

**Consultation paper on Indigenous Australian Higher Education:
Trends, Initiatives and Policy Implications**

**Prepared for the Review of Higher Education Access and
Outcomes for Aboriginal and Torres Strait Islander People**

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Contents

Acknowledgments ii

Executive summary	5
Introduction	7
Methods and analysis	9
Data limitations.....	9
An overview of Indigenous participation in higher education	10
A comparative analysis (enrolments and completions)	11
Indigenous success in higher education: What makes a difference?	16
Barriers to Indigenous educational achievement	17
The role of Indigenous support centres and Indigenous staff.....	18
An integrated model for Indigenous student recruitment and support strategy	20
Factors of Indigenous enrolments and completions	22
Indigenous enrolments and pathways	22
Indigenous completions and educational achievement.....	22
Conclusion	25
References	27

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Executive summary

Education is a powerful tool in achieving better economic outcomes and is considered one of the main strategies for addressing Indigenous disadvantage in Australia (Hunter and Schwab 2003). The higher education sector, in preparing educated people for leadership roles, has a vital role to play in raising the health, education and economic outcomes for the Indigenous community overall. Increasing Indigenous participation in higher education is one of the crucial factors in reducing Indigenous disadvantage (IHEAC 2006).

Despite various efforts made by Australian universities to tackle issues behind low education participation rates of Indigenous Australians, the state of Indigenous education can be currently described as being in crisis. Based on the analysis of Indigenous student data in higher education, Indigenous institutional outcomes can be categorised crudely (with a couple of exceptions) into two categories: those with high enrolment and low completions and those with low enrolments and high completions (Pechenkina, Kowal et al. 2011).

This pattern can be explained in part by different institutional characteristics. This is reinforced by the fact that these distinct patterns also broadly cluster in ways that can be mapped against recognised institutional typologies. Some institutions apparently have the capacity and willingness to invest in the development of alternative entry pathways. In the main these institutions have a well-developed profile in regional Australia. The Group of Eight (Go8)¹ universities with relatively low enrolments would appear not to have been successful in opening up recruitment – and in part their apparently better outcomes in terms of completions may reflect a relatively more conservative approach to selection.

Whilst institutional characteristics may be in part responsible for this pattern of outcomes, the impact of common system-wide drivers should not be ignored. Indigenous completion rates are relatively lower than those of non-Indigenous students across all institutions. By comparison students from low socioeconomic backgrounds perform nearly as well as students coming from other socioeconomic groups (with the exception of those from remote and regional areas). Accordingly, the pattern of Indigenous outcomes that is described here also reflects a system-wide issue: the relatively small pool of Indigenous Australians with adequate preparation for tertiary education.

1 Group of Eight (Go8) is a coalition of Australia's leading universities, intensive in research and comprehensive and general and professional education.

It is our view that the current policy and financing framework need to be better aligned in order to address the common system-wide drivers. The current situation results in two significant costs: the lost value of relatively high attrition rates among Indigenous students across the higher education system and the opportunity cost resulting from the failure to provide a transition path for capable Indigenous people into higher education.

Better alignment of the policy and funding environment would need to support all universities to improve outcomes, although the emphasis would need to differ taking into account the institutional patterns that are described. All universities need to do better in terms of completion rates since even the best outcomes currently are relatively poor compared to those of non-Indigenous students.

Underpinning possible differences in the institutional characteristics there is a common fundamental driver – the relative underrepresentation of Indigenous Australians in higher education.

The higher education sector makes a fundamentally significant contribution to the production of human capabilities and knowledge and if appropriately harnessed and strategically oriented has the potential to make a significant and pivotal contribution to Indigenous development. In order to achieve this, a critical shift in Indigenous higher education policy is required. The new paradigm needs to be built on the successful elements of the old model but provide much sharper focus on the development of institutional strategies to support the development of partnerships, pathways, productivity and Indigenous leadership.

