00	11.00
2 Massey University	2.3	4.5%	1.00	18.2%	4.00	36.4%	8.00	40.9%	9.00	22.00
3 Otago Polytechnic	0.3	0.0%	0.00	0.0%	0.00	15.8%	2.40	84.2%	12.81	15.21
4 Unitec New Zealand	0.6	0.0%	0.00	0.0%	0.00	29.4%	3.40	70.6%	8.18	11.58
5 Victoria University of Wellington	2.0	0.0%	0.00	13.3%	1.00	60.0%	4.50	26.7%	2.00	7.50
Other#	0.7	0.0%	0.00	0.0%	0.00	32.8%	5.00	67.2%	10.25	15.25
Averages & totals	1.27	1.2%	1.00	8.5%	7.00	31.9%	26.3	58.4%	48.24	82.54

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-14: TEO Ranking by Subject Area – Design

Rank based on Quality Score (FTE-weighted)
 Numbers in parentheses indicate total number of PBRF-eligible staff (FTE-weighted)

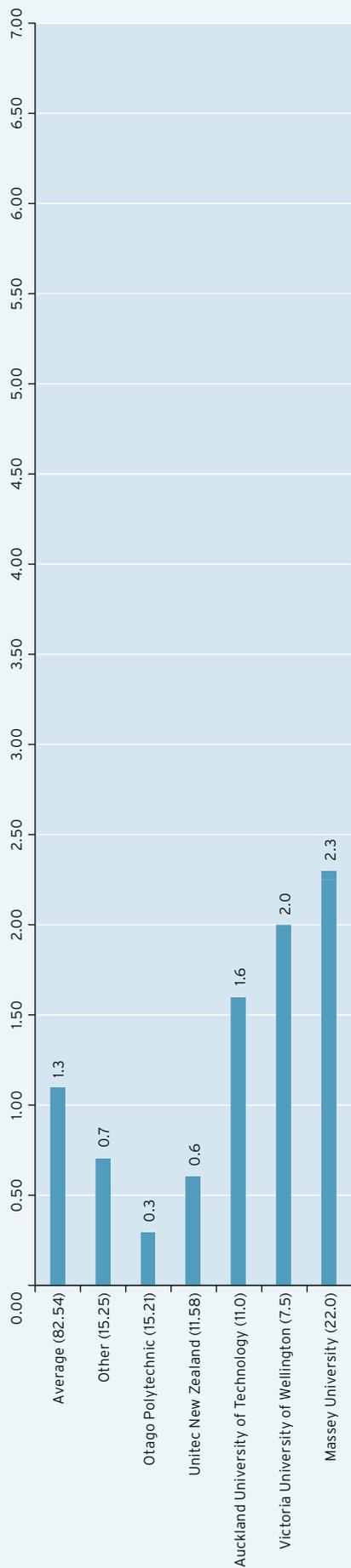


Table A-15: Subject-Area Results – Earth Sciences

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Lincoln University	3.0	12.5%	1.00	0.0%	0.00	87.5%	7.00	0.0%	0.00	8.00
2 Massey University	4.7	6.4%	1.00	55.5%	8.73	38.1%	6.00	0.0%	0.00	15.73
3 University of Auckland	4.6	0.8%	0.20	69.0%	18.28	18.9%	5.00	11.3%	3.00	26.48
4 University of Canterbury	5.4	19.0%	4.00	50.0%	10.50	26.2%	5.50	4.8%	1.00	21.00
5 University of Otago	5.5	11.3%	2.00	66.1%	11.70	22.6%	4.00	0.0%	0.00	17.70
6 University of Waikato	5.0	16.4%	3.00	41.7%	7.62	41.9%	7.67	0.0%	0.00	18.29
7 Victoria University of Wellington	4.9	15.5%	4.00	42.3%	10.90	38.3%	9.87	3.9%	1.00	25.77
Other#	1.6	0.0%	0.00	22.2%	1.00	11.1%	0.50	66.7%	3.00	4.50
Averages & totals	4.77	11.1%	15.20	50.0%	68.73	33.1%	45.54	5.8%	8.00	137.47

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-15: TEO Ranking by Subject Area – Earth Sciences

Rank based on Quality Score (FTE-weighted)
 Numbers in parentheses indicate total number of PBRF-eligible staff (FTE-weighted)

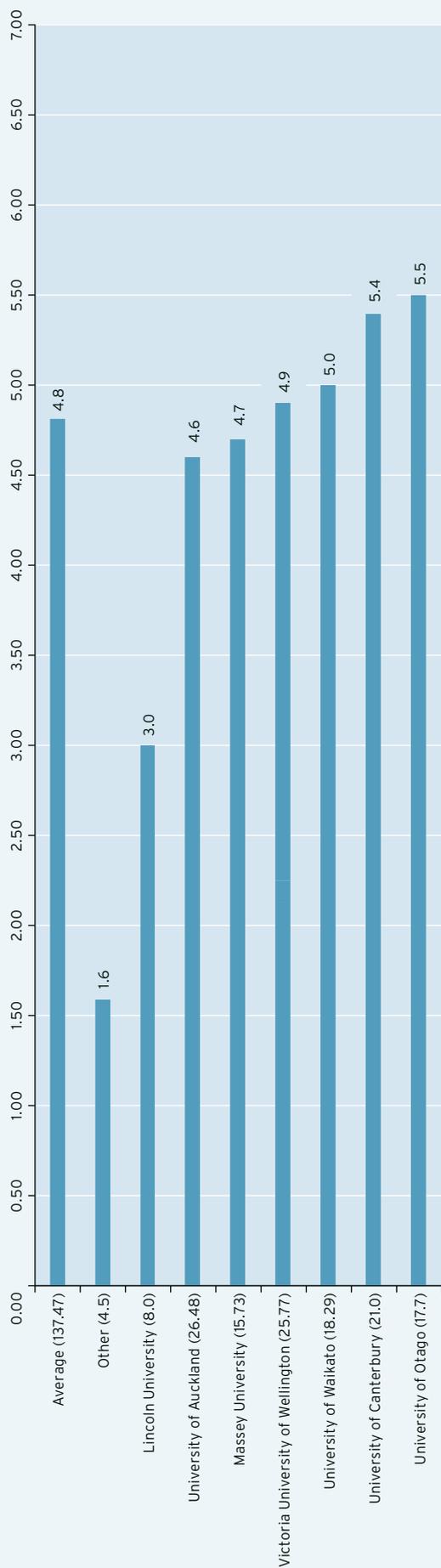


Table A-16: Subject-Area Results – Ecology, Evolution and Behaviour

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*	No of eligible staff*
1 Auckland University of Technology	1.6	0.0%	0.00	0.0%	0.00	80.0%	4.00	20.0%	1.00	5.00
2 Lincoln University	4.0	18.4%	3.00	12.3%	2.00	69.3%	11.31	0.0%	0.00	16.31
3 Massey University	4.7	17.8%	4.84	34.6%	9.40	43.9%	11.92	3.7%	1.00	27.16
4 University of Auckland	5.1	20.1%	8.00	41.4%	16.5	32.6%	13.00	6.0%	2.40	39.90
5 University of Canterbury	4.9	17.0%	4.30	43.5%	11.00	31.6%	8.00	7.9%	2.00	25.30
6 University of Otago	4.8	15.9%	6.00	39.2%	14.80	42.3%	16.00	2.6%	1.00	37.80
7 University of Waikato	5.9	23.8%	2.75	50.2%	5.80	26.0%	3.00	0.0%	0.00	11.55
8 Victoria University of Wellington	3.8	0.0%	0.00	47.5%	14.50	45.9%	14.00	6.6%	2.00	30.50
Other#	2.4	0.0%	0.00	29.4%	2.00	29.4%	2.00	41.2%	2.80	6.80
Averages & totals	4.55	14.4%	28.89	37.9%	76.00	41.5%	83.23	6.1%	12.20	200.32

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-16: TEO Ranking by Subject Area – Ecology, Evolution and Behaviour

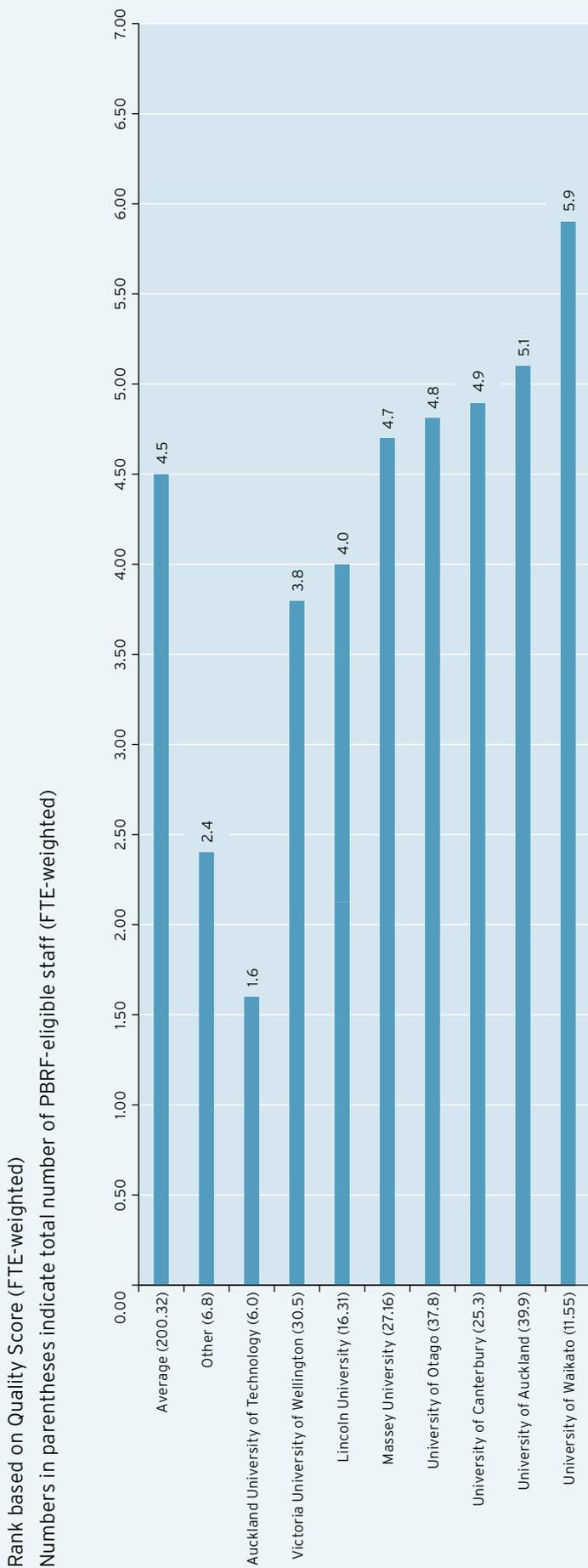


Table A-17: Subject-Area Results – Economics

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*	No of eligible staff*
1 Auckland University of Technology	2.0	0.0%	0.00	0.0%	0.00	100.0%	7.00	0.0%	0.00	7.00
2 Lincoln University	3.3	0.0%	0.00	42.5%	5.70	37.3%	5.00	20.1%	2.70	13.40
3 Massey University	3.2	0.0%	0.00	34.9%	9.00	57.4%	14.82	7.7%	2.00	25.82
4 University of Auckland	5.0	8.6%	2.38	62.9%	17.50	19.8%	5.50	8.8%	2.44	27.82
5 University of Canterbury	3.4	4.9%	1.00	41.1%	8.37	24.5%	5.00	29.5%	6.00	20.37
6 University of Otago	5.3	22.2%	4.00	44.4%	8.00	22.2%	4.00	11.1%	2.00	18.00
7 University of Waikato	4.6	18.8%	3.00	31.0%	4.95	43.9%	7.00	6.3%	1.00	15.95
8 Victoria University of Wellington	3.4	3.5%	1.00	35.2%	10.00	45.8%	13.00	15.5%	4.40	28.40
Other#	0.7	0.0%	0.00	0.0%	0.00	33.3%	3.00	66.7%	6.00	9.00
Averages & totals	3.76	6.9%	11.38	38.3%	63.52	38.8%	64.32	16.0%	26.54	165.76

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-17: TEO Ranking by Subject Area – Economics

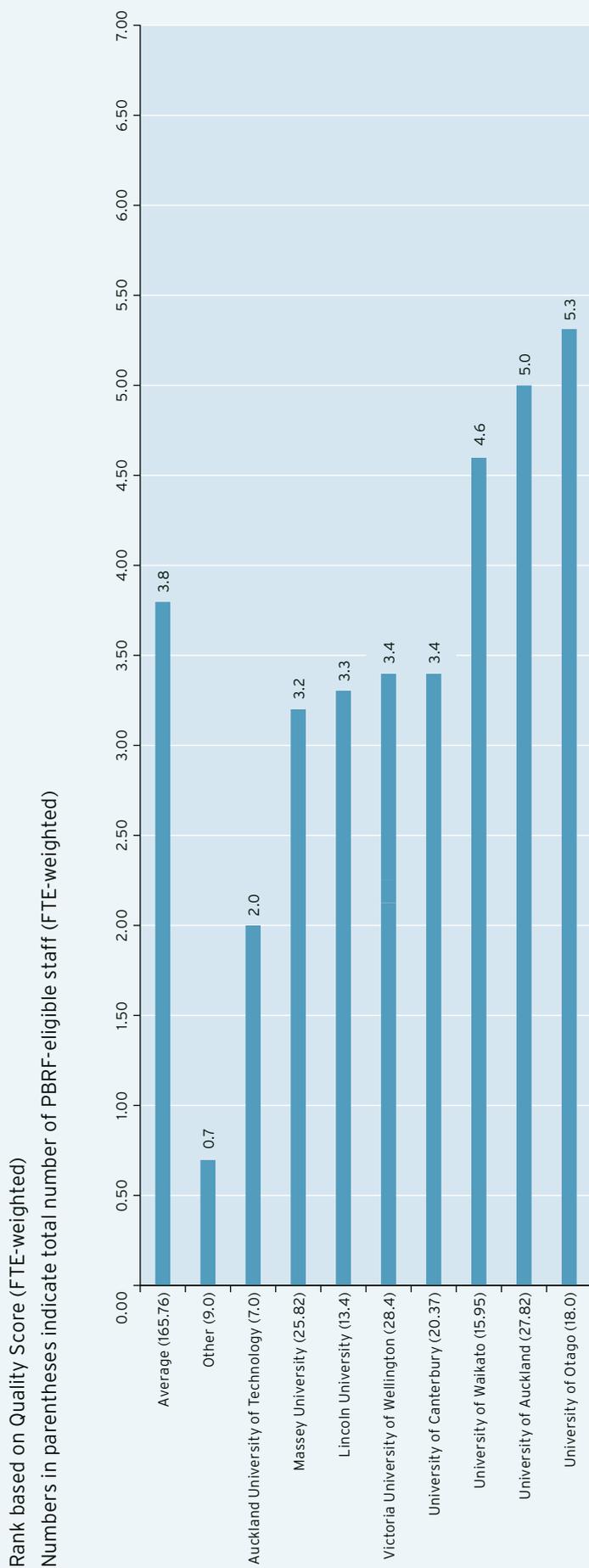


Table A-18: Subject-Area Results – Education

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*	No of eligible staff*
1 Auckland University of Technology	0.7	0.0%	0.00	0.0%	0.00	36.9%	13.20	63.1%	22.60	35.80
2 Bethlehem Institute of Education	0.3	0.0%	0.00	0.0%	0.00	16.9%	3.00	83.1%	14.70	17.70
3 Christchurch College of Education	0.4	0.0%	0.00	2.8%	2.85	9.4%	9.57	87.7%	88.89	101.31
4 Christchurch Polytechnic Institute of Technology	0.4	0.0%	0.00	0.0%	0.00	20.0%	1.00	80.0%	4.00	5.00
5 Dunedin College of Education	0.2	0.0%	0.00	0.0%	0.00	10.0%	6.15	90.0%	55.51	61.66
6 Eastern Institute of Technology	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	9.60	9.60
7 Former Auckland College of Education	0.6	0.0%	0.00	2.2%	3.00	23.3%	31.60	74.5%	101.24	135.84
8 Former Wellington College of Education	0.1	0.0%	0.00	0.0%	0.00	6.7%	5.80	93.3%	80.53	86.33
9 Massey University	2.3	4.1%	4.00	21.8%	21.26	31.1%	30.35	43.0%	41.90	97.51
10 Masters Institute	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	5.20	5.20
11 Open Polytechnic of New Zealand	0.3	0.0%	0.00	0.0%	0.00	13.3%	3.00	86.7%	19.50	22.50
12 Otago Polytechnic	0.2	0.0%	0.00	0.0%	0.00	10.6%	1.00	89.4%	8.40	9.40
13 Te Wānanga o Aotearoa	0.2	0.0%	0.00	3.9%	1.00	0.0%	0.00	96.1%	24.40	25.40
14 Te Whare Wānanga o Awanuiārangī	0.9	0.0%	0.00	6.7%	1.00	26.7%	4.00	66.7%	10.00	15.00
15 Unitec New Zealand	1.3	0.0%	0.00	13.3%	3.66	25.1%	6.90	61.5%	16.90	27.46
16 University of Auckland	3.0	10.5%	8.80	23.0%	19.20	30.7%	25.57	35.8%	29.85	83.42
17 University of Canterbury	2.6	4.1%	1.00	16.5%	4.00	57.8%	14.00	21.6%	5.22	24.22
18 University of Otago	3.8	10.1%	3.00	39.0%	11.60	22.1%	6.58	28.9%	8.60	29.78
19 University of Waikato	2.5	6.7%	7.06	18.2%	19.20	37.0%	38.95	38.0%	40.00	105.21
20 Victoria University of Wellington	2.7	5.0%	2.00	24.9%	10.00	34.5%	13.85	35.7%	14.33	40.18
21 Waikato Institute of Technology	0.3	0.0%	0.00	0.0%	0.00	13.9%	2.31	86.1%	14.30	16.61
22 Whireia Community Polytechnic	0.0	0.0%	0.00	0.0%	0.00	1.9%	0.20	98.1%	10.10	10.30
Other*	0.4	0.0%	0.00	0.0%	0.00	18.8%	2.32	81.2%	10.00	12.32
Averages & totals	1.31	2.6%	25.86	9.9%	96.77	22.4%	219.35	65.0%	635.77	977.75

* Weighted on a FTE basis

* Includes all TEOs with fewer than 5 FTE

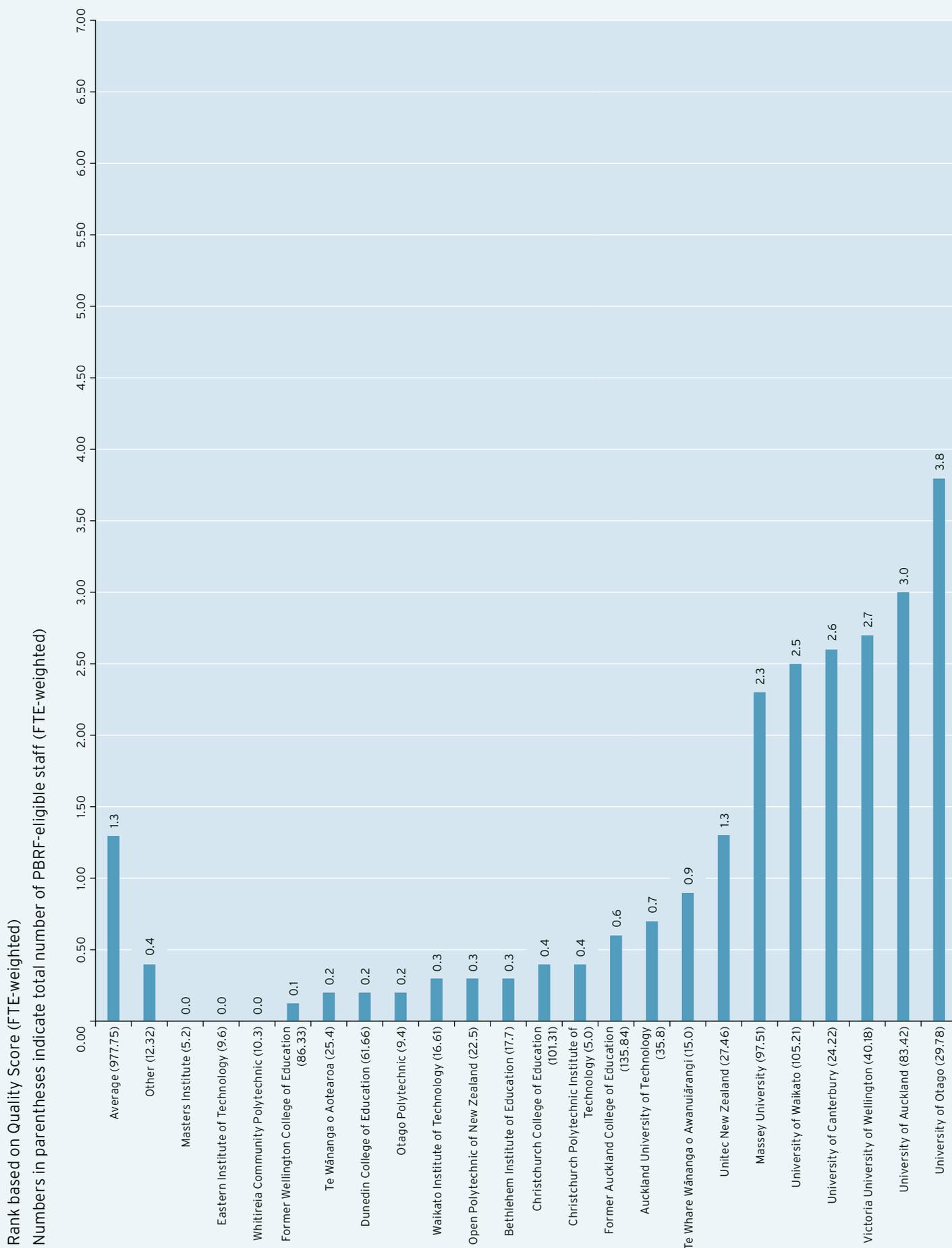
Figure A-18: TEO Ranking by Subject Area – Education

Table A-19: Subject-Area Results – Engineering and Technology

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*	No of eligible staff*
1 Auckland University of Technology	2.7	0.0%	0.00	30.1%	5.00	45.8%	7.60	24.1%	4.00	16.60
2 Christchurch Polytechnic Institute of Technology	0.1	0.0%	0.00	0.0%	0.00	6.7%	1.00	93.3%	14.00	15.00
3 Lincoln University	1.7	0.0%	0.00	10.0%	1.00	54.9%	5.50	35.1%	3.52	10.02
4 Manukau Institute of Technology	0.6	0.0%	0.00	0.0%	0.00	28.1%	5.00	71.9%	12.80	17.80
5 Massey University	4.5	14.7%	9.50	35.1%	22.65	45.5%	29.35	4.7%	3.00	64.50
6 Unitec New Zealand	0.7	0.0%	0.00	3.3%	1.65	24.9%	12.50	71.8%	36.10	50.25
7 University of Auckland	4.8	20.6%	29.14	32.6%	46.00	36.7%	51.81	10.1%	14.20	141.15
8 University of Canterbury	5.1	16.3%	15.21	46.3%	43.30	35.3%	33.04	2.1%	2.00	93.55
9 University of Otago	4.5	19.2%	2.00	28.8%	3.00	42.3%	4.40	9.6%	1.00	10.40
10 University of Waikato	3.8	5.9%	1.00	35.3%	6.00	52.9%	9.00	5.9%	1.00	17.00
Other#	2.0	0.0%	0.00	20.0%	2.00	40.0%	4.00	40.0%	4.00	10.00
Averages & totals	3.76	12.7%	56.85	29.3%	130.60	36.6%	163.20	21.4%	95.62	446.27

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-19: TEO Ranking by Subject Area – Engineering and Technology

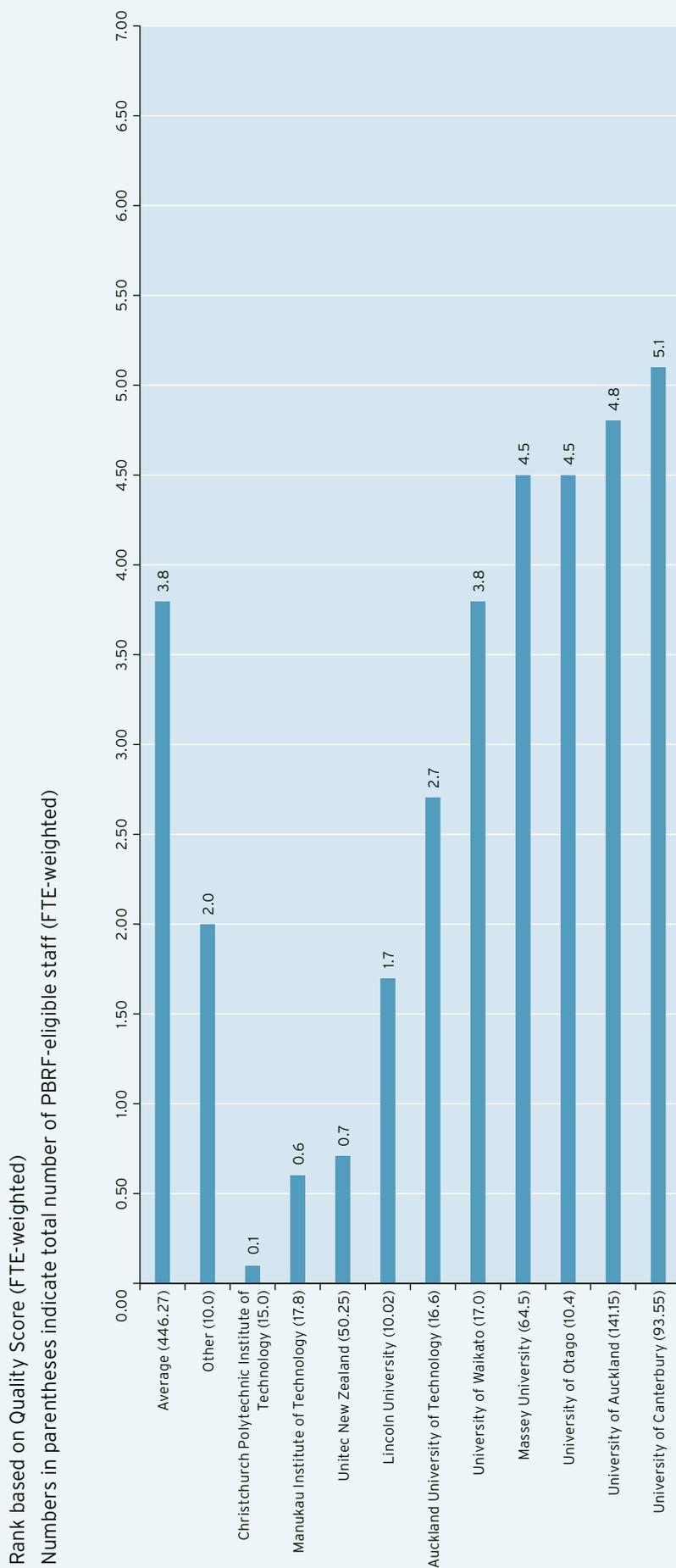


Table A-20: Subject-Area Results – English Language and Literature

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Auckland University of Technology	1.2	0.0%	0.00	0.0%	0.00	59.7%	4.00	40.3%	2.70	6.70
2 Massey University	2.1	6.5%	1.00	0.0%	0.00	71.9%	11.00	21.6%	3.30	15.30
3 Unitec New Zealand	0.2	0.0%	0.00	0.0%	0.00	11.5%	1.00	88.5%	7.67	8.67
4 University of Auckland	5.1	17.9%	4.50	43.8%	11.00	34.3%	8.60	4.0%	1.00	25.10
5 University of Canterbury	3.2	7.2%	1.00	14.4%	2.00	78.4%	10.88	0.0%	0.00	13.88
6 University of Otago	5.2	13.8%	2.00	51.7%	7.50	34.5%	5.00	0.0%	0.00	14.50
7 University of Waikato	4.8	0.0%	0.00	70.9%	4.87	29.1%	2.00	0.0%	0.00	6.87
8 Victoria University of Wellington	4.8	12.5%	2.00	50.0%	8.00	25.0%	4.00	12.5%	2.00	16.00
Other#	0.8	0.0%	0.00	0.0%	0.00	42.3%	3.00	57.7%	4.10	7.10
Averages & totals	3.54	9.2%	10.50	29.2%	33.37	43.4%	49.48	18.2%	20.77	114.12

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-20: TEO Ranking by Subject Area – English Language and Literature

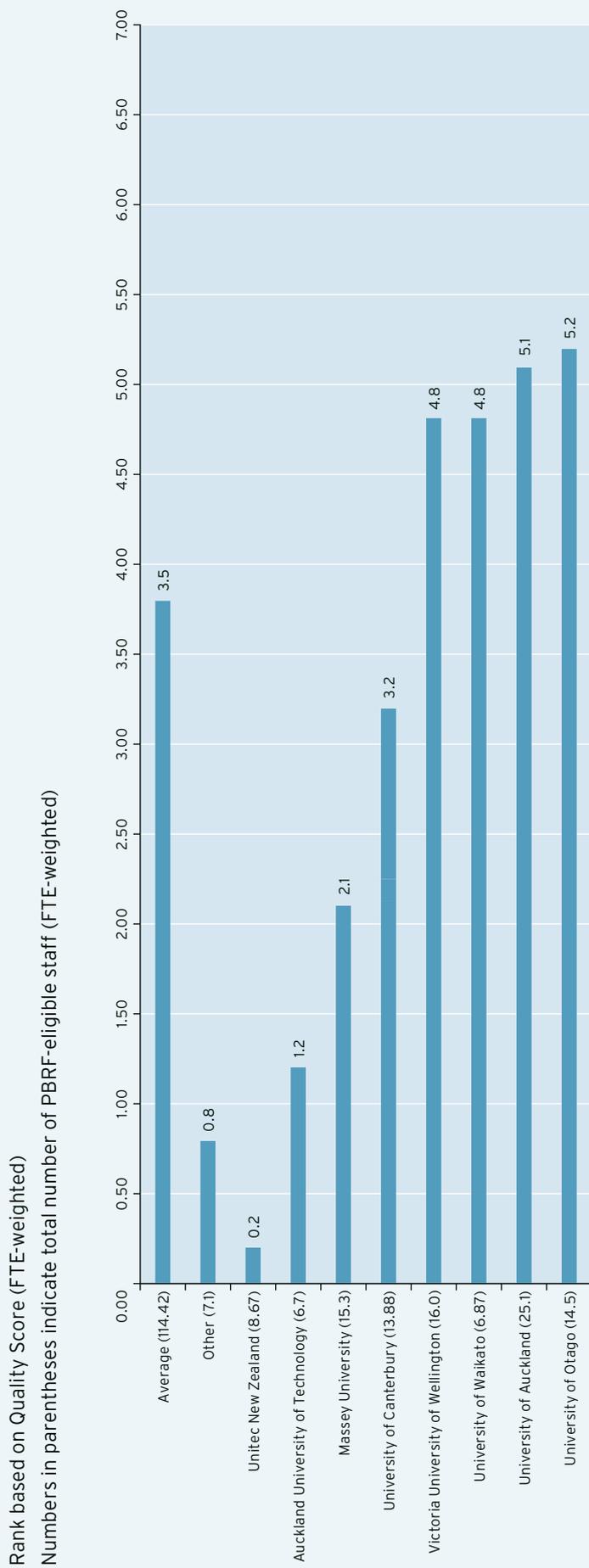


Table A-21: Subject-Area Results – Foreign Languages and Linguistics

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 AIS St Helens	0.3	0.0%	0.00	0.0%	0.00	16.0%	1.00	84.0%	5.26	6.26
2 Auckland University of Technology	2.0	9.9%	1.00	9.9%	1.00	19.8%	2.00	60.4%	6.10	10.10
3 Christchurch Polytechnic Institute of Technology	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	5.00	5.00
4 Massey University	1.5	0.0%	0.00	12.5%	2.00	37.5%	6.00	50.0%	8.00	16.00
5 Unitec New Zealand	0.4	0.0%	0.00	0.0%	0.00	18.3%	3.00	81.7%	13.38	16.38
6 University of Auckland	4.0	11.7%	5.00	37.1%	15.80	28.6%	12.20	22.5%	9.60	42.60
7 University of Canterbury	4.3	12.5%	3.00	33.3%	8.00	50.0%	12.00	4.2%	1.00	24.00
8 University of Otago	3.1	14.3%	3.00	14.3%	3.00	42.9%	9.00	28.6%	6.00	21.00
9 University of Waikato	1.7	0.0%	0.00	20.3%	2.70	22.1%	2.94	57.6%	7.65	13.29
10 Victoria University of Wellington	2.6	4.9%	2.00	13.2%	5.38	64.6%	26.24	17.2%	7.00	40.62
Other#	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	3.60	3.60
Averages & totals	2.60	7.0%	14.00	19.0%	37.88	37.4%	74.38	36.5%	72.59	198.85

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-21: TEO Ranking by Subject Area – Foreign Languages and Linguistics

Rank based on Quality Score (FTE-weighted)

Numbers in parentheses indicate total number of PBRF-eligible staff (FTE-weighted)

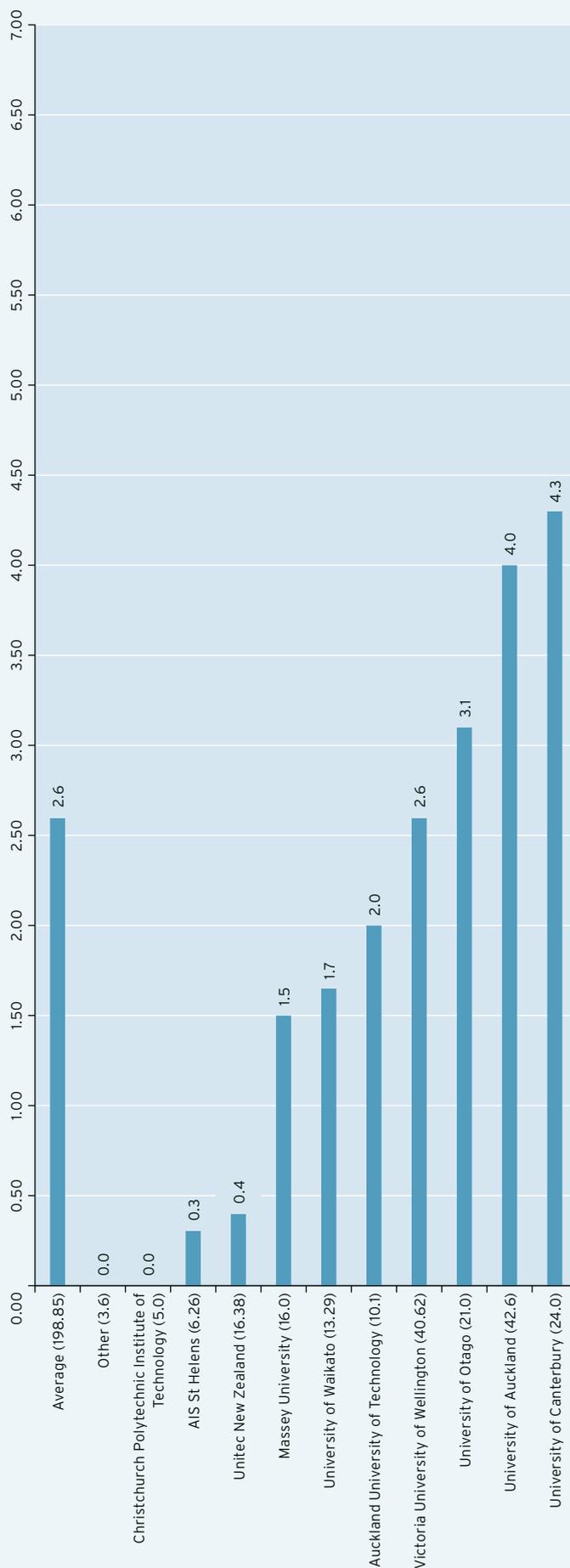


Table A-22: Subject-Area Results – History, History of Art, Classics and Curatorial Studies

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Massey University	3.4	4.4%	1.00	31.1%	7.00	53.3%	12.00	11.1%	2.50	22.50
2 University of Auckland	4.4	14.0%	7.00	37.6%	18.75	39.1%	19.50	9.2%	4.60	49.85
3 University of Canterbury	3.9	0.0%	0.00	56.2%	18.60	27.2%	9.00	16.6%	5.50	33.10
4 University of Otago	5.2	16.1%	5.00	46.7%	14.50	37.2%	11.53	0.0%	0.00	31.03
5 University of Waikato	2.0	0.0%	0.00	15.7%	1.00	52.8%	3.35	31.5%	2.00	6.35
6 Victoria University of Wellington	4.5	11.9%	4.00	40.7%	13.70	44.5%	15.00	3.0%	1.00	33.70
Other [#]	3.0	0.0%	0.00	36.1%	6.00	39.8%	6.60	24.1%	4.00	16.60
Averages & totals	4.15	8.8%	17.00	41.2%	79.55	39.9%	76.98	10.1%	19.60	193.13

* Weighted on a FTE basis

[#] Includes all TEOs with fewer than 5 FTE

Figure A-22: TEO Ranking by Subject Area – History, History of Art, Classics and Curatorial Studies

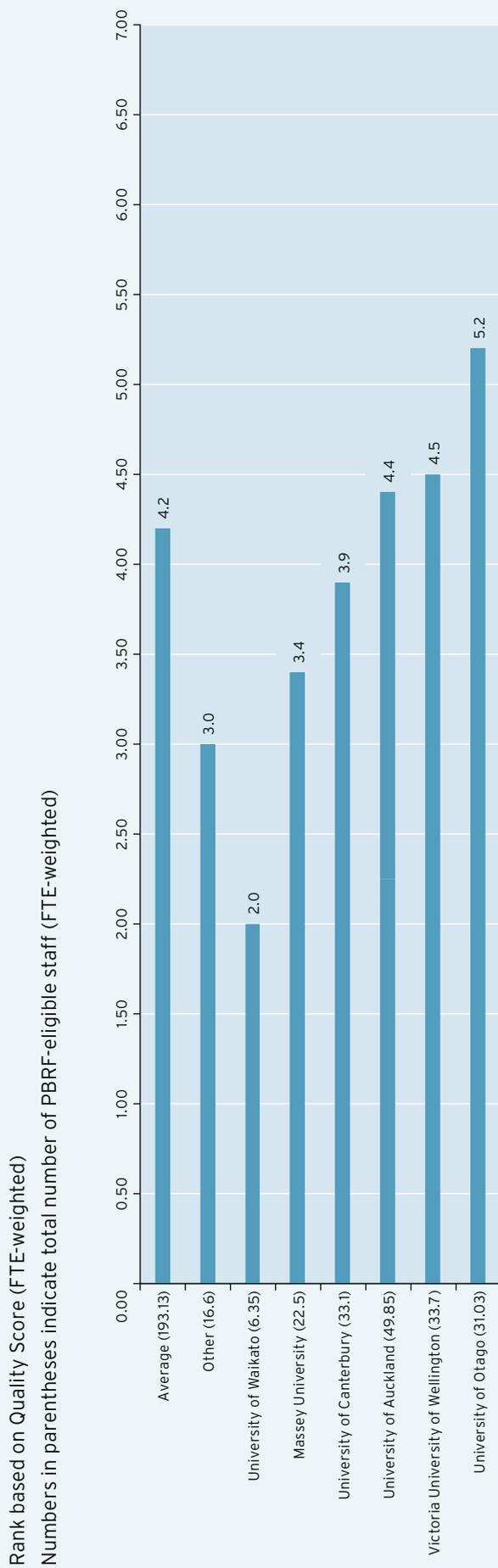


Table A-23: Subject-Area Results – Human Geography

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*	No of eligible staff*
1 Massey University	3.9	8.2%	1.00	34.7%	4.25	49.0%	6.00	8.2%	1.00	12.25
2 University of Auckland	5.3	15.0%	2.00	52.7%	7.00	32.3%	4.29	0.0%	0.00	13.29
3 University of Canterbury	3.8	0.0%	0.00	55.6%	5.00	22.2%	2.00	22.2%	2.00	9.00
4 University of Otago	3.8	13.7%	1.00	18.0%	1.32	68.3%	5.00	0.0%	0.00	7.32
5 University of Waikato	4.1	14.9%	2.00	26.3%	3.53	51.4%	6.91	7.4%	1.00	13.44
6 Victoria University of Wellington	5.4	28.6%	2.00	28.6%	2.00	42.9%	3.00	0.0%	0.00	7.00
Other [#]	4.0	33.3%	1.00	0.0%	0.00	33.3%	1.00	33.3%	1.00	3.00
Averages & totals	4.36	13.8%	9.00	35.4%	23.10	43.2%	28.20	7.7%	5.00	65.30

* Weighted on a FTE basis

[#] Includes all TEOs with fewer than 5 FTE

Figure A-23: TEO Ranking by Subject Area – Human Geography

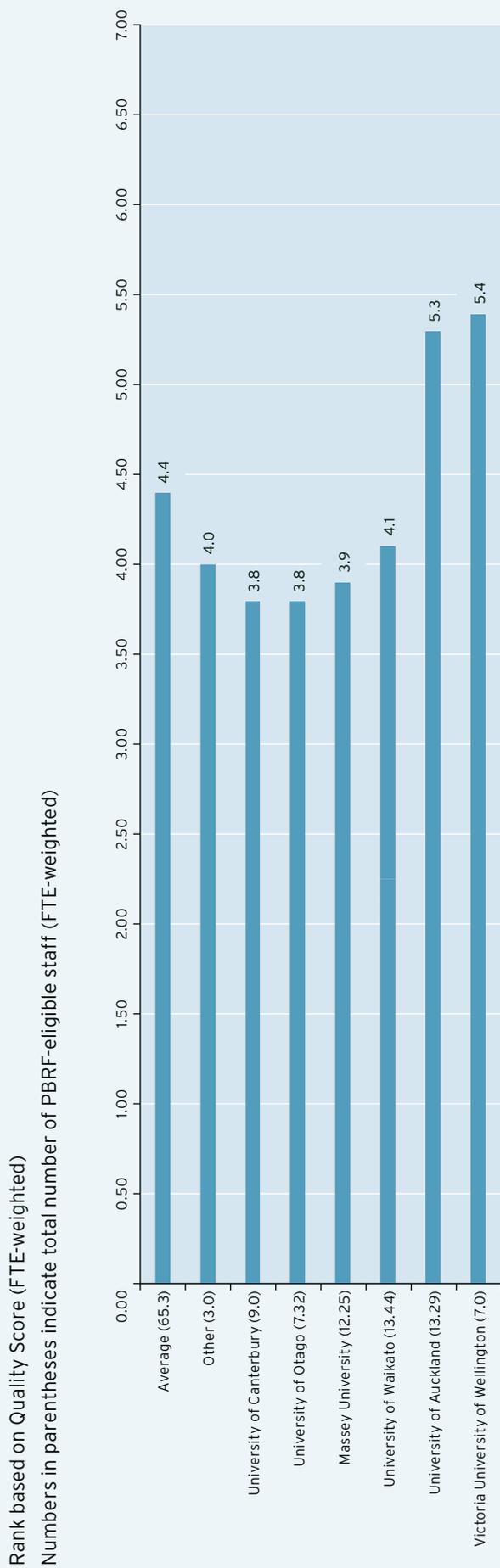


Table A-24: Subject-Area Results – Law

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*	No of eligible staff*
1 Auckland University of Technology	2.8	0.0%	0.00	40.0%	2.00	20.0%	1.00	40.0%	2.00	5.00
2 Massey University	0.8	0.0%	0.00	0.0%	0.00	40.8%	4.00	59.2%	5.80	9.80
3 Open Polytechnic of New Zealand	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	6.30	6.30
4 University of Auckland	4.7	14.3%	8.00	48.6%	27.10	17.3%	9.65	19.7%	11.00	55.75
5 University of Canterbury	4.2	12.1%	3.00	42.3%	10.50	22.2%	5.50	23.4%	5.81	24.81
6 University of Otago	4.9	12.5%	3.50	53.8%	15.00	21.5%	6.00	12.2%	3.40	27.90
7 University of Waikato	3.1	3.7%	1.00	33.3%	9.00	38.9%	10.50	24.1%	6.50	27.00
8 Victoria University of Wellington	3.8	7.2%	3.20	43.6%	19.30	25.1%	11.12	24.0%	10.60	44.22
Other#	0.2	0.0%	0.00	0.0%	0.00	11.1%	1.00	88.9%	8.00	9.00
Averages & totals	3.73	8.9%	18.70	39.5%	82.90	23.2%	48.77	28.3%	59.41	209.78

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-24: TEO Ranking by Subject Area – Law

Rank based on Quality Score (FTE-weighted)

Numbers in parentheses indicate total number of PBRF-eligible staff (FTE-weighted)

