Te Rōpū Āwhina Whānau (1999 – 2015) Submission to the Productivity Commissions Inquiry into 'New Models of Tertiary Education'

Submitted 28 April 2016

Background to submission

Members of Te Rōpū Āwhina Whānau (Āwhina)[1] met with the Productivity Commission on Tuesday 5th April 2016 and provided their views on specific areas of the Commission's inquiry into 'New models of tertiary education'. The Āwhina team outlined what Āwhina whānau was, what it did and why, and its achievements over 16 years. Lessons of the Āwhina experience were summarised, and key questions posed by the Commission were addressed. Our written submission below summarises the presentation and subsequent discussion with the Productivity Commission (refer copy of presentation provided to the Commission).

In New Zealand there have been persistent ethnic disparities in academic success at tertiary level. The disparities are particularly obvious for science, technology, engineering, and mathematics (STEM) and STEM-related subjects, especially at postgraduate level. The historical divergences between Māori, Pacific, and Pākehā living standards and educational achievement widened in New Zealand during the economic restructuring of the 1990s, an experience that may well be repeated given reduced government funding for the tertiary sector after the 2008 recession. Furthermore, Māori and Pacific populations are expected to grow more rapidly than the European population with projected increases of 3.9%, 3.1%, and –9.0% respectively between 2013 and 2038, and greater relative increases are expected at younger ages for both Māori and Pacific groups. As in other countries, reducing tertiary ethnic disparities has become an increasingly urgent national requirement.

There is an extensive international literature which attests to historical inequalities in indigenous and minority student success in higher education, and articulates reasons for those inequalities. However, much of the national and international literature on tertiary participation, retention and success focuses on student (rather than institutional) deficits. In reality the educational experiences of indigenous and minority people are impacted by their social and cultural disconnection with tertiary institutions. There is a growing literature directed at understanding the reasons for this disconnection, and how tertiary institutions must change to reflect a diverse and rapidly changing student community.

Te Rōpū Āwhina Whānau, established in 1999 and ending in December 2015, *fundamentally changed the culture* of Victoria University of Wellington's (VUW) Science, Engineering, Architecture and Design (SEAD) Faculties to enable Māori and Pacific students to succeed in SEAD disciplines at tertiary level. Āwhina was a comprehensive on-campus whānau for students enrolled in degrees and majors in the SEAD faculties at VUW. Āwhina's successes were underpinned by its kaupapa (goal) and whānau values. The Āwhina kaupapa was to produce SEAD professionals who would become leaders in Māori and Pacific and other minority communities, and contribute to their development. Whānau values were: high expectations, aspirations and achievements; collective success and reciprocity. Within SEAD, Āwhina whānau had broad autonomy to ensure the kaupapa and whānau values were implemented, giving practical expression to the change in culture required and emphasising the importance of high-level leadership of the whānau within the university (Deputy Dean level). Since Āwhina was kaupapa driven, students from many ethnic backgrounds joined Āwhina as mentors and mentees.

Unfortunately, only a limited number of published examples have evaluated initiatives aimed at reducing tertiary inequalities. In New Zealand, despite repeated calls for more Māori and Pacific STEM university graduates (e.g., *1, 2, 3*), only Āwhina, embodying many ideas suggested for reducing tertiary ethnic inequalities, has provided robust evidence of its impact on Māori and Pacific STEM tertiary performance (*4-7*). Some key results from this evidence are provided below.

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[1] VUW senior managers replaced a demonstrably successful SEAD initiative with one that has no record of success and ignores national and international evidence of key requirements for success. While retaining the Āwhina name, it has nothing in common with the Te Rōpū Āwhina Whānau that existed up to December 2015.

Key Āwhina Results

Using a long-term data set of VUW student record data going back to 1995, Figure 1 shows standardised Bayesian estimates and uncertainties of degree completion rates for qualifications that are expected to take about 3 years e.g., a standard BSc or BA degree. Māori/Pacific (MP) completion rates in the SEAD faculties are tracking towards non-MP student rates (Fig 1A). For the non-SEAD faculties, the gap between MP and non-MP completion rates is closing much more slowly (Fig 1B).
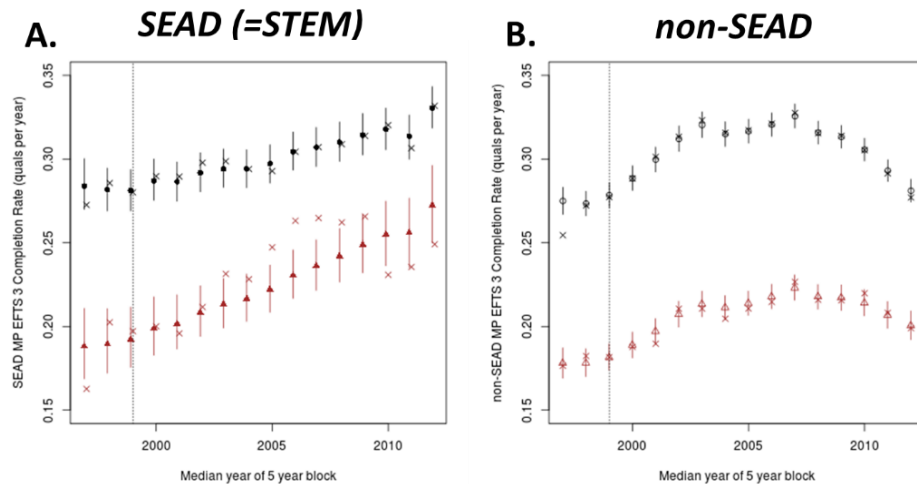