This new paradigm ultimately requires a realignment of Indigenous strategy within universities in order to develop a university wide strategy in which Indigenous strategy is integrated within the core business and accountabilities of the Institution. This change will not be possible without the development of an Indigenous leadership capability within a university management. The integration of Indigenous strategy requires the embedding of an Indigenous focus into university-wide business planning processes and cycles in order to move beyond the effective marginalisation of Indigenous student programs from university decision-making and the development of adequate structures that enable Indigenous leadership to effect real change.

This background paper has been written in response to the Australian Government’s Review of Higher Education Access and Outcomes for Aboriginal and Torres Strait Islander People. The purpose of this paper is to provide an overview of the current trends and issues in Indigenous higher education and contribute towards a discussion of possible solutions.

Introduction

In 2006 the Indigenous Higher Education Advisory Council (IHEAC) identified Seven Priority Areas (IHEAC 2006), all of which are still relevant in light of the current Review of Higher Education Access and Outcomes for Aboriginal and Torres Strait Islander People. The Seven Priority Areas cover building pathways to higher education from schools and tertiary institutions; raising Indigenous students' aspirations and confidence; improving levels of undergraduate and postgraduate enrolments and overall success rates, as well as Indigenous staff numbers; enhancing the status of Indigenous cultures and knowledges on campus; and ensuring wider participation of Indigenous people in university governance and management.

Despite progress slowly being made along these priority lines, Indigenous students (as well as staff) remain vastly under-represented in Australian higher education. The Bradley Review of Australian Higher Education, which was released in 2008, named Indigenous Australians among the three most disadvantaged groups in Australian higher education, together with students from regional and remote places and those from low socioeconomic backgrounds (Bradley, Noonan et al. 2008).

Social inclusion, an important policy platform of the 2009 Rudd Labor Government, named education as a key driver to address Indigenous disadvantage (Skene and Evamy 2009). The focus of governmental policy was to increase the percentage of students from low socioeconomic backgrounds from 14% to 20% by 2020. However, while it appears that participation of students with low socioeconomic status may be an issue of access (rather than success after enrolment), the situation appears to be different for Indigenous students. Once enrolled, low socioeconomic status students perform nearly as well as other students, but this doesn't seem to be the case for Indigenous and low socioeconomic status students from remote and regional areas (CSHE 2008).

From the statistical data on Indigenous students' performance in higher education, it is evident that admission is only one part of the issue which enhances the view that 'access without effective support is not opportunity' (Tinto 2008). Ensuring a quality student experience and providing adequate support networks factor greatly in Indigenous students' success in higher education. It is critical to not only widen access but to enhance it with strategies to ensure that students have the best chance of success.

This pattern of outcomes, in which some universities perform well in recruiting Indigenous students while others demonstrate high Indigenous completion rates, poses a challenge to the current policy and funding environment (DEEWR 2005). The system needs to encourage all institutions to improve outcomes taking into account the distinct pattern that is described. This situation calls for a new approach to address this issue and balance Indigenous participation in university education by encouraging a focus on both Indigenous enrolments and completions. Critically, there needs to be a more effective institutional response to the lack of adequate tertiary preparation of Indigenous students.

The barriers preventing Indigenous students from accessing and succeeding in higher education have been previously identified and well documented (Bin-Sallik 2000; Biddle, Hunter et al. 2004; Andersen, Bunda et al. 2008). However, the barriers have remained relatively unchanged and still persist today. The barriers centre around financial pressures and living away from home, health-related problems, racism and prejudice towards Indigenous people, and low levels of academic readiness and aspirations of Indigenous students, coupled with the high academic demands of study and insufficient academic support.

Cultural issues also play a role, in particular, the social or cultural alienation that some students may experience because of clashes between Indigenous and non-Indigenous socio-cultural values reflected in teaching styles and pedagogies, course content and levels of available support. As a result, although many Aboriginal and Torres Strait Islander students succeed in higher education, for many others attending university still remains an isolating experience associated with feelings of exclusion from the mainstream academic environments (Pechenkina, Kowal et al. 2011).