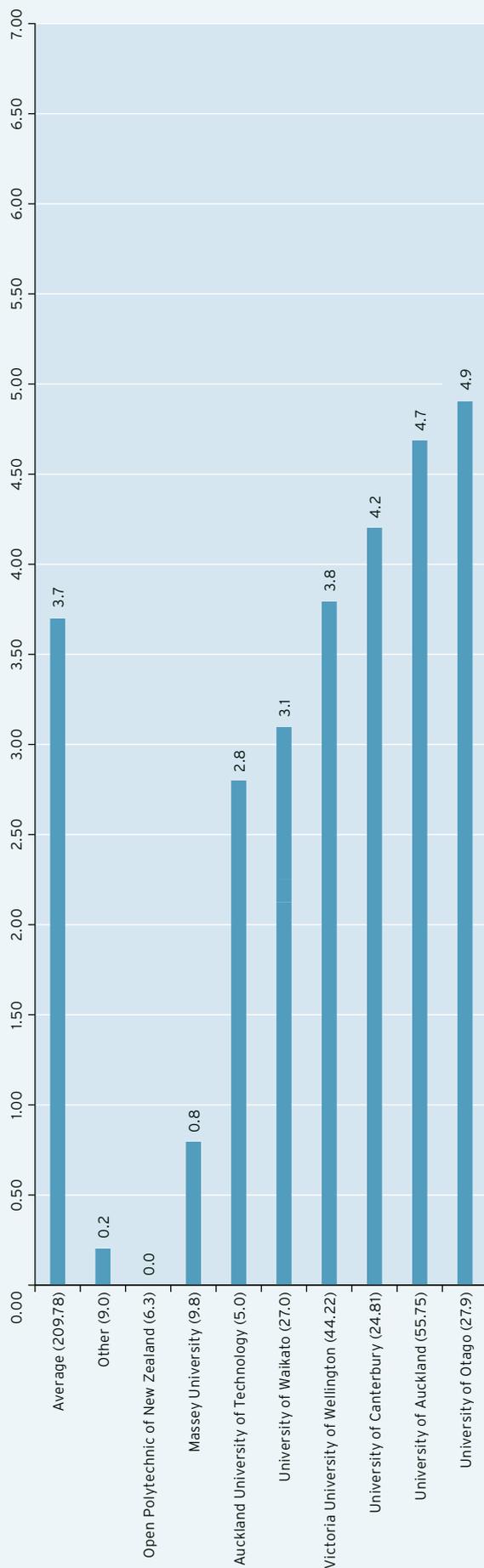


Table A-25: Subject-Area Results – Management, International Business, Human Resources, International Business, Industrial Relations and Other Business

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*	No of eligible staff*
1 Auckland University of Technology	3.0	0.0%	0.00	32.9%	8.00	52.7%	12.83	14.4%	3.50	24.33
2 Christchurch Polytechnic Institute of Technology	0.2	0.0%	0.00	0.0%	0.00	10.8%	1.00	89.2%	8.30	9.30
3 Lincoln University	1.7	0.0%	0.00	16.0%	2.00	36.0%	4.50	48.0%	6.00	12.50
4 Manukau Institute of Technology	0.2	0.0%	0.00	0.0%	0.00	10.0%	2.00	90.0%	18.00	20.00
5 Massey University	2.3	0.0%	0.00	20.6%	16.50	50.9%	40.84	28.5%	22.90	80.24
6 Northland Polytechnic	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	5.20	5.20
7 Open Polytechnic of New Zealand	0.3	0.0%	0.00	0.0%	0.00	14.3%	1.00	85.7%	6.00	7.00
8 Otago Polytechnic	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	10.75	10.75
9 Unitec New Zealand	2.0	4.3%	1.00	8.6%	2.00	50.7%	11.80	36.4%	8.48	23.28
10 University of Auckland	3.5	9.0%	5.00	32.3%	18.00	35.0%	19.50	23.8%	13.25	55.75
11 University of Canterbury	3.0	5.0%	1.00	25.1%	5.00	49.9%	9.95	20.1%	4.00	19.95
12 University of Otago	3.8	2.3%	0.50	45.0%	10.00	43.7%	9.70	9.0%	2.00	22.20
13 University of Waikato	4.4	10.9%	5.00	40.0%	18.37	47.0%	21.60	2.2%	1.00	45.97
14 Victoria University of Wellington	3.9	12.1%	4.87	32.3%	13.00	38.2%	15.40	17.4%	7.00	40.27
15 Waikato Institute of Technology	0.4	0.0%	0.00	0.0%	0.00	17.5%	1.00	82.5%	4.70	5.70
16 Whitireia Community Polytechnic	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	6.00	6.00
Other#	0.5	0.0%	0.00	0.0%	0.00	25.4%	3.60	74.6%	10.60	14.20
Averages & totals	2.58	4.3%	17.37	23.1%	92.87	38.4%	154.72	34.2%	137.68	402.64

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-25: TEO Ranking by Subject Area – Management, Human Resources, International Business, Industrial Relations and Other Business

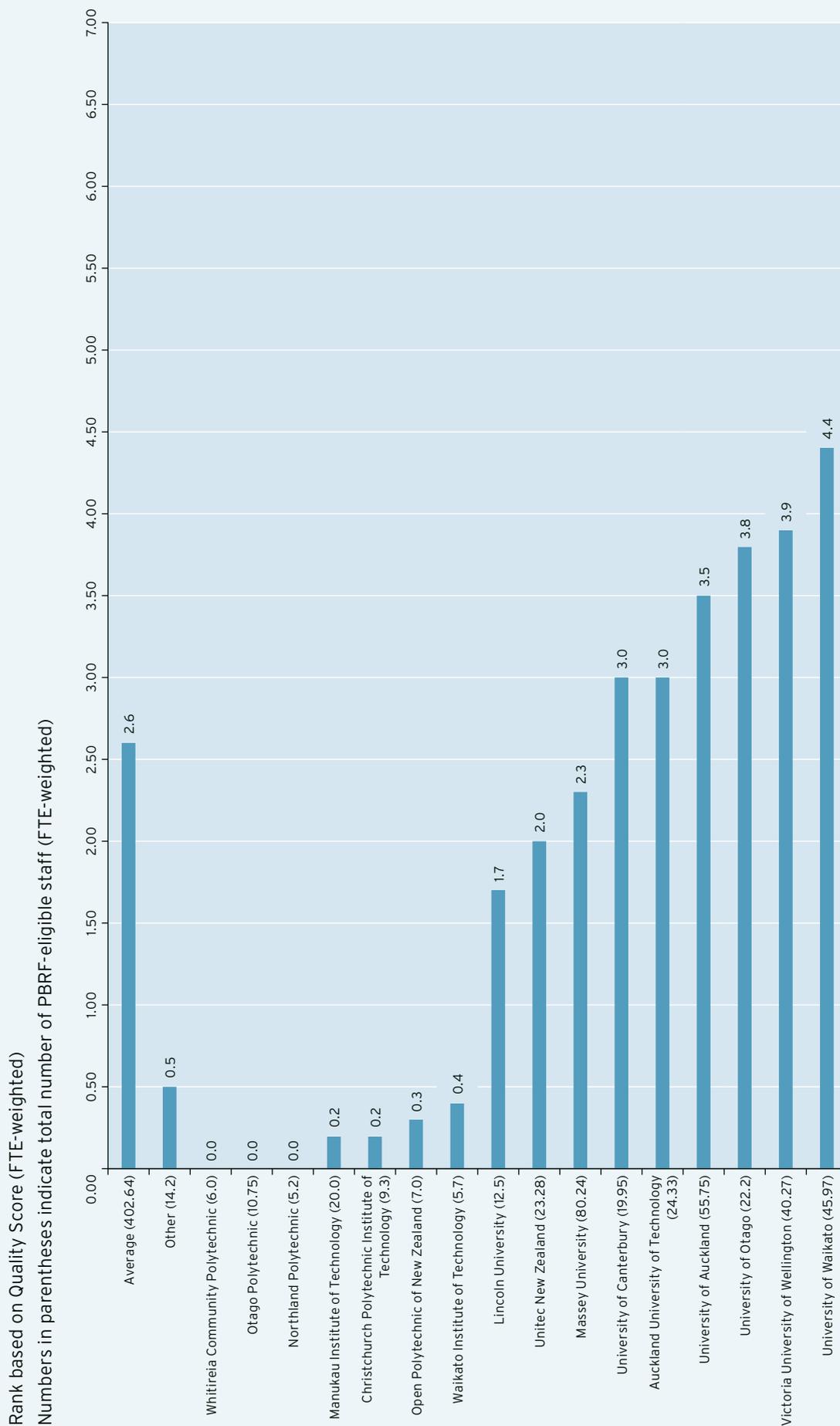


Table A-26: Subject-Area Results – Māori Knowledge and Development

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Auckland University of Technology	1.7	0.0%	0.00	14.3%	1.00	42.9%	3.00	42.9%	3.00	7.00
2 Former Auckland College of Education	1.6	0.0%	0.00	20.0%	1.00	20.0%	1.00	60.0%	3.00	5.00
3 Massey University	2.4	4.2%	1.00	24.2%	5.80	26.1%	6.25	45.5%	10.89	23.94
4 Te Wānanga o Aotearoa	0.6	0.0%	0.00	0.0%	0.00	30.0%	3.00	70.0%	7.00	10.00
5 Te Whare Wānanga o Awanuiārangī	0.4	0.0%	0.00	4.1%	1.00	8.3%	2.00	87.6%	21.13	24.13
6 Unitec New Zealand	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	7.50	7.50
7 University of Auckland	3.4	5.4%	1.00	36.6%	6.80	33.9%	6.30	24.2%	4.50	18.60
8 University of Canterbury	1.7	0.0%	0.00	16.4%	1.00	37.4%	2.28	46.2%	2.82	6.10
9 University of Otago	2.2	4.8%	0.80	10.8%	1.80	54.2%	9.00	30.1%	5.00	16.60
10 University of Waikato	3.0	0.0%	0.00	46.1%	10.45	13.2%	3.00	40.6%	9.20	22.65
11 Victoria University of Wellington	3.9	12.5%	1.00	31.5%	2.53	37.4%	3.00	18.7%	1.50	8.03
12 Waikato Institute of Technology	0.8	0.0%	0.00	0.0%	0.00	37.5%	3.00	62.5%	5.00	8.00
Other [#]	0.7	0.0%	0.00	4.8%	1.00	22.6%	4.75	72.6%	15.23	20.98
Averages & totals	1.82	2.1%	3.80	18.1%	32.38	26.1%	46.58	53.6%	95.77	178.53

* Weighted on a FTE basis

[#] Includes all TEOs with fewer than 5 FTE

Figure A-26: TEO Ranking by Subject Area – Māori Knowledge and Development

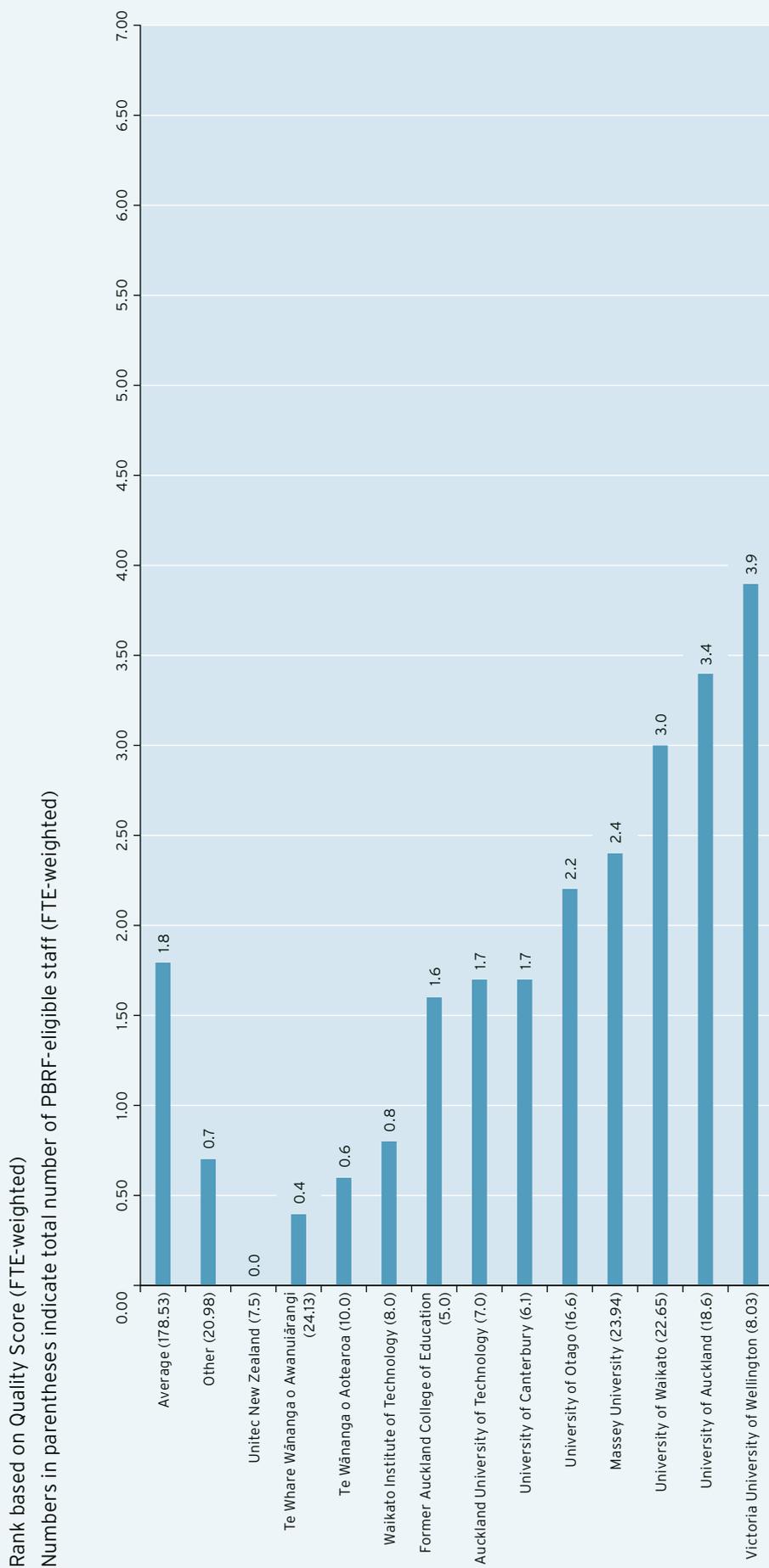


Table A-27: Subject-Area Results – Marketing and Tourism

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 AIS St Helens	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	6.00	6.00
2 Auckland University of Technology	2.9	7.4%	1.00	14.7%	2.00	66.2%	9.00	11.8%	1.60	13.60
3 Lincoln University	2.0	0.0%	0.00	24.6%	3.00	26.2%	3.20	49.2%	6.00	12.20
4 Massey University	2.7	0.0%	0.00	22.8%	4.40	66.8%	12.90	10.4%	2.00	19.30
5 Pacific International Hotel Management School	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	12.05	12.05
6 Unitec New Zealand	0.9	20.8%	4.00	0.0%	0.00	47.4%	2.70	52.6%	3.00	5.70
7 University of Auckland	5.0	0.0%	0.00	36.5%	7.00	37.5%	7.19	5.2%	1.00	19.19
8 University of Canterbury	2.3	0.0%	0.00	16.7%	1.00	66.7%	4.00	16.7%	1.00	6.00
9 University of Otago	4.4	5.8%	2.00	47.4%	16.20	46.8%	16.00	0.0%	0.00	34.20
10 University of Waikato	4.1	11.3%	2.00	34.0%	6.00	45.3%	8.00	9.5%	1.67	17.67
11 Victoria University of Wellington	2.7	4.4%	1.00	26.4%	6.00	35.2%	8.00	34.1%	7.75	22.75
Other#	0.4	0.0%	0.00	0.0%	0.00	20.0%	3.00	80.0%	12.00	15.00
Averages & totals	2.84	5.4%	10.00	24.8%	45.60	40.3%	73.99	29.4%	54.07	183.66

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-27: TEO Ranking by Subject Area – Marketing and Tourism

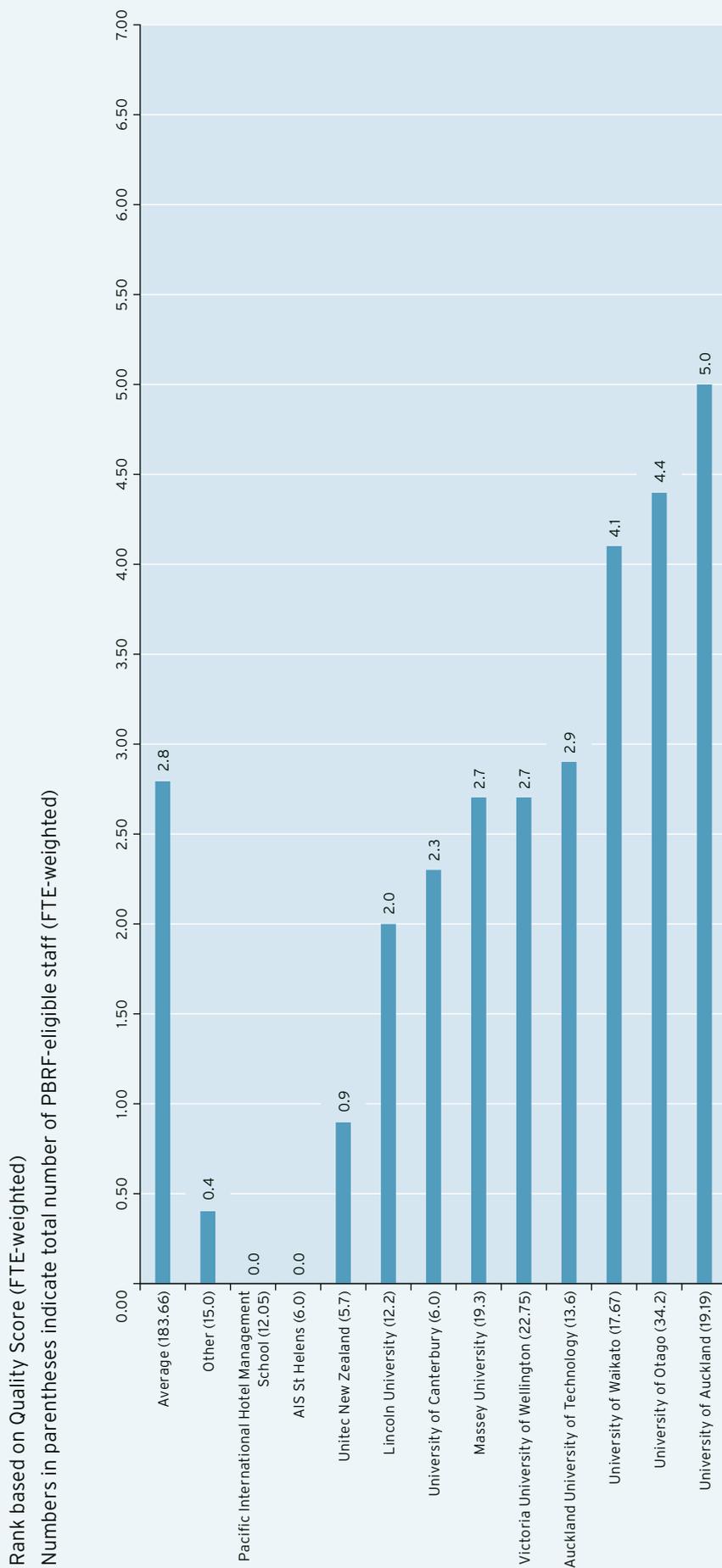


Table A-28: Subject-Area Results – Molecular, Cellular and Whole Organism Biology

TEO Name	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Auckland University of Technology	2.4	0.0%	0.00	20.0%	1.00	60.0%	3.00	20.0%	1.00	5.00
2 Lincoln University	2.8	0.0%	0.00	28.9%	3.00	53.8%	5.58	17.3%	1.80	10.38
3 Massey University	3.2	3.3%	2.00	28.2%	17.29	57.1%	35.00	11.4%	7.00	61.29
4 University of Auckland	3.5	10.0%	8.00	32.6%	26.20	29.5%	23.65	28.0%	22.45	80.30
5 University of Canterbury	4.7	11.0%	2.00	44.8%	8.10	44.2%	8.00	0.0%	0.00	18.10
6 University of Otago	4.4	9.9%	15.00	45.5%	69.00	33.0%	50.08	11.6%	17.60	151.68
7 University of Waikato	5.4	16.8%	1.50	50.3%	4.50	32.9%	2.94	0.0%	0.00	8.94
8 Victoria University of Wellington	3.9	7.1%	1.00	42.9%	6.00	28.6%	4.00	21.4%	3.00	14.00
Other#	0.5	0.0%	0.00	0.0%	0.00	26.1%	3.00	73.9%	8.50	11.50
Averages & totals	3.81	8.2%	29.50	37.4%	135.09	37.4%	135.25	17.0%	61.35	361.19

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-28: TEO Ranking by Subject Area – Molecular, Cellular and Whole Organism Biology

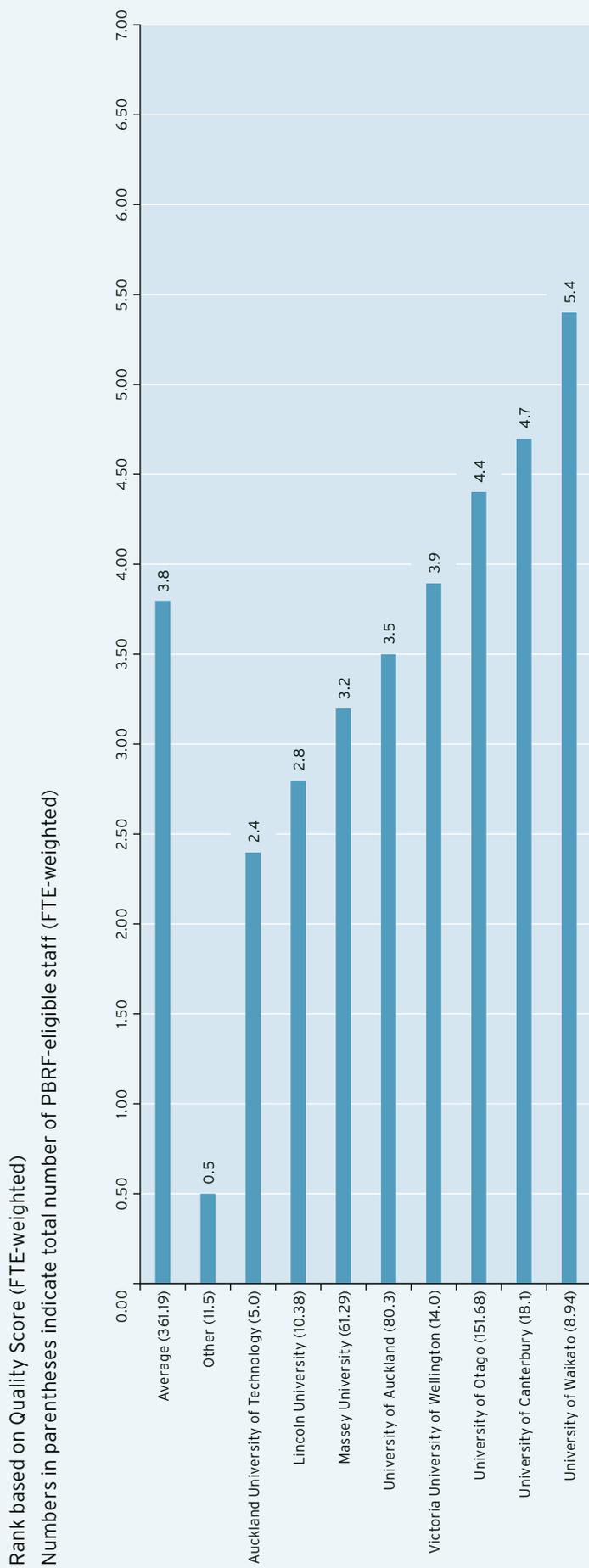


Table A-29: Subject-Area Results – Music, Literary Arts and Other Arts

TEO Name	Quality Score*	Staff rated A* %	Staff rated A*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*	No of eligible staff*
1 Christchurch Polytechnic Institute of Technology	0.5	0.0%	0.00	0.0%	0.00	23.1%	1.50	76.9%	5.00	6.50
2 Massey University	3.2	0.0%	0.00	34.5%	9.37	54.5%	14.80	11.0%	3.00	27.17
3 Unitec New Zealand	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	8.86	8.86
4 University of Auckland	4.3	12.5%	3.50	37.7%	10.60	39.1%	11.00	10.7%	3.00	28.10
5 University of Canterbury	4.5	0.0%	0.00	62.6%	7.52	37.4%	4.50	0.0%	0.00	12.02
6 University of Otago	4.1	5.6%	1.00	44.4%	8.00	44.4%	8.00	5.6%	1.00	18.00
7 University of Waikato	5.3	0.0%	0.00	81.8%	6.75	18.2%	1.50	0.0%	0.00	8.25
8 Victoria University of Wellington	5.1	18.0%	4.25	46.6%	11.00	26.9%	6.35	8.5%	2.00	23.60
9 Waikato Institute of Technology	1.2	0.0%	0.00	0.0%	0.00	60.0%	3.00	40.0%	2.00	5.00
10 Whireia Community Polytechnic	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	5.13	5.13
Other#	0.5	0.0%	0.00	0.0%	0.00	27.3%	2.70	72.7%	7.20	9.90
Averages & totals	3.37	5.7%	8.75	34.9%	53.24	35.0%	53.35	24.4%	37.19	152.53

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-29: TEO Ranking by Subject Area – Music, Literary Arts and Other Arts

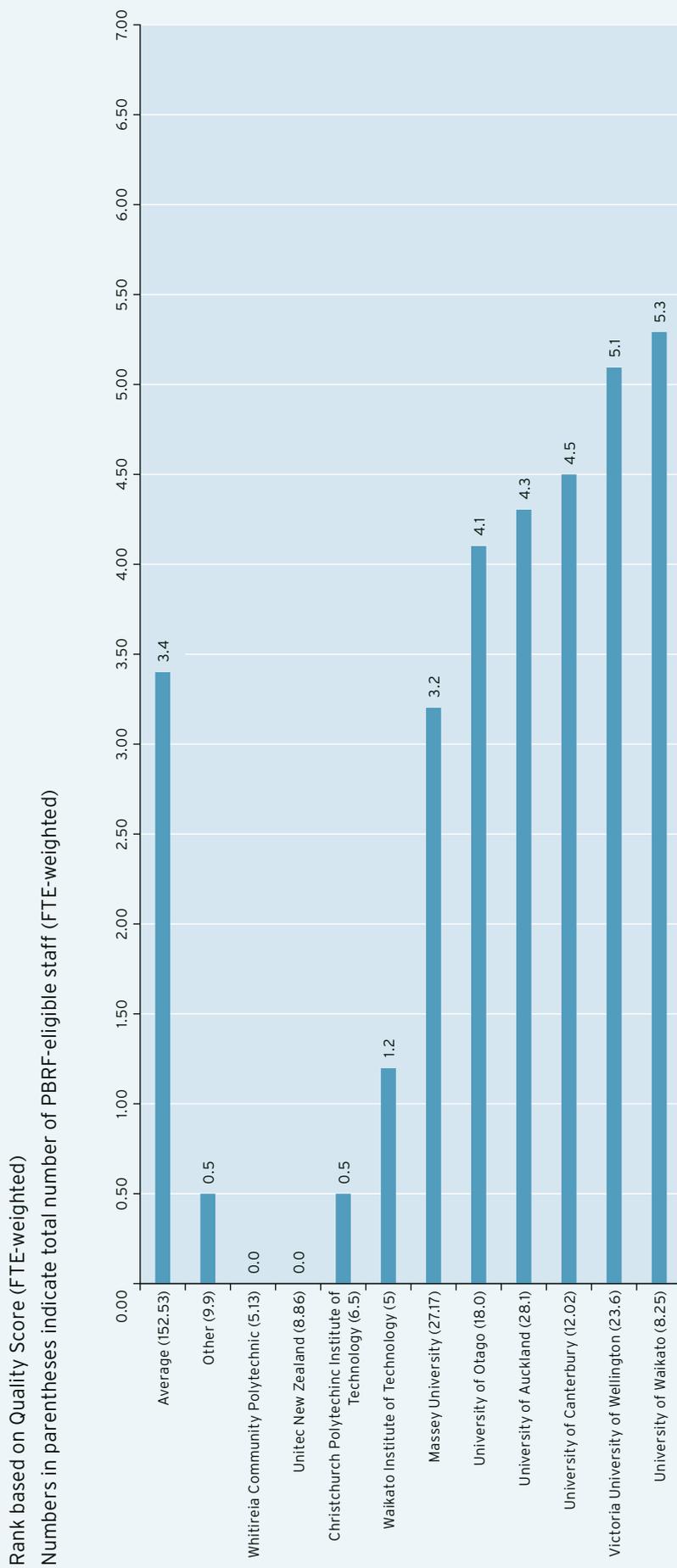


Table A-30: Subject-Area Results – Nursing

TEO Name	Quality Score*	Staff rated A* %	Staff rated A*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*	No of eligible staff*
1 Auckland University of Technology	1.1	0.0%	0.00	6.8%	1.00	35.1%	5.20	58.1%	8.60	14.80
2 Christchurch Polytechnic Institute of Technology	0.1	0.0%	0.00	0.0%	0.00	5.6%	2.00	94.4%	33.60	35.60
3 Eastern Institute of Technology	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	20.55	20.55
4 Manukau Institute of Technology	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	8.20	8.20
5 Massey University	1.9	0.0%	0.00	12.9%	2.00	54.8%	8.50	32.3%	5.00	15.50
6 Nelson Marlborough Institute of Technology	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	8.19	8.19
7 Northland Polytechnic	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	9.00	9.00
8 Otago Polytechnic	0.2	0.0%	0.00	0.0%	0.00	10.8%	3.40	89.2%	28.10	31.50
9 Unitec New Zealand	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	15.92	15.92
10 University of Auckland	1.6	4.7%	1.00	6.6%	1.40	34.7%	7.40	54.0%	11.50	21.30
11 University of Otago	1.4	0.0%	0.00	17.2%	1.00	17.2%	1.00	65.5%	3.80	5.80
12 Victoria University of Wellington	1.8	0.0%	0.00	9.5%	1.00	61.9%	6.50	28.6%	3.00	10.50
13 Waikato Institute of Technology	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	21.40	21.40
14 Whireia Community Polytechnic	0.1	0.0%	0.00	0.0%	0.00	4.1%	1.00	95.9%	23.60	24.60
Averages & totals	0.49	0.4%	1.00	2.6%	6.40	14.4%	35.00	82.5%	200.46	242.86

* Weighted on a FTE basis

† Includes all TEOs with fewer than 5 FTE

Figure A-30: TEO Ranking by Subject Area – Nursing

Rank based on Quality Score (FTE-weighted)
 Numbers in parentheses indicate total number of PBRF-eligible staff (FTE-weighted)

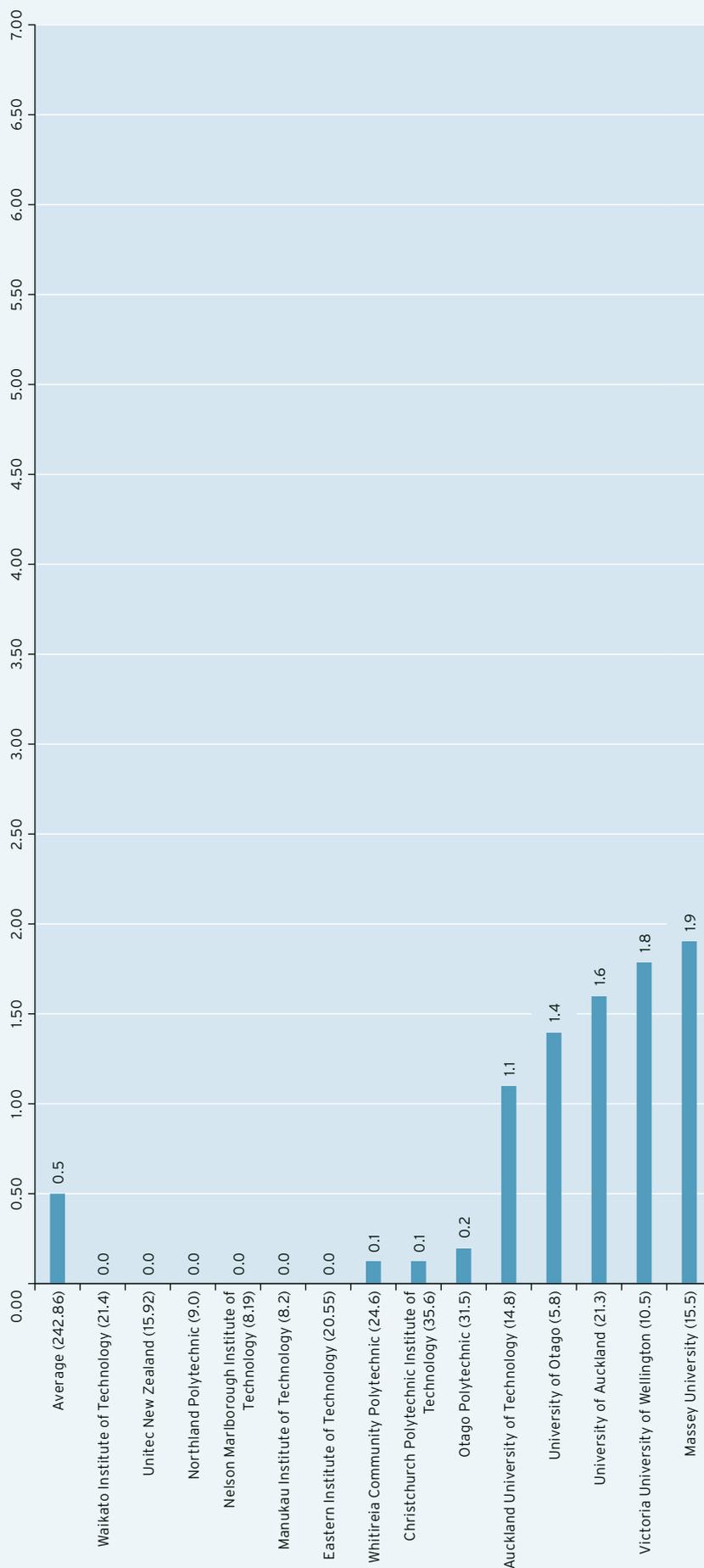


Table A-31: Subject-Area Results – Other Health Studies (including Rehabilitation Therapies)

TEO Name	Quality Score*	Staff rated A* %	Staff rated A* %	Staff rated A*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*	No of eligible staff*
1 Auckland University of Technology	0.9	0.0%	0.00	0.00	7.0%	3.00	24.8%	10.60	68.1%	29.08	42.68
2 Massey University	2.1	5.5%	1.00	1.00	14.3%	2.60	36.2%	6.59	44.0%	8.00	18.19
3 Otago Polytechnic	0.3	0.0%	0.00	0.00	0.0%	0.00	13.4%	2.30	86.6%	14.90	17.20
4 Unitec New Zealand	0.3	0.0%	0.00	0.00	0.0%	0.00	13.0%	1.88	87.0%	12.55	14.43
5 University of Auckland	1.8	0.0%	0.00	0.00	13.3%	3.25	51.3%	12.50	35.3%	8.60	24.35
6 University of Canterbury	4.2	0.0%	0.00	0.00	60.0%	6.00	30.0%	3.00	10.0%	1.00	10.00
7 University of Otago	3.8	12.3%	6.30	6.30	29.5%	15.10	38.2%	19.60	20.0%	10.27	51.27
Other#	1.6	16.1%	1.00	1.00	0.0%	0.00	0.0%	0.00	83.9%	5.20	6.20
Averages & totals	2.04	4.5%	8.30	8.30	16.2%	29.95	30.6%	56.47	48.6%	89.60	184.32

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-31: TEO Ranking by Subject Area – Other Health Studies (including Rehabilitation Therapies)

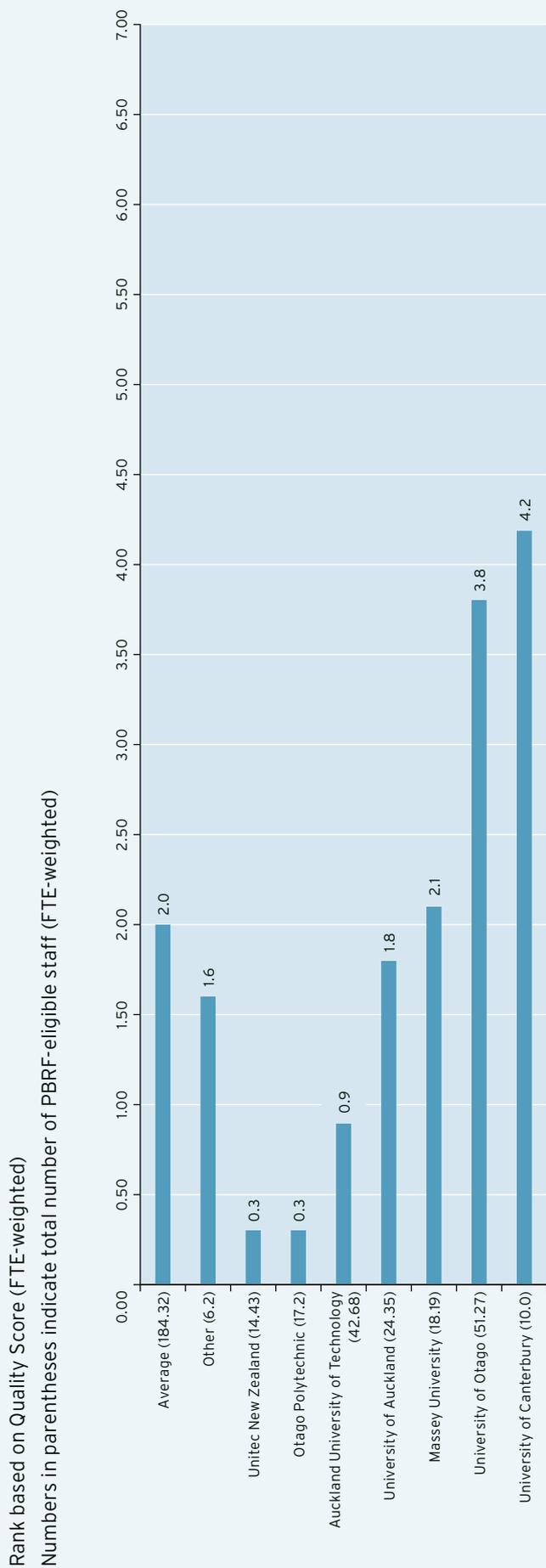


Table A-32: Subject-Area Results – Pharmacy

TEO Name	Quality Score*	Staff rated A* %	Staff rated A*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 University of Auckland	5.1	18.2%	1.00	54.5%	3.00	0.0%	0.00	27.3%	1.50	5.50
2 University of Otago	3.5	7.6%	1.00	37.9%	5.00	24.2%	3.20	30.3%	4.00	13.20
Other#	2.0	0.0%	0.00	0.0%	0.00	100.0%	1.00	0.0%	0.00	1.00
Averages & totals	3.88	10.2%	2.00	40.6%	8.00	21.3%	4.20	27.9%	5.50	19.70

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-32: TEO Ranking by Subject Area – Pharmacy

Rank based on Quality Score (FTE-weighted)

Numbers in parentheses indicate total number of PBRF-eligible staff (FTE-weighted)

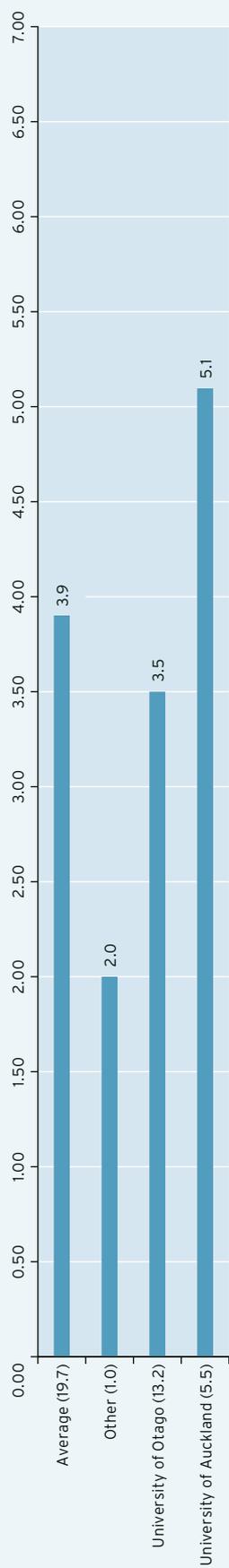


Table A-33: Subject-Area Results – Philosophy

TEO Name	Quality Score*	Staff rated A* %	Staff rated A*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 University of Auckland	5.8	26.7%	6.20	47.4%	11.00	16.3%	3.79	9.5%	2.20	23.19
2 University of Canterbury	6.5	46.5%	4.00	18.6%	1.60	34.9%	3.00	0.0%	0.00	8.60
3 University of Otago	7.1	34.9%	3.00	58.1%	5.00	7.0%	0.60	0.0%	0.00	8.60
4 University of Waikato	4.5	0.0%	0.00	61.5%	4.00	38.5%	2.50	0.0%	0.00	6.50
5 Victoria University of Wellington	4.9	27.3%	3.00	18.2%	2.00	54.5%	6.00	0.0%	0.00	11.00
Other#	1.4	0.0%	0.00	10.0%	1.00	40.0%	4.00	50.0%	5.00	10.00
Averages & totals	5.15	23.9%	16.20	36.2%	24.60	29.3%	19.89	10.6%	7.20	67.89

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-33: TEO Ranking by Subject Area – Philosophy

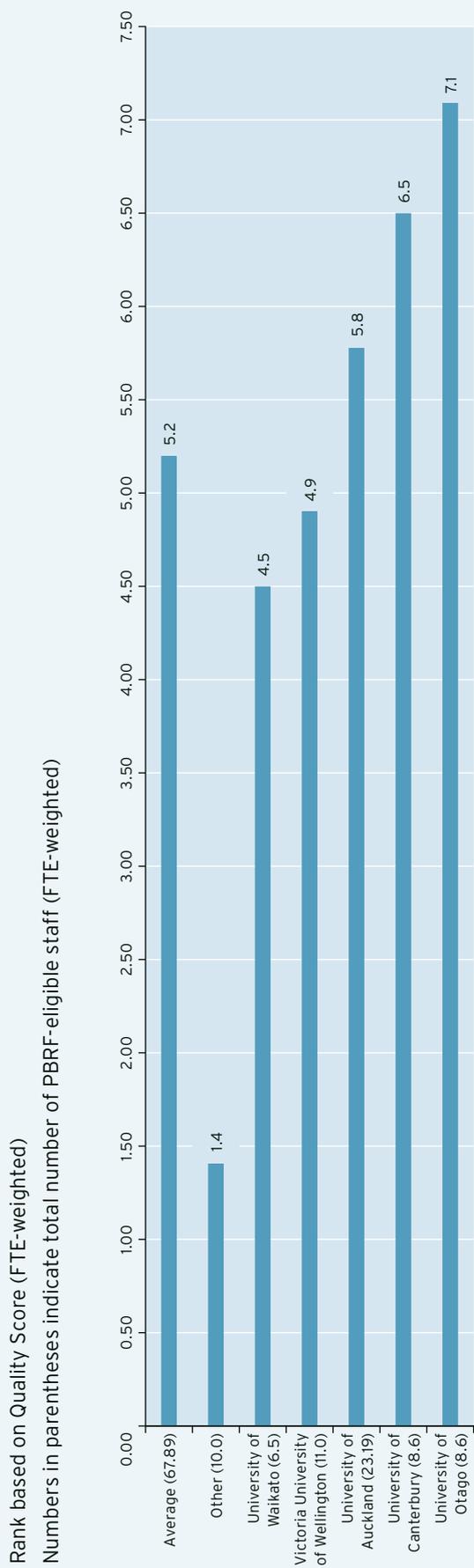


Table A-34: Subject-Area Results – Physics

TEO Name	Quality Score*	Staff rated A* %	Staff rated A* %	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Massey University	4.8	10.0%	1.00	50.0%	5.00	40.0%	4.00	0.0%	0.00	10.00
2 University of Auckland	5.4	17.2%	4.00	53.4%	12.40	21.5%	5.00	7.9%	1.83	23.23
3 University of Canterbury	4.6	12.9%	3.50	40.9%	11.08	44.7%	12.10	1.4%	0.39	27.07
4 University of Otago	4.1	15.6%	3.50	26.7%	6.00	48.9%	11.00	8.9%	2.00	22.50
5 Victoria University of Wellington	5.1	15.3%	2.25	47.5%	7.00	37.3%	5.50	0.0%	0.00	14.75
Other#	3.2	0.0%	0.00	41.2%	3.50	35.3%	3.00	23.5%	2.00	8.50
Averages & totals	4.65	13.4%	14.25	42.4%	44.98	38.3%	40.60	5.9%	6.22	106.05

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-34: TEO Ranking by Subject Area – Physics

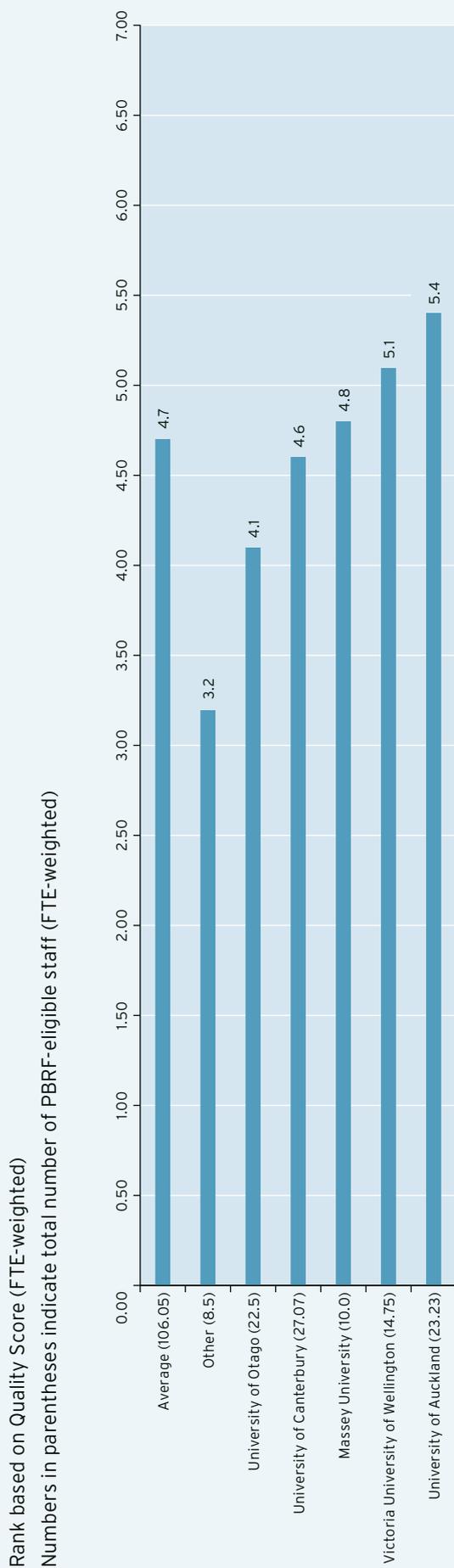


Table A-35: Subject-Area Results – Political Science, International Relations and Public Policy