Figure 1. *EFTS 3 undergraduate degree completion rates in SEAD (A) and non-SEAD (B) faculties at Victoria University of Wellington from 1997 – 2012. The dotted line indicates when Āwhina started in 1999 in the SEAD faculties. Māori and Pacific students are shown in red; all other students in black, with crosses indicating standardised empirical estimates. Note, Āwhina was restricted to the SEAD faculties.*

Figure 2 again uses a long-term data set of VUW student record data going back to 1996, and shows standardised Bayesian estimates and uncertainties of postgraduate degree completion rates for qualifications that are expected to take about 2 years e.g., a standard MSc or MA degree. The disparity gap between MP completion rates and all other students in the SEAD faculties is significantly reduced (Fig 2A). These results are in line with the Āwhina kaupapa and values including high expectations and reciprocity. However, the gap in completion rates between MP and all other students widened in the non-SEAD faculties (Fig 2B).
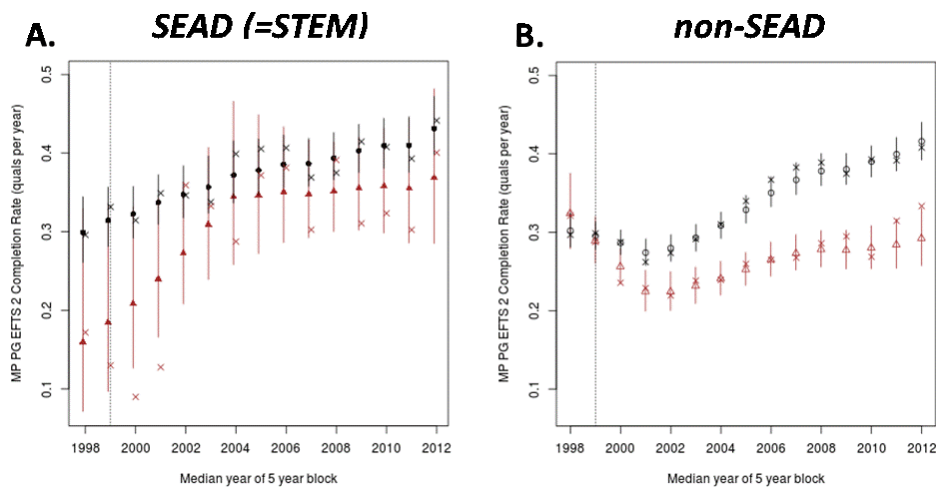

Figure 2. *EFTS2 postgraduate degree completion rates in SEAD (A) and non-SEAD (B) faculties at Victoria University of Wellington from 1998 – 2012. The dotted line indicates when Āwhina started in 1999 in the SEAD faculties. Māori and Pacific students are shown in red; all other students in black, with crosses indicating standardised empirical estimates. Note, Āwhina was restricted to the SEAD faculties.*

Lessons from the Āwhina Experience

- Āwhina was one of a handful of equity initiatives worldwide with robust evidence of success (with Āwhina the only one at any NZ university).
- These successful initiatives share important characteristics.
- Key Āwhina characteristics included kaupapa and strong whānau values, high calibre and commitment of staff, broad autonomy to decide/implement kaupapa, close connections with communities, seniority and permanence of leadership role, stable resourcing, and a robust evidence base.
- Āwhina was transferable. Tested at two NZ universities (Waikato and VUW), and in local schools. There are similar programmes at other universities overseas (e.g., University of Maryland, Baltimore County).
- Āwhina required a big change in culture which clearly does not sit easily with senior NZ university managers.
- Āwhina was cost effective.

Our central conclusion, grounded in a robust evidence base and decades of experience in Māori and Pacific tertiary STEM success, is that *there is no excuse for tolerating continuing tertiary disparities when promising solutions and tools for evaluating success exist*.

Additionally there is published evidence that (i) the leader of an equity initiative must be *demonstrably* (i.e., in practice) committed to the long-term reduction of disparities in STEM disciplines, and *have a position of influence in the university*, and (ii) *unless there is strong high-level university buy-in, the loss of a committed and sustained leader from a successful equity initiative threatens its sustainability (8, 9)*. Despite this evidence, Āwhina was ended by the unilateral decisions of VUW's Senior Leadership Team (SLT) in response to the retirement of the SEAD Deputy Dean (Equity), even though being aware of its success (as were VUW Council and the Tertiary Education Commission (TEC)). The SLT:

- Refused (over several years, 2 Vice-Chancellors, 2 SEAD Deans and various SLT incarnations) to support implementation of Āwhina's succession plan.
- Refused to engage with Āwhina whānau regarding the future of Āwhina at VUW.
- Downgraded the Āwhina Deputy-Dean role to Director.
- Replaced permanent positions by 2-year fixed term contracts.
- Provided no guarantee that Āwhina's gains will be maintained/improved.