The situation of Indigenous students is intertwined with that of Indigenous staff (academic and non-academic) at universities. Indigenous staff play an important role in boosting Indigenous students' confidence by providing mentoring and being positive role models. However, the small number of Indigenous staff is an issue and puts enormous pressure on staff in supporting proportionately high numbers of Indigenous students.

The main efforts of universities and other stakeholders in Indigenous education need to centre on the question of how we can widen Indigenous access and participation without sacrificing the completion outcomes. Going beyond statistical analysis and attempting to understand what is happening across universities will help us learn what universities do well in terms of improving Indigenous educational outcomes, how they do it, and how these successful models can be replicated and expanded elsewhere.

Methods and analysis

The findings in this paper draw on the ongoing doctoral research of Ekaterina Pechenkina concerning factors of Indigenous educational success and achievement and the higher education data sourced from the website of the Department of Education, Employment and Workplace Relations (DEEWR)². The data analysis referenced in this paper is described in details in a forthcoming article (Pechenkina, Kowal et al. 2011). The three main indicators of Indigenous students' university performance employed in this paper are:

- course enrolment numbers
- course completion numbers
- completion rates (calculated by dividing completion numbers by enrolment numbers).

Indigenous enrolment and completion numbers are drawn from forty Australian higher education institutions and calculated as average numbers for the period of 2004 to 2009 inclusive. All non-higher education institutions are excluded.³

Additional analysis was drawn from existing published sources to describe some of the factors contributing to Indigenous educational outcomes.

The doctoral project utilises qualitative methods of in-depth interviews and participant-observation with current and former Indigenous Australian students and staff at the University of Melbourne. Though the findings of this research are at this stage preliminary, where relevant, this data will be drawn upon in the analysis conducted for this paper.

Data limitations

The DEEWR higher education statistical data is fully reliant on the universities' internal reporting of enrolment and completion numbers. However, data collection methods and terminology vary between institutions and largely depend on Aboriginal and Torres Strait Islander students' self-identification, which poses certain data limitations.

2 The DEEWR website is accessible at <www.deewr.gov.au>.

3 The Batchelor Institute of Indigenous Tertiary Education was included among the 40 higher education institutions analysed, even though it is technically not a university. It was included because it is a major provider of Indigenous higher education.

DEEWR methods of data reporting have changed throughout the past decades, rendering it difficult to compare student data along the same criteria for prolonged periods of time. For example, in the 1990s Indigenous higher education statistics on completion numbers were reported by field of study/discipline rather than provider, which is different from the reporting patterns throughout the 2000s. Also, pre-2004 data are not readily available online and data from some providers are inconsistent or missing for some years. The lack of detailed data relating to Indigenous student characteristics and socioeconomic status also places limits on this analysis.

An overview of Indigenous participation in higher education

Despite significant progress in recent decades, Aboriginal and Torres Strait Islander Australians remain significantly under-represented within the Australian system of higher education. Among other spheres signifying accomplishment in the Western world, the important milestones in Indigenous Australian education, such as the first Indigenous Australian student to receive a degree from an Australian university or the graduation of the first Indigenous doctor, came nearly a century after other Anglophone countries with similar settler-colonial contexts, such as the United States, Canada and New Zealand (Anderson 2008).

In 2009 Indigenous students' completion numbers varied by state, with New South Wales demonstrating the highest number of Indigenous completions nationwide (35% of the total number of Indigenous completions in the country), followed by Queensland (24%) and Victoria (14%). The lowest completion numbers were in the Northern Territory and the Australian Capital Territory (DEEWR 2009). In 2006, Victoria had the lowest percentage of Indigenous population (at 0.6%) and the Northern Territory had the highest (32%) (ABS 2008). In terms of Indigenous percentage of all students' completions per state/territory, all states/territories except the Northern Territory demonstrated less than 1% of Indigenous completions (the Northern Territory demonstrated 5.2 %) (DEEWR 2009), which can be explained by population distribution coupled with other factors affecting Indigenous students' pathways into higher education and retention during their studies (which is addressed further below).