TEO Name	Quality Score*	Staff rated A* %	Staff rated A*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*	No of eligible staff*
1 Massey University	2.8	0.0%	0.00	30.0%	3.00	50.0%	5.00	20.0%	2.00	10.00
2 University of Auckland	5.2	25.6%	5.00	35.9%	7.00	25.6%	5.00	12.8%	2.50	19.50
3 University of Canterbury	3.8	10.2%	2.00	30.6%	6.00	49.0%	9.59	10.2%	2.00	19.59
4 University of Otago	4.6	15.4%	2.00	46.2%	6.00	15.4%	2.00	23.1%	3.00	13.00
5 University of Waikato	3.0	0.0%	0.00	30.5%	3.00	59.4%	5.85	10.2%	1.00	9.85
6 Victoria University of Wellington	4.6	17.0%	5.00	37.3%	11.00	32.8%	9.67	12.9%	3.80	29.47
Other#	2.2	0.0%	0.00	10.5%	0.80	78.9%	6.00	10.5%	0.80	7.60
Averages & totals	4.10	12.8%	14.00	33.8%	36.80	39.5%	43.11	13.9%	15.10	109.01

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-35: TEO Ranking by Subject Area – Political Science, International Relations and Public Policy

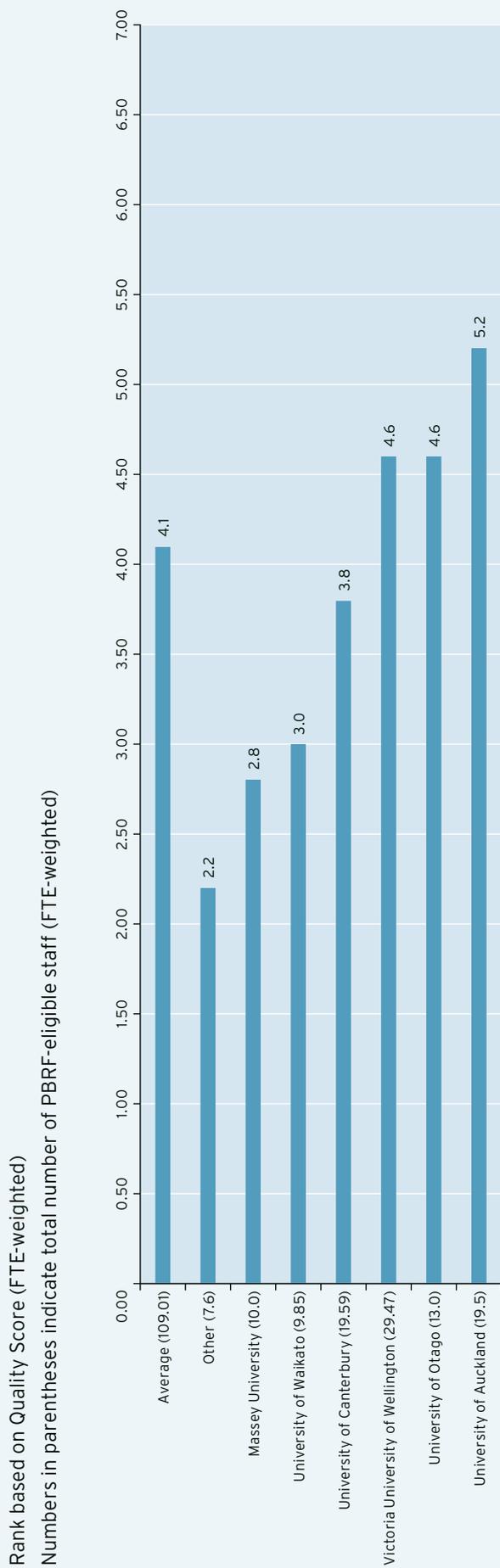


Table A-36: Subject-Area Results – Psychology

TEO Name	Quality Score*	Staff rated A* %	Staff rated A*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Auckland University of Technology	0.7	0.0%	0.00	0.0%	0.00	36.6%	3.00	63.4%	5.20	8.20
2 Massey University	2.9	6.0%	3.00	19.7%	9.82	54.2%	27.00	20.1%	10.00	49.82
3 Open Polytechnic of New Zealand	0.7	0.0%	0.00	0.0%	0.00	33.8%	2.60	66.2%	5.10	7.70
4 University of Auckland	4.4	16.1%	7.70	37.0%	17.69	28.0%	13.40	18.9%	9.05	47.84
5 University of Canterbury	4.7	19.8%	6.00	36.4%	11.00	28.0%	8.47	15.8%	4.79	30.26
6 University of Otago	5.9	36.2%	14.00	27.9%	10.80	32.3%	12.50	3.6%	1.40	38.70
7 University of Waikato	4.4	17.2%	3.00	34.5%	6.00	31.0%	5.40	17.2%	3.00	17.40
8 Victoria University of Wellington	6.0	27.5%	7.00	47.1%	12.00	19.6%	5.00	5.9%	1.50	25.50
Other#	2.0	8.9%	1.00	8.9%	1.00	26.8%	3.00	55.4%	6.20	11.20
Averages & totals	4.17	17.6%	41.70	28.9%	68.31	34.0%	80.37	19.5%	46.24	236.62

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-36: TEO Ranking by Subject Area – Psychology

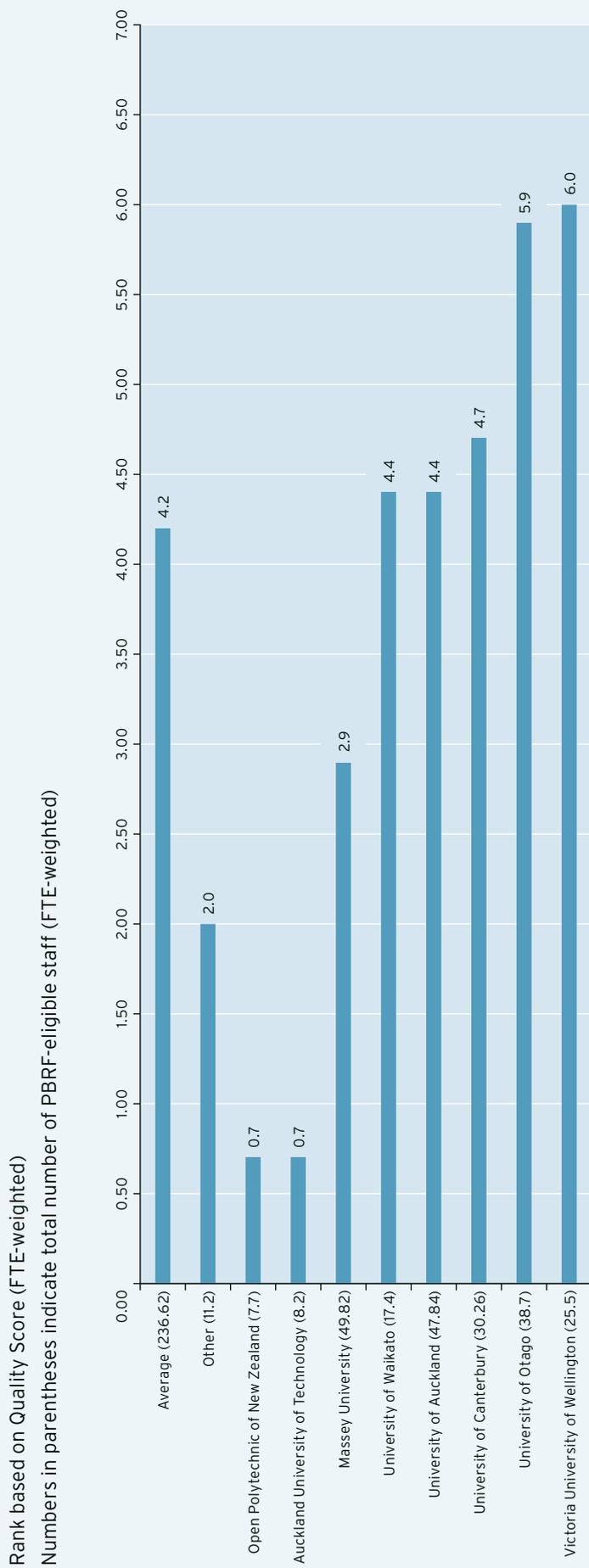


Table A-37: Subject-Area Results – Public Health

TEO Name	Quality Score*	Staff rated A* %	Staff rated A*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*	No of eligible staff*
1 Auckland University of Technology	2.9	0.0%	0.00	31.3%	3.00	53.1%	5.10	15.6%	1.50	9.60
2 Massey University	3.9	12.1%	2.00	29.1%	4.80	46.7%	7.70	12.1%	2.00	16.50
3 University of Auckland	3.6	11.8%	5.94	20.9%	10.50	56.7%	28.51	10.5%	5.30	50.25
4 University of Otago	4.0	11.1%	8.40	33.2%	25.13	45.1%	34.18	10.6%	8.00	75.71
5 Victoria University of Wellington	1.5	0.0%	0.00	13.0%	1.00	35.1%	2.70	51.9%	4.00	7.70
Other#	1.1	0.0%	0.00	14.4%	1.00	10.8%	0.75	74.8%	5.20	6.95
Averages & totals	3.56	9.8%	16.34	27.3%	45.43	47.4%	78.94	15.6%	26.00	166.71

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-37: TEO Ranking by Subject Area – Public Health

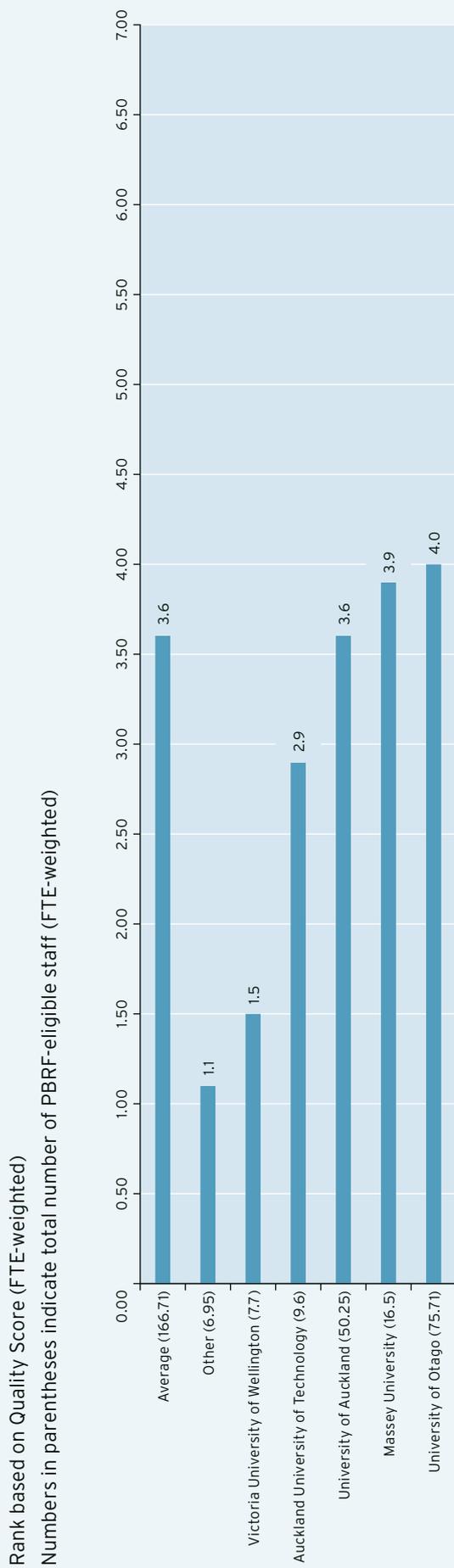


Table A-38: Subject-Area Results – Pure and Applied Mathematics

TEO Name	Quality Score*	Staff rated A* %	Staff rated A*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*	No of eligible staff*
1 Massey University	4.8	19.3%	3.43	39.5%	7.00	25.4%	4.50	15.8%	2.80	17.73
2 University of Auckland	4.5	16.3%	7.67	36.3%	17.05	35.7%	16.76	11.7%	5.47	46.95
3 University of Canterbury	4.6	22.3%	5.00	26.8%	6.00	37.9%	8.50	13.0%	2.92	22.42
4 University of Otago	3.8	16.7%	2.00	33.3%	4.00	8.3%	1.00	41.7%	5.00	12.00
5 University of Waikato	6.0	22.2%	2.00	55.6%	5.00	22.2%	2.00	0.0%	0.00	9.00
6 Victoria University of Wellington	4.2	25.5%	4.00	12.7%	2.00	44.6%	7.00	17.2%	2.70	15.70
Other [#]	0.7	0.0%	0.00	0.0%	0.00	33.3%	2.00	66.7%	4.00	6.00
Averages & totals	4.40	18.6%	24.10	31.6%	41.05	32.2%	41.76	17.6%	22.89	129.80

* Weighted on a FTE basis

[#] Includes all TEOs with fewer than 5 FTE

Figure A-38: TEO Ranking by Subject Area – Pure and Applied Mathematics

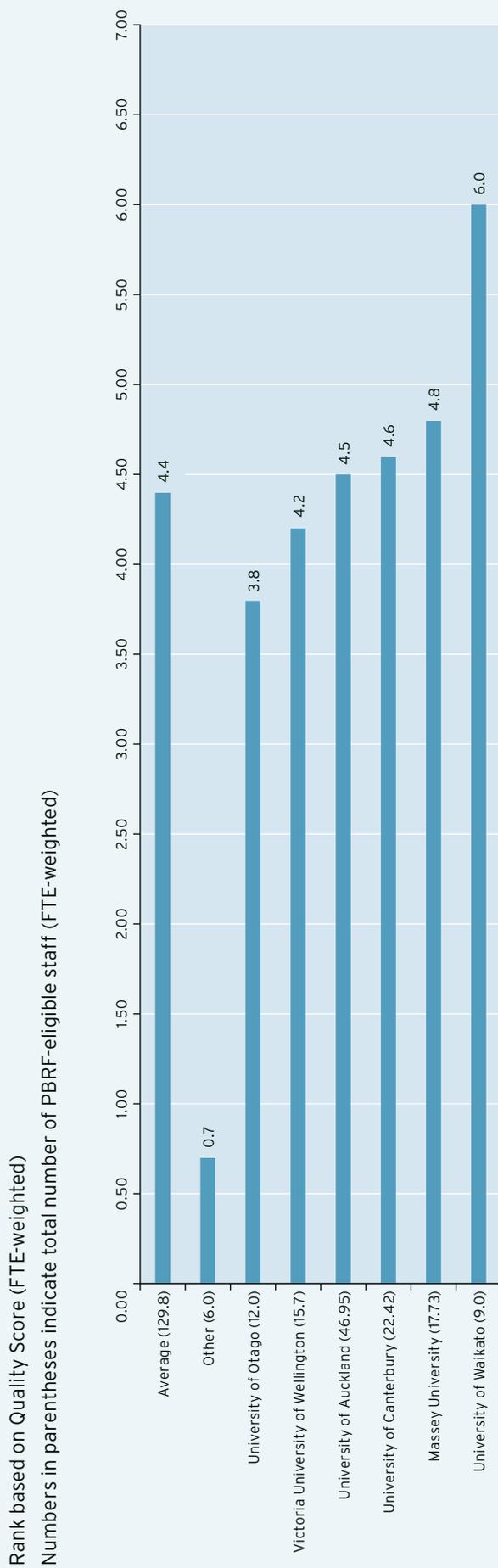


Table A-39: Subject-Area Results – Religious Studies and Theology

TEO Name	Quality Score*	Staff rated A* %	Staff rated A*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Bible College of New Zealand	0.4	0.0%	0.00	0.0%	0.00	21.1%	3.50	78.9%	13.05	16.55
2 Carey Baptist College	1.7	0.0%	0.00	23.8%	2.00	11.9%	1.00	64.3%	5.40	8.40
3 Good Shepherd College	0.5	0.0%	0.00	0.0%	0.00	25.8%	2.00	74.2%	5.75	7.75
5 University of Otago	6.8	38.1%	2.00	42.9%	2.25	19.0%	1.00	0.0%	0.00	5.25
6 Victoria University of Wellington	4.5	0.0%	0.00	62.5%	5.00	37.5%	3.00	0.0%	0.00	8.00
Other#	2.8	0.0%	0.00	35.4%	4.00	35.4%	4.00	29.2%	3.30	11.30
Averages & totals	2.24	3.5%	2.00	23.1%	13.25	25.3%	14.50	48.0%	27.50	57.25

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-39: TEO Ranking by Subject Area – Religious Studies and Theology

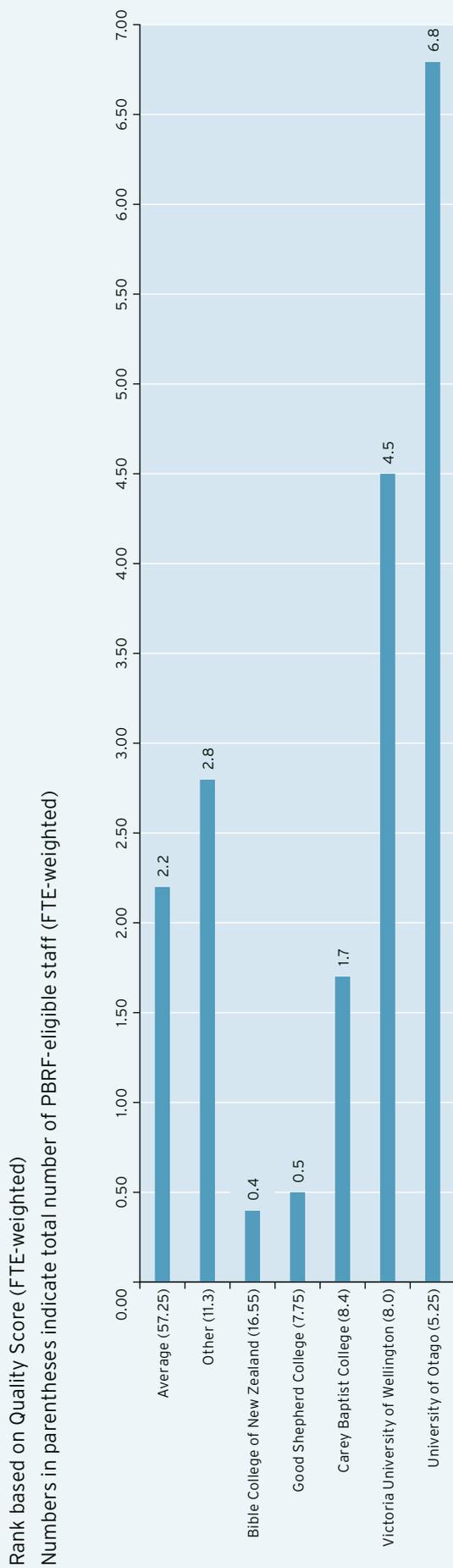


Table A-40: Subject-Area Results – Sociology, Social Policy, Social Work, Criminology and Gender Studies

TEO Name	Quality Score*	Staff rated A* %	Staff rated A*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*	No of eligible staff*
1 Auckland University of Technology	2.2	0.0%	0.00	12.8%	2.00	70.5%	11.00	16.7%	2.60	15.60
2 Former Auckland College of Education	0.5	0.0%	0.00	0.0%	0.00	26.1%	3.00	73.9%	8.50	11.50
3 Lincoln University	2.3	0.0%	0.00	16.7%	1.60	62.5%	6.00	20.8%	2.00	9.60
4 Massey University	3.3	8.1%	3.50	22.6%	9.80	54.8%	23.80	14.5%	6.30	43.40
5 Te Wānanga o Aotearoa	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	5.00	5.00
6 Unitec New Zealand	0.5	0.0%	0.00	0.0%	0.00	25.4%	3.30	74.6%	9.68	12.98
7 University of Auckland	3.9	6.7%	1.00	40.0%	6.00	43.3%	6.50	10.0%	1.50	15.00
8 University of Canterbury	3.2	7.7%	2.00	23.0%	6.00	53.7%	14.00	15.6%	4.06	26.06
9 University of Otago	4.0	5.2%	1.00	46.2%	8.80	35.4%	6.75	13.1%	2.50	19.05
10 University of Waikato	2.5	7.4%	1.00	7.4%	1.00	63.9%	8.59	21.2%	2.85	13.44
11 Victoria University of Wellington	4.1	3.2%	1.00	50.8%	16.00	38.1%	12.00	7.9%	2.50	31.50
Other#	0.2	0.0%	0.00	2.9%	0.70	3.7%	0.90	93.4%	22.70	24.30
Averages & totals	2.63	4.2%	9.50	22.8%	51.90	42.1%	95.84	30.9%	70.19	227.43

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-40: TEO Ranking by Subject Area – Sociology, Social Policy, Social Work, Criminology and Gender Studies

Rank based on Quality Score (FTE-weighted)

Numbers in parentheses indicate total number of PBRF-eligible staff (FTE-weighted)

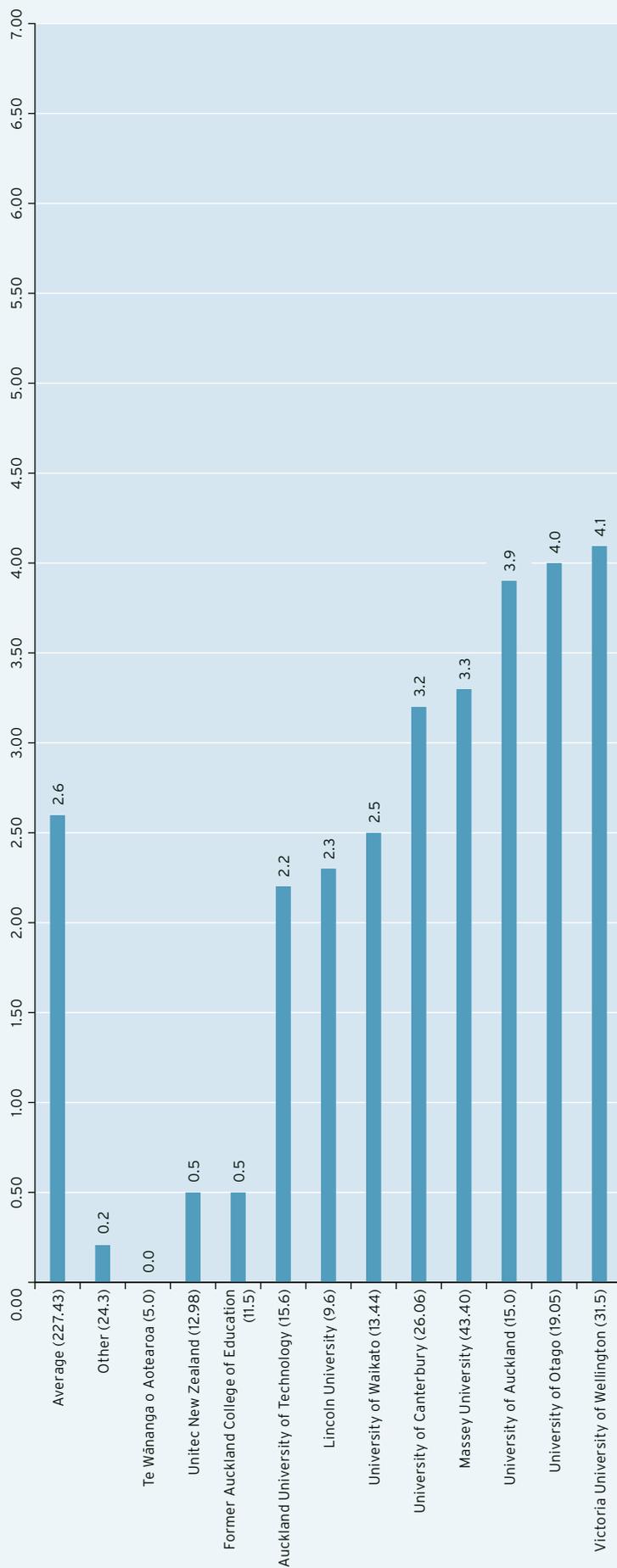


Table A-41: Subject-Area Results – Sport and Exercise Science

TEO Name	Quality Score*	Staff rated A* %	Staff rated A*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Auckland University of Technology	1.5	0.0%	0.00	12.9%	2.60	34.8%	7.00	52.2%	10.50	20.10
2 Christchurch Polytechnic Institute of Technology	0.3	0.0%	0.00	0.0%	0.00	16.1%	1.00	83.9%	5.20	6.20
3 Eastern Institute of Technology	1.2	0.0%	0.00	20.0%	1.00	0.0%	0.00	80.0%	4.00	5.00
4 Massey University	1.9	0.0%	0.00	14.3%	2.00	50.0%	7.00	35.7%	5.00	14.00
5 Unitec New Zealand	0.6	0.0%	0.00	0.0%	0.00	28.6%	2.00	71.4%	5.00	7.00
6 University of Auckland	2.7	0.0%	0.00	18.6%	1.00	81.4%	4.38	0.0%	0.00	5.38
7 University of Otago	2.9	3.4%	0.80	21.2%	5.00	64.8%	15.30	10.6%	2.50	23.60
8 Waikato Institute of Technology	0.7	0.0%	0.00	5.3%	0.50	21.3%	2.00	73.4%	6.90	9.40
Other#	1.5	0.0%	0.00	9.3%	1.00	44.9%	4.80	45.8%	4.90	10.70
Averages & totals	1.71	0.8%	0.80	12.9%	13.10	42.9%	43.48	43.4%	44.00	101.38

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-41: TEO Ranking by Subject Area – Sport and Exercise Science

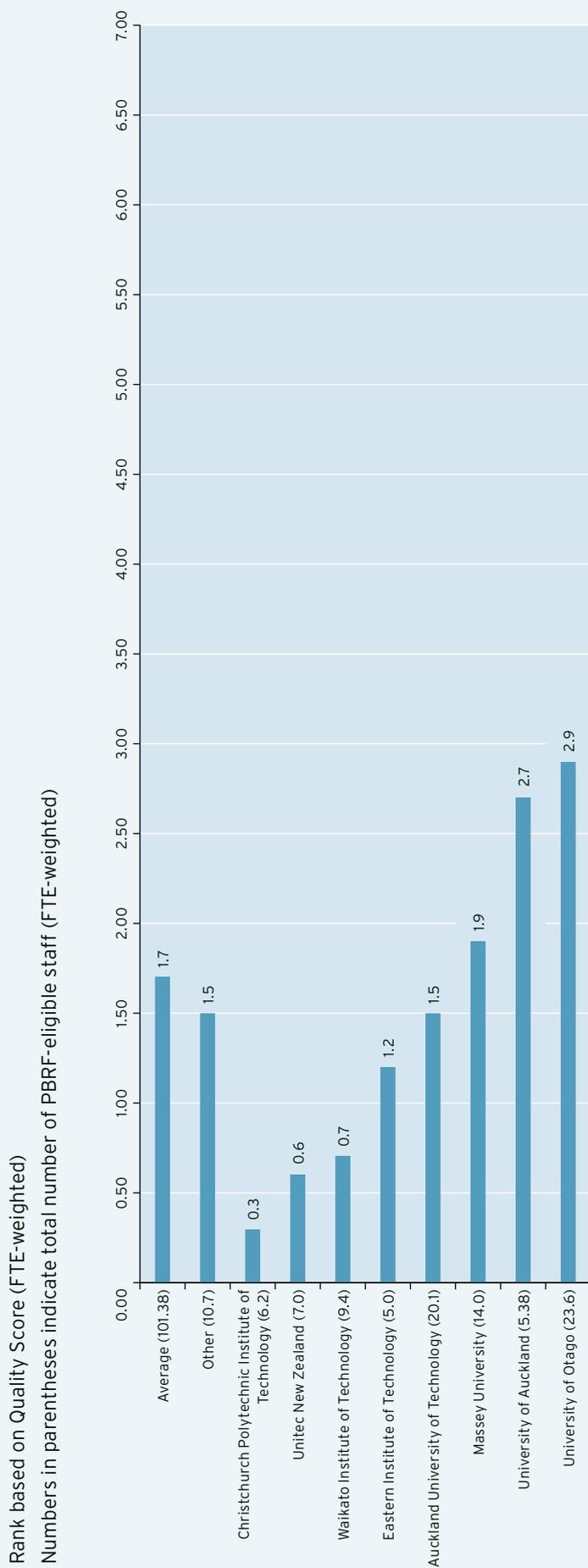


Table A-42: Subject-Area Results – Statistics

TEO Name	Quality Score*	Staff rated A* %	Staff rated A*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Massey University	3.7	0.0%	0.00	45.4%	9.00	49.6%	9.83	5.0%	1.00	19.83
2 University of Auckland	4.7	22.7%	7.00	33.1%	10.20	20.6%	6.35	23.7%	7.30	30.85
3 University of Canterbury	2.2	0.0%	0.00	9.1%	1.00	81.8%	9.00	9.1%	1.00	11.00
4 University of Otago	3.8	9.3%	1.00	34.9%	3.75	37.2%	4.00	18.6%	2.00	10.75
5 University of Waikato	3.4	14.3%	1.00	14.3%	1.00	57.1%	4.00	14.3%	1.00	7.00
6 Victoria University of Wellington	3.4	2.8%	0.25	30.2%	2.70	67.0%	6.00	0.0%	0.00	8.95
Other [#]	0.5	0.0%	0.00	0.0%	0.00	25.0%	1.00	75.0%	3.00	4.00
Averages & totals	3.67	10.0%	9.25	29.9%	27.65	43.5%	40.18	16.6%	15.30	92.38

* Weighted on a FTE basis

[#] Includes all TEOs with fewer than 5 FTE

Figure A-42: TEO Ranking by Subject Area – Statistics

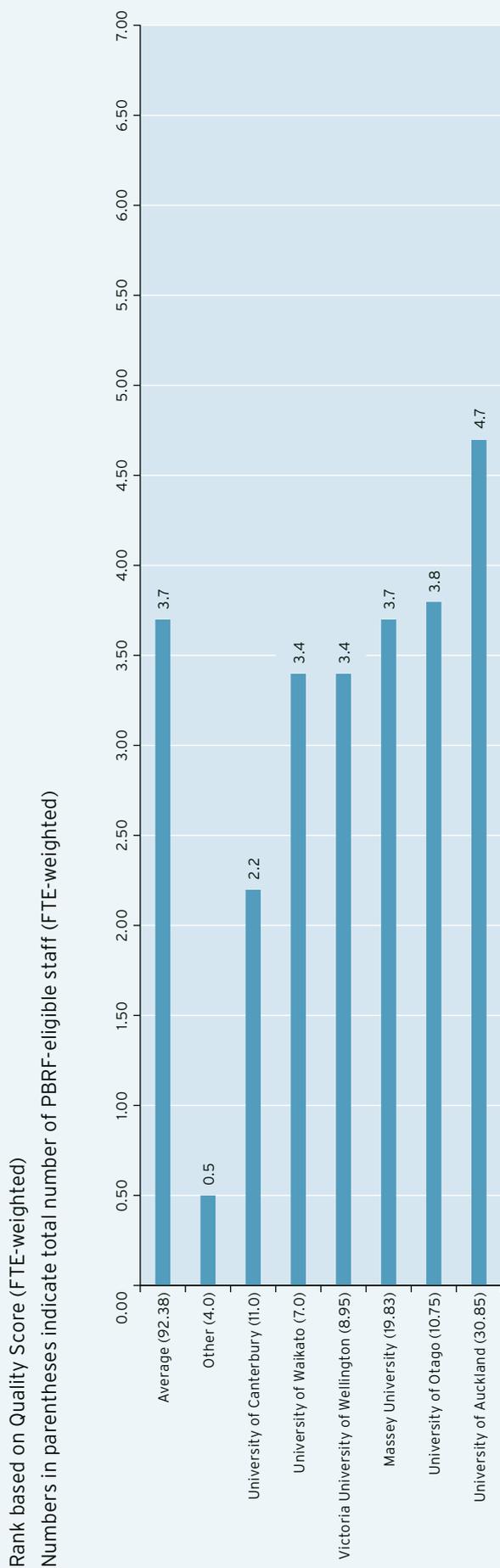


Table A-43: Subject-Area Results – Theatre and Dance, Film, Television and Multimedia

TEO Name	Quality Score*	Staff rated A* %	Staff rated A* %	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Auckland University of Technology	2.0	14.3%	1.00	0.0%	0.00	28.6%	2.00	57.1%	4.00	7.00
2 Christchurch College of Education	1.2	0.0%	0.00	15.2%	1.00	15.2%	1.00	69.7%	4.60	6.60
3 Unitec New Zealand	0.6	0.0%	0.00	6.2%	1.00	9.9%	1.60	83.9%	13.53	16.13
4 University of Canterbury	2.0	0.0%	0.00	7.7%	0.50	76.9%	5.00	15.4%	1.00	6.50
5 University of Otago	2.7	0.0%	0.00	33.3%	2.00	33.3%	2.00	33.3%	2.00	6.00
6 University of Waikato	2.2	0.0%	0.00	11.3%	1.00	77.4%	6.85	11.3%	1.00	8.85
7 Victoria University of Wellington	3.2	8.3%	1.00	16.7%	2.00	66.7%	8.00	8.3%	1.00	12.00
Other#	1.7	4.5%	1.00	10.0%	2.24	31.4%	7.00	54.1%	12.05	22.29
Averages & totals	1.82	3.5%	3.00	11.4%	9.74	39.2%	33.45	45.9%	39.18	85.37

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-43: TEO Ranking by Subject Area – Theatre and Dance, Film, Television and Multimedia

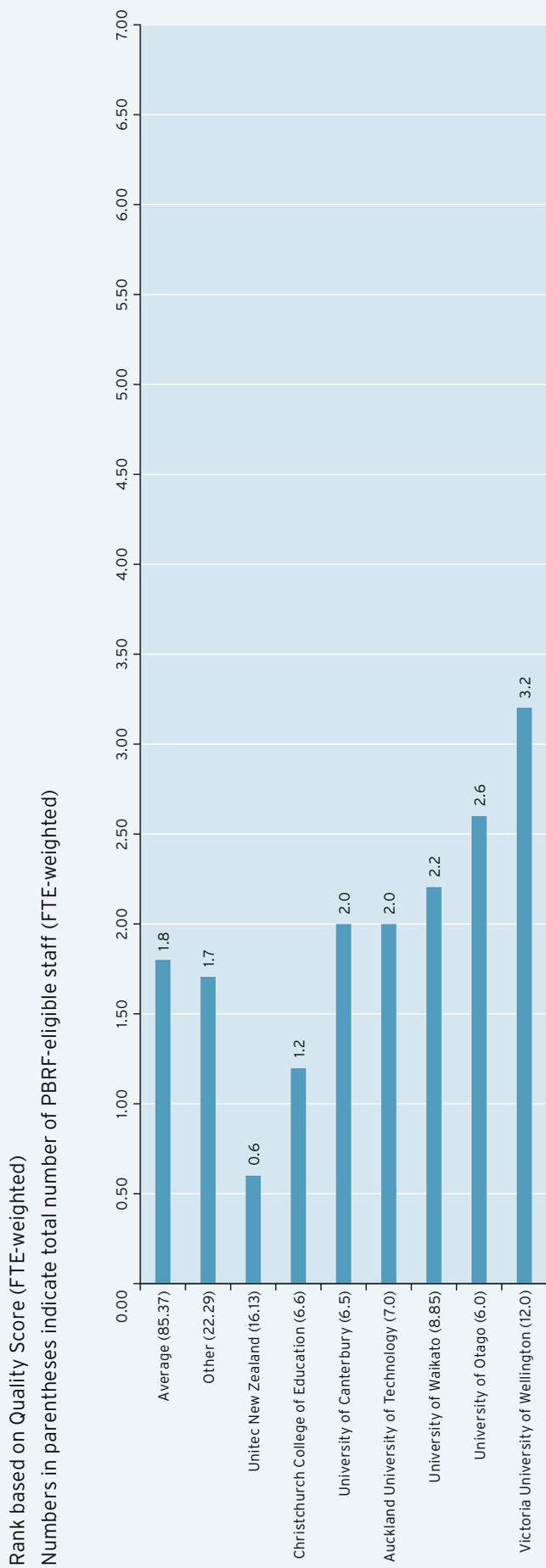


Table A-44: Subject-Area Results – Veterinary Studies and Large Animal Science

TEO Name	Quality Score*	Staff rated A* %	Staff rated A*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Massey University	3.4	10.1%	6.27	25.6%	15.90	44.2%	27.50	20.1%	12.48	62.15
2 Unitec New Zealand	1.1	0.0%	0.00	17.7%	1.00	3.5%	0.20	78.8%	4.45	5.65
Other#	3.2	0.0%	0.00	40.0%	1.00	40.0%	1.00	20.0%	0.50	2.50
Averages & totals	3.24	8.9%	6.27	25.5%	17.90	40.8%	28.70	24.8%	17.43	70.30

* Weighted on a FTE basis

Includes all TEOs with fewer than 5 FTE

Figure A-44: TEO Ranking by Subject Area – Veterinary Studies and Large Animal Science

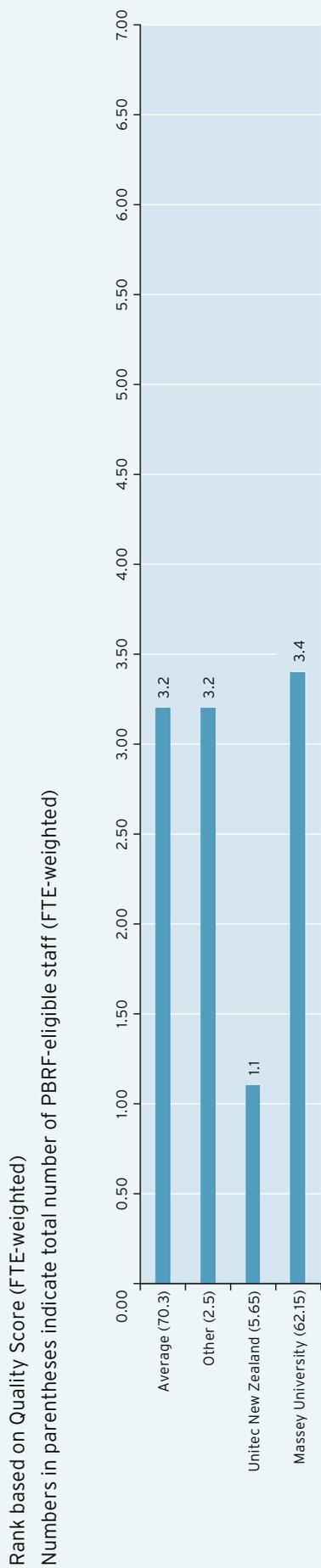


Table A-45: Subject-Area Results – Visual Arts and Crafts

TEO Name	Quality Score*	Staff rated A* %	Staff rated A*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Auckland University of Technology	1.8	0.0%	0.00	9.0%	2.00	64.3%	14.20	26.7%	5.90	22.10
2 Christchurch Polytechnic Institute of Technology	0.5	0.0%	0.00	0.0%	0.00	27.4%	3.90	72.6%	10.35	14.25
3 Eastern Institute of Technology	1.0	0.0%	0.00	0.0%	0.00	48.3%	2.80	51.7%	3.00	5.80
4 Manukau Institute of Technology	1.8	0.0%	0.00	12.0%	2.60	54.7%	11.90	33.3%	7.25	21.75
5 Massey University	4.2	12.6%	3.00	37.0%	8.80	37.8%	9.00	12.6%	3.00	23.80
6 Nelson Marlborough Institute of Technology	0.1	0.0%	0.00	0.0%	0.00	7.4%	0.55	92.6%	6.85	7.40
7 Northland Polytechnic	0.6	0.0%	0.00	4.7%	0.40	14.6%	1.24	80.7%	6.85	8.49
8 Otago Polytechnic	1.1	0.0%	0.00	1.8%	0.40	51.0%	11.14	47.2%	10.32	21.86
9 Te Wānanga o Aotearoa	0.4	0.0%	0.00	0.0%	0.00	20.0%	1.00	80.0%	4.00	5.00
10 Te Whare Wānanga o Awanuiārangi	1.1	0.0%	0.00	0.0%	0.00	53.5%	5.75	46.5%	5.00	10.75
11 Unitec New Zealand	2.0	3.3%	0.60	16.3%	2.95	36.4%	6.60	44.0%	7.98	18.13
12 University of Auckland	4.7	9.7%	2.00	50.7%	10.50	34.8%	7.20	4.8%	1.00	20.70
13 University of Canterbury	2.3	7.7%	0.50	0.0%	0.00	76.9%	5.00	15.4%	1.00	6.50
14 Waikato Institute of Technology	1.8	0.0%	0.00	0.0%	0.00	89.2%	8.25	10.8%	1.00	9.25
15 Whitecliffe College of Arts and Design	0.4	0.0%	0.00	0.0%	0.00	22.0%	2.00	78.0%	7.08	9.08
16 Whitireia Community Polytechnic	1.0	0.0%	0.00	0.0%	0.00	49.0%	2.50	51.0%	2.60	5.10
Other*	1.0	0.0%	0.00	0.0%	0.00	49.7%	3.50	50.3%	3.54	7.04
Averages & totals	1.94	2.8%	6.10	12.7%	27.65	44.5%	96.53	40.0%	86.72	217.00

* Weighted on a FTE basis

* Includes all TEOs with fewer than 5 FTE

Figure A-45: TEO Ranking by Subject Area – Visual Arts and Crafts

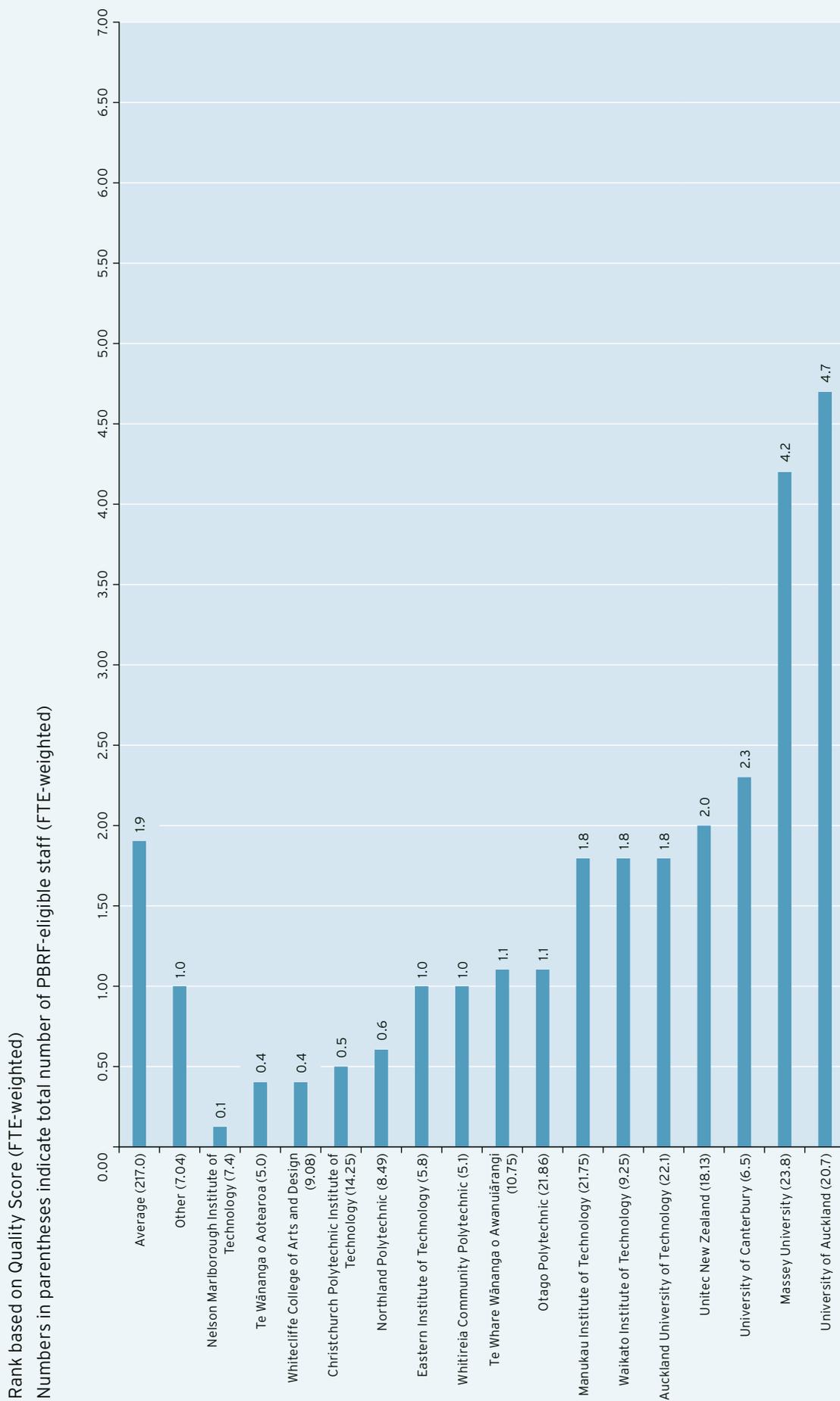


Table A-46: Nominated Academic Units – AIS St Helens

Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 International Business Programme	0.2	0.0%	0.00	0.0%	0.00	10.0%	1.00	90.0%	9.00	10.00
2 Language and Culture Programme	0.5	0.0%	0.00	0.0%	0.00	25.8%	2.00	74.2%	5.76	7.76
3 Other	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	6.75	6.75
Averages & totals	0.24	0.0%	0.00	0.0%	0.00	12.2%	3.00	87.8%	21.51	24.51