This behaviour was not limited to Āwhina's last few months. Senior university managers were never interested in finding out why Āwhina worked, needlessly putting at risk the continuation of Āwhina's successes.

International Evidence

University of Maryland, Baltimore County (UMBC) has created an environment of inclusivity, excellence, and success for students of all backgrounds. According to Hrabowski III (*10*), the key to UMBC's success is that each staff member takes responsibility for solving the problem of minority group under-representation. The UMBC example is instructive for several reasons. Evaluation evidence on the effects of the Meyerhoff Programme at UMBC led to significant gains in governmental and private foundation resources for successful equity initiatives. At the time, few intervention and student enhancement programmes were rigorously evaluated. Ultimately, the success of the Meyerhoff Programme attracted significant national attention as a proving ground for developing talented minority STEM students for graduate/medical school.

The success of majority student STEM majors also increased, including students with higher test scores and high school grade point averages: in short, the Programme transformed the institution and UMBC is now nationally recognized as an example of inclusivity. This would not have happened without solid evidence of the Programme's effectiveness, and also the influence of Freeman Hrabowski (UMBC President).

Changing the culture of universities may be difficult but it is possible, as Āwhina, UMBC, and others have shown. The fundamental issues are *(i) leadership, both of the initiative and university,* and *(ii) robust evidence.* Get both right, and everything else follows.

Translation into Policy Responses

- Significant financial penalties for universities that fail to substantially reduce ethnic disparities.
- Long-term external funding for implementing and maintaining equity initiatives *with robust evidence of success.*
- Universities required to evaluate claimed successes using best practice methods and metrics.
- Even better, external experts evaluate claimed successes using best practice methods and metrics.
- Open access to university student record data for accredited researchers with projects deemed to be in the national interest.
- Dedicated funding for research aimed at improving equity initiatives and methods of evaluation (Te Puni Kōkiri, Ministry of Business, Innovation and Employment, Marsden, Ako Aotearoa have not been interested in funding such research: Āwhina Research Team work was undertaken as koha to Āwhina whānau).
- Funding provided for a series of international conferences tasked with sharing experiences and lessons from promising programmes, methods of evaluation, and training of future leaders.
- A permanent panel of national and international experts to investigate and monitor the provision and maintenance of effective equity initiatives, methods for their evaluation, commissioning of relevant research, and training of future leaders.

Responses to Specific Questions posed by the Productivity Commission

Q1. Do you agree with the comment in the inquiry's terms of reference that there is "considerable inertia" in the tertiary system? If so, do you have views on its root causes?

Characterising a longstanding tolerance of tertiary ethnic disparities by senior management as "inertia" misses the point. Little inertia was shown by VUW Senior Leadership Team in opposing Āwhina's succession plan and in shutting Āwhina down. The key points are (i) there was **active** opposition to changing the culture of VUW to enable Māori/Pacific success (ii) opposition was concentrated in the senior management. Non-management faculty staff were generally supportive and accepting, particularly when the benefits of Āwhina became apparent (iii) Other high-level components of the tertiary system (e.g., VUW council, TEC, Ministry of Education, New Zealand Qualifications Authority) were unable or unwilling to challenge the behaviour of university senior management.

Q2. How easy or hard it is to do innovative things to support Māori learners – for individual academics, or at programme/faculty level, or across institutional boundaries?

This question also misses the point (Āwhina was a response to an institutional deficit, **not** a student deficit). It is more relevant to ask how easy or hard is it to change the culture of universities (to enable Māori/Pacific success), and that has been answered above (Āwhina + international evidence). We also note that "innovative" approaches without rigorous evidence of effect are pointless.

Q3. What incentives do tertiary providers have to focus on students' learning in general, and Māori students' learning in particular? What are the competing incentives?

Again misses the point – ask instead what incentives do tertiary providers have to change their culture? The history of Āwhina suggests there are no such incentives, and even if there were the key issues remain (i) how to get a leadership at university and faculty level demonstrably (i.e., not just on paper) committed to Māori/Pacific success, and (ii) how to ensure the generation of, and responsiveness to, robust evidence of performance.

Q52. *What can be learnt from the tertiary education systems of other countries? Are there models that could be usefully applied here?*

Much can be learnt and applied to NZ. See above and publications.

Q52-53. *What measures have been successful in improving access, participation, achievement and outcomes for Māori/Pacific? What measures have been less successful? Why?*

To the best of our knowledge, Āwhina is the only programme with robust evidence of successful Māori/Pacific outcomes, significantly in STEM where Māori/Pacific are under-represented. Anecdote and ad-hoc approaches (or worse) are not adequate responses given the importance of the issues.

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