Indigenous Australian students' participation rates in higher education remain significantly below those of non-Indigenous Australians. However, Indigenous enrolment and completion numbers and completion rates vary between universities, highlighting the fact that some institutions perform better than others across different indicators. Despite comprising approximately 2.5% of all Australia's population, in 2009 a little over 10,000 Indigenous Australian students enrolled across Australian universities, constituting 0.7% of the overall higher education student numbers (DEEWR 2009). Although this number is evidence of significant progress over the past decades, Indigenous Australian education is in crisis (Anderson and Potok 2011).

A comparative analysis (enrolments and completions)

Indigenous higher education statistical data reported to DEEWR by Australian universities over a six-year period (from 2004 to 2009)⁴ indicate a trend in Indigenous Australian education in which universities demonstrating high Indigenous completion rates differ from those with high Indigenous enrolment numbers (Pechenkina, Kowal et al. 2011).

The data employed for this analysis were sourced from the DEEWR website for the period 2004 to 2009 and encompass forty Australian universities. Indigenous students' enrolment and completion numbers were used as average numbers for the six-year period. Figure 1 shows national commencement numbers of Indigenous students for 2004 to 2009. Completion numbers are shown in Figure 2. Tables 1 to 3 show Top Ten Australian higher education providers ranked based on their Indigenous enrolments, completion numbers and completion rates.

4 Data were collected from the DEEWR website and are represented in Figures 1 and 2 and Tables 1 to 3.

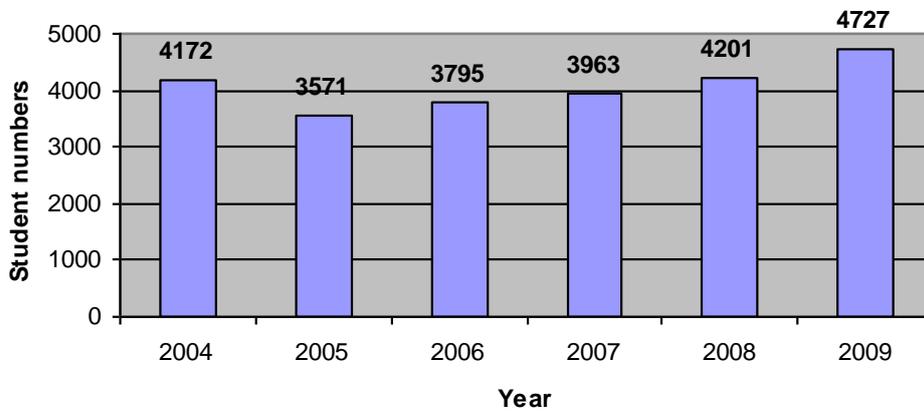


Figure 1: Indigenous students' national commencement numbers, 2004–09 (data for 40 universities). Source: DEEWR website

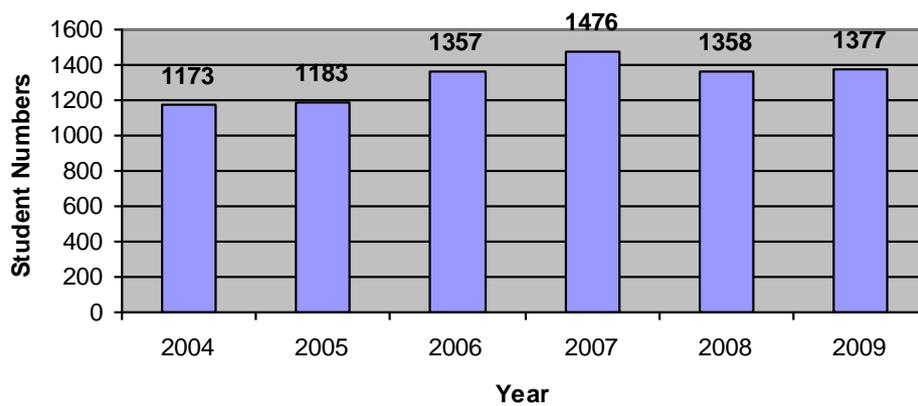


Figure 2: Indigenous students' national completion numbers, 2004–09 (data for 40 universities). Source: DEEWR website