* Weighted on a FTE basis

Table A-47: Nominated Academic Units – Anamata

	Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff**
1	Bachelor of Te Reo Māori	0.9	0.0%	0.00	0.0%	0.00	46.9%	1.75	53.1%	1.98	3.73
	Averages & totals	0.94	0.0%	0.00	0.0%	0.00	46.9%	1.75	53.1%	1.98	3.73

* Weighted on a FTE basis

Table A-48: Nominated Academic Units – Former Auckland College of Education

Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Education	0.7	0.0%	0.00	3.2%	5.00	23.4%	36.60	73.4%	114.74	156.34
Averages & totals	0.66	0.0%	0.00	3.2%	5.00	23.4%	36.60	73.4%	114.74	156.34

* Weighted on a FTE basis

Table A-49: Nominated Academic Units – Auckland University of Technology

	Nominated Academic Unit	Quality Score	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*	No of eligible staff*
1	Accounting & Finance	3.4	6.3%	1.00	31.3%	5.00	43.8%	7.00	18.8%	3.00	16.00
2	Applied Language Studies	1.5	4.9%	1.00	4.9%	1.00	34.0%	7.00	56.3%	11.60	20.60
3	Applied Science	1.4	0.0%	0.00	9.8%	2.00	39.2%	8.00	51.0%	10.40	20.40
4	Art and Design	1.4	0.0%	0.00	9.0%	2.00	43.0%	9.50	48.0%	10.60	22.10
5	Communication Studies	1.1	2.6%	1.00	5.3%	2.00	26.5%	10.00	65.6%	24.80	37.80
6	Computer and Information Sciences	2.8	4.5%	2.00	22.4%	10.00	49.7%	22.20	23.5%	10.50	44.70
7	Economics	2.0	0.0%	0.00	0.0%	0.00	100.0%	7.00	0.0%	0.00	7.00
8	Education	0.9	0.0%	0.00	0.0%	0.00	45.5%	10.20	54.5%	12.20	22.40
9	Engineering	2.5	0.0%	0.00	25.5%	5.00	49.0%	9.60	25.5%	5.00	19.60
10	Hospitality and Tourism	2.1	11.6%	1.00	0.0%	0.00	46.5%	4.00	41.9%	3.60	8.60
11	Law	2.8	0.0%	0.00	40.0%	2.00	20.0%	1.00	40.0%	2.00	5.00
12	Management	3.4	0.0%	0.00	36.4%	8.00	59.1%	13.00	4.5%	1.00	22.00
13	Marketing	3.1	0.0%	0.00	28.6%	2.00	71.4%	5.00	0.0%	0.00	7.00
14	Midwifery	0.6	0.0%	0.00	0.0%	0.00	32.0%	2.40	68.0%	5.10	7.50
15	National Institute for Public Health and Mental Health	2.9	0.0%	0.00	26.2%	4.40	66.1%	11.10	7.7%	1.30	16.80
16	Nursing	1.3	0.0%	0.00	8.8%	1.00	37.2%	4.20	54.0%	6.10	11.30
17	Occupational Therapy	0.4	0.0%	0.00	0.0%	0.00	18.0%	2.00	82.0%	9.09	11.09
18	Other	0.1	0.0%	0.00	0.0%	0.00	6.3%	0.20	93.8%	3.00	3.20
19	Physiotherapy and Rehabilitation Science	1.0	0.0%	0.00	9.7%	2.00	20.4%	4.20	69.9%	14.40	20.60
20	Psychosocial Studies	0.8	0.0%	0.00	8.3%	1.00	16.7%	2.00	75.0%	8.99	11.99
21	Social Sciences	2.6	0.0%	0.00	20.2%	3.80	69.1%	13.00	10.6%	2.00	18.80
22	Sport and Exercise Science	1.2	0.0%	0.00	9.8%	2.20	31.30%	7.00	58.9%	13.20	22.40
23	Te Ara Poutama	2.0	0.0%	0.00	20.0%	1.00	40.0%	2.00	40.0%	2.00	5.00
	Averages & totals	1.86	1.6%	6.00	14.2%	54.40	42.3%	161.60	41.9%	159.88	381.88

* Weighted on a FTE basis

Table A-50: Nominated Academic Units – Bethlehem Institute of Education

Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Counselling	0.4	0.0%	0.00	0.0%	0.00	18.9%	1.00	81.1%	4.30	5.30
2 Education	0.3	0.0%	0.00	0.0%	0.00	16.1%	2.00	83.9%	10.40	12.40
Averages & totals	0.34	0.0%	0.00	0.0%	0.00	16.9%	3.00	83.1%	14.70	17.70

* Weighted on a FTE basis

Table A-51: Nominated Academic Units – Bible College of New Zealand

Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Theological Education	0.4	0.0%	0.00	0.0%	0.00	21.1%	3.50	78.9%	13.05	16.55
Averages & totals	0.42	0.0%	0.00	0.0%	0.00	21.1%	3.50	78.9%	13.05	16.55

* Weighted on a FTE basis

Table A-52: Nominated Academic Units – Carey Baptist College

Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Carey Baptist College	1.7	0.0%	0.00	23.8%	2.00	11.9%	1.00	64.3%	5.40	8.40
Averages & totals	1.67	0.0%	0.00	23.8%	2.00	11.9%	1.00	64.3%	5.40	8.40

* Weighted on a FTE basis

Table A-53: Nominated Academic Units – Christchurch College of Education

	Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff**
1	Other	2.0	0.0%	0.00	33.3%	1.00	0.0%	0.00	66.7%	2.00	3.00
2	School of Business	0.8	0.0%	0.00	0.0%	0.00	40.0%	2.00	60.0%	3.00	5.00
3	School of Early Childhood Teacher Education	0.2	0.0%	0.00	0.0%	0.00	8.0%	1.00	92.0%	11.56	12.56
4	School of Primary Teacher Education	0.1	0.0%	0.00	0.0%	0.00	5.8%	2.90	94.2%	46.71	49.61
5	School of Professional Development	0.6	0.0%	0.00	0.0%	0.00	30.0%	3.90	70.0%	9.10	13.00
6	School of Secondary Teacher Education	0.7	0.0%	0.00	8.5%	2.85	8.2%	2.77	83.3%	28.06	33.68
	Averages & totals	0.41	0.0%	0.00	3.3%	3.85	10.8%	12.57	85.9%	100.43	116.85

* Weighted on a FTE basis

Table A-54: Nominated Academic Units – Christchurch Polytechnic Institute of Technology

	Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1	Bachelor of Applied Science	1.8	0.0%	0.00	14.9%	1.00	44.8%	3.00	40.3%	2.70	6.70
2	Bachelor of Architectural Studies	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	4.70	4.70
3	Bachelor of Broadcast Communications	2.4	0.0%	0.00	23.8%	2.00	46.4%	3.90	29.8%	2.50	8.40
4	Bachelor of Business Innovation and Enterprise	0.2	0.0%	0.00	0.0%	0.00	8.8%	1.00	91.2%	10.30	11.30
5	Bachelor of Design	0.6	0.0%	0.00	0.0%	0.00	30.2%	4.90	69.8%	11.35	16.25
6	Bachelor of Engineering Technology	0.1	0.0%	0.00	0.0%	0.00	6.3%	1.00	93.8%	15.00	16.00
7	Bachelor of Information and Communication Technology	0.4	0.0%	0.00	0.0%	0.00	21.4%	3.00	78.6%	11.00	14.00
8	Bachelor of Japanese Language	0.3	0.0%	0.00	0.0%	0.00	16.7%	1.00	83.3%	5.00	6.00
9	Bachelor of Music	0.3	0.0%	0.00	0.0%	0.00	16.7%	1.00	83.3%	5.00	6.00
10	Bachelor of Nursing	0.1	0.0%	0.00	0.0%	0.00	6.1%	2.00	93.9%	31.00	33.00
11	Bachelor of Outdoor Recreation	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	7.20	7.20
12	Bachelor of Social Work	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	4.20	4.20
13	Other	0.3	0.0%	0.00	0.0%	0.00	14.5%	3.00	85.5%	17.76	20.76
	Averages & totals	0.42	0.0%	0.00	1.9%	3.00	15.4%	23.80	82.7%	127.71	154.51

* Weighted on a FTE basis

Table A-55: Nominated Academic Units – Dunedin College of Education

Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Curriculum	0.2	0.0%	0.00	0.0%	0.00	10.0%	2.00	90.0%	18.00	20.00
2 Performing/Arts	1.0	0.0%	0.00	0.0%	0.00	50.0%	3.00	50.0%	3.00	6.00
3 Postgraduate	1.2	0.0%	0.00	0.0%	0.00	61.2%	3.15	38.8%	2.00	5.15
4 Teaching	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	36.51	36.51
Averages & totals	0.24	0.0%	0.00	0.0%	0.00	12.0%	8.15	88.0%	59.51	67.66

* Weighted on a FTE basis

Table A-56: Nominated Academic Units – Eastern Institute of Technology

	Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1	Faculty of Arts and Social Sciences	0.2	0.0%	0.00	0.0%	0.00	10.4%	2.80	89.6%	24.00	26.80
2	Faculty of Business & Computing	0.6	0.0%	0.00	0.0%	0.00	28.6%	6.00	71.4%	15.00	21.00
3	Faculty of Health & Sport Science	0.2	0.0%	0.00	3.8%	1.00	0.0%	0.00	96.2%	25.55	26.55
4	Faculty of Science & Technology	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	8.30	8.30
5	Other	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	4.00	4.00
	Averages & totals	0.27	0.0%	0.00	1.2%	1.00	10.2%	8.80	88.7%	76.85	86.65

* Weighted on a FTE basis

Table A-57: Nominated Academic Units – Good Shepherd College

	Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff**
1	Theology Faculty	0.7	0.0%	0.00	0.0%	0.00	33.3%	3.00	66.7%	6.00	9.00
	Averages & totals	0.67	0.0%	0.00	0.0%	0.00	33.3%	3.00	66.7%	6.00	9.00

* Weighted on a FTE basis

Table A-58: Nominated Academic Units – Lincoln University

Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*s*	No of eligible staff*
1 Agricultural and Primary Products	3.7	9.5%	4.00	32.4%	13.72	40.2%	17.00	18.0%	7.60	42.32
2 Bio Sciences	3.2	7.6%	3.00	20.2%	8.00	63.7%	25.25	8.6%	3.40	39.65
3 Computer Systems	2.6	0.0%	0.00	18.6%	2.00	72.1%	7.75	9.3%	1.00	10.75
4 Economics and Financial Systems	2.3	0.0%	0.00	26.5%	6.70	35.6%	9.00	37.8%	9.56	25.26
5 Environmental and Natural Resources	3.3	6.2%	2.00	27.7%	9.00	49.2%	16.00	17.0%	5.52	32.52
6 Food and Health	4.3	8.1%	1.00	40.3%	5.00	51.6%	6.40	0.0%	0.00	12.40
7 Marketing and Management	1.5	0.0%	0.00	18.0%	5.00	18.7%	5.20	63.3%	17.63	27.83
8 Social Sciences	2.8	4.2%	1.00	19.2%	4.60	59.8%	14.30	16.7%	4.00	23.90
Averages & totals	2.96	5.1%	11.00	25.2%	54.02	47.0%	100.90	22.7%	48.71	214.63

* Weighted on a FTE basis

Table A-59: Nominated Academic Units – Manukau Institute of Technology

	Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*	No of eligible staff**
1	Bachelor of Visual Arts	1.8	0.0%	0.00	11.4%	2.60	53.6%	12.20	34.9%	7.95	22.75
2	Communication and Management School	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	10.50	10.50
3	Computer and Information Systems School	0.1	0.0%	0.00	0.0%	0.00	7.4%	1.70	92.6%	21.40	23.10
4	Electrical Engineering	0.5	0.0%	0.00	0.0%	0.00	25.3%	5.00	74.7%	14.80	19.80
5	Health	0.6	0.0%	0.00	9.4%	1.00	0.0%	0.00	90.6%	9.60	10.60
6	Other	2.0	0.0%	0.00	0.0%	0.00	100.0%	1.00	0.0%	0.00	1.00
7	School of Business	0.4	0.0%	0.00	0.0%	0.00	19.2%	5.00	80.8%	21.00	26.00
	Averages & totals	0.63	0.0%	0.00	3.2%	3.60	21.9%	24.90	74.9%	85.25	113.75

* Weighted on a FTE basis

Table A-60: Nominated Academic Units – Massey University

	Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1	College of Business	2.5	2.6%	6.00	19.3%	44.10	53.4%	122.15	24.7%	56.47	228.72
2	College of Creative Arts	2.8	3.6%	3.00	27.9%	22.97	40.5%	33.30	28.0%	23.00	82.27
3	College of Education	2.1	4.2%	4.00	18.0%	17.26	28.7%	27.55	49.2%	47.20	96.01
4	College of Humanities and Social Sciences	2.9	5.8%	14.50	22.1%	55.21	51.5%	129.05	20.6%	51.60	250.36
5	College of Sciences	3.7	8.2%	37.24	31.7%	144.60	46.7%	212.65	13.4%	61.15	455.64
	Averages & totals	3.06	5.8%	64.74	25.5%	284.14	47.1%	524.70	21.5%	239.42	1113.00

* Weighted on a FTE basis

Table A-61: Nominated Academic Units – Masters Institute

	Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff**
1	Other	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	5.20	5.20
	Averages & totals	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	5.20	5.20

* Weighted on a FTE basis

Table A-62: Nominated Academic Units – Nelson Marlborough Institute of Technology

Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 School of Arts and Media	0.6	0.0%	0.00	0.0%	0.00	27.5%	3.25	72.5%	8.55	11.80
2 School of Business and Computer Technology	0.4	0.0%	0.00	0.0%	0.00	18.9%	3.49	81.1%	14.98	18.47
3 School of Health	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	10.19	10.19
Averages & totals	0.33	0.0%	0.00	0.0%	0.00	16.7%	6.74	83.3%	33.72	40.46

* Weighted on a FTE basis

Table A-63: Nominated Academic Units – Northland Polytechnic

	Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff**
1	Business and Tourism	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	5.20	5.20
2	Information Systems	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	7.00	7.00
3	Nursing	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	11.00	11.00
4	Other	0.7	0.0%	0.00	0.0%	0.00	33.3%	1.00	66.7%	2.00	3.00
5	Visual Arts	0.6	0.0%	0.00	4.7%	0.40	14.6%	1.24	80.7%	6.85	8.49
	Averages & totals	0.20	0.0%	0.00	1.2%	0.40	6.5%	2.24	92.4%	32.05	34.69

* Weighted on a FTE basis

Table A-64: Nominated Academic Units – Open Polytechnic of New Zealand

Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*	No of eligible staff*
1 Accounting	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	10.00	10.00
2 Education Studies	0.1	0.0%	0.00	0.0%	0.00	6.7%	1.00	93.3%	14.00	15.00
3 Finance and Law	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	7.30	7.30
4 Information Sciences	0.4	0.0%	0.00	0.0%	0.00	20.3%	3.50	79.7%	13.70	17.20
5 Management	0.2	0.0%	0.00	0.0%	0.00	9.5%	1.00	90.5%	9.50	10.50
6 Other	0.8	0.0%	0.00	0.0%	0.00	38.5%	5.00	61.5%	8.00	13.00
7 Social Sciences	0.5	0.0%	0.00	0.0%	0.00	24.0%	4.20	76.0%	13.30	17.50
Averages & totals	0.32	0.0%	0.00	0.0%	0.00	16.2%	14.70	83.8%	75.80	90.50

* Weighted on a FTE basis

Table A-65: Nominated Academic Units – Otago Polytechnic

Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff**
1 Art	1.4	0.0%	0.00	5.7%	1.40	52.3%	12.84	42.0%	10.32	24.56
2 Design	0.6	0.0%	0.00	0.0%	0.00	29.3%	5.30	70.7%	12.81	18.11
3 Educational Development Centre	0.3	0.0%	0.00	0.0%	0.00	16.1%	1.00	83.9%	5.20	6.20
4 Information and Communication Technology	0.5	0.0%	0.00	0.0%	0.00	26.3%	3.00	73.7%	8.40	11.40
5 Midwifery	1.7	0.0%	0.00	10.0%	0.70	54.3%	3.80	35.7%	2.50	7.00
6 Nursing	0.1	0.0%	0.00	0.0%	0.00	2.8%	0.80	97.2%	27.60	28.40
7 Other	0.1	0.0%	0.00	0.0%	0.00	6.1%	1.00	93.9%	15.45	16.45
8 Occupational Therapy	0.3	0.0%	0.00	0.0%	0.00	15.3%	2.40	84.7%	13.30	15.70
9 School of Applied Business	0.2	0.0%	0.00	0.0%	0.00	8.5%	1.00	91.5%	10.75	11.75
Averages & totals	0.54	0.0%	0.00	1.5%	2.10	22.3%	31.14	76.2%	106.33	139.57

* Weighted on a FTE basis

Table A-66: Nominated Academic Units – Pacific International Hotel Management School

Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Hospitality Management	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	19.30	19.30
Averages & totals	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	19.30	19.30

* Weighted on a FTE basis

Table A-67: Nominated Academic Units – Te Wānanga o Aotearoa

	Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff**
1	Marautanga	1.3	0.0%	0.00	13.2%	1.00	26.3%	2.00	60.5%	4.60	7.60
2	Pureirei Whakamatau	2.4	20.0%	1.00	0.0%	0.00	20.0%	1.00	60.0%	3.00	5.00
3	Whakaā Kounga Ako	0.1	0.0%	0.00	0.0%	0.00	7.4%	3.00	92.6%	37.40	40.40
	Averages & totals	0.53	1.9%	1.00	1.9%	1.00	11.3%	6.00	84.9%	45.00	53.00

* Weighted on a FTE basis

Table A-68: Nominated Academic Units – Te Whare Wānanga o Awanuiārangi

	Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1	Arts and Visual Culture	1.1	0.0%	0.00	0.0%	0.00	52.5%	7.75	47.5%	7.00	14.75
2	Education	0.8	0.0%	0.00	6.7%	1.00	20.0%	3.00	73.3%	11.00	15.00
3	Matauranga Māori	0.1	0.0%	0.00	0.0%	0.00	5.0%	1.00	95.0%	19.13	20.13
4	Other	4.0	0.0%	0.00	66.7%	2.00	0.0%	0.00	33.3%	1.00	3.00
	Averages & totals	0.78	0.0%	0.00	5.7%	3.00	22.2%	11.75	72.1%	38.13	52.88

* Weighted on a FTE basis

Table A-69: Nominated Academic Units – UNITEC New Zealand

	Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff**
1	Applied Technology Institute	0.4	0.0%	0.00	3.5%	1.00	10.6%	3.00	85.9%	24.40	28.40
2	School of Accountancy Law and Finance	0.5	0.0%	0.00	3.3%	1.00	13.3%	4.00	83.4%	25.11	30.11
3	School of Architecture and Landscape Architecture	1.4	0.0%	0.00	10.8%	3.50	38.2%	12.40	51.1%	16.60	32.50
4	School of Communication	2.2	0.0%	0.00	20.0%	2.00	50.0%	5.00	30.0%	3.00	10.00
5	School of Community Studies	0.4	0.0%	0.00	0.0%	0.00	19.5%	3.30	80.5%	13.58	16.88
6	School of Computing and Information Technology	1.5	0.0%	0.00	10.5%	3.00	45.5%	13.00	44.1%	12.60	28.60
7	School of Design	1.3	1.6%	0.60	10.3%	3.95	24.6%	9.46	63.5%	24.42	38.43
8	School of Education	1.5	0.0%	0.00	14.4%	3.66	31.0%	7.90	54.6%	13.90	25.46
9	School of Health Sciences	0.4	0.0%	0.00	2.6%	1.00	9.9%	3.88	87.5%	34.17	39.05
10	School of Language Studies	0.5	0.0%	0.00	0.0%	0.00	26.0%	6.00	74.0%	17.05	23.05
11	School of Management and Entrepreneurship	1.9	5.2%	1.00	10.4%	2.00	39.9%	7.70	44.5%	8.58	19.28
12	School of Natural Sciences	1.5	0.0%	0.00	17.6%	3.50	21.1%	4.20	61.3%	12.20	19.90
13	School of Performing and Screen Arts	0.4	0.0%	0.00	6.2%	1.00	3.7%	0.60	90.1%	14.53	16.13
14	School of Sport	0.8	0.0%	0.00	0.0%	0.00	37.5%	3.00	62.5%	5.00	8.00
15	School of the Built Environment	0.9	0.0%	0.00	2.1%	0.65	36.5%	11.30	61.4%	19.00	30.95
16	Teaching and Learning Support Services	0.2	0.0%	0.00	0.0%	0.00	8.0%	1.00	92.0%	11.50	12.50
	Averages & totals	0.96	0.4%	1.60	6.9%	26.26	25.2%	95.74	67.4%	255.64	379.24

* Weighted on a FTE basis

Table A-70: Nominated Academic Units – University of Auckland – continued on next page

Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Accounting and Finance	4.2	14.1%	3.00	37.6%	8.00	25.8%	5.50	22.5%	4.80	21.30
2 Anthropology	5.5	21.9%	5.00	43.8%	10.00	34.3%	7.84	0.0%	0.00	22.84
3 Applied Language Studies and Linguistics	4.5	5.9%	1.00	58.9%	10.00	17.7%	3.00	17.6%	2.99	16.99
4 Architecture	4.5	7.8%	1.50	48.1%	9.28	41.5%	8.00	2.6%	0.50	19.28
5 Art History	2.9	0.0%	0.00	29.7%	3.00	54.5%	5.50	15.8%	1.60	10.10
6 Arts Faculty Ed Sup	0.5	0.0%	0.00	0.0%	0.00	27.5%	3.79	72.5%	10.00	13.79
7 Bio Engineering	4.0	5.4%	1.00	48.6%	9.00	27.0%	5.00	18.9%	3.50	18.50
8 Business and Economics Faculty Ed Sup	0.4	0.0%	0.00	3.0%	0.50	12.1%	2.00	84.8%	14.00	16.50
9 Centre for Academic Development	4.4	0.0%	0.00	60.6%	4.00	39.4%	2.60	0.0%	0.00	6.60
10 Chemical and Materials Engineering	7.3	42.1%	8.00	47.4%	9.00	10.5%	2.00	0.0%	0.00	19.00
11 Chemistry	4.1	10.7%	4.25	39.8%	15.88	33.9%	13.50	15.6%	6.23	39.86
12 Civil and Environmental Engineering	4.1	8.7%	2.00	39.1%	9.00	43.5%	10.00	8.7%	2.00	23.00
13 Classics and Ancient History	4.8	21.1%	2.00	42.1%	4.00	10.5%	1.00	26.3%	2.50	9.50
14 Commercial Law	3.5	0.0%	0.00	53.8%	7.00	15.4%	2.00	30.8%	4.00	13.00
15 Computer Science	5.2	20.9%	8.00	39.2%	15.00	36.6%	14.00	3.3%	1.25	38.25
16 Economics	5.2	9.2%	2.38	63.9%	16.50	21.3%	5.50	5.6%	1.44	25.82
17 Education	3.4	16.2%	6.80	19.5%	8.19	30.4%	12.80	34.0%	14.29	42.08
18 Electrical and Computer Engineering	5.5	26.3%	7.00	36.1%	9.60	37.6%	10.00	0.0%	0.00	26.60
19 Engineering Faculty Ed Sup	1.5	5.0%	1.00	0.0%	0.00	50.8%	10.25	44.3%	8.93	20.18
20 Engineering Science	6.5	40.4%	8.00	34.3%	6.80	20.2%	4.00	5.1%	1.00	19.80
21 English	5.6	15.6%	3.50	57.8%	13.00	26.7%	6.00	0.0%	0.00	22.50
22 Film, TV and Media Studies	5.5	23.1%	3.00	46.2%	6.00	23.1%	3.00	7.7%	1.00	13.00
23 Fine Arts	4.3	8.8%	2.00	46.3%	10.50	31.7%	7.20	13.2%	3.00	22.70
24 Geology	5.0	1.5%	0.20	75.8%	10.00	15.2%	2.00	7.6%	1.00	13.20
25 History	5.3	22.5%	4.00	38.0%	6.75	39.4%	7.00	0.0%	0.00	17.75
26 Information Systems and Operations Management	4.0	4.3%	1.00	43.5%	10.00	47.8%	11.00	4.3%	1.00	23.00
27 International Business	3.1	9.1%	1.00	18.2%	2.00	54.5%	6.00	18.2%	2.00	11.00
28 Leigh Marine Laboratory	3.7	16.7%	1.00	16.7%	1.00	50.0%	3.00	16.7%	1.00	6.00
29 Liggins Institute	5.2	25.1%	6.30	31.1%	7.80	39.8%	10.00	4.0%	1.00	25.10
30 Management and Employment Relations	4.9	12.2%	3.00	49.0%	12.00	38.8%	9.50	0.0%	0.00	24.50
31 Māori Studies	4.0	25.0%	3.50	14.3%	2.00	32.1%	4.50	28.6%	4.00	14.00
32 Marketing	5.2	22.0%	4.00	38.5%	7.00	34.0%	6.19	5.5%	1.00	18.19
33 Mathematics	5.1	18.3%	6.87	45.9%	17.25	27.9%	10.50	8.0%	3.00	37.62

* Weighted on a FTE basis

Table A-70: Nominated Academic Units – University of Auckland – continued

	Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff**
34	Mechanical Engineering	4.3	12.9%	4.00	35.5%	11.00	41.9%	13.00	9.7%	3.00	31.00
35	Med and Health Science Faculty Ed Sup	0.6	0.0%	0.00	0.0%	0.00	31.6%	6.12	68.4%	13.25	19.37
36	Music and Dance	3.8	8.1%	2.00	39.0%	9.60	32.5%	8.00	20.3%	5.00	24.60
37	Optometry	2.7	0.0%	0.00	22.2%	2.00	66.7%	6.00	11.1%	1.00	9.00
38	Other	0.8	0.0%	0.00	0.0%	0.00	39.9%	8.80	60.1%	13.25	22.05
39	Pacific Studies and Development Studies	4.4	0.0%	0.00	60.0%	3.00	40.0%	2.00	0.0%	0.00	5.00
40	Philosophy	6.1	29.7%	6.20	47.8%	10.00	14.4%	3.00	8.1%	1.70	20.90
41	Physics	5.7	16.7%	4.00	60.3%	14.40	20.9%	5.00	2.1%	0.50	23.90
42	Planning	5.0	12.1%	1.00	51.7%	4.29	36.2%	3.00	0.0%	0.00	8.29
43	Political Studies	6.6	35.7%	5.00	42.9%	6.00	21.4%	3.00	0.0%	0.00	14.00
44	Property	2.3	0.0%	0.00	28.6%	2.00	28.6%	2.00	42.9%	3.00	7.00
45	Psychology	5.9	22.6%	7.70	52.8%	18.00	21.7%	7.40	2.9%	1.00	34.10
46	School of Asian Studies	3.0	4.6%	1.00	22.0%	4.80	59.6%	13.00	13.8%	3.00	21.80
47	School of Biological Sciences	4.3	12.6%	10.00	41.2%	32.60	29.3%	23.21	16.9%	13.40	79.21
48	School of European Languages and Literature	4.8	20.2%	5.00	36.3%	9.00	29.0%	7.20	14.5%	3.60	24.80
49	School of Geography and Environmental Sciences	5.7	8.2%	2.00	77.9%	18.98	12.3%	3.00	1.6%	0.40	24.38
50	School of Law	5.7	21.8%	8.00	52.0%	19.10	20.8%	7.65	5.4%	2.00	36.75
51	School of Medical Sciences	4.4	16.1%	17.70	31.7%	34.90	44.5%	49.05	7.8%	8.60	110.25
52	School of Medicine	4.2	12.5%	10.94	35.9%	31.40	41.1%	35.98	10.5%	9.21	87.53
53	School of Nursing	1.7	4.4%	1.00	10.7%	2.40	29.3%	6.60	55.6%	12.50	22.50
54	School of Pharmacy	3.1	6.5%	1.00	25.8%	4.00	45.2%	7.00	22.6%	3.50	15.50
55	School of Population Health	3.3	5.3%	3.00	27.5%	15.60	53.7%	30.50	13.6%	7.70	56.80
56	Science Faculty Ed Sup	0.6	0.0%	0.00	0.0%	0.00	28.9%	9.92	71.1%	24.35	34.27
57	Sociology	4.6	12.9%	2.00	38.7%	6.00	48.4%	7.50	0.0%	0.00	15.50
58	Sport Science	3.8	9.1%	1.00	27.3%	3.00	63.6%	7.00	0.0%	0.00	11.00
59	Statistics	6.2	30.3%	6.00	46.5%	9.20	18.2%	3.60	5.1%	1.00	19.80
60	Uni-Services	1.6	5.9%	1.88	0.8%	0.25	50.7%	16.23	42.6%	13.65	32.01
	Averages & totals	4.19	13.5%	200.72	35.8%	531.57	34.3%	508.93	16.3%	241.64	1482.86

* Weighted on a FTE basis

Table A-71: Nominated Academic Units – University of Canterbury

	Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*	No of eligible staff*
1	Accountancy, Finance and Information Systems	2.6	3.6%	1.00	21.4%	6.00	47.1%	13.20	28.0%	7.85	28.05
2	Chemical and Process Engineering	6.4	30.0%	3.00	50.0%	5.00	20.0%	2.00	0.0%	0.00	10.00
3	Chemistry	5.4	24.0%	6.00	36.0%	9.00	40.0%	10.00	0.0%	0.00	25.00
4	Civil Engineering	5.1	9.3%	3.00	59.7%	19.30	27.9%	9.01	3.1%	1.00	32.31
5	Computer Science and Software Engineering	4.1	11.8%	2.00	29.4%	5.00	58.8%	10.00	0.0%	0.00	17.00
6	Department of Communication Disorders	4.0	0.0%	0.00	54.5%	6.00	36.4%	4.00	9.1%	1.00	11.00
7	Economics	3.5	5.4%	1.00	40.1%	7.37	27.2%	5.00	27.2%	5.00	18.37
8	Electrical and Computer Engineering	4.8	18.5%	5.21	35.4%	10.00	42.5%	12.00	3.5%	1.00	28.21
9	Geography	4.0	6.7%	1.00	46.7%	7.00	26.7%	4.00	20.0%	3.00	15.00
10	Geological Sciences	5.9	20.0%	3.00	56.7%	8.50	23.3%	3.50	0.0%	0.00	15.00
11	Management	2.9	3.5%	1.00	21.2%	6.00	62.6%	17.75	12.7%	3.61	28.36
12	Mathematics and Statistics	4.1	17.6%	5.00	24.6%	7.00	44.0%	12.50	13.8%	3.92	28.42
13	Mechanical Engineering	4.5	13.7%	3.00	36.7%	8.00	47.3%	10.32	2.3%	0.50	21.82
14	National Centre for Research on Europe	3.6	20.0%	1.00	0.0%	0.00	80.0%	4.01	0.0%	0.00	5.01
15	Other	4.6	16.0%	1.00	32.0%	2.00	52.0%	3.25	0.0%	0.00	6.25
16	Physics and Astronomy	4.5	11.3%	3.50	42.1%	13.08	42.2%	13.10	4.5%	1.39	31.07
17	Psychology	4.9	21.4%	6.00	35.6%	10.00	29.5%	8.27	13.5%	3.79	28.06
18	School of Biological Sciences	4.6	14.0%	6.30	40.3%	18.10	40.1%	18.00	5.5%	2.47	44.87
19	School of Classics and Linguistics	4.9	18.2%	2.00	36.4%	4.00	45.5%	5.00	0.0%	0.00	11.00
20	School of Culture, Literature and Society	3.2	4.7%	1.00	25.7%	5.50	57.9%	12.38	11.7%	2.50	21.38
21	School of Education	2.8	4.0%	1.00	19.8%	5.00	59.5%	15.00	16.7%	4.21	25.21
22	School of Fine Arts	2.0	2.7%	0.50	10.8%	2.00	54.1%	10.00	32.4%	6.00	18.50
23	School of Forestry	4.2	18.6%	2.00	27.9%	3.00	34.9%	3.75	18.6%	2.00	10.75
24	School of History	4.9	0.0%	0.00	77.0%	10.03	15.3%	2.00	7.7%	1.00	13.03
25	School of Languages and Cultures	3.2	4.3%	1.00	29.8%	7.00	51.1%	12.00	14.9%	3.50	23.50
26	School of Law	4.2	12.1%	3.00	42.3%	10.50	22.2%	5.50	23.4%	5.81	24.81
27	School of Māori and Indigenous Studies	0.9	0.0%	0.00	0.0%	0.00	44.0%	3.00	56.0%	3.82	6.82
28	School of Music	4.6	0.0%	0.00	65.3%	7.52	34.7%	4.00	0.0%	0.00	11.52
29	School of Philosophy and Religious Studies	5.8	34.5%	4.00	31.0%	3.60	25.9%	3.00	8.6%	1.00	11.60
30	School of Political Science and Communication	3.5	5.1%	1.00	35.8%	7.00	43.8%	8.58	15.3%	3.00	19.58
31	School of Social Work and Human Services	2.0	0.0%	0.00	14.2%	1.00	57.0%	4.00	28.8%	2.02	7.02
32	School of Sociology and Anthropology	4.3	13.4%	3.00	33.8%	7.57	45.9%	10.28	6.9%	1.54	22.39
	Averages & totals	4.10	11.4%	70.51	35.6%	221.07	41.6%	258.40	11.4%	70.93	620.91

* Weighted on a FTE basis

Table A-72: Nominated Academic Units – University of Otago – continued on next page

	Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*	No of eligible staff**
1	Accountancy and Business Law	1.2	0.0%	0.00	12.2%	2.00	24.4%	4.00	63.4%	10.40	16.40
2	Anatomy and Structural Biology	4.9	12.9%	4.00	49.2%	15.30	34.7%	10.80	3.2%	1.00	31.10
3	Anthropology	4.0	10.2%	2.00	35.8%	7.00	43.7%	8.55	10.2%	2.00	19.55
4	Biochemistry	4.2	9.9%	4.60	41.2%	19.10	38.1%	17.70	10.8%	5.00	46.40
5	Botany	4.9	11.1%	1.00	55.6%	5.00	22.2%	2.00	11.1%	1.00	9.00
6	Chemistry	5.5	22.6%	6.00	48.1%	12.80	18.8%	5.00	10.5%	2.80	26.60
7	Classics	5.0	12.5%	1.00	50.0%	4.00	37.5%	3.00	0.0%	0.00	8.00
8	Clothing and Textile Sciences	3.7	19.6%	1.00	19.6%	1.00	27.5%	1.40	33.3%	1.70	5.10
9	Communication Studies	2.9	0.0%	0.00	30.8%	4.00	53.8%	7.00	15.4%	2.00	13.00
10	Computer Science	3.6	10.7%	2.00	32.0%	6.00	32.0%	6.00	25.3%	4.73	18.73
11	Christchurch School of Medicine and Health Sciences	4.3	9.8%	12.00	45.3%	55.37	30.8%	37.64	14.1%	17.20	122.21
12	Dental School	3.9	15.5%	6.25	24.8%	10.00	44.9%	18.10	14.9%	6.00	40.35
13	Design Studies	1.8	0.0%	0.00	10.0%	1.00	60.0%	6.00	30.0%	3.00	10.00
14	Dunedin School of Medicine	4.1	10.8%	12.00	36.6%	40.65	39.1%	43.36	13.5%	15.00	111.01
15	Economics	6.1	29.4%	5.00	47.1%	8.00	17.6%	3.00	5.9%	1.00	17.00
16	Education	4.6	18.3%	4.00	38.8%	8.50	21.9%	4.80	21.0%	4.60	21.90
17	English Department	5.4	22.9%	4.00	42.9%	7.50	28.6%	5.00	5.7%	1.00	17.50
18	Finance and Quantitative Analysis	2.5	7.8%	1.00	15.7%	2.00	39.2%	5.00	37.3%	4.75	12.75
19	Food Science	4.0	0.0%	0.00	55.6%	5.00	33.3%	3.00	11.1%	1.00	9.00
20	Geography	4.2	7.5%	1.00	39.9%	5.32	52.6%	7.00	0.0%	0.00	13.32
21	Geology	6.3	19.6%	2.00	68.6%	7.00	11.8%	1.20	0.0%	0.00	10.20
22	Higher Education Development Centre	3.3	0.0%	0.00	50.0%	4.00	12.5%	1.00	37.5%	3.00	8.00
23	History	5.0	15.8%	3.00	44.7%	8.50	39.6%	7.53	0.0%	0.00	19.03
24	Human Nutrition	4.8	24.2%	4.30	34.8%	6.20	14.0%	2.50	27.0%	4.80	17.80
25	Information Sciences	3.9	10.8%	2.00	30.3%	5.60	48.7%	9.00	10.2%	1.88	18.48
26	Languages and Cultures	2.8	5.0%	1.00	25.0%	5.00	40.0%	8.00	30.0%	6.00	20.00
27	Law	5.4	13.7%	3.50	58.8%	15.00	23.5%	6.00	3.9%	1.00	25.50
28	Management	3.7	2.5%	0.50	40.7%	8.00	51.7%	10.15	5.1%	1.00	19.65
29	Māori, Pacific and Indigenous Studies	1.8	0.0%	0.00	8.3%	1.00	66.7%	8.00	25.0%	3.00	12.00
30	Marine Science	4.4	0.0%	0.00	61.0%	4.70	39.0%	3.00	0.0%	0.00	7.70
31	Marketing	3.7	3.9%	1.00	35.5%	9.20	57.8%	15.00	2.9%	0.75	25.95
32	Mathematics and Statistics	4.0	14.5%	3.00	37.3%	7.75	14.5%	3.00	33.7%	7.00	20.75
33	Microbiology and Immunology	4.6	10.2%	3.00	47.5%	14.00	39.0%	11.50	3.4%	1.00	29.50

* Weighted on a FTE basis

Table A-72: Nominated Academic Units – University of Otago – continued

Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
34 Music and Theatre Studies	3.8	5.0%	1.00	40.0%	8.00	45.0%	9.00	10.0%	2.00	20.00
35 Pharmacology and Toxicology	6.2	17.4%	2.00	69.6%	8.00	13.0%	1.50	0.0%	0.00	11.50
36 Pharmacy	4.0	13.5%	3.00	31.5%	7.00	36.9%	8.20	18.0%	4.00	22.20
37 Philosophy	7.5	37.5%	3.00	62.5%	5.00	0.0%	0.00	0.0%	0.00	8.00
38 Physical Education	3.0	3.1%	0.80	23.3%	6.00	65.9%	17.00	7.8%	2.00	25.80
39 Physics	4.8	20.0%	4.50	31.1%	7.00	44.4%	10.00	4.4%	1.00	22.50
40 Physiology	4.4	7.5%	2.00	51.3%	13.70	30.0%	8.00	11.2%	3.00	26.70
41 Physiotherapy	3.0	8.3%	1.00	16.7%	2.00	58.3%	7.00	16.7%	2.00	12.00
42 Political Studies	5.4	23.1%	3.00	46.2%	6.00	15.4%	2.00	15.4%	2.00	13.00
43 Psychology	6.4	40.3%	12.00	29.5%	8.80	30.2%	9.00	0.0%	0.00	29.80
44 Social Work and Community Development	2.2	0.0%	0.00	19.8%	1.60	49.4%	4.00	30.9%	2.50	8.10
45 Surveying	3.2	8.3%	1.00	25.0%	3.00	41.7%	5.00	25.0%	3.00	12.00
46 Theology and Religious Studies	6.6	32.0%	2.00	52.0%	3.25	16.0%	1.00	0.0%	0.00	6.25
47 Tourism	6.0	12.5%	1.00	75.0%	6.00	12.5%	1.00	0.0%	0.00	8.00
48 Wellington School of Medicine and Health Sciences	3.2	5.5%	4.60	28.5%	23.93	45.2%	37.97	20.9%	17.53	84.03
49 Zoology	5.5	21.7%	6.80	46.6%	14.60	25.2%	7.90	6.4%	2.00	31.30
Averages & totals	4.23	12.0%	137.85	38.4%	439.37	36.1%	412.80	13.5%	154.64	1144.66

* Weighted on a FTE basis

Table A-73: Nominated Academic Units – University of Waikato

	Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1	Faculty of Arts and Social Sciences	3.6	6.5%	8.00	34.1%	41.85	43.5%	53.30	15.9%	19.50	122.65
2	Institutes and Units	3.5	0.0%	0.00	44.5%	4.47	38.9%	3.91	16.5%	1.66	10.04
3	School of Computing and Mathematical Sciences	4.9	15.0%	6.20	43.7%	18.00	38.8%	16.00	2.4%	1.00	41.20
4	School of Education	2.6	6.9%	7.06	19.6%	20.02	34.3%	34.95	39.2%	40.00	102.03
5	School of Law	3.2	3.6%	1.00	34.2%	9.60	37.4%	10.50	24.9%	7.00	28.10
6	School of Māori and Pacific Development	2.9	0.0%	0.00	42.5%	9.00	18.9%	4.00	38.7%	8.20	21.20
7	School of Science and Engineering	4.8	14.1%	11.25	43.7%	34.80	38.4%	30.61	3.8%	3.00	79.66
8	Waikato Management School	4.2	9.1%	9.00	38.9%	38.32	45.2%	44.50	6.8%	6.67	98.49
	Averages & totals	3.73	8.4%	42.51	35.0%	176.06	39.3%	197.77	17.3%	87.03	503.37

* Weighted on a FTE basis

Table A-74: Nominated Academic Units – Victoria University of Wellington – continued on next page

Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Accounting Programme	2.3	0.0%	0.00	29.5%	6.00	24.6%	5.00	45.9%	9.33	20.33
2 Art History and Museum and Heritage Studies	3.8	0.0%	0.00	44.4%	4.00	55.6%	5.00	0.0%	0.00	9.00
3 Classics Programme	3.8	11.1%	1.00	22.2%	2.00	66.7%	6.00	0.0%	0.00	9.00
4 Commercial Law Programme	1.3	0.0%	0.00	11.0%	1.00	30.8%	2.79	58.2%	5.27	9.06
5 Computer Science Programme	4.0	6.3%	1.00	37.5%	6.00	56.2%	9.00	0.0%	0.00	16.00
6 Creative Writing Programme	5.6	35.0%	1.75	20.0%	1.00	45.0%	2.25	0.0%	0.00	5.00
7 Economics Programme	3.4	3.7%	1.00	33.3%	9.00	51.9%	14.00	11.1%	3.00	27.00
8 Education	3.6	3.4%	1.00	37.8%	11.00	51.0%	14.85	7.8%	2.28	29.13
9 Finance Programme	4.5	11.9%	1.00	47.6%	4.00	23.8%	2.00	16.7%	1.40	8.40
10 Graduate School of Nursing and Midwifery	1.7	0.0%	0.00	8.7%	1.00	56.5%	6.50	34.8%	4.00	11.50
11 History Programme	5.4	21.4%	3.00	42.9%	6.00	35.7%	5.00	0.0%	0.00	14.00
12 Human Resources and Industrial Relations Programme	2.6	0.0%	0.00	30.0%	3.00	40.0%	4.00	30.0%	3.00	10.00
13 International Business Programme	4.6	10.0%	0.67	45.0%	3.00	45.0%	3.00	0.0%	0.00	6.67
14 Malaghan Institute	6.0	16.7%	1.00	66.7%	4.00	16.7%	1.00	0.0%	0.00	6.00
15 Management Programme	4.6	19.8%	4.20	33.0%	7.00	33.0%	7.00	14.2%	3.00	21.20
16 Māori Studies	2.9	10.7%	1.00	16.4%	1.53	40.7%	3.80	32.2%	3.00	9.33
17 Marketing Programme	2.8	0.0%	0.00	40.7%	6.00	20.3%	3.00	39.0%	5.75	14.75
18 Mathematics Programme	5.3	34.2%	4.00	17.1%	2.00	42.7%	5.00	6.0%	0.70	11.70
19 Pacific Studies Programme	2.4	0.0%	0.00	40.0%	2.00	0.0%	0.00	60.0%	3.00	5.00
20 Philosophy Programme	4.9	27.3%	3.00	18.2%	2.00	54.5%	6.00	0.0%	0.00	11.00
21 Political Science and International Relations Programme	4.5	11.3%	2.00	45.3%	8.00	32.1%	5.67	11.3%	2.00	17.67
22 Religious Studies Programme	4.7	0.0%	0.00	66.7%	4.00	33.3%	2.00	0.0%	0.00	6.00
23 School of Architecture	4.1	4.6%	1.00	46.5%	10.20	41.7%	9.15	7.3%	1.60	21.95
24 School of Asian and European Languages and Cultures	2.2	0.0%	0.00	14.9%	3.68	64.8%	16.00	20.3%	5.00	24.68
25 School of Biological Sciences	3.6	2.2%	1.00	44.1%	20.50	38.7%	18.00	15.1%	7.00	46.50
26 School of Chemical and Physical Sciences	4.7	13.9%	4.25	42.1%	12.90	40.8%	12.50	3.3%	1.00	30.65
27 School of Design	2.4	0.0%	0.00	20.8%	5.00	55.9%	13.45	23.3%	5.60	24.05
28 School of Earth Sciences	4.7	17.5%	6.00	34.9%	12.00	43.3%	14.87	4.4%	1.50	34.37
29 School of English, Film, Theatre and Media Studies	3.8	5.3%	2.00	39.5%	15.00	44.7%	17.00	10.5%	4.00	38.00
30 School of Government	3.6	10.0%	3.00	33.4%	10.00	27.8%	8.30	28.8%	8.60	29.90
31 School of Information Management	4.0	7.0%	2.00	41.8%	12.00	37.3%	10.70	13.9%	4.00	28.70
32 School of Law	4.5	10.1%	3.20	51.2%	16.30	23.0%	7.33	15.7%	5.00	31.83
33 School of Linguistics and Applied Language Studies	3.8	17.7%	3.00	10.0%	1.70	72.3%	12.24	0.0%	0.00	16.94

* Weighted on a FTE basis

Table A-74: Nominated Academic Units – Victoria University of Wellington – continued

	Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff**
34	School of Music	5.5	15.1%	2.50	60.2%	10.00	18.7%	3.10	6.0%	1.00	16.60
35	School of Psychology	6.6	31.1%	7.00	53.3%	12.00	13.3%	3.00	2.2%	0.50	22.50
36	School of Social and Cultural Studies	4.0	4.0%	1.00	44.0%	11.00	48.0%	12.00	4.0%	1.00	25.00
37	Statistics and Operations Research Programme	2.7	2.1%	0.25	22.6%	2.70	58.6%	7.00	16.7%	2.00	11.95
38	Stout Research Centre	4.9	17.5%	1.00	47.4%	2.70	17.5%	1.00	17.5%	1.00	5.70
39	Teacher Education	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	12.75	12.75
40	Tourism Management Programme	2.5	12.5%	1.00	0.0%	0.00	62.5%	5.00	25.0%	2.00	8.00
	Averages & totals	3.83	9.0%	63.82	35.5%	251.21	40.1%	283.50	15.4%	109.28	707.81

* Weighted on a FTE basis

Table A-75: Nominated Academic Units – Waikato Institute of Technology

Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*s*	No of eligible staff*
1 Other	1.3	0.0%	0.00	0.0%	0.00	64.8%	3.31	35.2%	1.80	5.11
2 School of Business and Administration	0.1	0.0%	0.00	0.0%	0.00	6.1%	1.00	93.9%	15.30	16.30
3 School of Communication	0.2	0.0%	0.00	0.0%	0.00	10.8%	1.00	89.2%	8.30	9.30
4 School of Education and Social Development	0.1	0.0%	0.00	0.0%	0.00	4.9%	1.00	95.1%	19.40	20.40
5 School of Health	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	23.00	23.00
6 School of Information Technology	0.3	0.0%	0.00	0.0%	0.00	14.1%	2.00	85.9%	12.20	14.20
7 School of Media Arts	1.1	0.0%	0.00	0.0%	0.00	56.4%	13.25	43.6%	10.25	23.50
8 School of Science and Primary Industries	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	5.40	5.40
9 School of Sport and Exercise Science	0.7	0.0%	0.00	5.3%	0.50	21.3%	2.00	73.4%	6.90	9.40
10 Te Toi-a-Kiwa	0.6	0.0%	0.00	0.0%	0.00	28.6%	2.00	71.4%	5.00	7.00
Averages & totals	0.41	0.0%	0.00	0.4%	0.50	19.1%	25.56	80.5%	107.55	133.61

* Weighted on a FTE basis

Table A-76: Nominated Academic Units – Former Wellington College of Education

	Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1	Teacher Education	0.1	0.0%	0.00	0.0%	0.00	6.6%	5.80	93.4%	82.53	88.33
	Averages & totals	0.13	0.0%	0.00	0.0%	0.00	6.6%	5.80	93.4%	82.53	88.33

* Weighted on a FTE basis

Table A-77: Nominated Academic Units – Whitecliffe College of Arts and Design

Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)'s*	Staff rated R or R(NE)* %	No of R's or R(NE)'s*	No of eligible staff*
1 Fine Arts	0.3	0.0%	0.00	0.0%	0.00	14.4%	2.00	85.6%	11.90	13.90
2 Other	0.0	0.0%	0.00	0.0%	0.00	0.0%	0.00	100.0%	1.68	1.68
3 PostGraduate	0.3	0.0%	0.00	0.0%	0.00	16.0%	0.80	84.0%	4.20	5.00
Averages & totals	0.27	0.0%	0.00	0.0%	0.00	13.6%	2.80	86.4%	17.78	20.58

* Weighted on a FTE basis

Table A-78: Nominated Academic Units – Whireia Community Polytechnic

	Nominated Academic Unit	Quality Score*	Staff rated A* %	No of A's*	Staff rated B* %	No of B's*	Staff rated C or C(NE)* %	No of C's and C(NE)*	Staff rated R or R(NE)* %	No of R's or R(NE)*	No of eligible staff*
1	Faculty of Arts and Communication	0.3	0.0%	0.00	0.0%	0.00	15.0%	2.70	85.0%	15.28	17.98
2	Faculty of Business and information Technology	0.1	0.0%	0.00	0.0%	0.00	5.5%	1.00	94.5%	17.20	18.20
3	Faculty of Health, Education and Social Sciences	0.1	0.0%	0.00	0.0%	0.00	3.5%	1.40	96.5%	38.40	39.80
	Averages & totals	0.13	0.0%	0.00	0.0%	0.00	6.7%	5.10	93.3%	70.88	75.98

* Weighted on a FTE basis

Table A-79: Means, standard deviation and errors at the overall TEO, panel and subject area levels

Statistic	TEO	Panel	Subject Area
Standard deviation	1.41	1.02	1.12
Standard error	0.25	0.29	0.17
Mean	1.20	2.98	3.34

TEOs

**Proportion of PBRF-Eligible Staff Submitted/
Not submitted/Carried over for Panel Assessment**

Figure A-46
AIS St Helens

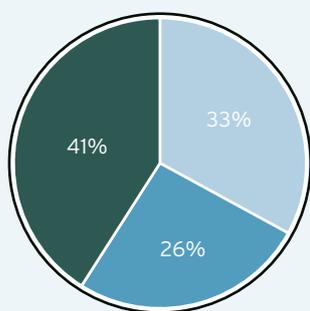


Figure A-47
Anamata

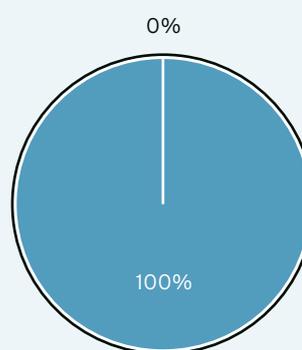


Figure A-48
**Auckland University
of Technology**

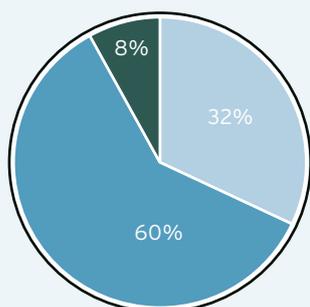
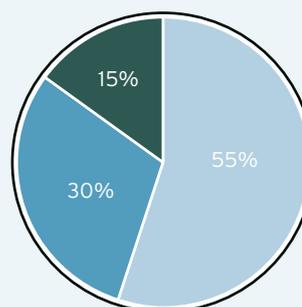


Figure A-49
**Bethlehem Institute
of Education**



- Proportion of staff with results 'carried over' from 2003 Quality Evaluation
- Proportion of staff submitted
- Proportion of staff not submitted for 2006 Quality Evaluation

**Proportion of PBRF-Eligible Staff Submitted/
Not submitted/Carried over for Panel Assessment**

Figure A-50
Bible College
of New Zealand

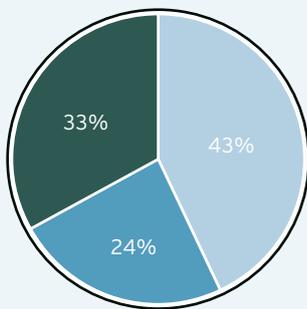


Figure A-51
Carey Baptist College

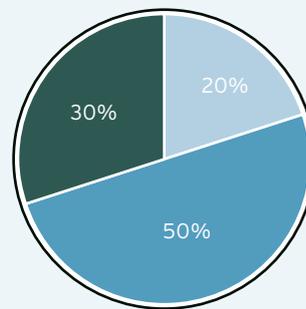


Figure A-52
Christchurch College
of Education

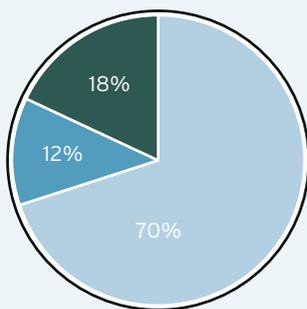
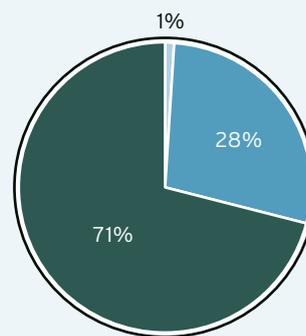


Figure A-53
Christchurch Polytechnic Institute
of Technology



- Proportion of staff with results 'carried over' from 2003 Quality Evaluation
- Proportion of staff submitted
- Proportion of staff not submitted for 2006 Quality Evaluation

**Proportion of PBRF-Eligible Staff Submitted/
Not submitted/Carried over for Panel Assessment**

Figure A-54
**Dunedin College
of Education**

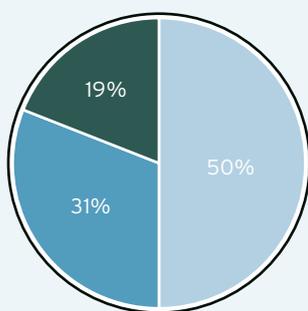


Figure A-55
**Eastern Institute
of Technology**

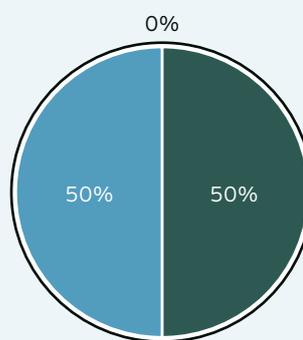


Figure A-56
**Former Auckland College
of Education**

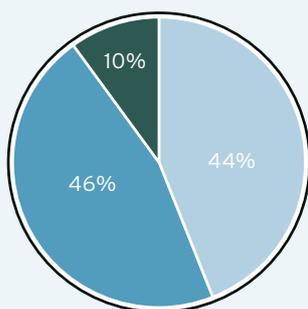
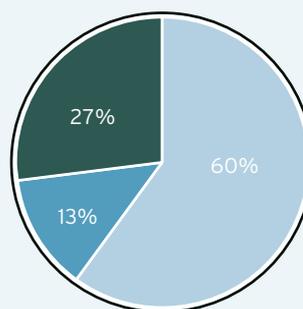


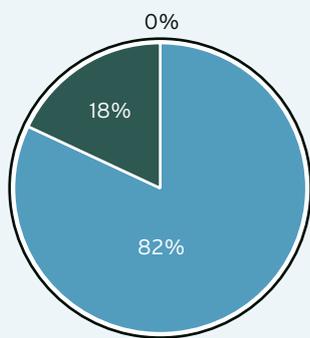
Figure A-57
**Former Wellington College
of Education**



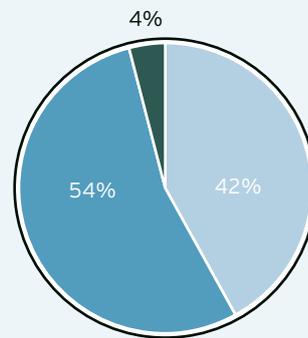
- Proportion of staff with results 'carried over' from 2003 Quality Evaluation
- Proportion of staff submitted
- Proportion of staff not submitted for 2006 Quality Evaluation

**Proportion of PBRF-Eligible Staff Submitted/
Not submitted/Carried over for Panel Assessment**

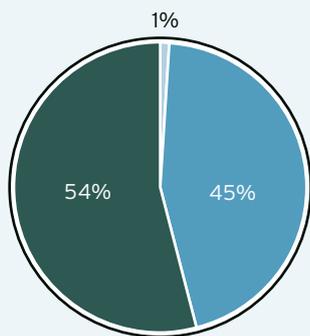
**Figure A-58
Good Shepherd College**



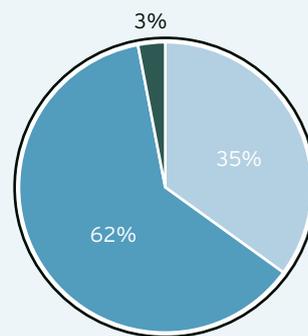
**Figure A-59
Lincoln University**



**Figure A-60
Manukau Institute
of Technology**



**Figure A-61
Massey University**



- Proportion of staff with results 'carried over' from 2003 Quality Evaluation
- Proportion of staff submitted
- Proportion of staff not submitted for 2006 Quality Evaluation

Proportion of PBRF-Eligible Staff Submitted/ Not submitted/Carried over for Panel Assessment

Figure A-62
Masters Institute

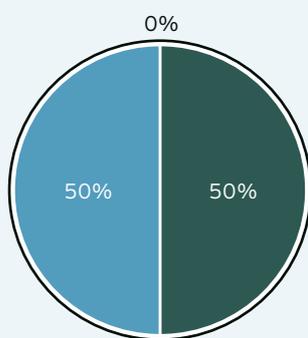


Figure A-63
**Nelson Marlborough Institute
of Technology**

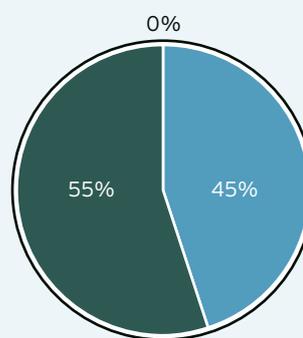


Figure A-64
Northland Polytechnic

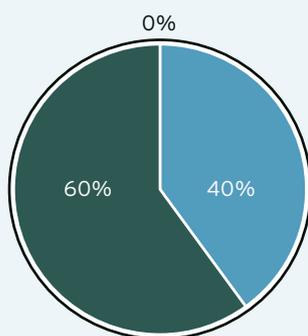
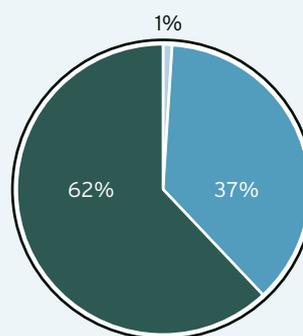


Figure A-65
**Open Polytechnic
of New Zealand**



- Proportion of staff with results 'carried over' from 2003 Quality Evaluation
- Proportion of staff submitted
- Proportion of staff not submitted for 2006 Quality Evaluation

**Proportion of PBRF-Eligible Staff Submitted/
Not submitted/Carried over for Panel Assessment**

Figure A-66
Otago Polytechnic

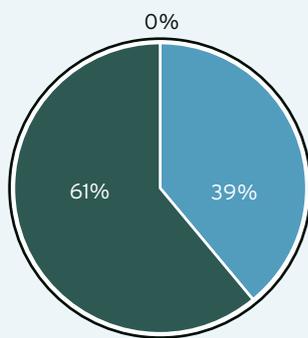


Figure A-67
**Pacific International Hotel
Management School**

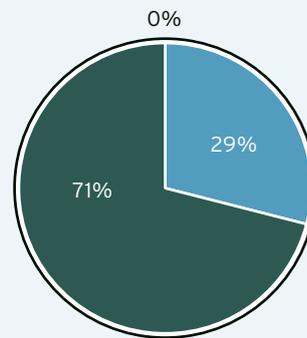


Figure A-68
Te Wānanga o Aotearoa

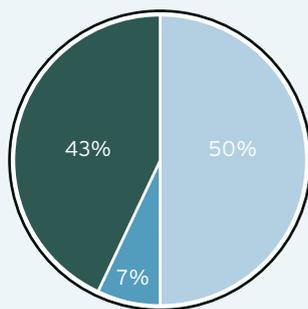
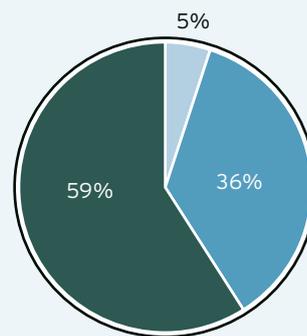


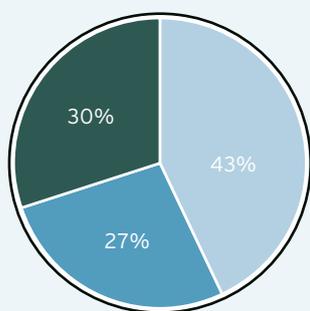
Figure A-69
Te Whare Wānanga o Awanuiāranġi



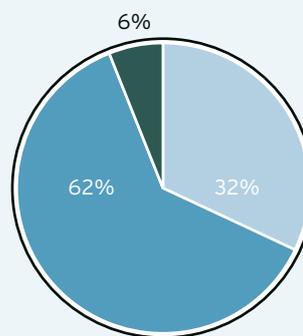
- Proportion of staff with results 'carried over' from 2003 Quality Evaluation
- Proportion of staff submitted
- Proportion of staff not submitted for 2006 Quality Evaluation

**Proportion of PBRF-Eligible Staff Submitted/
Not submitted/Carried over for Panel Assessment**

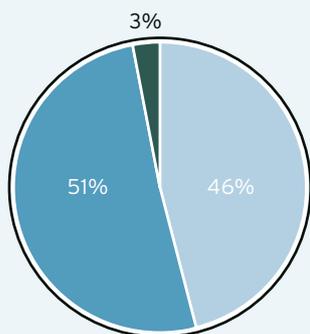
**Figure A-70
Unitec New Zealand**



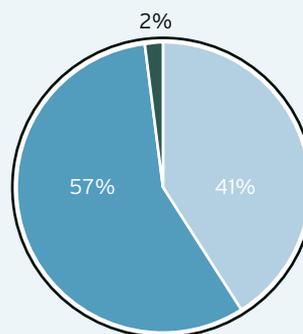
**Figure A-71
University of Auckland**



**Figure A-72
University of Canterbury**



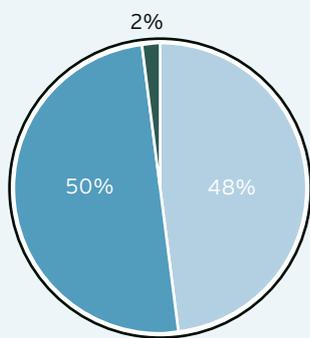
**Figure A-73
University of Otago**



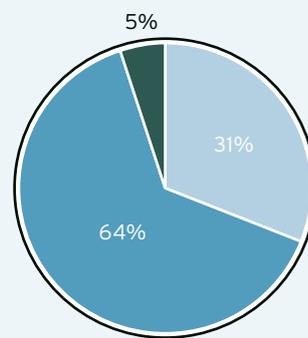
- Proportion of staff with results 'carried over' from 2003 Quality Evaluation
- Proportion of staff submitted
- Proportion of staff not submitted for 2006 Quality Evaluation

**Proportion of PBRF-Eligible Staff Submitted/
Not submitted/Carried over for Panel Assessment**

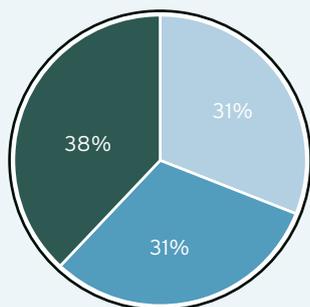
**Figure A-74
University of Waikato**



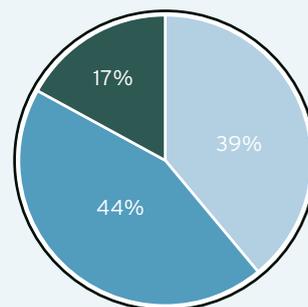
**Figure A-75
Victoria University of Wellington**



**Figure A-76
Waikato Institute of Technology**



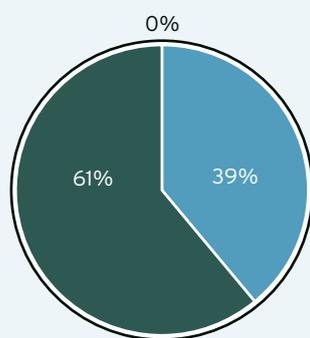
**Figure A-77
Whitecliffe College of Arts and Design**



- Proportion of staff with results 'carried over' from 2003 Quality Evaluation
- Proportion of staff submitted
- Proportion of staff not submitted for 2006 Quality Evaluation

Proportion of PBRF-Eligible Staff Submitted/ Not submitted/Carried over for Panel Assessment

Figure A-78
Whitireia Community Polytechnic



- Proportion of staff with results 'carried over' from 2003 Quality Evaluation
- Proportion of staff submitted
- Proportion of staff not submitted for 2006 Quality Evaluation

Panels

Proportion of PBRF-Eligible Staff Submitted/ Not submitted/Carried over for Panel Assessment

Figure A-79
Biological Sciences

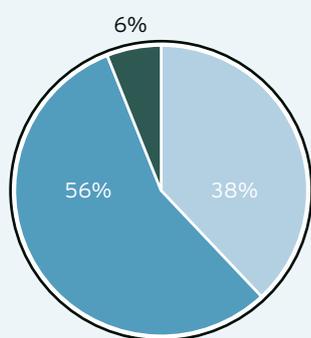


Figure A-80
Business and Economics

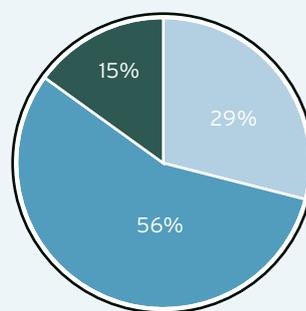
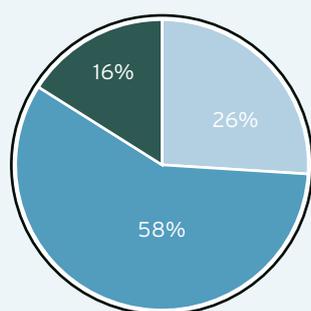


Figure A-81
Creative and Performing Arts



- Proportion of staff with results 'carried over' from 2003 Quality Evaluation
- Proportion of staff submitted
- Proportion of staff not submitted for 2006 Quality Evaluation

Proportion of PBRF-Eligible Staff Submitted/ Not submitted/Carried over for Panel Assessment

Figure A-82
Education

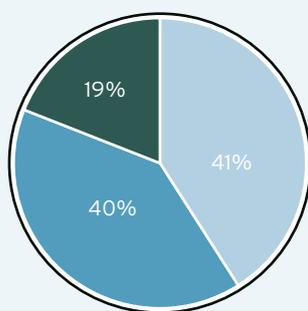


Figure A-83
**Engineering Technology
and Architecture**

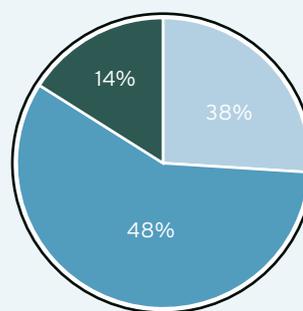


Figure A-84
Health

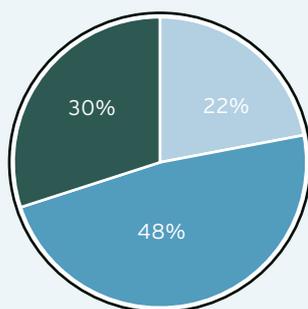
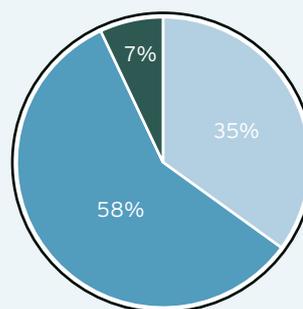


Figure A-85
Humanities and Law



- Proportion of staff with results 'carried over' from 2003 Quality Evaluation
- Proportion of staff submitted
- Proportion of staff not submitted for 2006 Quality Evaluation

**Proportion of PBRF-Eligible Staff Submitted/
Not submitted/Carried over for Panel Assessment**

Figure A-86
Māori Knowledge and Development

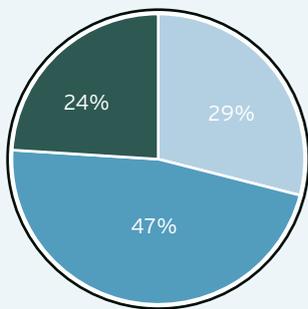


Figure A-87
**Mathematical and Information
Sciences and Technology**

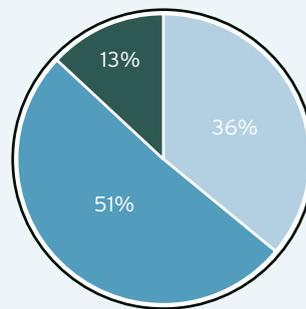


Figure A-88
Medicine and Public Health

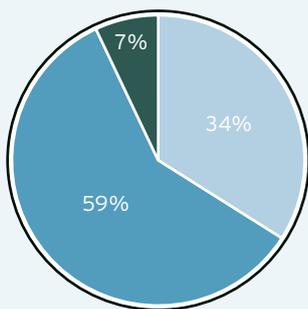
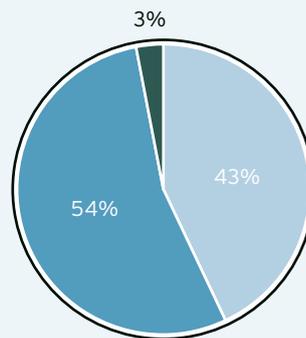


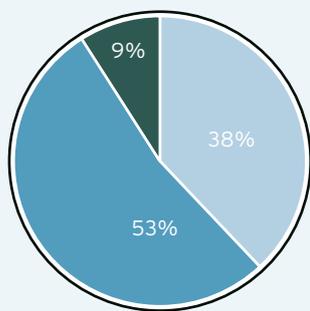
Figure A-89
Physical Sciences



- Proportion of staff with results 'carried over' from 2003 Quality Evaluation
- Proportion of staff submitted
- Proportion of staff not submitted for 2006 Quality Evaluation

Proportion of PBRF-Eligible Staff Submitted/ Not submitted/Carried over for Panel Assessment

Figure A-90
**Social Sciences and Other Cultural/
Social Sciences**



- Proportion of staff with results 'carried over' from 2003 Quality Evaluation
- Proportion of staff submitted
- Proportion of staff not submitted for 2006 Quality Evaluation

Subject Areas

Proportion of PBRF-Eligible Staff Submitted/ Not submitted/Carried over for Panel Assessment

Figure A-91
Accounting and Finance

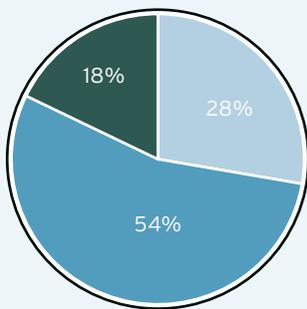


Figure A-92
**Agriculture and Other Applied
Biological Sciences**

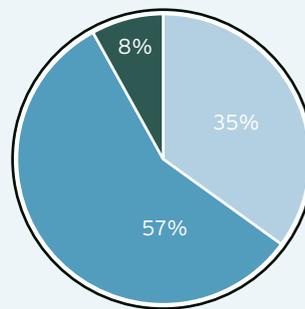
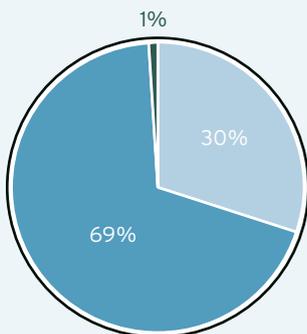


Figure A-93
Anthropology and Archaeology



- Proportion of staff with results 'carried over' from 2003 Quality Evaluation
- Proportion of staff submitted
- Proportion of staff not submitted for 2006 Quality Evaluation

**Proportion of PBRF-Eligible Staff Submitted/
Not submitted/Carried over for Panel Assessment**

Figure A-94
**Architecture, Design,
Planning, Surveying**

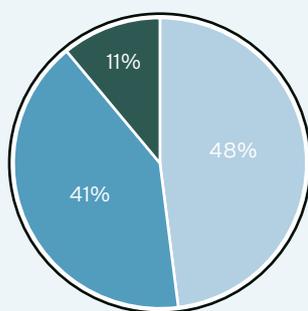


Figure A-95
Biomedical

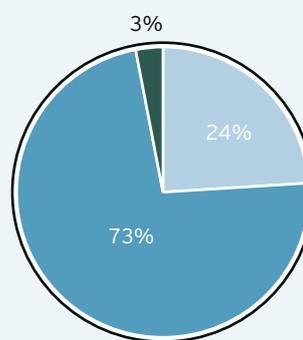


Figure A-96
Chemistry

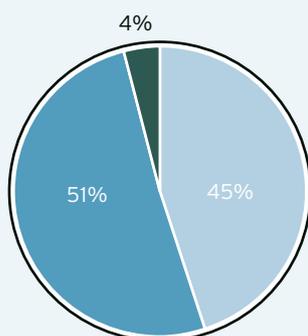
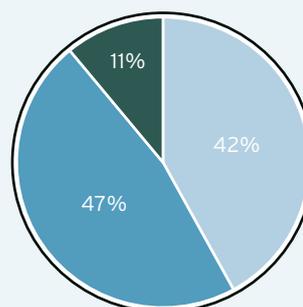


Figure A-97
Clinical Medicine



- Proportion of staff with results 'carried over' from 2003 Quality Evaluation
- Proportion of staff submitted
- Proportion of staff not submitted for 2006 Quality Evaluation

**Proportion of PBRF-Eligible Staff Submitted/
Not submitted/Carried over for Panel Assessment**

Figure A-98
**Communications,
Journalism and Media Studies**

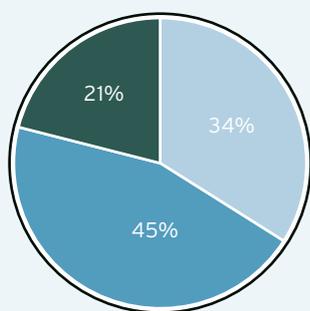


Figure A-99
**Computer Science, Information
Technology, Information Sciences**

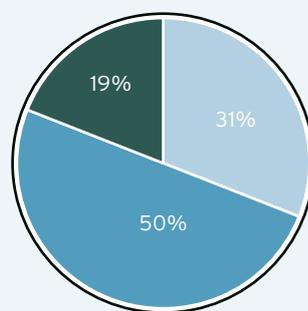


Figure A-100
Dentistry

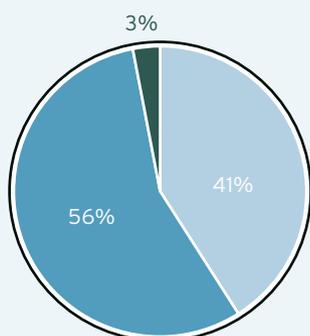
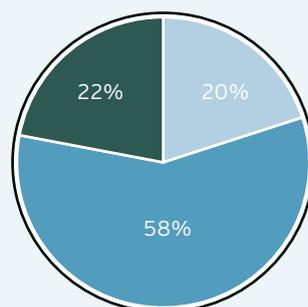


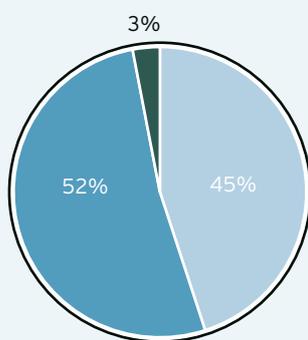
Figure A-101
Design



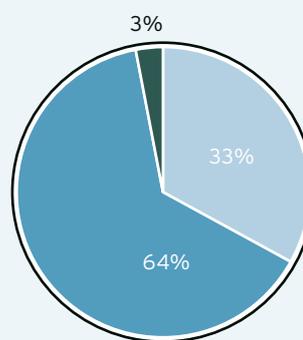
- Proportion of staff with results 'carried over' from 2003 Quality Evaluation
- Proportion of staff submitted
- Proportion of staff not submitted for 2006 Quality Evaluation

**Proportion of PBRF-Eligible Staff Submitted/
Not submitted/Carried over for Panel Assessment**

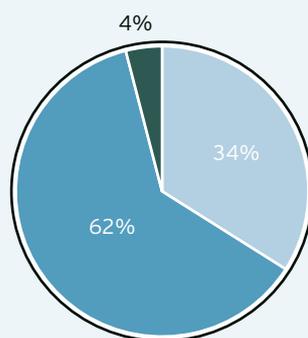
**Figure A-102
Earth Sciences**



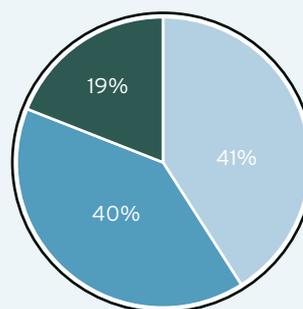
**Figure A-103
Ecology, Evolution and Behaviour**



**Figure A-104
Economics**



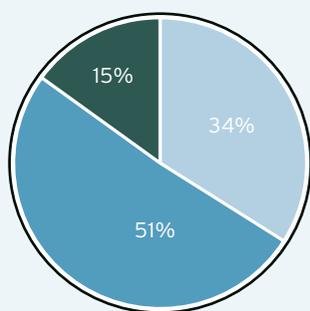
**Figure A-105
Education**



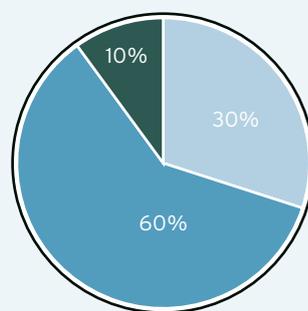
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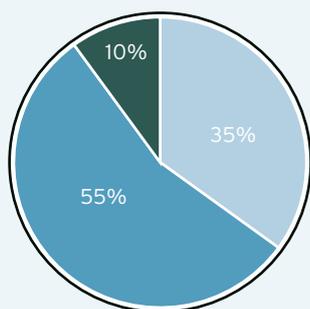
**Figure A-106
Engineering and Technology**



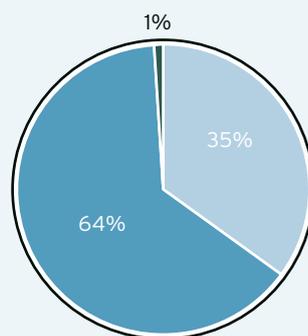
**Figure A-107
English Language and Literature**



**Figure A-108
Foreign Languages and Linguistics**



**Figure A-109
History, History of Art,
Classics and Curatorial Studies**



- Proportion of staff with results 'carried over' from 2003 Quality Evaluation
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- Proportion of staff not submitted for 2006 Quality Evaluation

Proportion of PBRF-Eligible Staff Submitted/ Not submitted/Carried over for Panel Assessment

Figure A-110
Human Geography

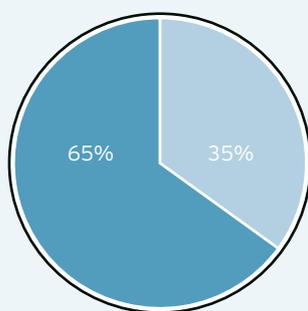


Figure A-111
Law

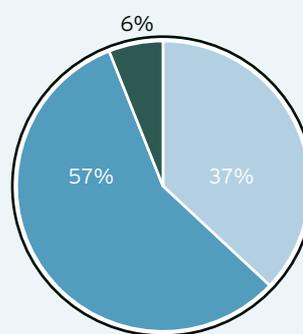


Figure A-112
**Management, Human Resources,
Industrial Relations and Other Businesses**

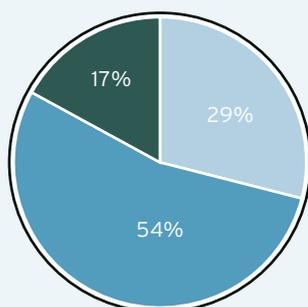
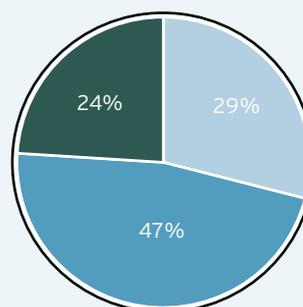


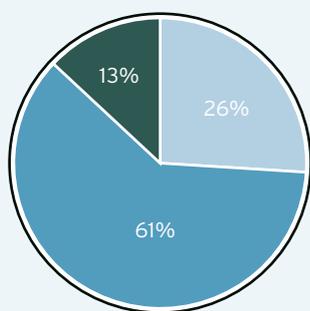
Figure A-113
Māori Knowledge and Development



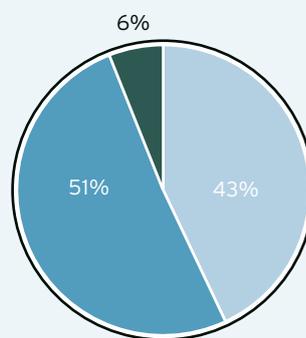
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Not submitted/Carried over for Panel Assessment**

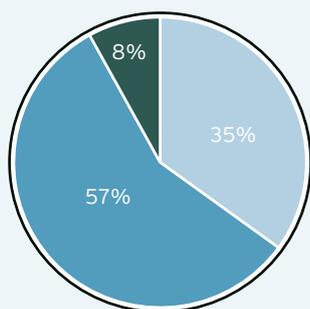
**Figure A-114
Marketing and Tourism**



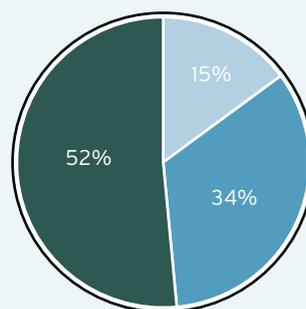
**Figure A-115
Molecular, Cellular and
Whole Organism Biology**



**Figure A-116
Music, Literary Arts and
Other Arts**



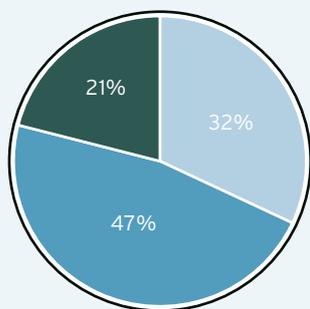
**Figure A-117
Nursing**



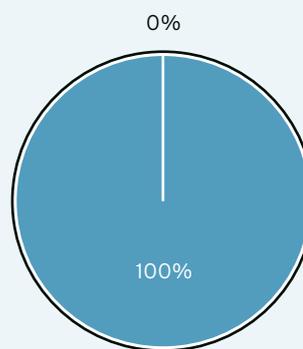
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**Proportion of PBRF-Eligible Staff Submitted/
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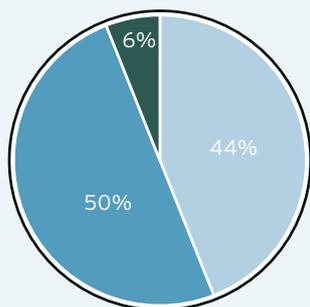
**Figure A-118
Other Health Studies
(including Rehabilitation Therapies)**



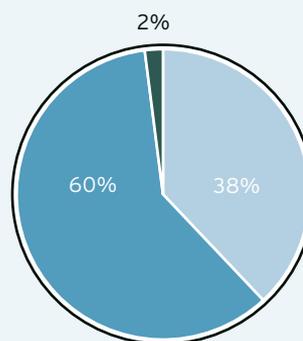
**Figure A-119
Pharmacy**



**Figure A-120
Philosophy**



**Figure A-121
Physics**



- Proportion of staff with results 'carried over' from 2003 Quality Evaluation
- Proportion of staff submitted
- Proportion of staff not submitted for 2006 Quality Evaluation

**Proportion of PBRF-Eligible Staff Submitted/
Not submitted/Carried over for Panel Assessment**

Figure A-122
Political Science, International Relations and Public Policy

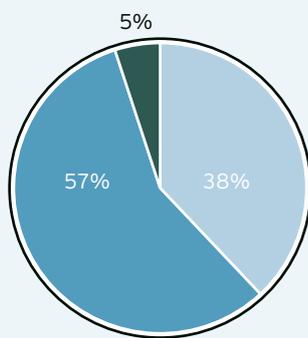


Figure A-123
Psychology

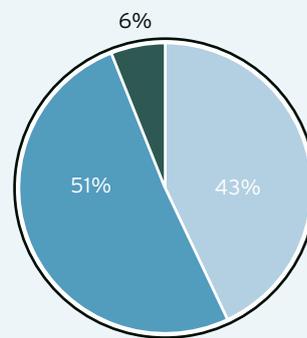


Figure A-124
Public Health

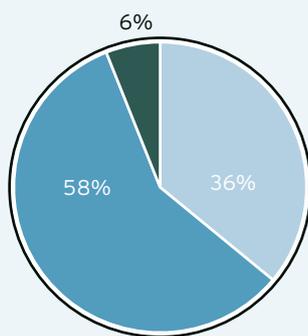
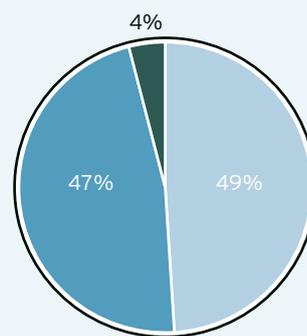


Figure A-125
Pure and Applied Mathematics



- Proportion of staff with results 'carried over' from 2003 Quality Evaluation
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- Proportion of staff not submitted for 2006 Quality Evaluation

**Proportion of PBRF-Eligible Staff Submitted/
Not submitted/Carried over for Panel Assessment**

Figure A-126
Religious Studies and Theology

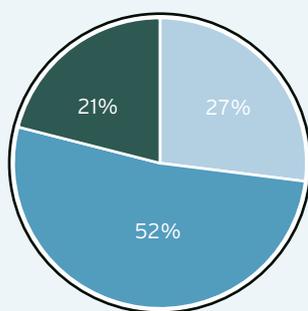


Figure A-127
**Sociology, Social Policy, Social Work,
Criminology and Gender Studies**

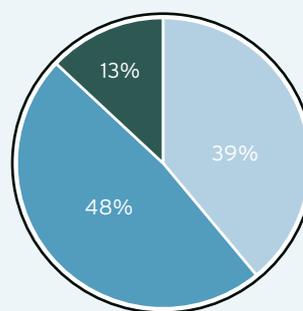


Figure A-128
Sport and Exercise Science

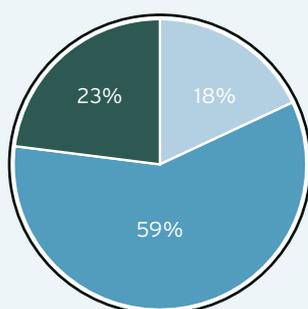
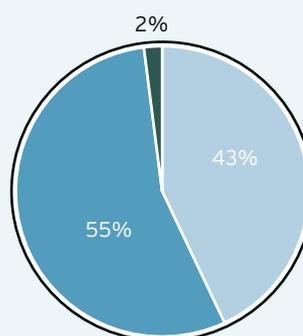


Figure A-129
Statistics



- Proportion of staff with results 'carried over' from 2003 Quality Evaluation
- Proportion of staff submitted
- Proportion of staff not submitted for 2006 Quality Evaluation

**Proportion of PBRF-Eligible Staff Submitted/
Not submitted/Carried over for Panel Assessment**

Figure A-130
**Theatre and Dance, Film, Television
and Multimedia**

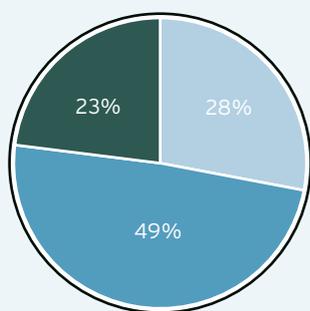


Figure A-131
**Veterinary Studies and Large Animal
Science**

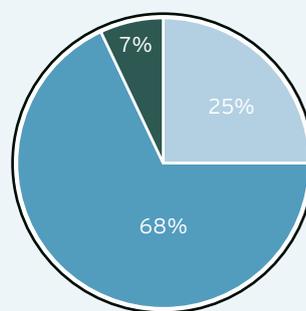
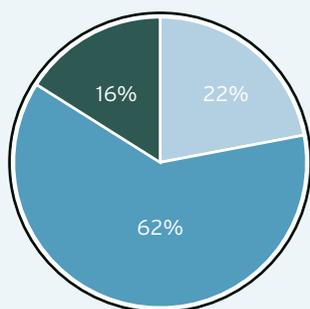


Figure A-132
Visual Arts and Crafts



- Proportion of staff with results 'carried over' from 2003 Quality Evaluation
- Proportion of staff submitted
- Proportion of staff not submitted for 2006 Quality Evaluation

Figure A-133
TEO Quality Score (FTE-weighted)