Table 1: Top Ten Australian Universities ranked by average Indigenous commencement numbers, 2004–09

Rank	Institution	Average Indigenous Commencements
1	Batchelor Institute of Indigenous Tertiary Education	435
2	Curtin University of Technology	253
3	The University of Newcastle	178
4	Charles Darwin University	171
5	Deakin University	169
6	James Cook University	169
7	Griffith University	168
8	Charles Sturt University	165
9	Central Queensland University	164
10	Queensland University of Technology	143

Table 2: Top Ten Australian Universities ranked by average Indigenous completion numbers, 2004–09

Rank	Institution	Average Indigenous completion numbers
1	Curtin University of Technology	127
2	The University of Sydney	69
3	Queensland University of Technology	67
4	Griffith University	62
5	Charles Sturt University	62
6	The University of Newcastle	57
7	The University of Melbourne	53
8	University of Technology, Sydney	53
9	Australian Catholic University	51
10	Batchelor Institute of Indigenous Tertiary Education	50

Table 3: Top Ten Australian Universities ranked by average Indigenous completion rates, 2004–09

Rank	Institution	Average Indigenous completion rates
1	The University of Melbourne	80.81%
2	The University of Sydney	59.08%
3	Monash University	58.40%
4	The University of Queensland	56.50%
5	The Australian National University	55.71%
6	Macquarie University	51.90%
7	Curtin University of Technology	50.26%
8	Queensland University of Technology	47.02%
9	University of Technology, Sydney	45.81%
10	The Flinders University of South Australia	44.68%

Based on this data analysis, there appears to be a disparity between Indigenous enrolment and completions numbers. The group of institutions with high Indigenous enrolments (Table 1) is led by the Batchelor Institute, followed by Curtin University of Technology and The University of Newcastle.

Interestingly, there are no Go8 universities among the institutions demonstrating high Indigenous enrolment numbers. However, these universities dominate the top of the ranking based on the Indigenous completion rates (Table 3). For example, The University of Melbourne demonstrated the highest Indigenous completion rate nationally, averaging 80.81% for the period 2004–09, followed by The University of Sydney and Monash University, both with completion rates of nearly 60%.

The exceptions to these patterns institutional outcomes are two universities that score relatively high on both enrolment and completion numbers (such as the Curtin University of Technology and the University of Newcastle (Tables 1 and 2)). However these universities' Indigenous completion rates remain low (Table 3). For example, although the Curtin University demonstrates the highest average Indigenous enrolment number nationwide (at 253) its average Indigenous completion number is 127 making its average completion rate approximately 50%. Based on the same calculations for the University of Newcastle, its completion rate is 30% (which scores only 24th in the country), while its Indigenous enrolment completion numbers are amongst the highest when compared with other institutions.

Indigenous success in higher education: What makes a difference?

Indigenous Australians, people with low socioeconomic status, and those coming from regional and remote areas were identified as the most disadvantaged groups in higher education by the Bradley Review of Australian Higher Education (Bradley, Noonan et al. 2008). Indigenous students may share more than one of these characteristics. According to the National Aboriginal and Torres Strait Islander Social Survey (ABS 2008), 44% of the Indigenous population live in regional areas and 24% in remote areas, and Indigenous people are more likely to be economically disadvantaged (ABS 2008).

Overall, Indigenous students are more likely to be female, to be older and to be engaged in an external mode of study. Although Indigenous students report the same or higher levels of engagement with learning compared to their non-Indigenous peers and, overall, are satisfied with their experiences in higher education, they are more likely to consider leaving university without completing their studies. Among reasons for leaving, the students state financial hardships, having a disability and overall insufficient level of support provided to them by their universities (ACER 2011).