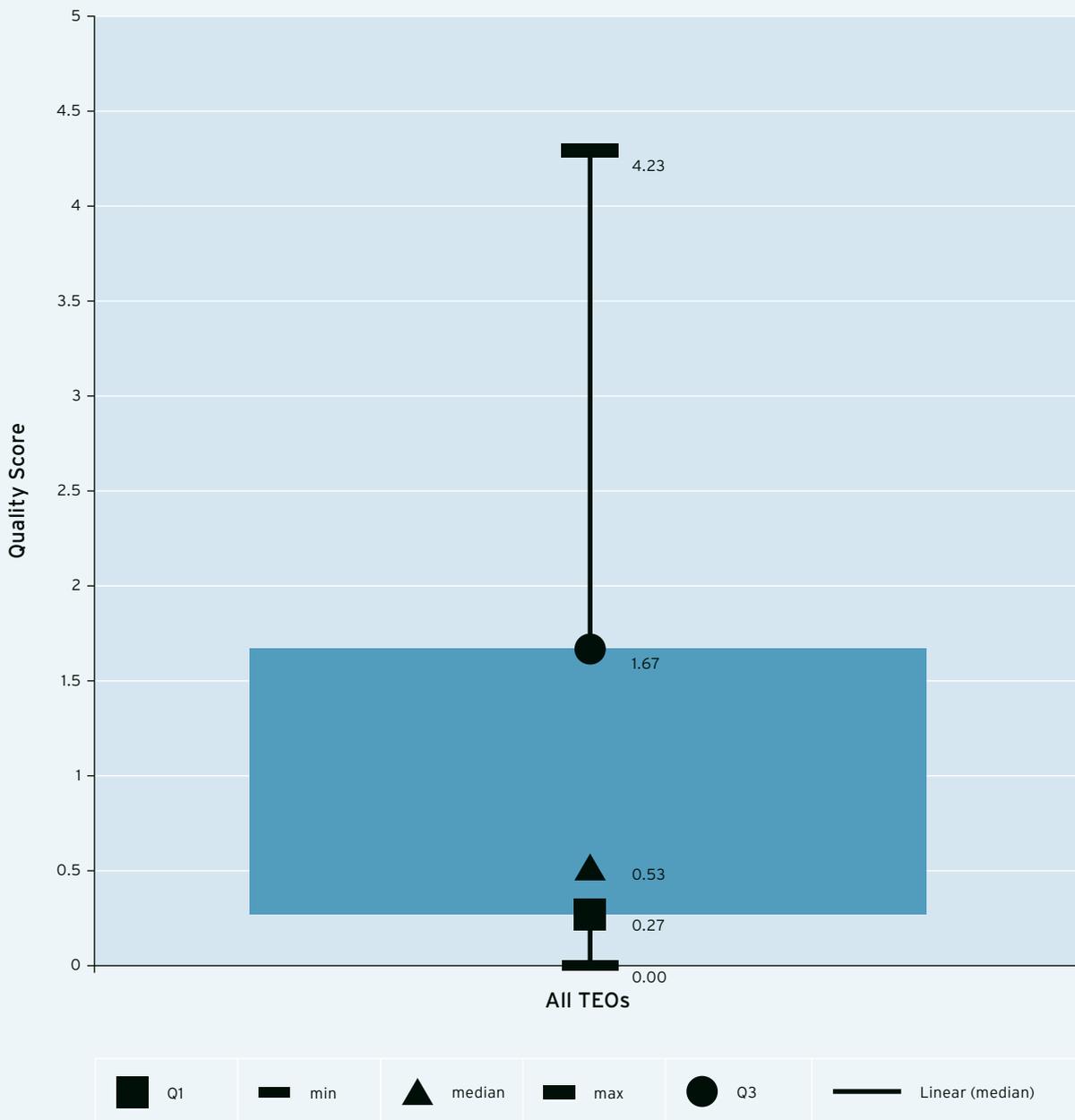


Figure A-134
Panel Quality Score (FTE-weighted)

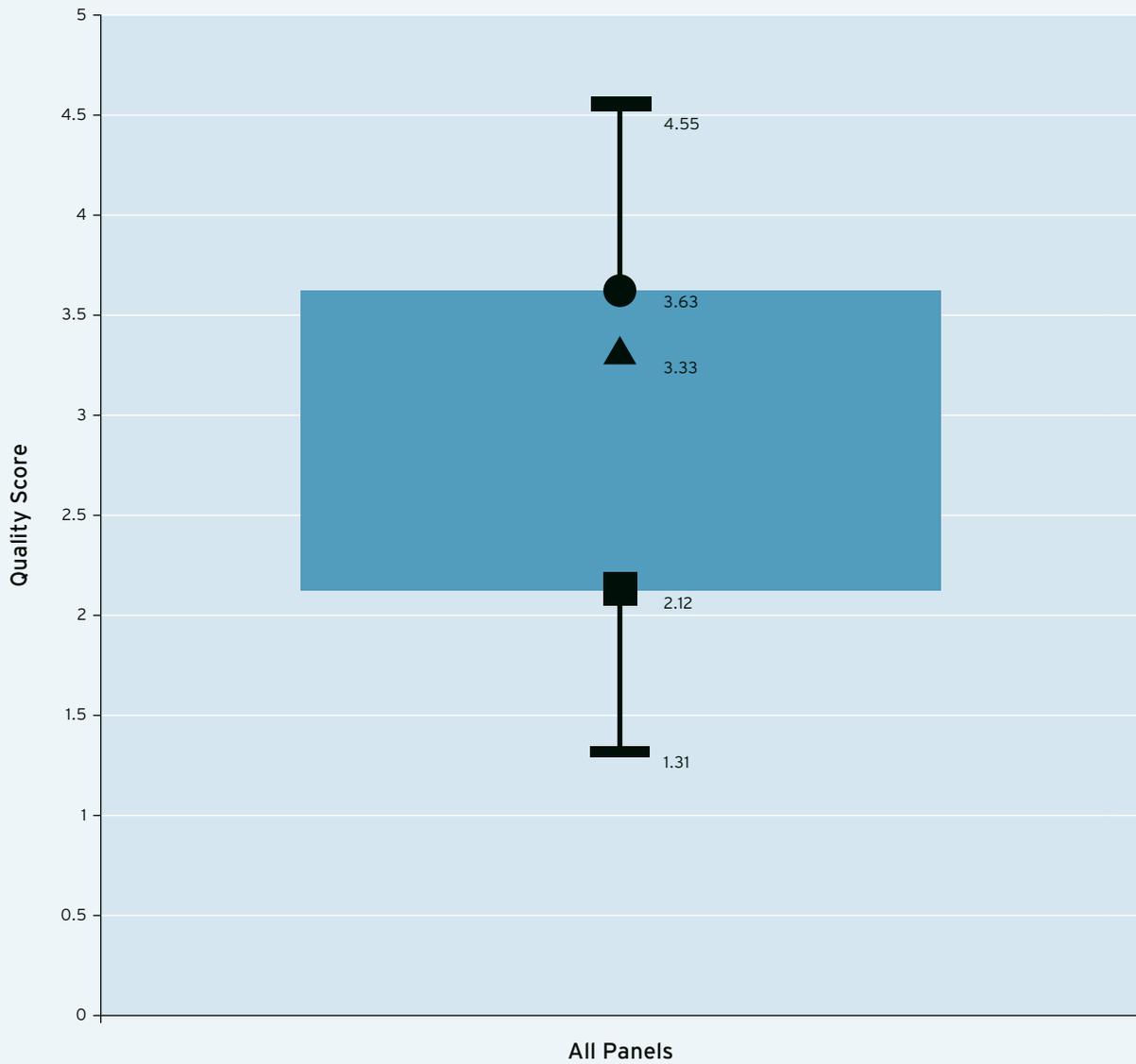


Figure A-135
Subject-Area Quality Score (FTE-weighted)

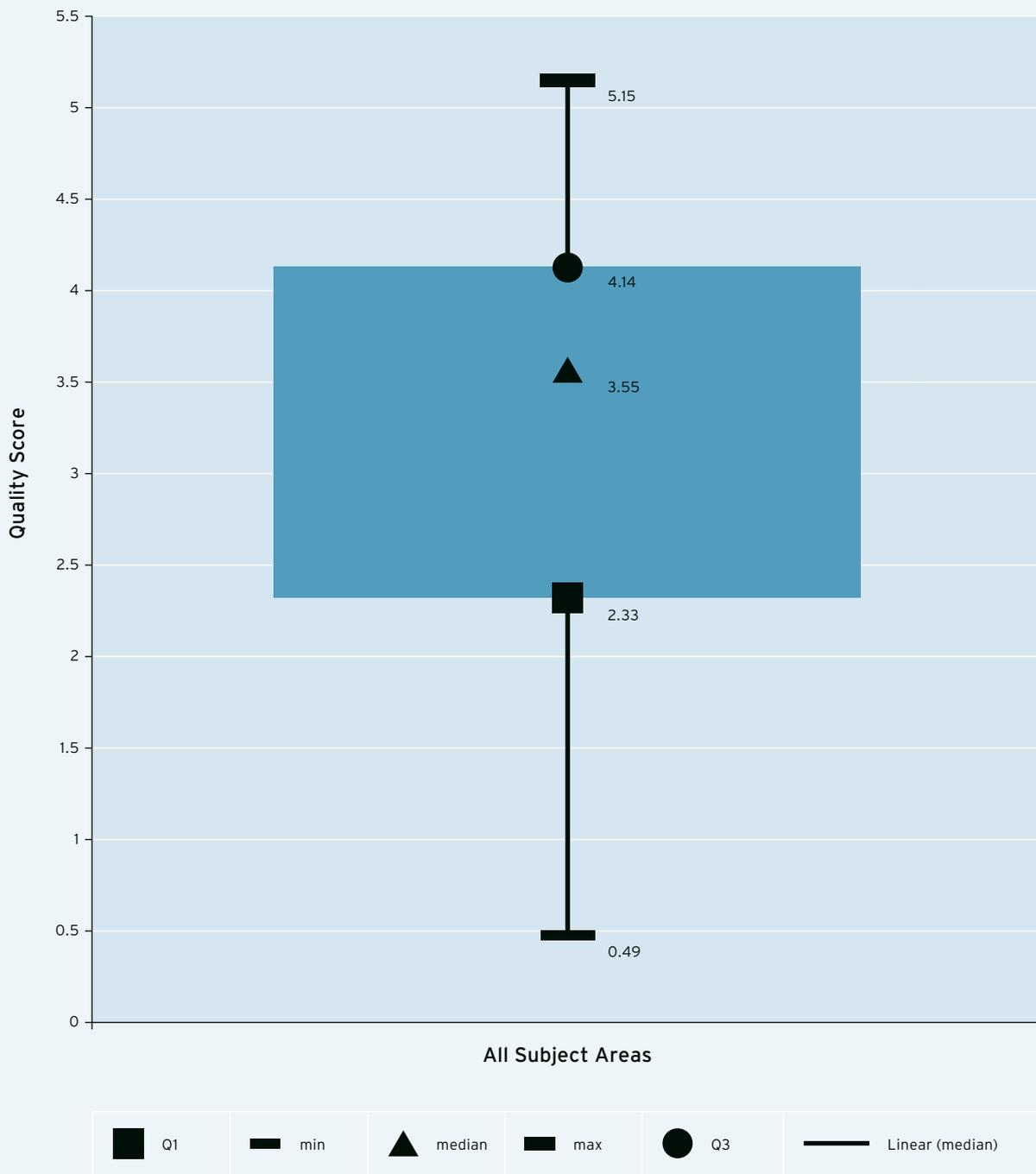


Table A-136: Research Degree Completions for TEOs – total completions of masters theses and other substantial research courses

Masters Completions	2003	2004	2005	TOTAL
University of Auckland	542	560	715	1817
Massey University	370	264	334	968
University of Canterbury	306	203	166	675
University of Otago	155	128	257	540
Victoria University of Wellington	136	200	178	514
University of Waikato	86	148	141	375
Auckland University of Technology	29	57	76	162
Lincoln University	24	44	17	85
Unitec New Zealand	0	11	20	31
Waikato Institute of Technology	7	10	2	19
Whitecliffe College of Arts and Design	4	7	7	18
Christchurch College of Education	8	5	1	14
Otago Polytechnic	7	3	5	15
Dunedin College of Education	5	5	3	13
Te Whare Wānanga o Awanuiārangi	4	3	0	7
Bible College of New Zealand	0	0	2	2

Figure A-136: Research Degree Completions for TEOs – total completions of masters theses and other substantial research courses

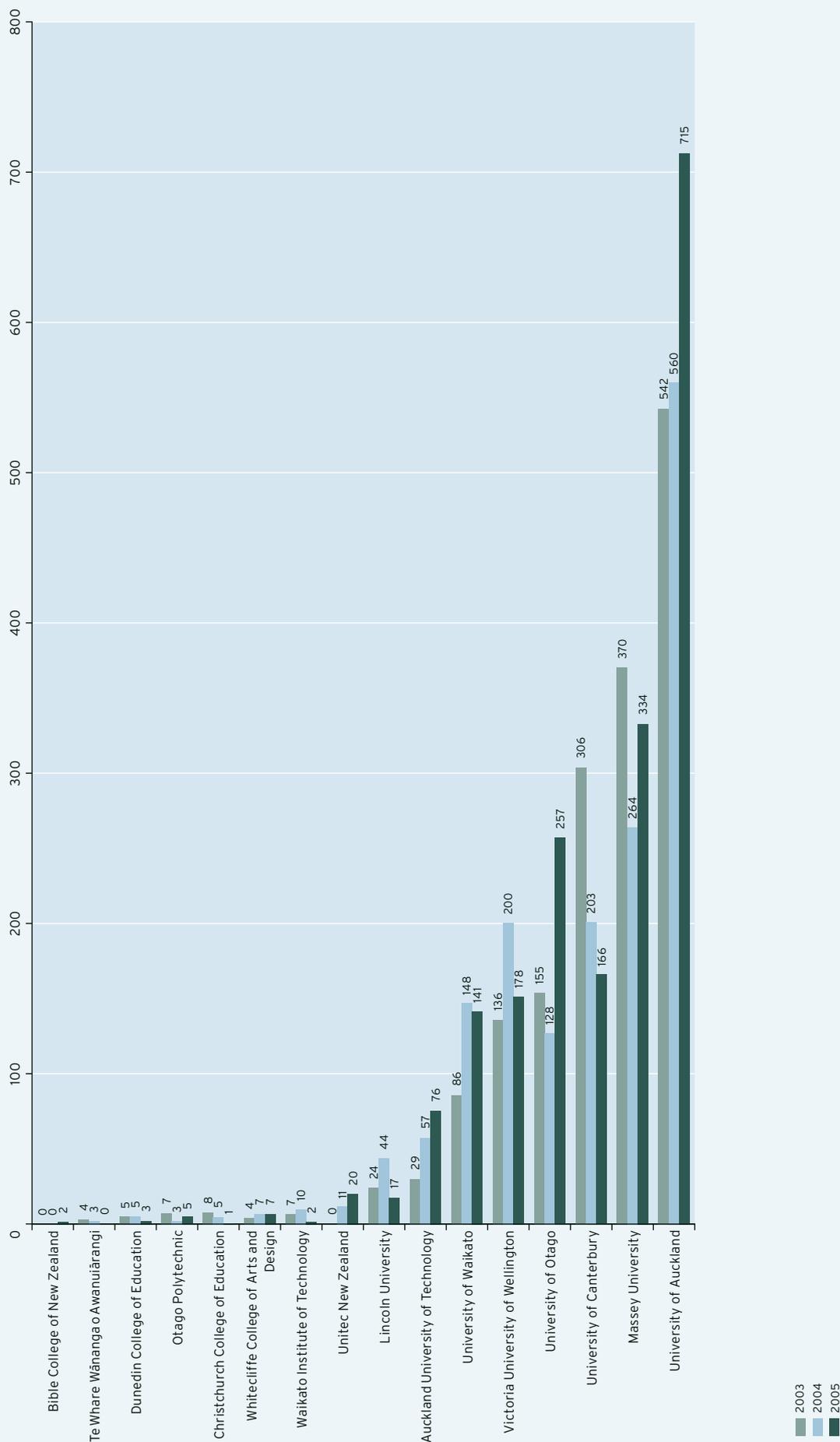
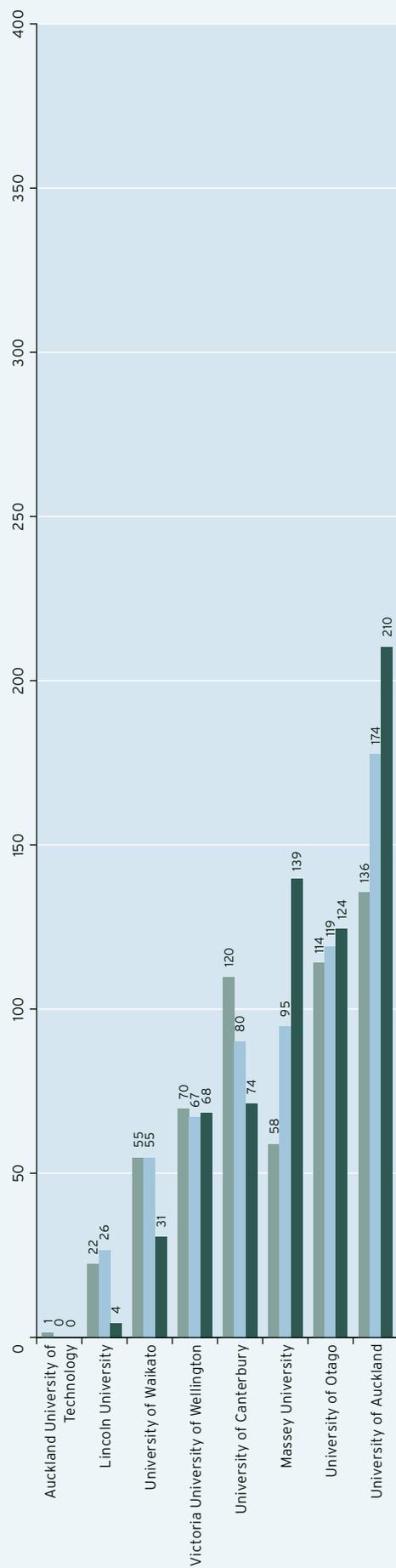


Table A-137: Research Degree Completions for TEOs – total completions of doctorates

Doctorate Completions	2003	2004	2005	
University of Auckland	136	174	210	520
University of Otago	114	119	124	357
Massey University	58	95	139	292
University of Canterbury	120	80	74	274
Victoria University of Wellington	70	67	68	205
University of Waikato	55	55	31	141
Lincoln University	22	26	4	52
Auckland University of Technology	1	0	0	1
Unitec New Zealand	0	0	0	0
Waikato Institute of Technology	0	0	0	0
Whitecliffe College of Arts and Design	0	0	0	0
Christchurch College of Education	0	0	0	0
Dunedin College of Education	0	0	0	0
Te Whare Wānanga o Awanuiārangī	0	0	0	0
Otago Polytechnic	0	0	0	0
Bible College of New Zealand	0	0	0	0

Figure A-137: Research Degree Completions for TEOs – total completions of doctorates

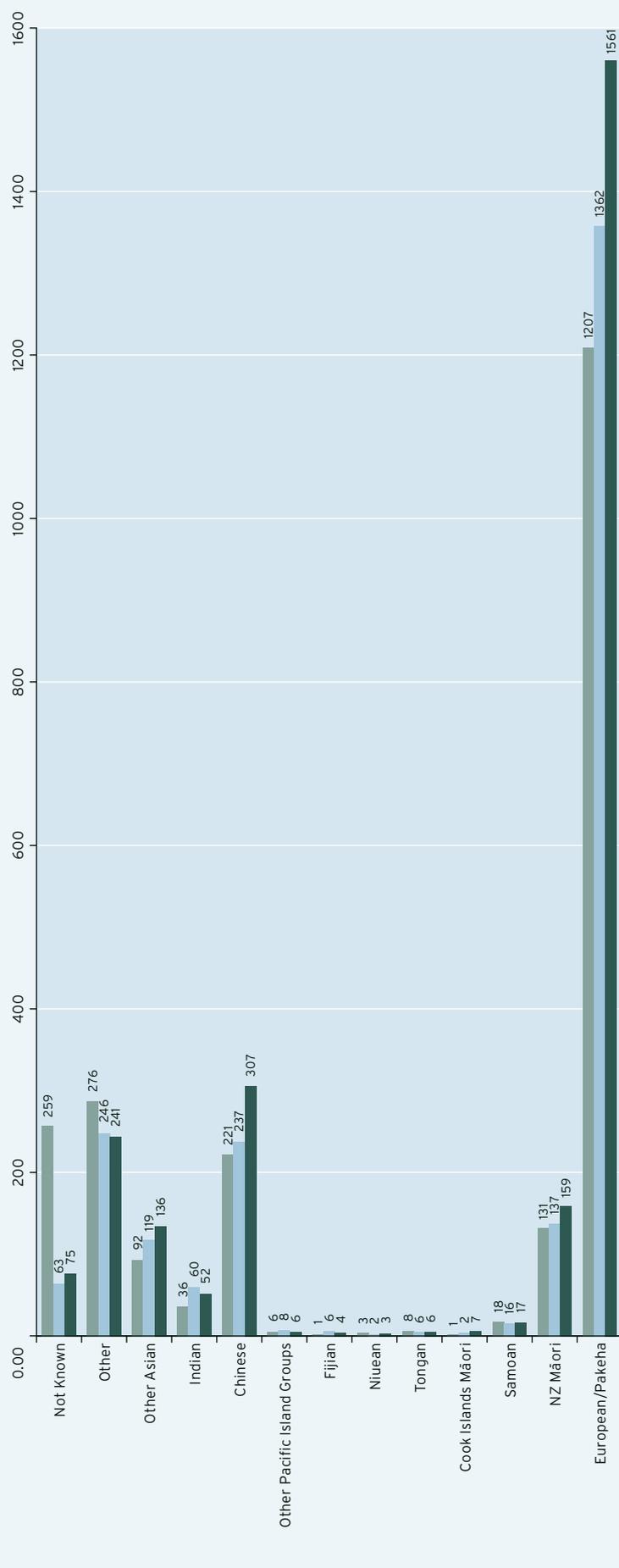


2003
2004
2005

Table A-138: Research Degree Completions based on ethnicity

	2003	2004	2005	TOTAL
European/Pakeha	1207	1362	1561	4130
NZ Māori	131	137	159	427
Samoan	18	16	17	51
Cook Islands Māori	1	2	7	10
Tongan	8	6	6	20
Niuean	3	2	3	8
Fijian	1	6	4	11
Other Pacific Island Groups	6	8	6	20
Chinese	221	237	307	765
Indian	36	60	52	148
Other Asian	92	119	136	347
Other	276	246	241	763
Not Known	259	63	75	397

Figure A-138: Research Degree Completions based on ethnicity

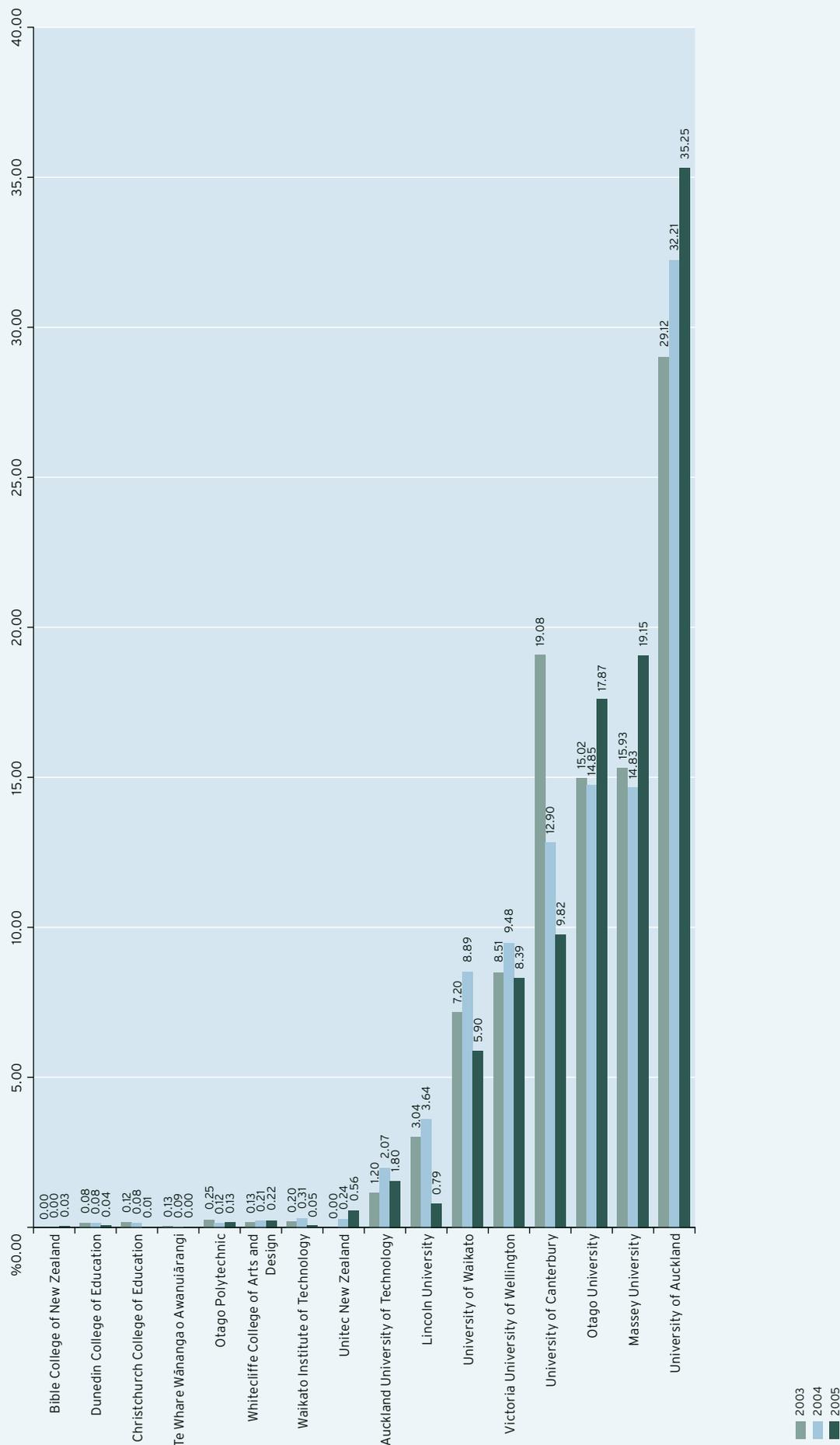


2003
2004
2005

Table A-139: Indicative funding – percentage of total research degree completions allocation

	2003	2004	2005	TOTAL
University of Auckland	29.12%	32.21%	35.25%	96.58%
Massey University	15.93%	14.83%	19.15%	49.91%
Otago University	15.02%	14.85%	17.87%	47.73%
University of Canterbury	19.08%	12.90%	9.82%	41.80%
Victoria University of Wellington	8.51%	9.48%	8.39%	26.38%
University of Waikato	7.20%	8.89%	5.90%	21.98%
Lincoln University	3.04%	3.64%	0.79%	7.47%
Auckland University of Technology	1.20%	2.07%	1.80%	5.07%
Unitec New Zealand	0.00%	0.24%	0.56%	0.80%
Waikato Institute of Technology	0.20%	0.31%	0.05%	0.56%
Whitecliffe College of Arts and Design	0.13%	0.21%	0.22%	0.56%
Otago Polytechnic	0.25%	0.12%	0.13%	0.51%
Te Whare Wānanga o Awanuiārangi	0.13%	0.09%	0.00%	0.22%
Christchurch College of Education	0.12%	0.08%	0.01%	0.20%
Dunedin College of Education	0.08%	0.08%	0.04%	0.20%
Bible College of New Zealand	0.00%	0.00%	0.03%	0.03%

Figure A-139: Indicative funding - percentage of total research degree completions allocation



Appendix B

Membership of the peer review panels and specialist advisors

Biological Sciences Panel	
Professor Bruce Baguley (chair)	University of Auckland
Dr. Allan Crawford	AgResearch Ltd
Dr. Charles Eason	CE Research Ltd
Professor Paula Jameson	University of Canterbury
Professor Peter McNaughton	University of Cambridge
Professor John Montgomery	University of Auckland
Professor David Penny	Massey University
Professor George Petersen	University of Otago
Professor Paul Rainey	University of Auckland
Professor Clive Ronson	University of Otago
Professor Bruce Ross	Ministry of Agriculture and Forestry (retired Director General)
Professor Hamish Spencer	University of Otago
Professor George Stewart	University of Western Australia
Professor Warren Tate	University of Otago
Professor David Schiel	University of Canterbury
Business and Economics Panel	
Professor Kerr Inkson (chair)	University of Otago
Professor John Brocklesby	Victoria University of Wellington
Professor Steven Cahan	University of Auckland
Associate Professor Catherine Casey	University of Auckland
Professor Peter Danaher	University of Auckland
Professor Robert Lawson	University of Otago
Professor Robert (Bob) Hamilton	University of Canterbury
Professor Gael McDonald	Unitec Institute of Technology
Professor Simon Milne	Auckland University of Technology
Professor Dorian Owen	University of Otago
Professor Les Oxley	University of Canterbury
Professor Gillian Palmer	Monash University
Professor John Panzar	University of Auckland
Professor Hector Perera	Massey University
Professor Tom Smith	Australian National University
Professor Lawrence Rose	Massey University
Professor Theodore Zorn	University of Waikato

Creative and Performing Arts Panel	
Professor Peter Walls (chair)	New Zealand Symphony Orchestra
Professor Chris Baugh	University of Kent
Professor Robert Jahnke	Massey University
Assoc Professor Barry King	Auckland University of Technology
Dr. Ian Lochhead	University of Canterbury
Professor Duncan Petrie	University of Auckland
Mr. Ian Wedde	Museum of New Zealand Te Papa Tongarewa
Ms Gillian Whitehead	Victoria University of Wellington
Dr. Suzette Worden	Curtin University of Technology
Education Panel	
Professor Noeline Alcorn	University of Waikato
Professor Russell Bishop	University of Waikato
Professor Carol Cardno	Unitec Institute of Technology
Professor Terry Crooks	University of Otago
Professor Roderick Ellis	University of Auckland
Dr. Peggy Fairbairn-Dunlop	(UNESCO), Consultant, Samoa
Professor Garry Hornby	University of Canterbury
Professor Ruth Kane	Massey University
Professor Helen May	University of Otago
Professor Luanna Meyer	Victoria University of Wellington
Dr. Patricia O'Brien	University of Dublin
Engineering Technology and Architecture Panel	
Professor John Raine (Chair)	Massey University
Dr. George Baird	Victoria University of Wellington
Dr. Alastair Barnett	Barnett and MacMurray Ltd
Professor Donald Cleland	Massey University
Professor Tim David	University of Canterbury
Professor Roger Fay	University of Tasmania
Professor Eileen Harkin-Jones	Queen's University Belfast
Professor Robert (Bob) Hodgson	Massey University
Ms. Gini Lee	University of South Australia
Professor John Mander	University of Canterbury
Professor Bruce Melville	University of Auckland
Dr. Ross Nilson	Radian Technology Ltd
Professor Mark Taylor	University of Auckland
Professor Brenda Vale	University of Auckland
Professor Laurence Weatherley	The University of Kansas
Professor Allan Williamson	University of Auckland

Health Panel	
Professor Peter Joyce (Chair)	University of Otago
Professor Stephen Challacombe	King's College London
Dr John Craven	Terip Solutions Pty Ltd
Dr Marie Crowe	University of Otago
Associate Professor Margaret Horsburgh	University of Auckland
Professor Leo Jeffcott	University of Sydney
Associate Professor Marlina Kruger	Massey University
Professor George Lees	University of Otago
Professor Karen Luker	University of Manchester
Professor Robert Marshall	Eastern Institute of Technology
Professor Bruce Murdoch	University of Queensland
Emeritus Professor David Russell	University of Otago
Dr Margaret Southwick	Whitireia Polytechnic
Professor Peter Stewart	Monash University
Professor Laurence Walsh	University of Queensland
Humanities and Law Panel	
Professor Raewyn Dalziel (Chair)	University of Auckland
Professor Stewart Candlish	University of Western Australia
Professor Jenny Cheshire	Queen Mary, University of London
Professor Paul Clark	University of Auckland
Professor John Cookson	University of Canterbury
Professor Richard Corballis	Massey University
Professor Ivor Davidson	University of Otago
Professor Anthony Duggan	University of Toronto
Professor Vivienne Gray	University of Auckland
Assistant Vice-Chancellor Jenny Harper	Victoria University of Wellington
Professor Margaret Harris	University of Sydney
Professor Janet Holmes	Victoria University of Wellington
Professor MacDonald Jackson	University of Auckland
Associate Professor Diane Kirkby	La Trobe University
Professor Stuart Macintyre	University of Melbourne
Professor Christian Mortensen	University of Adelaide
Professor Matthew Palmer	Victoria University of Wellington
Professor Raylene Ramsay	University of Auckland
Professor Richard Sutton	University of Otago
Professor Michael Taggart	University of Auckland
Dr Lydia Wevers	Victoria University of Wellington

Māori Knowledge and Development Panel	
Dr Ailsa Smith (Chair)	Lincoln University
Professor Christopher Cunningham	Massey University
Mr. Shane Edwards	Te Wānanga o Aotearoa
Mr. Ross Hemera	Massey University
Professor Tania Ka'ai	University of Otago
Professor Roger Maaka	University of Saskatchewan
Mr. Te Kahautu Maxwell	University of Waikato
Professor Margaret Mutu	University of Auckland
Dr Khyla Russell	Otago Polytechnic

Mathematical and Information Sciences and Technology Panel	
Professor Vernon Squire (Chair)	University of Otago
Professor Mark Apperley	The University of Waikato
Professor George Benwell	University of Otago
Professor Douglas Bridges	University of Canterbury
Professor Kevin Burrage	University of Queensland
Professor Anthony Dooley	University of New South Wales
Professor Gary Gorman	Victoria University of Wellington
Professor John Hosking	University of Auckland
Professor Nye John	University of Waikato
Professor John Lloyd	Australian National University
Professor Gaven Martin	Massey University
Professor Gillian Heller	MacQuarie University Sydney
Professor Michael Myers	University of Auckland
Professor Mike Steel	University of Canterbury
Professor Keith Worsley	McGill University

Medicine and Public Health Panel	
Professor Pat Sullivan (Chair)	Massey University
Professor Mark Cannell	University of Auckland
Dr Jackie Cumming	Victoria University of Wellington
Professor Peter Ellis	University of Otago
Professor Cindy Farquhar	University of Auckland
Professor Vivian Lin	La Trobe University
Professor Jim Mann	University of Otago
Professor Colin Mantell	University of Auckland (retired)
Professor Iain Martin	University of Auckland
Professor Murray Mitchell	University of Auckland
Professor Ian Reid	University of Auckland
Professor Mark Richards	University of Otago
Professor Martin Tattersall	University of Sydney
Professor Max Abbot	Auckland University of Technology
Professor Rob Walker	University of Otago

Physical Sciences Panel	
Professor Joe Trodahl (Chair)	Victoria University of Wellington
Professor Geoffrey Austin	University of Auckland
Professor Martin Banwell	Australian National University
Dr Kelvin Berryman	Institute of Geological & Nuclear Sciences
Dr Ian Brown	Industrial Research Limited
Dr Roger Cooper	Institute of Geological and Nuclear Sciences
Professor James Coxon	University of Canterbury
Professor Gerry Gilmore	University of Cambridge
Professor Kuan Meng Goh	Lincoln University
Professor Leon Phillips	University of Canterbury
Professor Nigel Tapper	Monash University
Professor Joyce Mary Waters	Massey University
Professor Steve Weaver	University of Canterbury
Social Sciences and Other Cultural/Social Sciences Panel	
Professor Michael Corballis (Chair)	University of Auckland
Professor Wickliffe (Cliff) Abraham	University of Otago
Dr Melani Anae	University of Auckland
Professor Maureen Baker	University of Auckland
Professor Allan Bell	Auckland University of Technology
Professor Tony Binns	University of Otago
Professor Lois Bryson	University of Newcastle
Professor Sean Cubitt	University of Waikato
Professor Randall Engle	Georgia Institute of Technology
Professor Ian Evans	Massey University
Professor Brian Galligan	University of Melbourne
Dr Patu Hohepa	Te Taurawhiri Te Reo Māori
Dr Leslie King	McMaster University
Professor Helen Leach	University of Otago
Dr Robyn Longhurst	University of Waikato
Professor Karen Nero	University of Canterbury
Dr Mel Pipe	The City University of New York
Professor Marian Simms	University of Otago
Professor Paul Spoonley	Massey University
Professor Veronica Strang	University of Otago

Specialist Advisors

Professor Ali Memon	Lincoln University
Dr Milo Kral	University of Canterbury
Dr Geoffrey Chase	University of Canterbury
Professor Graeme Wake	Massey University
Professor James Sneyd	University of Auckland
Professor Derek Holton	University of Otago
Professor Kenneth Wells	Australian National University
Dr Stewart King	Monash University
Professor Nanette Gottlieb	University of Queensland
Associate Professor Alison Lewis	University of Melbourne
Duncan Campbell	Victoria University of Wellington
Associate Professor Ken Wach	University of Melbourne
Professor Simon Fraser	Victoria University of Wellington
Mr Martin Lodge	University of Waikato
Professor Allan Marrett	University of Sydney
Dr Karen Stevenson	University of Canterbury
Mr Gary Harris	Royal New Zealand Ballet
Professor Ross Cullen	Lincoln University
Associate Professor Lawrence Corbett	Victoria University of Wellington
Professor Clive Smallman	Lincoln University
Professor Nigel Haworth	University of Auckland
Associate Professor Val Lindsay	Victoria University of Wellington
Associate Professor Victoria Mabin	Victoria University of Wellington
Professor Janet Hoek	Massey University
Professor Ian Eggleton	University of Waikato
Professor Bill Doolin	Auckland University of Technology
Professor Robert G Bowman	University of Auckland
Dr Lee Wallace	University of Auckland
Professor Richard Owens	University of Auckland
Professor Henry Jackson	University of Melbourne
Dr Darrin Hodgetts	University of Waikato
Professor Garry Hawke	Victoria University of Wellington
Dr Michael Davison	University of Auckland
Professor Annamarie Jagose	University of Auckland
Dr Richard Hamilton	University of Auckland
Professor Michael Thomas	University of Auckland
Professor E Marelyn Wintour-Coghlan	Monash University
Professor Trevor Lamb	The Australian National University
Dr David Tarlinton	The Walter and Eliza Hall Institute of Medical Research

Robert Wynn-Williams	Canesis Netork Ltd
Mr Manos Nathan	Arts and arts educator
Professor John Moorefield	University of Otago
Professor Michael Reilly	University of Otago
Mrs Te Ripowai Higgins	Victoria University
Dr Patricia Wallace	University of Canterbury
Professor Michael Walker	University of Auckland
Ms Nin Tomas	University of Auckland
Dr Rawiri Taonui	University of Canterbury
Dr Maureen Lander	University of Auckland
Dr Pare Keiha	Auckland University of Technology
Mr Hone Sadler	University of Auckland

Appendix C

Report of the Moderation Panel

Executive summary

- The moderation processes outlined in the *PBRF Guidelines 2006* have been followed throughout the 2006 Quality Evaluation.
- Consistency of standards has been attained to the maximum degree feasible given the *Guidelines* and the nature of the assessment in question.
- The Moderation Panel is satisfied that the results of the 2006 Quality Evaluation are credible, fair and fully justified.
- The Moderation Panel draws the attention of the Tertiary Education Commission (TEC) to a number of areas where improvements can be made in future Quality Evaluations.
- The Moderation Panel considers that the revised assessment pathway for new and emerging researchers has been a successful mechanism for recognising the achievements of researchers who are at the beginning of their careers.
- The Moderation Panel rejects any move to rely on TEO self-assessment for the next Quality Evaluation; but it notes that limited self-assessment could be trialled.
- The Moderation Panel sees no particular benefit in holding the third Quality Evaluation any sooner than 2012.

Purpose of this report

- 1 This paper summarises the moderation processes employed during the 2006 Quality Evaluation, highlights issues that the Moderation Panel wishes to bring to the attention of the TEC, and presents recommendations based on the Moderation Panel's deliberations.

Recommendations

Recommendation 1

- 2 That the TEC accept the Final Quality Categories recommended by the 12 peer review panels for the 2006 Quality Evaluation as an accurate reflection of relative TEO, subject area and academic-unit research performance, based on the criteria applied during the Quality Evaluation.

Recommendation 2

- 3 That the TEC accept the Final Quality Categories recommended by the 12 peer review panels relating to Māori and Pacific research and researchers as fair; but that, for future Quality Evaluations, the TEC take steps to ensure TEOs accurately apply the criteria for declaring that EPs contain Pacific research.

Recommendation 3

- 4 That the TEC accept the Final Quality Categories recommended by the 12 peer review panels relating to new and emerging researchers; but that, for future Quality Evaluations, the TEC take steps to ensure that TEOs understand the importance of correctly assigning "new and emerging researcher" status to eligible staff.

Recommendation 4

- 5** That the TEC consider making changes relating to the training of peer review panel members, the distribution of information to support the assessment process, the assessment of panel members' EPs, the cross-referral of EPs, special circumstances, panel workload, the moderation process, and support provided by the TEC.

Recommendation 5

- 6** That the TEC take particular care with respect to explaining the meaning of the six Quality Categories when providing feedback to TEOs on the performance of their staff.

Recommendation 6

- 7** That the TEC confirm the third Quality Evaluation will be held in 2012.

Recommendation 7

- 8** That the TEC ensures the third Quality Evaluation does not rely on TEO self-assessment; but that it consider trialling self-assessment on a limited basis.

Key issues for the attention of the TEC

- 9** The Moderation Panel concerned itself with the following matters:
- Ensuring consistent interpretations of tie-points for Quality Categories across different peer review panels.
 - Assisting cross-panel consistency prior to and during panel deliberations.
 - Independently reviewing cross-panel consistency following panel deliberation.
 - Ensuring that all researchers were treated fairly and equitably.
 - Examining whether the pattern of Quality Category profiles generated by each panel was credible and justified, and whether the boundaries between Quality Categories were set appropriately by peer review panels.
 - Determining whether the overall results appeared reasonable and justifiable.
 - Scrutinising the processes followed by each panel, and reviewing the key issues raised by the draft panel reports to the TEC.
 - Dealing with matters pertaining to potential conflicts of interest.
 - Providing advice to the TEC concerning issues that arose during the conduct of the 2006 Quality Evaluation.
 - Recommending changes to the Quality Evaluation processes and panel processes for the third Quality Evaluation.
- 10** These tasks raised a number of issues for the TEC that are reflected in the Moderation Panel's recommendations and in the discussion of its recommendations in this report. The issues are:

Issue 1

- 11 Have tie-points been applied in a consistent manner both within and between peer review panels?

Issue 2

- 12 Have the processes used by peer review panels been appropriate and have researchers been treated fairly?

Issue 3

- 13 Are the results of the 2006 Quality Evaluation credible and reasonable?

Issue 4

- 14 Have conflicts of interests been properly dealt with?

Issue 5

- 15 How can the TEC best ensure that the results of the 2006 Quality Evaluation are used beneficially to enhance the research performance of TEOs?

Issue 6

- 16 Are there changes to the design and implementation of the Quality Evaluation processes that should be considered for subsequent evaluations?

The Moderation Panel and its processes**Membership, dates and information sources**

- 17 The membership of the Moderation Panel comprised:

Professor John Hattie, University of Auckland (Chair and Principal Moderator)

Professor Carolyn Burns, University of Otago (Deputy Moderator)

Professor Mason Durie, Massey University (Deputy Moderator)

Professor Bruce Baguley, University of Auckland (Chair of the Biological Sciences Panel)

Dr Ailsa Smith, Lincoln University (Chair of the Māori Knowledge and Development Panel)

Professor Noeline Alcorn, University of Waikato (Chair of the Education Panel)

Professor Kerr Inkson, University of Otago (Chair of the Business and Economics Panel)

Professor Peter Joyce, University of Otago (Chair of the Health Panel)

Professor Raewyn Dalziel, University of Auckland (Chair of the Humanities and Law Panel)

Professor John Raine, Massey University (Chair of the Engineering, Technology and Architecture Panel)

Professor Michael Corballis, University of Auckland (Chair of the Social Sciences and Other Cultural /Social Studies Panel)

Professor Vernon Squire, University of Otago (Chair of the Mathematical and Information Sciences and Technology Panel)

Professor Patrick Sullivan, Massey University (Chair of the Medicine and Public Health Panel)

Professor Joe Trodahl, Victoria University of Wellington (Chair of the Physical Sciences Panel)

Professor Peter Walls, Victoria University of Wellington, Chief Executive of the New Zealand Symphony Orchestra (Chair of the Creative and Performing Arts Panel)

- 18** The Chair of the PBRF Advisory Group, Professor Jonathan Boston, attended the first and second Moderation Panel meetings and provided advice and support to the Moderation Panel. In addition, Professor Boston attended several PBRF peer review panel meetings, providing advice to the moderators and panels on various matters relating to the assessment.
- 19** The Moderation Panel was advised by Brenden Mischewski as Moderation Secretariat. The meetings of the Moderation Panel were attended by the 2006 Quality Evaluation Project Manager, Margaret Wagstaffe, and by a representative of the TEC's Internal Audit Group, Mary-Beth Cook.
- 20** The full Moderation Panel met on three occasions:
- On **1 May 2006**: to discuss the information that the Moderation Panel would require for analysing the assessments undertaken by the peer review panels.
 - On **20 November 2006**, prior to the panel meetings: to establish procedures to be followed during panel deliberations; to calibrate a selection of EPs across a number of panels; and to determine any panel-specific problems that would need to be addressed during panel deliberations. Information provided to the Moderation Panel at this meeting comprised: a detailed statistical analysis of preparatory scores, with comparison (where appropriate) with the results of the 2003 Quality Evaluation; and selected EPs, to facilitate calibration on an inter-panel basis. All panel chairs, with the exception of Professor Bruce Baguley (deputised by Professor John Montgomery), were present. Because of illness, one of the Deputy Moderators was unable to attend.
 - On **15 December 2006**, subsequent to the panel meetings: to examine the results of panel deliberations; to confirm calibration; to identify inconsistencies and establish remedies; to identify issues concerning potential conflict of interest; to deliberate on the outcome of the assessment exercise; and to make recommendations to the TEC. Information provided to the Moderation Panel at this meeting comprised: a detailed statistical analysis of scores undertaken both prior to and during the panel meetings, with data in each case presented by panel and by subject area; a detailed analysis of shifts in Quality Categories resulting from the various stages of the process; and a summary of the key issues that would be raised in the panel reports. All panel chairs were present at this meeting. Because of illness, one of the Deputy Moderators was unable to attend.

The handling of conflicts of interest

- 21** This section describes the manner in which conflicts of interest were handled during peer review panel deliberations.
- 22** EPs were allocated by secretariat staff and approved by panel chairs in a manner that minimised any potential conflict of interest. Panel members were also given the opportunity to request that EPs be reassigned if they identified a conflict of interest.
- 23** The matter of conflict of interest in peer review panels was discussed at length during the November Moderation Panel meeting, and a uniform set of guidelines was agreed upon. In particular:
- Panel members would be *required to leave the room* for any discussion of an EP where: a conflict of interest relating to the assessment of their own EP had been identified; or they had a personal relationship with the individual whose EP was to be discussed; or there could be personal financial benefit from participating in the discussion.

- Panel members would be *permitted to remain in the room, but required to remain silent*, for the discussion of any EPs that involved any other identified conflict of interest. In such cases the panel member with the conflict of interest would be permitted to contribute factual information to the discussion if requested by the panel chair.
- 24** Panel members were also given the option of leaving the room for the discussion of any EP where they had identified any conflict of interest.
- 25** Where the panel chair had a conflict of interest with respect to an EP under discussion, the deputy panel chair took over the role of chair for the duration of the discussion.
- 26** During the December Moderation Panel meeting, panel chairs were requested to report on their handling of conflicts of interest. During this discussion it was apparent that the agreed policy had been adhered to.
- 27** The assessment of panel members' EPs was a matter of concern for panel chairs. Normally, the scoring of panel members' EPs were kept confidential until the end of the assessment process, and panel members' EPs were not subject to panel assessment until all other EPs had been assessed. While the Moderation Panel believes that the EPs of panel members were assessed fairly, the experience of the 2006 Quality Evaluation raises a number of issues that the TEC may care to address – such as establishing some completely separate mechanism for the assessment of panel members' EPs, or ensuring that the procedures for assessing panel members' EPs within the panel are even more robust.

Conflicts of interest pertaining to the Moderation Panel

- 28** The Chair of the Moderation Panel is unaware of any matters pertaining to conflicts of interest that arose during the moderation process. All institutional affiliations were clearly identified, and the chair was satisfied that no institutional agendas or biases were exhibited at any stage during the deliberations of the Moderation Panel.

Calibration processes – overview

- 29** A key function of the Moderation Panel was to ensure consistent standards, both within and between peer review panels. A variety of processes used to achieve this goal are outlined in the following paragraphs.
- 30** Training was provided to all panel members, with most New Zealand panel members travelling to Wellington for panel-specific training sessions. These sessions provided an opportunity for experienced panel members to refresh their understanding of the assessment framework and for new panel members to become fully conversant with it. Panel members were also briefed on the refinements to the assessment framework undertaken for the 2006 Quality Evaluation. Careful attention was paid to the implications of the "partial" round (ie that there were likely to be fewer EPs that would meet the standard required for the award of an "A" Quality Category) and the effect this would have on the calibration of assessment standards. The assessment criteria for new and emerging researchers was reviewed, with panel members considering how best to calibrate their scoring for this group of EPs; and the implications of the changes to the definition of research were considered.

- 31** In addition, the New Zealand panel members had the opportunity to participate in calibration exercises where EPs from the 2003 Quality Evaluation were assessed. At least one moderator was present at each of these sessions.
- 32** Overseas panel members were provided with a detailed training package to assist them in interpreting and applying the *PBRF Guidelines 2006*.
- 33** Provision was also made for all panel members to participate in teleconferences and to contribute to discussions on the approach each panel was to take. This contributed to a high level of understanding, and provided a strong foundation for the calibration of assessment standards.
- 34** The peer review panels were invited to update their panel-specific guidelines, taking into account advice arising out of the refinement of the PBRF. The panel-specific guidelines were prepared during May and June 2005 and, following consultation with the tertiary sector, released publicly as part of the *PBRF Guidelines 2006*.
- 35** During August 2006, the panel secretariat staff allocated EPs to the panel pairs for pre-meeting assessment. This allocation was done in consultation with panel chairs, and took into account considerations such as relevant expertise, conflicts of interest, and workload.
- 36** The pre-meeting assessment was carried out between September and November 2006. The first step was the determination of preparatory scores, which were arrived at independently by each member of the panel pair without reference either to the scores of the other member of the pair or to the Quality Category assigned as part of the 2003 Quality Evaluation. Where special circumstances were claimed in an EP, each member of the panel pair prepared an additional set of preparatory scores that took these special circumstances into account.
- 37** All EPs next received a preliminary score, which was assigned by the two members of the panel pair working together. In arriving at the preliminary score, they took into account any cross-referral advice, specialist advice, and special circumstances.
- 38** At the same time as the pre-meeting assessment was being undertaken, most panel chairs also assessed a range of EPs across the subject areas covered by their panel.
- 39** At the November Moderation panel meeting, panel chairs and moderators participated in a calibration exercise involving a selection of EPs that represented the "A", "B" and "C" Quality Categories. This enabled various calibration issues to be clarified and a common view reached on the boundaries for tie-points.
- 40** At this meeting, panel chairs were also invited to draw to the Moderation Panel's attention any anomalies in scoring distributions that might be apparent in the preliminary statistical data. One useful reference point was the degree to which the aggregated preliminary scores (ie Indicative Quality Categories) differed from the Final Quality Categories assigned in 2003. Various issues and possible anomalies were identified and discussed, with major concern centring on the Business and Economics Panel (where a significant increase in the number of "A" and "B" Quality Categories was noted), and on the Humanities and Law and the Health panels (which had significant increases in the quality scores of certain subject areas). Panel chairs were requested to clarify these matters in discussions to take place at their panel meeting but before the calibration process, and to report back to the Moderation Panel at its second meeting.

- 41** The Moderation Panel also noted that 59% of the 2006 EPs had comments in the special circumstances field, compared with 75% of EPs in the 2003 Quality Evaluation. It was agreed that panels should carefully calibrate their scoring to ensure that special circumstances were being consistently taken into account where they had an impact on the volume of material in the EP.
- 42** The Moderation Panel carefully considered a range of data setting out the influence of special circumstances on the scores assigned to EPs that claimed special circumstances. These included: the number and type of special circumstances claimed; the differences, by panel, between the average score assigned to EPs that claimed special circumstances and those that did not; and the average score for type of special circumstances claimed.
- 43** The relatively high differences in scoring when panel pairs took certain types of special circumstances into account were also noted. Panel chairs were reminded of the importance of assessing each instance of special circumstances on its merits and in relation to the description of the circumstances provided in the EP.
- 44** The panel meetings took place in the last week of November and the first week of December 2006. One of the moderators and/or the Chair of the PBRF Advisory Group was able to be present for the entirety of almost all of the meetings. In particular, the moderators were able to provide guidance on the assessment standard to be applied in relation to new and emerging researchers. This enabled independent and consistent advice to be given to each panel and provided an assurance that the agreed assessment framework was being applied in a consistent manner.
- 45** A representative of the TEC's Internal Audit Group also attended at least part of each of the meetings of the peer review panels and the Moderation Panel.
- 46** At the December Moderation Panel meeting, a detailed panel-by-panel analysis of results was carried out. In particular, the Moderation Panel closely examined statistical data relating to shifts in assessment between the Indicative and Calibrated Panel Quality Categories, and between the Holistic and Final Quality Categories. Because there were shifts in both directions, the Moderation Panel gained some assurance that the peer review panels were acting in a discriminating manner.
- 47** At this meeting, panel chairs were also asked to comment on consistency of assessment standards in relation to cross-referral advice. They noted that the cross-referral scores were generally helpful in confirming the panel pairs' judgements, but that the absence, in many cases, of commentary that explained the reasoning behind scoring decisions was sometimes frustrating.
- 48** In addition, the analysis of preparatory, preliminary and calibrated panel scores allowed the Moderation Panel to adduce the extent to which cross-referrals may have influenced the panel pairs' scores.

The achievement of *intra*-panel calibration

- 49** There were no major difficulties in relation to intra-panel consistency. Panel chairs reported a high degree of consensus in the assessment standards applied by panel members within any given panel.
- 50** Throughout the assessment process, the 12 peer review panels made an effort to ensure that EPs were assessed in an accurate, fair and consistent manner. In particular, appropriate attention was given to ensuring that the different subject areas for which each panel was responsible were assessed on the same basis.

51 In all cases, the peer review panels employed the following methods:

- Each EP was assessed by a panel pair who submitted (for most EPs) agreed preliminary scores to the PBRF Project Team before the panel meetings.
- The guidance in the *PBRF Guidelines 2006* on the handling of conflicts of interest, as well as additional advice provided by the Moderation Panel, was consistently applied at all times.
- Panel members obtained and reviewed NROs. Slightly more than 10,000 NROs were either supplied to panel members or reported as having been sourced by panel members. In most cases, at least two NROs were sighted for each EP.
- Panel members typically operated in multiple pairings (ie in some cases a panel member might work in 10 or more pairings, each time with a different member of their panel). This allowed significant variations in standards or approach to be detected.
- Around 22% (987) of all EPs were cross-referred to one or more other peer review panels for advice (compared with 8% of all EPs in 2003).
- Specialist advice was sought for 283 EPs (compared with 87 EPs in 2003), from a total of 51 specialist advisers.
- Panel chairs informed their panels of the findings made by the November Moderation Panel meeting.
- Panels devoted considerable attention to the determination of calibrated panel scores for the RO, PE and CRE components.
- All panels undertook a systematic review of EPs. In some panels, particular attention was given to EPs whose total weighted score was close to a Quality Category boundary.
- Panels considered all EPs where panel pairs were unable to reach agreement on the preliminary scores.
- Panels ensured that, for the EPs of all new and emerging researchers, the "C(NE)"/"R(NE)" boundary was appropriately calibrated.
- Panels discussed (and agreed upon) the appropriate boundaries between Quality Categories, giving appropriate regard to the tie-points and descriptors in the *PBRF Guidelines 2006*.
- Panels considered a small number of EPs at the holistic assessment stage, but a significant proportion of those EPs were discussed in detail.
- At a late stage in proceedings, panels reviewed EPs which had large disparities between their Final Quality Category in 2006 and the Final Quality Category that had been assigned in 2003. There were no changes made at this stage.
- When a panel was required to assess the EP of one of its own members, the panel member concerned left the room and their EP was considered by all the remaining panel members.
- Panel secretariats took an active role in ensuring that panels complied with the PBRF assessment framework and guidelines.

- 52** Some peer review panels employed a number of additional methods to ensure that EPs were assessed in an accurate, fair and consistent manner. For instance:
- In many cases, panel chairs assessed a significant proportion of the EPs submitted to their particular panels.
 - In many cases, panels examined all EPs with unusual score combinations for the RO, PE and CRE components.
 - In almost every case, all panel members were involved in the assessment of virtually every EP.
 - After panel calibration discussions, in some cases groups of panel members with expertise in the same subject area met to reconsider preliminary scores for a small number of EPs.
- 53** The Moderation Panel formed the view that each panel had taken appropriate and sufficient steps to ensure that there was effective and consistent intra-panel calibration. In particular, it noted that there appeared to have been a high level of agreement amongst panel members from different disciplinary backgrounds on where the boundaries should be drawn between Quality Categories.

The achievement of *inter*-panel calibration

- 54** The assessment of EPs entails the application of professional judgements by individuals from a wide range of academic cultures. Within a panel, this process is tempered by the comparison of assessments by different peers, by scrutiny from the panel chair, and by open debate. The need to find consensus between different, but closely related, subject areas within a panel provides an active dynamic in this process.
- 55** Between panels, the matter of calibration is more subtly determined. This determination took place in three phases.
- 56** First, there was an initial calibration exercise that informed the November Moderation Panel meeting, when issues were identified and a plan of action agreed.
- 57** Second, panel deliberations were monitored to ensure that these issues were being addressed, and panel chairs were required to report at the December Moderation Panel meeting on actions taken.
- 58** Finally, following the completion of the peer review panel meetings, there was a detailed analysis of statistical data undertaken in order to inform the December Moderation Panel meeting. During that meeting, unresolved issues were identified and, where required, further action was directed.

First phase of inter-panel calibration

- 59** The November Moderation Panel meeting considered the overall shape of the aggregate results from the preliminary scores (in the form of Indicative Quality Categories), and compared these with aggregate data from the 2003 Final Quality Categories. On the basis of these considerations, the Moderation Panel offered advice to the peer review panels on a number of assessment issues and asked certain panels to give particular attention to a number of specified matters.
- 60** Of particular concern was the significant increase in the numbers of "A" and "B" Quality Categories assigned by the Business and Economics Panel in the accounting and finance subject area. It was agreed that the Chair of the Business and Economics Panel would highlight this issue as part of the calibration of panel scoring, and would be sensitive to the possibility of varying standards being applied by individual assessors.

61 Concerns were also raised about the increase in the quality scores for certain subject areas: English language and literature; law; dentistry; and veterinary studies and large animal science. It was agreed that the chairs of the panels for these subject areas (respectively, the Humanities and Law Panel and the Health Panel) would highlight this issue as part of the calibration of panel scoring. It was also agreed that the Humanities and Law Panel in particular would be sensitive to the possibility of varying standards being applied by individual assessors; but it appeared possible that, within the Health Panel, the increases in the quality scores of dentistry and of veterinary studies and large animal science were the result of a fall in the numbers of staff whose EPs had been assigned an “R” Quality Category in 2003.

Second phase of inter-panel calibration

- 62** This phase comprised:
- panel-by-panel observation; and
 - reporting on panel-specific issues that had been identified at the Moderation Panel meeting in November.
- 63** Before the December Moderation Panel meeting, the moderators attended part of each panel meeting and observed the assessment process for a number of EPs.
- 64** The Chair of the PBRF Advisory Group, Professor Jonathan Boston, was also able to attend a number of peer review panels and observe calibration processes at work. Professor Boston supplemented the moderators, particularly when one moderator was unable to attend panel meetings because of illness.
- 65** It was concluded that the assessment criteria in the *PBRF Guidelines 2006* were being applied in a broadly consistent manner. Further, it was apparent that matters raised at the November Moderation Panel meeting were being correctly addressed by peer review panels in the briefings that took place before calibration.
- 66** After the panel-by-panel observation, the December Moderation Panel meeting was held and the panel-specific issues that had been identified at the earlier Moderation Panel meeting in November were reported on by their relevant chairs.
- 67** The Chair of the Business and Economics Panel reported that the apparently significant increase in the numbers of “A” and “B” Quality Categories was a result of inaccurate preliminary scores being returned by one of the panel pairs. These scores had been corrected and taken into account as part of the assignment of Final Quality Categories.
- 68** In relation to the Humanities and Law Panel, the Moderation Panel noted that the increases in the quality scores that had been identified (for English language and literature and for law) were less marked after the calibration of panel scoring.
- 69** In relation to the Health Panel, its Chair reported that, during the calibration of panel scoring, the panel had carefully considered the assessment standards applied to EPs in the dentistry and the veterinary studies and large animal science subject areas, and was satisfied that these standards had been appropriately applied.
- 70** The Moderation Panel was assured that these panel-specific issues had been properly taken into account during the course of the relevant panel meetings.

Third phase of inter-panel calibration

- 71** The third phase of inter-panel calibration comprised:
- a detailed analysis of statistical distributions;
 - an analysis of shifts in Quality Categories during calibration and holistic assessment; and
 - comparisons of the 2006 Final Quality Categories with those assigned in the 2003 Quality Evaluation.
- 72** The detailed analysis of statistical distributions included a panel and subject-area level comparison of Indicative Quality Categories, Calibrated Panel Quality Categories, and Final Quality Categories. Data revealing the various changes that had occurred at different stages in the assessment process were also presented, as were data showing the quality scores for panels and subject areas. At each level, comparisons were made with the Final Quality Categories assigned in the 2003 Quality Evaluation. This analysis was conducted with careful note taken of the implications of the “partial” round and the impact of the assessment pathway for new and emerging researchers.
- 73** Overall, there was a tendency for panels’ Final Quality Categories to be lower than their Indicative Quality Categories. This tendency was particularly marked in the Business and Economics Panel, the Humanities and Law Panel, and the Social Sciences and Other Cultural/Social Studies Panel. Most of the panels that assigned lower Final Quality Categories had been asked to pay particular attention to the calibration of the assessment standards applied in their preparatory and preliminary scoring.
- 74** Conversely, a few panels tended to assign Final Quality Categories that were higher than their Indicative Quality Categories. The most notable example was the Creative and Performing Arts Panel, which at the start of its panel meeting had artificially low Indicative Quality Categories because a large number of its preliminary scores had been unavailable when these Quality Categories were compiled. Two other panels – the Mathematical and Information Sciences and Technology Panel and the Physical Sciences Panel – also showed upward shifts in their Final Quality Categories, but these shifts were relatively few in number.
- 75** It should be noted that, *at the level of individual EPs*, there were relatively few shifts of more than one category between the Final Quality Categories and the Indicative Quality Categories (except where the pre-meeting assessment had not resulted in agreed preliminary scores). In every case where there was such a shift, the EPs in question were re-reviewed for confirmation of the Final Quality Category.
- 76** The Moderation Panel also considered the change in panel and subject area rankings and concluded that there were no significant changes in these rankings which could not be readily and reasonably explained. It also noted that the differentiation between subsectors (represented by the rankings of TEOs) is consistent with that reported for the 2003 Quality Evaluation; and that the rankings of panels and subject areas are broadly similar to those in 2003.
- 77** These overall similarities of rankings suggest that panel members applied assessment standards that were consistent with those applied in 2003.

Discussion of recommendations

Recommendation 1

78 That the TEC accept the Final Quality Categories recommended by the 12 peer review panels for the 2006 Quality Evaluation as an accurate reflection of relative TEO, subject-area and academic-unit research performance, based on the criteria applied during the Quality Evaluation.

Performance across all subject areas

79 Table 1 shows the percentage distribution of Quality Categories across all subject areas and compares these with the Final Quality Categories assigned in the 2003 Quality Evaluation.

Table 1: Distribution of Quality Categories Assigned by Peer Review Panels¹

Quality Category	Final Quality Categories (2003 Quality Evaluation) %	Indicative Quality Categories 2006 %	Calibrated Panel Quality Categories 2006 %	Final Quality Categories 2006 %	Final Quality Categories (FTE-weighted) 2006 %
A	5.54	7.28	7.13	7.27	7.42
B	22.57	24.78	24.98	25.00	25.55
C	31.01	25.08	24.75	24.67	24.80
C(NE)	Not applicable	10.61	9.54	9.53	9.69
R	40.88	21.52	22.72	22.65	22.08
R(NE)	Not applicable	9.46	10.89	10.89	10.46
A + B	28.11	32.06	32.11	32.27	32.97
A (universities only)	6.53	–	–	9.57	9.68

80 Overall, research quality as measured in the 2006 Quality Evaluation was higher than that measured in the 2003 Quality Evaluation.

81 The following factors should be taken into account when considering the results of the 2006 Quality Evaluation:

- The “partial” round provisions for the 2006 Quality Evaluation meant that EPs assessed as part of the 2003 Quality Evaluation were not expected to be resubmitted. A total of 2,996 Quality Categories assigned in 2003 were carried over to the 2006 Quality Evaluation.
- Some of the EPs that were not resubmitted in 2006 and that had their 2003 Quality Categories “carried over” may have been assigned lower Quality Categories if they had been resubmitted.
- The assessment pathway for new and emerging researchers allowed a number of EPs to be assigned a funded Quality Category. In 2003, these EPs would have been assigned an “R” Quality Category.

¹ Includes all PBRF-eligible staff and is not FTE-weighted except where noted. Figures for Indicative Quality Categories do not total 100% because some panel pairs were unable to reach agreement prior to the panel meetings. This affected 1.27% of all EPs.

- In 2006, a number of TEOs participated in the Quality Evaluation for the first time.
 - All peer review panels commented on the improvement in the quality of presentation of material in EPs.
- 82** The combination of these factors would be expected, on balance, to result in a improvement in measured research quality – and this is in addition to the intended effect of the PBRF in rewarding and incentivising research excellence.
- 83** It should also be noted that, as was the case in the 2003 Quality Evaluation:
- The eight universities performed better, on average, than other TEOs. The proportion of “A”s assigned to the university sector is 9.68% (FTE-weighted) compared with 0.14% for all other TEOs.
 - When the results of the Quality Evaluation are calculated on an FTE basis for eligible staff, the proportion of funded Quality Categories increases and the proportion of “R”s and “R(NE)”s decreases.

Overall TEO performance

- 84** The analysis of the Final Quality Categories shows that around 7.4% of PBRF-eligible staff (FTE- weighted) were assigned an “A” in 2006, compared with 5.7% in 2003. Around 33% were assigned an “R” or “R(NE)”, compared with 40% in 2003.
- 85** If only universities are considered, the proportion of “A”s rises to 9.68% while the proportion of “R”s decreases to 18.04%. (The comparative figures from 2003 are 6.7% and 32.1% respectively.)
- 86** Since 2003 there has been a considerable fall in the proportion of those researchers – particularly in the university sector – whose EPs did not meet the standards required for a “C” or “C(NE)” Quality Category. The provision for new and emerging researchers has clearly had a major influence on this.
- 87** The increased proportion of researchers assigned an “A” or “B” Quality Category, the large number of new and emerging researchers whose EPs have been assigned a “C(NE)”, and the commensurate reduction in the number of researchers whose EPs were assigned an “R” all suggest that the PBRF is having a desirable impact on the quality of research in the New Zealand tertiary sector. It should be noted, however, that some of these effects may have been exaggerated by the “partial” round provisions for the 2006 Quality Evaluation.
- 88** The results of the 2006 Quality Evaluation indicate some changes in the relative performance of TEOs – but only within certain subsectors. The distribution of TEO performance still broadly reflects the pattern of the 2003 Quality Evaluation, with *measured* research quality in the university subsector being much higher than that in other subsectors. Beyond this, the Moderation Panel did not review the relative performance of TEOs other than to note the importance of the TEC’s ensuring that staff PBRF-eligibility criteria is consistently and accurately applied.

Subject-area performance

- 89** Figure C-1 shows the ranking of subject areas based on quality scores. Although these quality scores mask a variety of differing distributions of “A”, “B”, “C”, “C(NE)”, “R”, and “R(NE)” Quality Categories, the graph gives a fair representation of relative strength.

- 90** On this analysis, the 10 highest-scoring subject areas are: earth sciences; biomedical; physics; philosophy; ecology, evolution and behaviour; human geography; chemistry; anthropology and archaeology; pure and applied mathematics; and psychology. The 10 lowest-scoring are: nursing; design; education; sport and exercise science; theatre and dance, film and television and multimedia; Māori knowledge and development; other health studies (including rehabilitation therapies); communications, journalism and media studies; visual arts and crafts; and religious studies and theology.
- 91** Although the composition of the 10 highest-scoring and the 10 lowest-scoring subject areas is broadly similar to that reported in the 2003 Quality Evaluation, there have been some changes within these groupings. Of the 10 highest-scoring subject areas in 2003, only one – history, history of art, classics and curatorial studies – did not feature in this grouping in 2006 (it is now ranked 11th). Conversely, pure and applied mathematics now appears in the 10 highest-scoring, having increased its ranking from 12th to 9th place. All other subject areas in the 10 highest-scoring in 2003 were also there in 2006. Similarly, the 10 lowest-scoring subject areas show relatively little change.
- 92** Ranking by quality score, however, does not give an accurate picture when it comes to assessing critical mass. For example, the subject area of education – whose ranking is very low – has 28 researchers with an “A” Quality Category. By contrast, anthropology and archaeology – which ranks very high – has only eight such researchers. (Both numbers are non-FTE-weighted.) So, for an accurate measure of relative subject-area strength, quality score information should be interpreted carefully.
- 93** The relatively low quality scores of some subject areas (eg nursing, and sport and exercise science) reflect their emerging nature – although it should be noted that, in some of the lowest-ranked subject areas, the numbers of researchers whose EPs demonstrated high levels of research quality have increased markedly. For example, in nursing, eight EPs were assigned an “A” or “B” Quality Category in 2006 compared with three in 2003.
- 94** Given the effect of changes in the number and mix of participating TEOs and factors specific to particular subject areas, the continuity of results between the 2003 and 2006 Quality Evaluations is reassuring. Over such a limited period, however, it was unlikely that there would be major variation in overall performance or in the relative performance of subject areas.
- 95** The Moderation Panel carefully reviewed instances where the rankings of subject areas changed markedly, and was satisfied that the reasons for these changes did not reflect any material differences in the assessment standards applied by the peer review panels. For example, the major increase in “A”s in some subject areas could be traced to senior appointments from overseas – of the 218 staff whose EPs were assigned an “A” in the 2006 Quality Evaluation, it was estimated that at least 48 were appointments from overseas.

Figure C-1: Subject-Area Ranking – All Subject Areas

Numbers above bars indicate FTE-weighted quality scores

Numbers in parentheses indicate total number of PBRF-eligible FTE-weighted staff

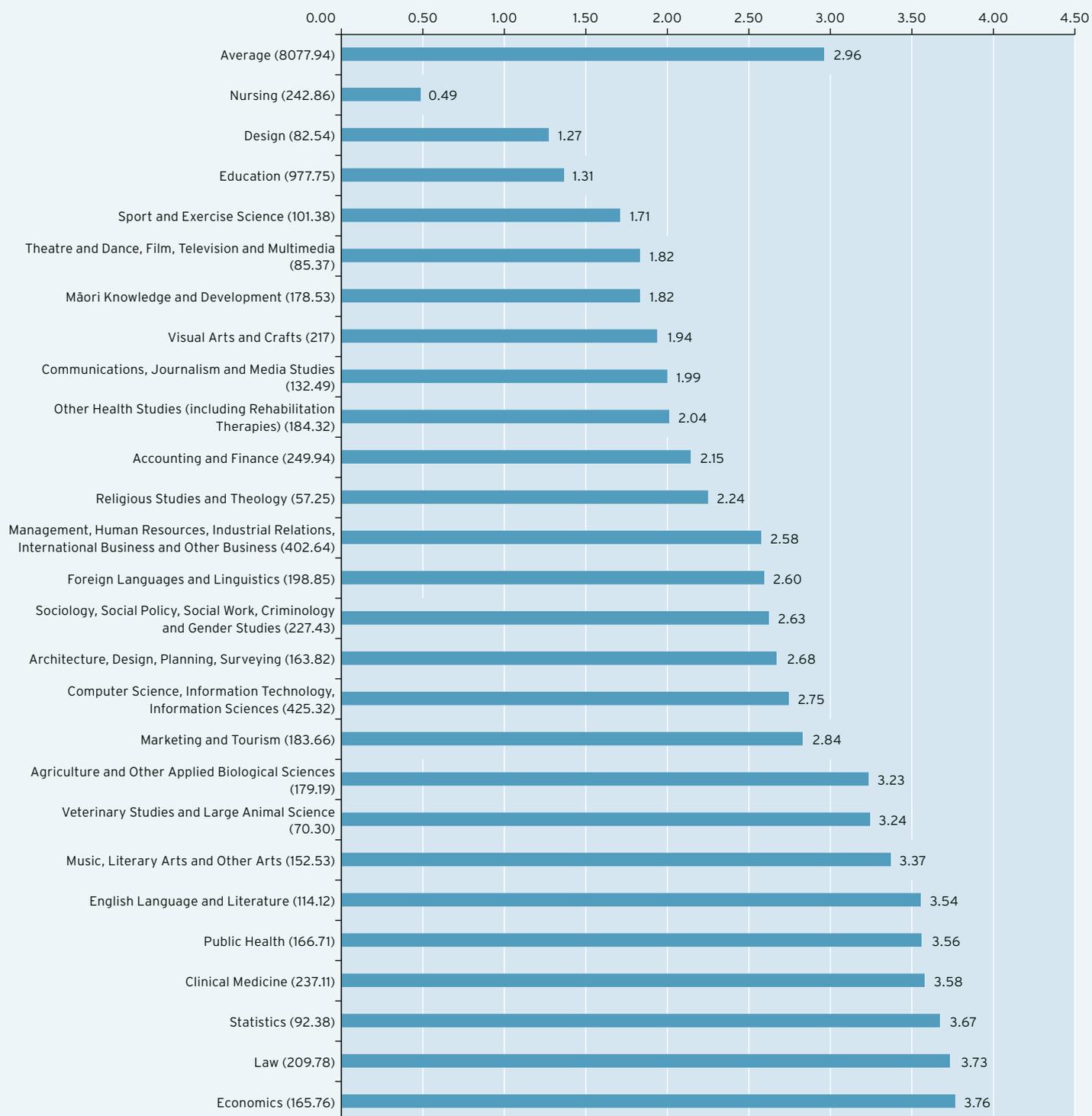
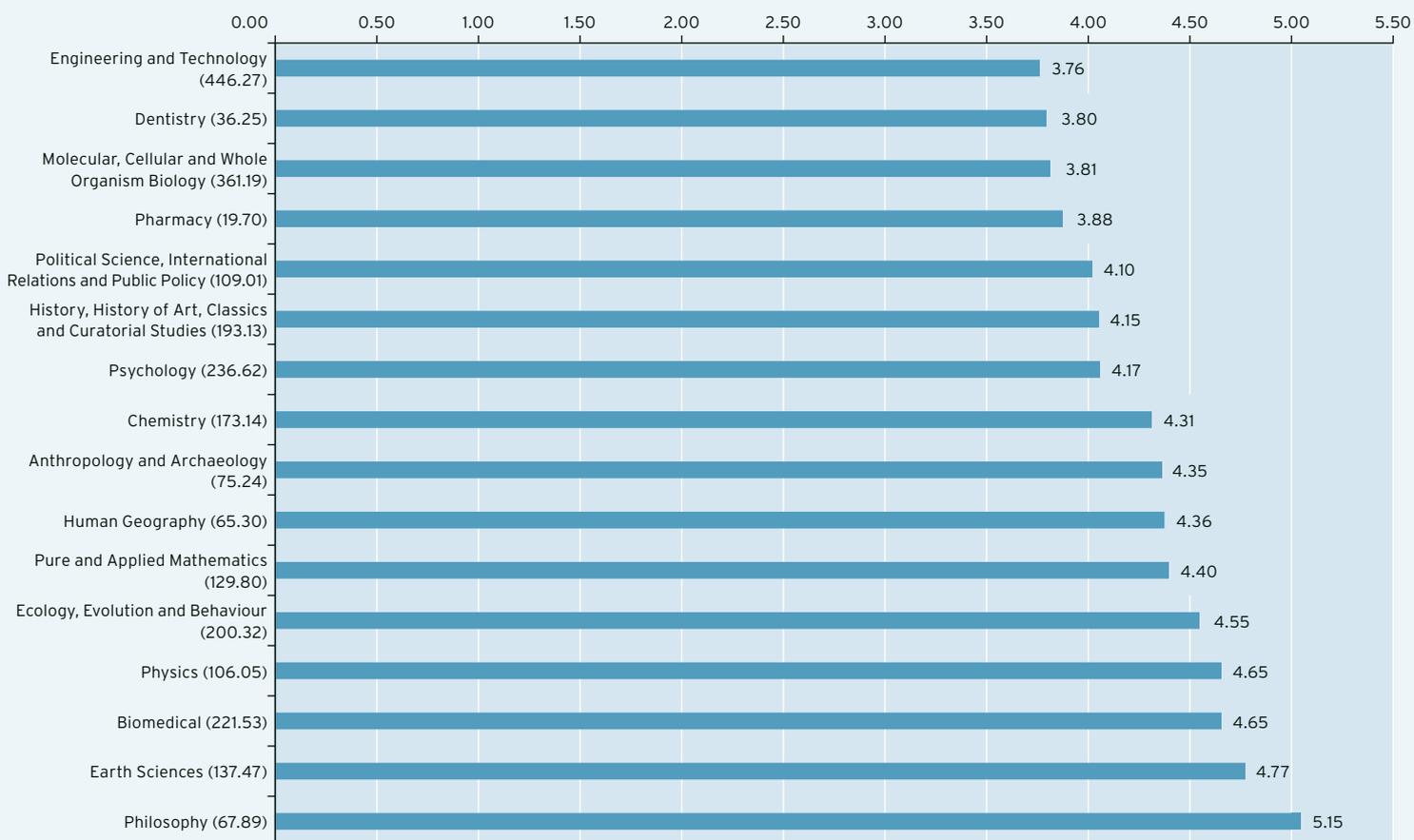


Figure C-1: Subject-Area Ranking – All Subject Areas – continued

Numbers above bars indicate FTE-weighted quality scores

Numbers in parentheses indicate total number of PBRF-eligible FTE-weighted staff



Recommendation 2

- 96** *That the TEC accept the Final Quality Categories recommended by the 12 peer review panels relating to Māori and Pacific research and researchers as fair; but that, for future Quality Evaluations, the TEC take steps to ensure TEOs accurately apply the criteria for declaring that EPs contain Pacific research.*

Māori research

- 97** Many Māori researchers elected to have EPs assessed by peer review panels other than the Māori Knowledge and Development Panel. Many of these EPs, however, were cross-referred to the Māori Knowledge and Development Panel – especially where they clearly had Māori subject material or research application or methodology as a component. (In this context it should also be noted that, although Māori knowledge and development appears in the statistical analyses as one single subject area, it encompasses a wide range of disciplines.)
- 98** The most significant factor affecting the quality score of the Māori Knowledge and Development Panel was the increase in the number of PBRF-eligible staff working in this area since 2003 (from 150 to 191). As well as increasing the denominator used for the quality score calculation, this increase in staff numbers also led to an increase in the number of EPs that did not demonstrate sufficient research quality to be assigned a funded Quality Category (from 84 to 101).
- 99** In general, however, the performance of Māori knowledge and development (both as a panel and as a subject area) was consistent with that reported in the 2003 Quality Evaluation. The number of researchers whose EPs were assigned “A” or “B” Quality Categories has remained almost unchanged at 38 – although four EPs were assigned an “A” in 2006, compared with three in 2003.
- 100** The Moderation Panel was generally satisfied with matters pertaining to the assessment of all Māori researchers. It was noted, however, that two members of the Māori Knowledge and Development Panel were unable to attend their panel meeting because of illness; and it was considered desirable for these panel members to be accorded an opportunity to provide substantive input into the outcome of the assessments. As a result, the Moderation Panel asked that a sub-committee of the Māori Knowledge and Development Panel be convened, to review the Quality Categories assigned to a number of EPs.
- 101** The outcome of the meeting of that sub-committee is discussed in Annex 1 to this Report.

Pacific research

- 102** In addition to three Pacific panel members (in three separate peer review panels), there were a number of panel members who had detailed knowledge of Pacific research methodologies or who felt comfortable assessing Pacific research. Pacific specialist advice was called on only once – by the Māori Knowledge and Development Panel.
- 103** In the 2006 Quality Evaluation, there were 562 researchers whose EPs were declared “Pacific research”. The Moderation Panel Secretariat noted that many of these EPs appeared to be incorrectly identified: they did not include research that, broadly speaking, shows a clear relationship with Pacific values and knowledge bases and with a Pacific group or community (as required by the *PBRF Guidelines 2006*).

- 104** The high number of EPs that were declared “Pacific research” contrasted, however, with the relatively low use of Pacific specialist advisers (this low use had also occurred in the 2003 Quality Evaluation). As a result, the Moderation Panel undertook a review of a sample of EPs that were declared “Pacific research”. The results of this review indicated that fewer than one-fifth of EPs that declared “Pacific research” met the criteria outlined in the *PBRF Guidelines 2006*. Where they did meet the criteria, EPs were usually assessed by panel members with appropriate expertise; and in the small number of cases where this did not happen, the Moderation Panel was satisfied that this reflected the nature of the assessment and the expectation that panel members were not expert in every possible sub-discipline.
- 105** It should be noted that none of the panels involved in assessing these EPs raised concern about their capacity to assess Māori or Pacific research in a fair and consistent fashion.
- 106** The Moderation Panel was concerned about the apparent lack of understanding of the criteria for Māori and Pacific research set out in the *PBRF Guidelines 2006*. As a result, it considers that greater efforts should be made to ensure that TEOs accurately apply the relevant criteria in future Quality Evaluations.

Recommendation 3

- 107** *That the TEC accept the Final Quality Categories recommended by the 12 peer review panels relating to new and emerging researchers as fair; but that, for future Quality Evaluations, the TEC take steps to ensure TEOs understand the importance of correctly assigning “new and emerging researcher” status to eligible staff.*

Assessment of new and emerging researchers

- 108** The development of an assessment pathway specifically for new and emerging researchers was a very significant improvement to the assessment framework of the Quality Evaluation. This was particularly so as it enabled the peer review panels to give appropriate recognition to a very high number of researchers.
- 109** A total of 1,927 researchers were reported as new and emerging by their TEOs. The EPs of 1,262 of these researchers were submitted to the peer review panels for assessment, 74% of which were assigned a funded Quality Category. This means that 52% of all new and emerging researchers (FTE-weighted) received a funded Quality Category.
- 110** During some panel meetings, there were concerns expressed about the assessment criteria for new and emerging researchers. Most of these concerns reflected a perception that the requirements for assigning an RO score of “2” to a new and emerging researcher’s EP might be higher than the requirements for assigning the same score to the EPs of those who were not new and emerging. (It should be noted, however, that, the EPs of researchers who were not new and emerging needed to demonstrate adequate evidence of PE and CRE in order to be awarded a “C” Quality Category; the EPs of new and emerging researchers were not required to do so.) The moderators paid careful attention to this matter: the Principal Moderator assessed a number of EPs for any indication that standards had been inappropriately applied; and panels were provided with guidance on the assessment standards to be used. The Moderation Panel was satisfied that the perception was overstated, and that the assessment standards for new and emerging researchers were appropriately and consistently applied.

- 111** Some panels, however, did find the assessment criteria for new and emerging researchers challenging to apply, and so it may be useful for the TEC to consider a clarification of these assessment criteria when it prepares for future Quality Evaluations.

Eligibility criteria for new and emerging researchers

- 112** The Moderation Panel noted that according an individual the status of a new and emerging researcher was a decision for the TEO to make (provided the individual met the criteria, and with the status being subject to audit by the TEC).
- 113** During the course of the assessment, however, the sometimes inconsistent application of the eligibility criteria for new and emerging researchers became a matter of significant concern for the peer review panels. As a result, panel members raised concerns about the new and emerging researcher status of 41 EPs.
- 114** The concerns were: whether some researchers were reported as new and emerging but did not meet the eligibility criteria; and whether there were researchers who met the eligibility criteria but were not reported as new and emerging by their TEO. In the latter case, the panels were concerned to ensure that researchers who appeared to be at the beginning of their careers were not unduly disadvantaged.
- 115** While these 41 EPs represented a relatively small proportion of the almost 2,000 new and emerging researchers who were eligible to participate in the Quality Evaluation, the TEC carefully audited each one of them.
- 116** For nine of the 41 EPs, it was determined that the TEO had declared a researcher to be new and emerging when in fact they were not, because they did not meet the eligibility criteria. The Quality Category assigned to each of these EPs was reviewed, but no change was needed.
- 117** For four EPs, it was apparent that TEOs had not reported the researchers as new and emerging even though they met the eligibility criteria. This was, however, the TEOs' prerogative.
- 118** The actions taken by the TEC in relation to the panel members' concerns were appropriate. However, the TEC should consider reviewing (and clarifying) the eligibility criteria for new and emerging researchers, to ensure that these are accurately and consistently applied by TEOs.

Recommendation 4

- 119** *That the TEC consider making changes to processes relating to the training of peer review panel members, the distribution of information to support the assessment process, the assessment of panel members' EPs, the cross-referral of EPs, special circumstances, panel workload, the moderation process, and support provided by the TEC.*

Training of peer review panel members

- 120** Considerable advantages accrued from the detailed training sessions conducted by the TEC prior to the pre-meeting assessments. The opportunity for New Zealand-based members of each peer review panel to get together, with a moderator in attendance, was considered very valuable. While the arrangements for the training of overseas-based panel members were satisfactory, the overall value of the training exercise would have been considerably enhanced had all panel members been able to attend. Although there are cost implications in extending the training

exercise, the TEC should consider providing for overseas panel members' attendance, at the very least through teleconferencing or videoconferencing.

Distribution of information

- 121** The 2006 Quality Evaluation was in the main a paper-based exercise. This carried with it a number of implications. The complexity of, for example, the TEC's task in distributing multiple hardcopies of several thousand EPs and NROs was matched by the challenges faced by panel members in managing their individual allocations of this material.
- 122** Paper-based exercises are also prone to delays. For example, the distribution of EPs to panel pairs for pre-meeting assessment was delayed by several days and therefore reduced the time available for this assessment from 10 weeks to 8. Similarly, delays in obtaining NROs meant that most were not distributed to panel members until the latter part of the pre-meeting assessment period and that some were not distributed until the panel meetings had started. Despite these delays, the Moderation Panel is confident that all EPs were fairly assessed.
- 123** There would be considerable advantages, in terms of both panel members' convenience and effective information-management, if more of the assessment phase were able to be conducted electronically – for example, scoring information could be collected online. A particularly valuable innovation would be a requirement for TEOs to supply their NROs electronically, at the same time as EPs are submitted: this would greatly simplify the EP assessment process.

Processes relating to the assessment of panel members' EPs

- 124** While conflicts of interest were dealt with in a consistent matter, in accordance with the *PBRF Guidelines 2006*, most panel chairs expressed a degree of discomfort with the procedures for assessing panel members' EPs.
- 125** The members of each peer review panel met for a number of days together, during which time they naturally developed a sense of shared experience and collegiality. Under these circumstances, the need to assess the EPs of fellow panel members was a source of some strain and carried with it a risk that assessments might be biased. While there is no evidence that such bias occurred, it should be noted that the fact that the 2006 Quality Evaluation was a "partial" round considerably reduced these inherent strains and risks. In addition, these strains and risks were mitigated by the appointment of additional moderators who were able to attend panel meetings, and by having some panel members who were not from New Zealand.
- 126** Nevertheless, alternative procedures for the assessment of panel members' EPs should be considered in future Quality Evaluations. Various options are available, including a greater role for the Moderation Panel in the assessment of panel members' EPs.

Cross-referral of EPs

- 127** The cross-referral of EPs is an important mechanism for ensuring inter-panel calibration. The cross-referral of 22% of all submitted EPs provided reassurance to panel pairs that their scoring of EPs was generally consistent with that of other panels. In a number of cases, however, the cross-referral scores assigned to EPs differed significantly from the scores determined by members of the originating panel. In these instances, the provision of scores without accompanying commentary was unhelpful and resulted in some degree of anxiety.

- 128** The Moderation Panel is confident that panels carefully considered any EPs whose cross-referral scores differed significantly from those assigned by the originating panel. For future Quality Evaluations, however, the TEC may wish to consider requiring that cross-referral scores be accompanied by commentary (which occurred in many cross-referrals) that enables panel members to interpret these scores effectively.

Special circumstances

- 129** At least 59% of EPs submitted for assessment in the 2006 Quality Evaluation claimed special circumstances.
- 130** Data collected on the scoring of different types of special circumstances made it possible to identify trends in how EPs with special circumstances were scored, and the Moderation Panel found this useful in terms of the insights it provided into the assessment of EPs. The data also allowed panel chairs to provide insights to their panels on the way in which special circumstances were being taken into account across all panels.
- 131** It was reported by panel chairs that, in a very large number of cases, the special circumstances claimed in an EP tended to influence the numerical scores assigned to an EP, rather than its Quality Category. For example, an EP might be assigned scores of 4/4/4 when special circumstances were disregarded, and 5/4/4 when special circumstances were taken into account. While this is significant in terms of an EP's scores, the Quality Category assigned in either case is likely to be a "B" – unless some other significant factor is taken into account during the holistic assessment.
- 132** For future Quality Evaluations, the TEC should consider changing the guidelines so that the taking of special circumstances into account is deferred until the holistic assessment stage. This would simplify the assessment process for panel members, would allow special circumstances to be taken into account when they were most likely to have an effect, and would reduce the possibility that special circumstances might be "double-counted" (ie both as part of preliminary scores and when the full panel considers the EP).

Panel workload

- 133** A total of 4,532 EPs were submitted for assessment in 2006 (compared with 5,776 in 2003). Of these, 1,862 were submitted on behalf of staff who had not been PBRF-eligible in 2003 – including 352 submitted by TEOs participating for the first time. The remaining EPs were from researchers who had EPs assessed in 2003.
- 134** The number of EPs was somewhat higher than had been anticipated from the "partial" round provisions for the 2006 Quality Evaluation.
- 135** In addition, some panels were required to assess more EPs than they had done in 2003. For example, the Creative and Performing Arts Panel was required to assess 353 EPs in 2006, whereas in 2003 it had assessed 311. This increase was largely due to the participation for the first time of a number of TEOs, and to a 46% increase in EPs in the visual arts and crafts subject area.
- 136** There was very considerable variation in both the number of EPs assessed by each panel member and the number assessed by each panel. For example, the highest actual number of EPs assessed by an individual member of a panel pair (ie excluding cross-referrals) was 94; the average (across all panel members) was 52. Within individual panels, the highest average number of EPs assessed was 90; the lowest was 51.

- 137** While there is no suggestion that the variation in workload affected the quality of the 2006 assessment, such variations in workload are undesirable. The TEC should consider options to counter this, such as: increasing the number of members of some panels; obtaining advance information from TEOs on the subject areas of EPs; and ensuring that sufficient time is available to appoint additional panel members once EPs have been submitted.
- 138** In addition, it should be noted that the work involved in carefully assessing EPs is very time-consuming – and the opportunity costs for panel members, particularly those from the private sector, can be high. It would be appropriate for the TEC to recognise these costs when determining the remuneration for panel members.