Various reasons behind Indigenous disparity in higher education are discussed further below; however, financial hardship remains on the top of the list as the main barrier to Indigenous educational achievement. Reduction or removal of financial barriers to participation in higher education has been deemed crucial to widening Indigenous participation (IHEAC 2006).

Although the situation varies between universities, and despite a growing number of Indigenous-specific scholarships, bursaries and grants designed to relieve financial burdens of Indigenous students⁵, a worryingly large number of scholarships remain untaken. The conflicting deadlines and modes of distribution of various sources of funding and dissonance between the scholarships and actual students' needs are among explanations of this discrepancy (IHEAC 2006).

The various measures taken by Australian universities to address Indigenous issues discussed in this paper have produced varying levels of success in boosting Indigenous participation and completion rates. In order to continue improving Australian Indigenous participation in higher education, it is important to develop a better understanding of the current patterns of participation and factors within universities that are associated with access, participation and educational achievement.

5 There are approximately 300 scholarships exclusively on offer for Indigenous Australians, totalling A\$37 million (Aurora Project 2009/10).

Evidently, some universities perform well in recruiting Indigenous students, although their completion indicators remain low. The pattern of outcomes where some universities perform well in recruiting Indigenous students while others demonstrate high Indigenous completion rates poses a challenge to the current policy and funding environment (DEEWR 2005). The system needs to encourage all institutions to improve outcomes whilst taking into account the distinct pattern that is described. For some, this will require a much greater focus on improving completion rates while others will need to innovate in recruitment and selection. Overall we need a policy and funding environment that achieves greater institutional balance in outcomes by a focus on both Indigenous enrolments and completions. Critically, there needs to be a more effective institutional response to the lack of adequate tertiary preparation of Indigenous students. This will require a greater investment in the development of 'pipeline' programs which increase the pool of tertiary ready Indigenous students and transition programs which provide academic development of enhancement for Indigenous tertiary students in order to ensure their successful completion.

Barriers to Indigenous educational achievement

Among the core issues faced by Indigenous Australians in higher education and highlighted by the Indigenous Higher Education Advisory Council (IHEAC 2006) were low numbers of Indigenous staff (both academic and non-academic), the uneven quality of Indigenous research programs, the poor recognition given to Indigenous studies, the lack of visibility of Indigenous cultures and knowledges on campus, and low levels of participation of Indigenous people in university governance and management. The most important factors identified as leading to premature withdrawal from studies included financial pressures, social or cultural alienation caused by the academic demands of study, and insufficient academic support.

A review of recent literature identifying barriers faced by Indigenous students in universities found that little has changed during the past decade, with financial hardships, health problems, racist attitudes, and low levels of Indigenous students' academic readiness and aspirations still quoted as main problems preventing the students from succeeding (Pechenkina, Kowal et al. 2011). These issues need to be effectively managed by the entire spectrum of University student services.

Among barriers to success discussed during The Aurora Project's 2010 workshops were:

- a general lack of communication and collaboration between various stakeholders in Indigenous higher education, which leads to a disconnect of their efforts
- inadequate investment in the students' 'educational life-cycle', which results in the situation where projects targeting Indigenous education run in isolation
- issues around transition and pathways to university and the concentration of effort on the 'point of entry' into university rather than on supporting the students throughout the duration of their studies to ensure completion (The Aurora Project 2010).

An array of misconceptions around Indigenous education and Indigenous students at universities was also named among the issues impeding students' success. Perceptions that Indigenous students take advantage of the special entry schemes and equity-based scholarships can lead to some students questioning their self-worth and their ability to successfully function at a university and complete their degrees (The Aurora Project 2010).

Indigenous educational disadvantage is deeply rooted and begins well before the students are admitted into university (while they are still in schools or even before formal schooling) (Andersen, Bunda et al. 2008). Disconnect between efforts of schools, TAFE colleges and universities leads to a dilution of services and doubling-up of support initiatives, leaving Indigenous students, as a result, to face the consequences (IHEAC 2006).