Moderators

- 139** The appointment of three moderators for the 2006 Quality Evaluation was an important step that ensured the burdens of the moderator's role were shared, and it enhanced the contribution that the moderation process made to the outcomes of the 2006 Quality Evaluation.
- 140** Because of illness, however, one of the two Deputy Moderators was unavailable for the peer review panel meetings; and, because of unavoidable commitments, the second Deputy Moderator could attend only part of the panel meetings. Despite this, the moderation process was able to be carried out with its intended effect through the involvement of the Chair of the PBRF Advisory Group and the Moderation Panel Secretariat. In addition, the Principal Moderator attended every panel meeting, was available on site for queries and difficult moments, and conducted a blind assessment of a number of EPs in order to ensure consistency across panels.
- 141** While the moderation task was successfully completed despite these setbacks, it would be desirable for the TEC to consider other arrangements in future Quality Evaluations. These could include the appointment of a fourth moderator, or a formalisation of the ad hoc arrangements adopted for the 2006 Quality Evaluation.

Support given by the TEC

- 142** Unlike the panel secretariats in the 2003 Quality Evaluation, the secretariats in the 2006 Quality Evaluation did not have the opportunity to participate in the development of the assessment-process guidelines. As a result, they were less able than their predecessors to act as "expert advisers" to the peer review panels. In addition, the electronic systems used to support the work of the 2006 Quality Evaluation would benefit from review and redevelopment.
- 143** For future Quality Evaluations, continuity in the project team would be beneficial. It would also be beneficial to have panel chairs and panel members involved in the early stages of the development of electronic and informational systems that are intended to support the assessment process.

Recommendation 5

- 144** *That the TEC take particular care with respect to explaining the meaning of the six Quality Categories when providing feedback to TEOs on the performance of their staff.*

Communication of results to TEOs

- 145** The Final Quality Category assigned to an EP depended very much on the stage in the individual researcher's career. In particular, it should be noted that the assignment of an "R" or "R(NE)" Quality Category does not necessarily mean there was no research activity undertaken during the assessment period, but rather that the standard required for a funded Quality Category was not met.
- 146** Future "A" and "B" Quality Category researchers will emerge from the group of "C", "C(NE)", "R", and "R(NE)". So it is important that TEOs nurture this group, and that advice to individuals on their "C", "C(NE)", "R", or "R(NE)" Quality Category be given with due care.
- 147** It should also be made clear to TEOs that, while care was taken in assigning scores to EPs, panels did not always (nor were they required to) review every EP's scores to ensure that these conformed with the Holistic or the Final Quality Category assigned to it.
- 148** Each Quality Evaluation should be seen as an essential step in developing New Zealand's research capability. While the rankings from the 2006 Quality Evaluation will inevitably affect how individual TEOs are perceived, they can also be used as a measurement tool to assist the development of research capability within each TEO.

Recommendation 6

- 149** *That the TEC confirm the third Quality Evaluation will be held in 2012.*

The timing of the third Quality Evaluation

- 150** The members of the Moderation Panel see no particular benefit in holding the next Quality Evaluation any sooner than 2012. The relatively close timing of the first and second Quality Evaluations enabled TEOs to learn from the 2003 assessment and respond appropriately to it. In addition, enhancements made to the assessment framework have made it possible for the 2006 Quality Evaluation to provide a more accurate picture of research quality in New Zealand.
- 151** The costs of conducting each Quality Evaluation have been significant, and they should be borne in mind in relation to any decisions regarding the PBRF assessment process.

Recommendation 7

- 152** *That the TEC ensure the third Quality Evaluation does not rely on TEO assessment; but that it consider trialling self-assessment on a limited basis.*

TEO-led assessment

- 153** The "partial" round provisions did not require TEOs to undertake a detailed assessment of the EPs of their PBRF-eligible staff; instead, they had simply to determine which EPs were likely to be awarded a funded Quality Category. While this determination was better calibrated by TEOs that had participated in the 2003 Quality Evaluation (and particularly by the universities), the PBRF is still developing and so it would not be desirable to expand the assessment role of TEOs beyond what it was in 2003. However, the TEC might find it useful to conduct a trial of TEO-led assessment on a limited basis for the third Quality Evaluation.

Annex 1: Reconvening of the Māori Knowledge and Development Panel

During the peer review panel meetings in December 2006, it was noted that two members of the Māori Knowledge and Development Panel were unable to attend the meeting because of illness. Concerns were raised by other members of the Māori Knowledge and Development Panel about the effect of these absences on the Final Quality Categories assigned by the panel.

Of the 89 EPs assessed by the panel, 49 had been allocated for pre-meeting assessment to one or the other of these two panel members. The Moderation Panel therefore considered it desirable that these panel members had an opportunity to provide input into the assessment. At the same time, it was considered necessary to ensure that the assessment standards applied were consistent with those applied by all the other peer review panels.

The Moderation Panel asked that a subcommittee of the Māori Knowledge and Development Panel be convened to address these issues. It was agreed that the Chair and Deputy Chair of the Māori Knowledge and Development Panel, along with the two panel members concerned, would meet to reassess a selection of EPs. A moderator would also be in attendance. Following careful analysis, it was decided that a total of 23 EPs would be reassessed.

One of the members of the panel who was unable to attend the panel meeting in December 2006 was also unable, because of illness, to participate in the work of the sub-committee.

The sub-committee was convened on 21 February 2007, with the moderator in attendance; it considered 23 EPs. The sub-committee also had access to NROs from these EPs that had been requested during the pre-meeting assessment. For calibration purposes, the sub-committee also considered two EPs that had been used for calibration at the Māori Knowledge and Development Panel meeting.

Each of the 23 EPs selected for review was carefully examined, and new calibrated panel scores were assigned to them. The sub-committee then compared these scores to the calibrated panel scores and the Holistic and Final Quality Categories that had been assigned at the panel meeting. After the Holistic Quality Categories assigned to each EP had been confirmed, the sub-committee considered the Final Quality Categories assigned in 2003.

The sub-committee confirmed the Final Quality Categories assigned to the EPs at the full panel meeting.

Annex 2: **Subject areas used for reporting purposes**

As part of preparations for the release of the report of the results of the 2006 Quality Evaluation, the TEC identified an issue with the subject areas used for reporting purposes for more than 400 staff. There were two groups of staff affected by this issue; those that were assessed as part of the 2003 Quality Evaluation and who were PBRF-eligible in 2006 but not resubmitted for assessment in 2006; and those who were PBRF-eligible in 2006 for the first time but for whom no Evidence Portfolio was submitted. Essentially the problem lay in the failure to ensure that the 2006 data reflected the changes to subject-area designations requested by TEOs.

Following the correction of this error, the Principal Moderator has carefully considered the relevant implications. The Principal Moderator is satisfied that this error would have had no material impact on either the advice given by the moderation panel to the peer review panels in relation to the calibration of assessment standards. Nevertheless, the Principal Moderator notes his concerns in relation to this issue and suggests that more strenuous efforts be made for the third Quality Evaluation to ensure that similar kinds of issues do not arise in the future.

Attachment: Glossary of terms and acronyms used in the panel reports

This glossary covers terms and acronyms used in all the panel reports. It may include terms and acronyms not used in this report.

Term	Meaning
Assessment period	The period between 1 January 2000 and 31 December 2005. Only research outputs produced in this period are eligible for inclusion in an EP for the 2006 Quality Evaluation round.
Component scores	The scores from "0-7" that are assigned to each of the three components of an evidence portfolio (ie RO, PE and CRE).
Contribution to the research environment (CRE)	<p>Contribution that a PBRF-eligible staff member has made to the general furtherance of research in their TEO or in the broader sphere of their subject area.</p> <p>The Contribution to the Research Environment (CRE) component is one of the three components of an EP.</p> <p>A contribution to the research environment type is one of the defined categories for listing examples of contribution to the research environment in an EP. Examples of contribution to the research environment types include membership of research collaborations and consortia and supervision of student research.</p>
Evidence portfolio (EP)	Collection of information on the research outputs, peer esteem, and contribution to the research environment of a PBRF-eligible staff member during the assessment period that is reviewed by a peer review panel and assigned to a Quality Category.
Excellence	Prime focus of the PBRF is rewarding and encouraging excellence. (For what excellence means in relation to the PBRF see the <i>2006 PBRF Guidelines</i> .)
FTE	Full-time-equivalent.
Indicative Quality Category	Compiled from the preliminary scores assigned by the panel pair (at the end of the pre-meeting assessment).
Moderation Panel	Panel that meets to review the work of peer review panels, in order to ensure that the TEC policy has been followed and that the Quality Evaluation process has been consistent across the panels.
Moderators	For the 2006 Quality Evaluation, there was a Principal Moderator and two Deputy Moderators. The role of the moderators for the 2006 Quality Evaluation is defined in the <i>2006 PBRF Guidelines</i> Chapter 3 Section F.
Nominated research outputs (NROs)	The up to four best research outputs that the PBRF-eligible staff member nominates in their EP. NROs are given particular scrutiny during the Quality Evaluation process.
Panel pair	The two panel members who undertake the initial scoring of an EP, before the panel meets.
PBRF-eligible staff member	TEO staff member eligible to take part in the PBRF Quality Evaluation process.
PBRF Census	A process run by the Ministry of Education whereby participating TEOs provide a detailed Census of staff members participating in the PBRF Quality Evaluation process.

Term	Meaning
Peer esteem (PE)	<p>Esteem with which a PBRF-eligible staff member is viewed by fellow researchers.</p> <p>The Peer Esteem (PE) component is one of the three components of an EP.</p> <p>A peer esteem type is one of the defined categories for listing examples of peer esteem in an EP. Examples of peer esteem types include conference addresses and favourable reviews.</p>
Peer review panel	Group of experts who evaluate the quality of research as set out in an individual EP. There are 12 peer review panels, each covering different subject areas.
Points/points scale	The first stage in the assessment of an EP is based on allocating points on a scale of 1 (lowest) to 7 (highest) to each of the three components of an EP.
Preparatory scores	The initial pre-meeting scores assigned to an EP by each member of the panel pair (working independently).
Preliminary scores	The “final” pre-meeting scores assigned to an EP by the panel pair (working together); these scores are used to compile an Indicative Quality Category for the EP.
Primary field of research	The research field of the staff member’s research activity during the assessment period, and especially that of the (up to) four NROs selected for their EP.
Produced	In the context of the PBRF, “produced” means published, publicly disseminated, presented, performed, or exhibited.
Quality-assurance process	Formal, independent scrutiny by those with the necessary expertise and/or skills to assess quality.
Quality-assured research output	Research output that has been subject to a formal process of quality assurance.
Quality Category	<p>A rating of researcher excellence assigned to the EP of a PBRF-eligible staff member following the Quality Evaluation process.</p> <p>There are six Quality Categories – “A”, “B”, “C”, “C(NE)”, “R” and “R(NE)”. Quality Category “A” signifies researcher excellence at the highest level, and Quality Category “R” represents research activity or quality at a level which is insufficient for recognition by the PBRF.</p>
Quality Evaluation	<p>The process that assesses the quality of research output produced by PBRF-eligible staff members, the esteem within which they are regarded for their research activity, and the contribution they have made to the research environment.</p> <p>The Quality Evaluation is one of the three measures of the PBRF, along with the Research Degree Completions (RDC) measure and the External Research Income (ERI) measure.</p>

Term	Meaning
Research output (RO)	<p>A research output is a product of research that is evaluated during the Quality Evaluation process.</p> <p>The Research Output (RO) component is one of the three components of an EP.</p> <p>A research output type is one of the defined categories for listing research outputs in an EP. Examples include an edited book, journal article, composition, and artefacts.</p>
Specialist adviser	Expert in a particular subject area who is used to assist a peer review panel in evaluating a particular EP.
Special circumstances	Some impairment or impediment that has affected the quantity of ROs and other aspects of research activity during the assessment period. Where these were claimed in an EP, two sets of preparatory scores were prepared by each member of the panel pair – one that took special circumstances into account, and one that did not. Special circumstances were also considered in arriving at the preliminary scores, and in the subsequent scoring decisions by panels.
Subject area	One of the 42 PBRF subject areas (see the <i>PBRF Guidelines 2006</i> "Panels and subject areas").
TEC	Tertiary Education Commission.
TEO	Tertiary Education Organisation.
Tie-points	The standards expected for the scores 2, 4 and 6 in each of the three components of an EP.
Total weighted score	The sum of the points allocated to each component of the EP during the first stage of assessment, multiplied by the weighting for each component.

Appendix D

2006 PBRF Audit

Purpose

- 1 This appendix reports on the results of the verification and auditing of data for the 2006 Quality Evaluation. The appendix starts with an overview of the audit approach. It then provides a more detailed account of the auditing of research outputs (ROs) and eligible staff, as covered by the five phases of the audit.

Overview

- 2 The TEC contracted KPMG to develop the PBRF audit methodology¹, which was released to the tertiary sector for consultation and comment in December 2005. Feedback from the sector was positive, and the sector required no changes to the audit methodology.
- 3 The primary objectives of the PBRF audit methodology were to:
 - a determine whether participating TEOs had adequate systems and controls to submit EPs to the TEC and to identify and verify PBRF-eligible staff for inclusion in the PBRF Census;
 - b understand participating TEOs' preparedness for the 2006 Quality Evaluation in submitting the PBRF Census by 30 June 2006 and submitting EPs by 21 July 2006;
 - c provide assurance to the TEC and the PBRF peer review panels that the nominated research outputs (NROs) and other research outputs (OROs) submitted in EPs were complete and accurate; and
 - d provide assurance to the TEC and the PBRF peer review panels that the PBRF-eligibility data for staff submitted in the PBRF Census were complete and accurate.

Design of the audits

- 4 To meet the primary objectives above, the following phases were implemented:
 - Phase 1: Process assurance;
 - Phase 2: Data evaluation;
 - Phase 3: Preliminary assessment;
 - Phase 4: Follow-up audit site visits; and
 - Phase 5: Final assessment.
- 5 All phases were conducted in accordance with the PBRF audit methodology.
- 6 The five phases are explained in more detail below.

¹ "Audit Methodology for Tertiary Education Organisations Participating in the Performance-Based Research Fund" Version 2.0 (14 December 2005).

Phase 1: Process assurance

- 7 This phase comprised a PBRF questionnaire sent to PBRF-eligible TEOs, and site visits to a selection of participating TEOs. Its objectives were to provide assurance to the TEC that TEOs had adequate systems and controls in place for determining staff PBRF-eligibility and submitting EPs in accordance with the *PBRF Guidelines 2006*, and to gauge TEOs' overall readiness for the 2006 Quality Evaluation.
- 8 All PBRF-eligible TEOs were requested to complete the PBRF questionnaire.² The PBRF questionnaire was designed to provide a snapshot of: TEOs' PBRF-related systems and controls; the estimated number of eligible and non-eligible staff; and the maturity of TEOs' internal quality control processes, in terms of ensuring that NROs, OROs, and PBRF-eligible staff met the criteria outlined in the *PBRF Guidelines 2006*.
- 9 The PBRF questionnaire was also designed to assist the PBRF auditors with their Phase 1 process assurance site visits.
- 10 The PBRF questionnaire was issued to 46 TEOs considered to be eligible to participate in the 2006 PBRF Quality Evaluation. Of these:
 - 31 confirmed that they intended to participate in the 2006 PBRF Quality Evaluation;
 - 12 advised they did not intend to participate;
 - 2 initially indicated their intention to participate but subsequently did not; and
 - 1 did not meet the PBRF-participation criteria.
- 11 The completed questionnaires were assessed against a set of criteria intended to measure the level of risk associated with each TEO. The criterion included the volume of funding likely to be attracted by each TEO, the TEO's self-assessment of their preparedness and the TEC's assessment of the processes described by the TEO.
- 12 The application of the evaluation criteria resulted in TEOs being selected for a Phase 1 process assurance site visit. At the time of selecting the TEOs for a site visit, one had not finalised whether it intended to participate in the PBRF. Their final decision was not to participate in the PBRF, and so was excluded from the site visits.
- 13 The PBRF auditors undertook the Phase 1 site visits between March 2006 and June 2006, and all visits were completed before the PBRF Census date (14 June 2006).
- 14 Of the 16 TEOs visited, 14 had participated in 2003. The remaining two had gone through the process of preparing for the 2003 Quality Evaluation, but had later decided against participating.
- 15 The 16 TEOs visited were in various stages of readiness for the 2006 PBRF Quality Evaluation. The level of compliance with regard to staff PBRF-eligibility and EPs was classified as "effective" in eight TEOs; "partially effective" in six; and "not effective" in two.

² "Questionnaire for Tertiary Education Organisations Participating in the Performance-Based Research Fund 2006 Quality Evaluation" (issued January 2006).

- 16** “Partially effective” or “not effective” did not necessarily mean that these TEOs would miss the PBRF Census and EP submission dates; nor did it mean that the data submitted would be incomplete. This was because there was time, before the submission dates, for their compliance levels to become “effective”.
- 17** In two instances, the TEO’s processes were not ready for auditing. Therefore, an outline of a project management plan was provided to the TEOs’ which followed the PBRF Guidelines. This did not compromise the integrity of the process assurance phase.

Observations and findings from the Phase 1 site visits

- 18** The site visits were well received by the TEOs.
- 19** Two TEOs’ were undergoing major organisational-wide restructuring during the Phase 1 site visits. Another four TEOs had not made a final decision to participate in the 2006 Quality Evaluation at the time of these site visits; their decision to do so was pending.
- 20** The site visits indicated some variability in the maturity levels of TEOs’ quality-assurance processes. For example, some TEOs were still developing their processes for determining staff PBRF-eligibility at the same time as they were finalising their PBRF Census lists. In addition, systems and controls for reviewing and submitting EPs ranged from developing to advanced; and storage systems for NROs and OROs were being developed to finalised.
- 21** Some TEOs’ PBRF project teams had not engaged with their human resources departments when they began developing their processes to determine PBRF-eligibility.
- 22** It was not always appreciated or recognised by participating TEOs that the task of determining staff PBRF-eligibility was a time-consuming exercise. The time required to collate EPs was also sometimes underestimated. However, TEOs that had participated in the 2003 Quality Evaluation used their experience from that Quality Evaluation to ensure the data they submitted was accurate.
- 23** The universities generally had full-time staff resources (permanent or on fixed-term employment agreements) dedicated to preparing for the 2006 Quality Evaluation. Polytechnics and PTEs often only had limited resources on a part-time basis dedicated to preparing for the Quality Evaluation. Both wānanga’s had adequate resources in supporting their organisation’s preparations for the Quality Evaluation.
- 24** Few TEOs had used their own internal audit functions to review their PBRF-related processes and controls; and only two had done so at the time of the Phase 1 site visit.
- 25** In terms of determining the PBRF-eligibility of staff, some TEOs focused on staff engaged only in research and did not attend to the requirement in the *PBRF Guidelines 2006* that staff also be involved in degree-level teaching. Some also did not review their other non-academic staff to determine whether they met the PBRF-staff eligibility criteria. In addition, TEOs sometimes did not include staff who met the PBRF-eligibility criteria but who had left the TEO before the PBRF Census date (14 June 2006).

- 26 It should also be noted that some staff members' fixed-time contracts expired during or shortly after key submission dates. This indicated that these TEOs had underestimated the size of the task.
- 27 Some TEOs had "committees" to evaluate staff whose PBRF-eligibility they considered borderline.
- 28 In terms of the preparation of EPs, TEOs were evaluating or had evaluated their EPs internally; while this was not a requirement, it should be considered good practice. Some TEOs had used resources from other TEOs to assist with this evaluation.
- 29 The smaller TEOs appreciated the TEC developing EP Manager³ and making it available to them. ResearchManager⁴ was the most widely used software tool for preparing EPs in the larger TEOs.

Phase 1 conclusion

- 30 At the start of the audit process, TEOs were in various states of preparedness for the 2006 Quality Evaluation. This was reflected in the varying readiness of TEOs' PBRF-related systems and controls.
- 31 The PBRF auditors concluded, based on completed PBRF questionnaires, discussions, observations, and selected testing, that all TEOs were capable of meeting the PBRF Census submission date of 30 June 2006 and the EP submission date of 21 July 2006. The PBRF auditors were therefore able to provide reasonable assurance to the TEC on this.

Phase 2: Data evaluation

- 32 Phase 2 of the audit involved evaluating data from a selection of PBRF Census returns and a selection of NROs and OROs. Its objective was to provide assurance to the PBRF peer review panels that both the TEO data on PBRF-eligible staff and the NROs and OROs provided in EPs were complete, accurate and in accordance with the *PBRF Guidelines 2006*.

Audit of staff PBRF-eligibility

- 33 A minimum of 5.0% of an individual TEO's PBRF-eligible staff, and a minimum of 1.5% of an individual TEO's non-PBRF-eligible staff were audited. The PBRF-eligible staff auditing sample included both general and new and emerging researchers.
- 34 The PBRF auditors audited 676 PBRF-eligible staff out of the 9,177 such staff included on the PBRF Census as at 30 June 2006; and 1,329 non-PBRF-eligible.
- 35 The auditing sample provided a 95% confidence level for PBRF-eligible staff.
- 36 Twenty-seven PBRF-eligible staff employed by 11 participating TEOs were identified as omitted from the 2006 PBRF Census.
- 37 The auditors analysed the 2006 PBRF Census, comparing it with its predecessor in 2003 and with a full list of staff (which had been provided by all participating TEOs). They then asked TEOs to explain anomalies.

³ EP Manager is a software tool that the TEC made available to participating TEOs, to facilitate the management of EP data. EP Manager data were uploaded from a TEO to the TEC via the internet.

⁴ ResearchManager is similar to EP Manager in that it is a system used to facilitate the management of EP data. TEOs' using ResearchManager submitted EP data via a CD or email.

- 38** 868 staff who had been included in the 2003 PBRF Census and who had been employed by a participating TEO on the 2006 PBRF Census date were correctly omitted from the 2006 PBRF Census. The reasons given for these omissions were that the staff member concerned:
- a was no longer required to do research or degree-level teaching;
 - b had been employed for less than a year;
 - c had an FTE status of less than 0.2; or
 - d did not meet the substantiveness test for research and/or degree-level teaching.

Additional auditing requested

- 39** The PBRF auditors escalated their audit to include 42 PBRF-eligible staff whose status was queried by the PBRF peer review panels. The audited results were:
- a 28 were given their correct status by their TEO.
 - b Nine were incorrectly reported as new and emerging researchers. The TEOs of these nine staff subsequently agreed that their reporting had been incorrect. (Note: in each case, the staff member's status in the PBRF Census was revised.)
 - c Four could have been classified as new and emerging researchers, but their TEOs chose not to report them as such. (Note: the status of these staff was not revised in the PBRF Census data.)
 - d One individual had their PBRF-eligibility status, and their EP, withdrawn, which their TEO authorised.
- 40** Based on an assessment of risk, the PBRF auditors reviewed 208 new and emerging researchers from eight TEOs who had a first academic appointment date of 31 December 2000 or earlier. This additional audit established that 61 of these did not meet the criteria for a new and emerging researcher, while the balance did. Most of the 61 were from one TEO. The relevant data was corrected.

Observations and findings from the audit of staff PBRF-eligibility

- 41** TEOs in general understood the principles of the *PBRF Guidelines 2006*, and correctly identified PBRF-eligible and non-PBRF-eligible staff.
- 42** TEOs took account of the *PBRF Guidelines 2006* when developing their human resources processes, for example, applying new and emerging researchers criteria to meet their needs.
- 43** TEOs have become more mature in understanding the PBRF Guidelines since 2003 and ensuring that only eligible staff were included on the PBRF Census.
- 44** Some of the TEOs participating on the PBRF for the first time did not initially realise that all degree-level teaching staff (as well as research staff) were required to be included on the PBRF Census. Following advice from the PBRF auditors, those TEOs reviewed the application of the staff eligibility criteria.

- 45** Some TEOs had difficulty in applying the definition of “major role” in the substantiveness test. For example, it was thought that 10 hours of class contact meant 10 hours per week rather than per year. It was thought by some TEOs that the staff concerned were supervised. The application of the staff eligibility criteria was reviewed by the relevant TEO and the TEC was assured that the criteria were applied accurately.
- 46** TEOs correctly applied the *PBRF Guidelines 2006* “supervised exclusions” criteria, to determine whether staff were PBRF-eligible.
- 47** TEOs adopted one of two approaches in determining whether to report a PBRF-eligible staff member as a new and emerging researcher. They either followed the criteria set out in the *PBRF Guidelines 2006* and, if applicable, classified the staff member as a new and emerging researcher; or they decided that the staff member’s research was of sufficiently high quality to warrant not classifying them as a new and emerging researcher. TEOs that took the second approach were aware that they risked this staff member’s EP being assigned an “R” Quality Category.
- 48** Over the course of the audit, TEOs developed a better understanding of the *PBRF Guidelines 2006*, especially in relation to staff PBRF-eligibility and the PBRF Census. However, it was noted that *PBRF Guidelines 2006* is a complex document and parts of it (especially in relation to staff PBRF-eligibility) were not, at least initially, readily understood.

Audit of NROs and OROs

- 49** A minimum of 4.7% of an individual TEO’s NROs and 0.5% of their OROs were audited.
- 50** Overall, 915 NROs and 722 OROs were selected for auditing.
- 51** The auditing sample provided a 99% confidence level for both NROs and OROs.
- 52** The PBRF auditors successfully verified 911 NROs and 715 OROs.
- 53** Four NROs and seven OROs were determined as ineligible, because they were outside the assessment period. They were therefore withdrawn. The TEOs that had submitted these NROs and OROs agreed with the audit determination, prior to the withdrawal. The majority of the withdrawn NROs and other ROs were from one TEO.
- 54** Wellington City Libraries, the Energy Library, and personnel from the TEC were used to verify NROs and OROs because of their expertise in verifying ROs.

Additional auditing requested

- 55** The PBRF auditors also audited an additional 31 NROs that had been challenged by the PBRF peer review panels. Four were determined as ineligible, because they were outside the assessment period, one was changed from “authored book” to “conference contribution”, and 26 were verified.

Observations and findings from the audit of NROs and other ROs

- 56** The NRO and ORO audit commenced in early August 2006 once the TEC was satisfied that EP data had been successfully uploaded.
- 57** Overall, the outsourcing to Wellington City Libraries professional search services and the Energy Library worked well.

- 58** Audit training of Wellington City Libraries professional search services and the Energy Library, and of the TEC personnel involved in the PBRF audit, was well received.

Phase 2 conclusion

- 59** At the end of Phase 2, the PBRF auditors could provide reasonable assurance to the PBRF peer review panels on the completeness and accuracy of the staff PBRF-eligibility data provided by TEOs, and on the completeness and accuracy of NROs and OROs submitted in EPs.

Phase 3: Preliminary assessment

- 60** While the PBRF auditors were able to give reasonable assurance on staff PBRF-eligibility at the end of Phase 2, they also determined that three TEOs should undergo a full audit, to obtain further clarification of the application of these eligibility criteria. This full audit was carried out in Phase 4.
- 61** The Moderation Panel noted at its two meetings that some TEOs' 2006 PBRF Census returns had fewer staff compared with the 2003 PBRF Census returns. This comment further supported the requirement to carry out a full audit.
- 62** Similarly, while the auditors were able to give reasonable assurance on NROs and OROs at the end of Phase 2, additional auditing was required of all NROs in those EPs in which an ineligible NRO had previously been found. This additional auditing was carried out as part of Phase 3, and all (27) NROs were verified.

Phase 4: Follow-up (full audit) site visits

- 63** The objectives of Phase 4 were to resolve any outstanding audit matters that had been identified in Phase 3. This involved obtaining clarifying staff classified as non-PBRF-eligible by the three TEOs identified in Phase 3, with particular attention being given to staff who were reported as non-PBRF-eligible in the 2006 Census but who had been reported as eligible in 2003 and were (still) employed by that TEO as at 14 June 2006.
- 64** All three TEOs identified in Phase 3 were advised of the proposed audits and fully assisted the auditors. These audits were completed between November 2006 and March 2007.
- 65** The PBRF auditors undertook further verification of information supplied to the auditors on non-PBRF eligible staff. The PBRF auditors verified their status by referring to current employment contracts, job descriptions, staffing declarations; and they noted those staff members who did not meet the PBRF-eligibility criteria.
- 66** The Phase 4 site visits found that:
- a Overall, the TEOs had correctly applied the staff PBRF-eligibility criteria.
 - b Some staff who had met the PBRF-eligibility criteria in 2003 did not meet these criteria in 2006. One TEO correctly excluded three staff whose EPs had been assigned an "A" or "B" Quality Category in 2003 because these staff were now in purely management roles.

- c PBRF auditors identified four PBRF-eligible staff omitted from the PBRF Census returns made by two TEOs. (Note: The status of these staff in the PBRF census data was revised.)
 - d TEO-employed “professional practitioners” under contract. These were staff who supported teaching or training in a professionally-based area. Their duties were carried out under the supervision of the colleague who was responsible for course design and delivery; they were not involved in research.
- 67** In general, TEOs applied the substantiveness test to professional practitioners and correctly determined that these staff met the criteria for “supervised exclusions”.

Phase 5: Final assessment

- 68** This report is the final assessment. Its objective has been to provide assurance to the TEC and to the peer review panels that the TEOs’ staff PBRF-eligibility data, and the NROs and OROs contained in EPs was complete, accurate and in accordance with the *PBRF Guidelines 2006*.
- 69** The PBRF auditors conclude that, overall, the TEOs have acted with integrity and have accurately applied the *PBRF Guidelines 2006* in assessing staff PBRF-eligibility and in submitting NROs and OROs.

Overall Conclusion

- 70** The PBRF audit methodology was intended to provide assurance to the TEC that the *PBRF Guidelines 2006* were correctly applied. It was also intended to support TEOs to correctly interpret these guidelines.
- 71** The audit process highlighted at various stages issues that required careful review. In particular, concerns were raised by the Moderation Panel and the TEC relating to the application of the staff eligibility criteria by some participating TEOs. These concerns were considered very carefully and resulted in additional reviews being undertaken. Every effort was made to ensure that each area of concern was carefully examined and adequate explanations were provided by the relevant TEO.
- 72** In particular, concerns were raised where there had been significant change in the number of PBRF-eligible staff between 2003 and 2006. These changes were in some cases very significant. Change in the number of PBRF-eligible staff, particular where they involved a reduction in staff, were explained by a number of factors. For example, in any given TEO changes in the number of PBRF-eligible staff were the result of changed employment agreements, a reduction in the numbers of staff generally, a function of the clarification of the substantiveness test, or reflected the supervised exclusion provision of the *PBRF Guidelines 2006*.
- 73** All participating TEOs co-operated fully with the audit. In those instances where issues were raised, the TEC was satisfied that the TEOs concerned had correctly applied the *PBRF Guidelines 2006* (and made the necessary adjustments to the information supplied to the TEC where this was required).

Annex 1: The assurance report of the Audit and Assurance Manager, Internal Audit, Tertiary Education Commission

Assurance over the processes for the Performance Based Research Fund (PBRF)

The Tertiary Education Commission's (TEC's) Internal Audit group was engaged to review and provide assurance on the processes followed for the PBRF, including:

- the PBRF Census: Staffing Return;
- external research income (ERI);
- research degree completions (RDC); and
- the Quality Evaluation (evaluation of evidence portfolios [EPs]).

Background

TEC's Internal Audit group was asked to provide assurance on the following:

- that the communication and engagement with tertiary education organisations (TEOs) was adequate for ensuring that they were able to participate effectively in the 2006 process;
- that the processes established to ascertain staff numbers, the quality of research, the number of research degree completions, and the amount of external research income conform to good practice;
- that, during the actual processes of collecting data and evaluating quality, key aspects of the process conformed to good practice; and that the process overall was conducted and reported in a transparent, fair and unbiased manner to all TEOs; and
- that matters of probity were addressed to ensure that the process had integrity and consistency and that no parties were unfairly treated.

Approach

Our approach consisted of three phases:

- In Phase 1 we reviewed the design of the processes that had been established to ascertain staff numbers, the quality of research, the number of research degree completions, and the amount of external research income. These processes were assessed against good practice.
- In Phase 2 we provided real-time assurance on the operation of those processes. Our work in Phase 2 was based on tests, procedures, observations, and enquiries we performed on a sample basis.
- In Phase 3 we reviewed the reporting of the results to the individual TEOs, and the results and rankings tables published in the 2006 assessment report.

Conclusion

Nothing has come to our attention that causes us to believe that the TEC's processes, procedures and practices in relation to the PBRF were not conducted fairly and objectively. Overall, the design of the processes was consistent with good practice; and the processes for the core requirements (the PBRF Census: Staffing Return, ERI, RDC, and the Quality Evaluation) were carried out and reported in accordance with the agreed design. In addition:

- The governance and management processes were robust and ensured that the processes proceeded according to the timetable that had been developed. Management processes were flexible enough to respond to changes in circumstances and to take appropriate action.
- Robust processes were established for identifying and mitigating/eliminating actual or potential conflicts of interest within the peer review panels. We are unaware of any outstanding probity issues relating to conflicts of interest.
- Sufficient attention was paid to processes to ensure the confidentiality of sensitive information. We are unaware of any outstanding issues relating to disclosure of sensitive information.
- Communications were well managed and appropriately documented.
- Processes for receipt, security, and return or destruction of submitted material were robust and consistent with good practice.
- Discussion of the merits of individual EPs was robust and resulted in the assignment of Quality Categories that clearly reflected the views of the peer review panels. The moderation process was robust, assisting the panels in applying the evaluation methodology on a consistent basis.
- The TEC has maintained an appropriate audit trail of the evaluation process.
- The final decisions of the 2006 PBRF Quality Evaluation process have been accurately reported to the individual TEOs and included in the results and rankings tables published in the PBRF report *Evaluating research excellence: the 2006 assessment*.
- We are not aware of any probity issues outstanding.



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Audit and Assurance Manager

Internal Audit

Tertiary Education Commission

Annex 2: Additional auditing of subject area changes

Following the correction of data used for reporting relating to subject areas, the TEC identified some patterns of change that were of concern. The PBRF audit team undertook a review of a selection of these changes focusing on those where the change had been from either a subject area that was significantly different from the one reported in 2003, or where there was some concentration of change into a particular subject area.

This analysis involved examining public documents that provided information on the research and/or degree-level teaching of the staff members concerned. Where an issue was identified, the TEC contacted the TEO concerned and the TEC worked with them to correct the results.

Appendix E

Evaluation of the PBRF

- 1 The Tertiary Education Commission (TEC) and the Ministry of Education have an agreed strategy for the evaluation of the PBRF. The strategy has three phases:
 - a Phase I: a process evaluation of the 2003 Quality Evaluation (the results of this phase were released in June 2004);
 - b Phase II: an evaluation of the near-term impacts of the PBRF; and
 - c Phase III: an evaluation of the long-term impacts of the PBRF.
- 2 The evaluation of the PBRF aims to identify the impacts of the PBRF and, where these impacts are unintended, consider and address them. The TEC and the Ministry of Education are currently undertaking Phase II. As well as examining the near-term impacts of the PBRF, this phase of the evaluation provides an opportunity to collect baseline data so that comparisons may be made in the future.
- 3 There are four components to Phase II of the evaluation. These are outlined below.
- 4 The first component, which has been completed, comprised a number of activities to support the design of Phase II. These were undertaken to focus the evaluation on the anticipated policy outcomes, to engage key stakeholders in research activities that could contribute to the PBRF evaluation, and to ensure the robustness of the methodological approach to all the evaluation activities. The activities included:
 - a development of an Intervention Logic (IVL) model, which focused the evaluation on the broader outcomes of the PBRF;¹
 - b a research symposium based upon the IVL model (the outcome of which was the publication *Evaluating the Performance-Based Research Fund – Framing the Debate*);²
 - c a literature review of evaluation approaches adopted for the UK Research Assessment Exercise (RAE), which was produced by a UK-based reviewer and which informed the methodological development of the evaluation;
 - d a literature scan of research published on the PBRF, which was produced locally by an external and independent specialist reviewer; and
 - e the recruitment and retention of an overseas expert evaluator to provide advice and guidance on the design, development and implementation of the evaluation.

¹ The IVL aims to explain the way in which the PBRF operates as a policy intervention and examines the following aspects: the process; the near-term impacts of the PBRF; the long-term outcomes of the PBRF; and the associated causal relationships. The IVL model also provides a framework for the development of the evaluation questions in relation to the results expected from this policy intervention.

² Bakker, Boston, Campbell, and Smyth (2006).

- 5** The second component of Phase II, which is well underway, involves the use of existing data sources. These are:
- a a number of published research papers produced by the Ministry of Education from data gathered as part of the first (2003) Quality Evaluation;
 - b the PBRF monitoring framework, which provides commentary on the impact the PBRF had on a prioritised set of indicators; and
 - c an analysis of EPs and of data from the PBRF Census: Staffing return, to address a sub-set of the evaluation questions³ identified through mechanisms such as the IVL. (Some elements of this analysis will be published for use by the sector, subject to existing agreements on data access.)
- Considerable progress has been made on this component.
- 6** The third component of Phase II will involve the collection of qualitative data where existing secondary data sources were insufficient to answer the evaluation questions. This component will be undertaken during 2007.
- 7** The fourth component of Phase II will provide a synthesis of all the information generated, and will result in the production of the final Phase II report in 2008.
- 8** Phase III of the evaluation is scheduled to commence after the 2012 Quality Evaluation. Its focus will be on the extent to which the PBRF has achieved its objectives – in particular, the extent to which the PBRF has:
- a increased the average quality of research;
 - b ensured that research continues to support degree and postgraduate teaching;
 - c enabled funding for postgraduate students and new researchers;
 - d prevented undue concentration of funding that would undermine research support for all degrees and/or prevent access to the system by new researchers; and
 - e underpinned existing sector strengths in tertiary education research.

³ This sub-set comprises evaluation questions that can be answered from relevant, appropriate and available secondary data sources. It was established after an initial scoping analysis.

Appendix F

Complaints process

- 1 In accordance with the agreed policy framework, the TEC has instituted a complaints process for the 2006 Quality Evaluation. The TEC will only accept and investigate complaints concerning possible administrative or procedural errors. These errors could include:
 - the failure to supply a Quality Category for a staff member for whom an Evidence Portfolio was submitted to the TEC; and
 - a concern that a peer review panel may not have followed the process as outlined in the relevant assessment guidelines (eg a particular conflict of interest may not have been identified or managed appropriately).
- 2 The TEC will not accept or investigate complaints relating to the substantive decision making by a peer review panel, including:
 - the criteria for evaluating Evidence Portfolios;
 - the guidelines on the conduct of the assessment process;
 - the selection of particular peer review panel members; and
 - the judgements made by peer review panels concerning the quality of Evidence Portfolios.
- 3 Only a TEO may make a complaint. Any complaints received from individual staff will be referred back to the relevant TEO.
- 4 All complaints must be in writing stating the reasons for the complaint. Where a TEO wishes to complain about the Quality Category assigned to more than one of its staff, a separate complaint (with accompanying reasons for the complaint) must be lodged with the TEC for each of the staff in question.
- 5 There is a charge of \$200 per complaint. A complaint is limited in scope to a single Evidence Portfolio.
- 6 Complaints must be lodged within 15 working days of the TEO having been notified of the Quality Evaluation results.
- 7 The TEC will provide a formal response in writing in all cases and will endeavour to deal with all complaints within 20 working days of a written complaint being received.
- 8 On receiving a complaint, the Chief Executive will ask appropriate TEC staff to investigate the matter and provide an initial report. Depending on the nature of the complaint, one of the two independent reviewers may be asked to assist or advise the TEC. In the event that the complaint is upheld, appropriate remedial action will be taken.
- 9 The TEC will not undertake further investigation of a complaint once it has made a formal response to the TEO in question, even though the TEO may remain dissatisfied with the response.
- 10 The TEC has appointed Sue Richards and Peter McKenzie QC to serve as independent reviewers for the complaints process.

Appendix G

List of abbreviations

AIS	Auckland Institute of Studies at St Helens
AUT	Auckland University of Technology
CRE	contribution to the research environment
EFTS	equivalent full-time student
ERI	external research income
FTE	full-time-equivalent
NRO	nominated research output
PBRF	Performance-Based Research Fund
PBRF Census	PBRF Census: Staffing Return
PE	peer esteem
RAE	research assessment exercise
RO	research output
RDC	research degree completions
SDR	Single-Data Return
TEC	Tertiary Education Commission
TEO	Tertiary Education Organisation

Appendix H

Glossary of terms

Assessment period	The period between 1 January 2000 and 31 December 2005. Only research outputs produced in this period are eligible for inclusion in EPs for the 2006 Quality Evaluation.
Census date	14 June 2006. (see PBRF Census [Staffing Return])
Contribution to the research environment (CRE)	Contribution that an PBRF-eligible staff member has made to the general furtherance of research in his/her TEO or in the broader sphere of his/her subject area. One of the three main components of an EP.
Evidence portfolio (EP)	Collection of information on an eligible staff member's research output (RO), peer esteem (PE), and contribution to the research environment (CRE) during the assessment period; is reviewed by a peer review panel and assigned a Quality Category.
External research income (ERI)	Income for research purposes gained by a TEO from external sources. ERI is one of the three elements in the PBRF funding formula, along with the Quality Evaluation and research degree completions (RDC).
Funded Quality Category	A Quality Category that attracts PBRF funding (ie an "A", "B", "C", or "C(NE)" Quality Category).
Moderation/moderators	The function of moderation is to ensure that standards are consistent across peer review panels and that the PBRF guidelines are properly adhered to. For the 2006 Quality Evaluation, there was a Principal Moderator and two Deputy Moderators.
Nominated academic unit	Groupings of staff as nominated by each TEO for the purposes of reporting aggregated results of the Quality Evaluation.
Nominated research outputs (NROs)	The (up to four) best research outputs that the PBRF-eligible staff member nominates in the RO component of her/his EP. Given particular scrutiny during the Quality Evaluation process.
Other research outputs	The additional (up to 30) research outputs that the PBRF-eligible staff member nominates in the RO component of her/his EP.
Panel pair	The two panel members who undertake the preparatory scoring of an EP, before the panel meets.
"Partial" round	A description of the 2006 Quality Evaluation; it is a "partial" round in that Quality Categories assigned to EPs in the previous (2003) Quality Evaluation were "carried over" to the 2006 Quality Evaluation, with the only EPs submitted for assessment being first-time EPs and those EPs that were to be assessed under a subject area with a higher cost-weighting than the subject area used for its assessment in 2003.

PBRF Census: Staffing Return	A process run by the Ministry of Education whereby TEOs provide a detailed census of those of their staff participating in the PBRF Quality Evaluation process.
PBRF-eligible staff member	TEO staff member eligible to take part in the Quality Evaluation.
Peer esteem (PE)	Esteem with which a PBRF-eligible staff member is viewed by fellow researchers. One of the three main components of an EP.
Peer review panel	Group of experts who evaluate the quality of research as set out in individual EPs. There are 12 peer review panels each covering different subject areas.
Preliminary scoring	The scores agreed by the panel pairs assigned to each EP in the pre-meeting assessment stage.
Preparatory scoring	The initial scores assigned by the individual panel members assigned to each EP in the pre-meeting assessment stage.
Quality Category	A rating of researcher excellence that PBRF-eligible staff are assigned to following the Quality Evaluation process. There are six categories – “A”, “B”, “C”, “C(NE)”, “R”, and “R(NE)”. Category “A” signifies researcher excellence at the highest level, and category “R” represents research activity or quality at a level which is insufficient for recognition by the PBRF. “(NE)” signals a Quality Category specific to new and emerging researchers.
Quality Evaluation	The component of the PBRF that assesses the quality of research outputs produced by PBRF-eligible staff, the esteem within which they are regarded for their research activity, and their contribution to the research environment.
Quality score	A standard measure of research quality. It is calculated by adding the weighted Quality Categories (ie “A” [10], “B” [6], “C” [2], “C[NE]” [2], “R” [0], and “R[NE]” [0]) of the PBRF-eligible staff in a particular unit (such as a TEO, nominated academic unit, or subject area) and dividing by the number of staff in that unit, either on a headcount or FTE basis.
Research degree completions (RDC)	A measure of the number of research-based postgraduate degrees completed within a TEO where there is a research component of 0.75 EFTS or more. One of the three components of the PBRF, along with the Quality Evaluation and external research income (ERI).
Research output (RO)	Product of research that is evaluated during the Quality Evaluation process. One of the three components of an EP.
Specialist adviser	Expert in a particular subject area used to assist a peer review panel to evaluate a particular EP.

Subject-area	An area of research activity. For the purposes of the 2006 Quality Evaluation, research activity was classified into 42 subject areas each of which embodies a recognised academic discipline or disciplines. The 42 subject areas are listed in Appendix I.
Tie-points	The quality standards expected for scores 2, 4 and 6 in each of the three components of an EP.

Appendix I

PBRF Subject Areas

Accounting and finance

Agriculture and other applied biological sciences

Anthropology and archaeology

Architecture, design, planning, surveying

Biomedical

Chemistry

Clinical medicine

Communications, journalism and media studies

Computer science, information technology, information sciences

Dentistry

Design

Earth sciences

Ecology, evolution and behaviour

Economics

Education

Engineering and technology

English language and literature

Foreign languages and linguistics

History, history of art, classics and curatorial studies

Human geography

Law

Management, human resources, industrial relations, international business and other business

Māori knowledge and development

Marketing and tourism

Molecular, cellular and whole organism biology

Music, literary arts and other arts

Nursing

Other health studies (including rehabilitation therapies)

Pharmacy

Philosophy

Physics

Political science, international relations and public policy

Psychology

Public health

Pure and applied mathematics

Religious studies and theology

Sociology, social policy, social work, criminology and gender studies

Sport and exercise science

Statistics

Theatre and dance, film and television and multimedia

Veterinary studies and large animal science

Visual arts and crafts