The issues of low personal aspirations and insufficient levels of academic readiness of some Indigenous students remain symptomatic of low achievement at a university level (Parente, Craven et al. 2003). Although importance of bridging courses and other alternative entry pathway programs is undeniable, further efforts are needed to address the situation earlier on, while the students are in schools, to increase their awareness of higher education and to equip them with the necessary set of skills to succeed.

Universities need to develop collaborative partnerships with schools and tertiary institutions to develop interventions and coordinate activity in order to and 'build pathways and raise levels of aspiration and confidence of Indigenous students' should be among the top priority tasks (IHEAC 2006).

To improve transition outcomes for Indigenous students, a set of policies needs to be developed to encourage the development of collaborative pipeline programs between schools and Universities that increase the pool of tertiary ready Indigenous students and transition programs increase the likelihood of successful completion of Indigenous students selected for tertiary study. Such policies can be further strengthened by providing incentives to education providers for the delivery of the outcomes.

The role of Indigenous support centres and Indigenous staff

Universities have made various efforts to recruit and support Indigenous students during their studies, such as employing more Indigenous staff in academic and support positions, developing Indigenous education policies or strategies, and implementing reconciliation action plans. However, the crucial step in showing their dedication to Indigenous education is establishing a dedicated centre for Indigenous students.

Since the establishment of the first designated Indigenous support unit in 1973⁶, nearly all Australian universities now have a dedicated Indigenous centre, ensuring a culturally safe environment, space and facilities for Indigenous students and staff (Trudgett 2009; Pechenkina, Kowal et al. 2011). The symbolic dimension of having a centre is also important. Even Indigenous students who only occasionally use the services provided by a centre report that the very existence of the centre is an indicator that Indigenous education matters at the university and that there is a place for them to go if they need any help (from the author's interviews data, 2011).

Though Indigenous support centres are important stakeholders in the process of implementation of strategies and programs aimed at improving and solidifying the situation of Indigenous students at universities, the role of faculty based support is also significant. For many students, especially in their first year of studies, the classroom becomes the main place where they can access support (Skene and Evamy 2009). Anecdotally, Indigenous students often receive informal mentoring from academic staff, Indigenous or non-Indigenous, outside of the 'official' support channels. A recurring topic in the author's research around factors of success among Indigenous students is that students seek out or create informal support networks and maintain their links with other students, academics and support staff throughout the duration of their degrees and often beyond.

Unfortunately, small numbers of Indigenous academic staff and their demanding roles and conflicting priorities make such informal support networks fluid and unstable. In 2009, of a total of 911 Indigenous university staff (including academic and non-academic, and cumulative of all modes of employment), only 243 were reported specifically as 'teaching and research staff' (DEEWR 2009).

Despite small numbers of Indigenous academic and non-academic staff, the informal support they provide to students is immense. However, it remains largely undocumented and therefore 'invisible' (Page and Asmar 2008). In a study titled 'Indigenous academic voices: Stories from the tertiary education frontline', two-thirds (65%) of Indigenous academics interviewed spontaneously mentioned provision of informal support when the subject of teaching was raised; the overworked Indigenous staff report being emotionally exhausted and stressed because of these multiple demands made on them (Page and Asmar 2008).

The development of the Indigenous academic workforce, coupled with the further development and maintenance of the informal support channels described above is a critical element of a university-wide strategy for Indigenous student support. This suggested that

6 The first Indigenous support unit was established at the South Australian Institute of Technology in collaboration with an Aboriginal Task Force.

there is a necessary integration of organisational development strategies (such as Indigenous employment) with Indigenous student strategy.

Independent Indigenous student representation on campus is also important. Those universities that still have active student representative organisations in the post-Voluntary Student Unionism⁷ environment often have dedicated Indigenous departments working around issues of importance to Indigenous students and providing representation.

Postgraduate representative groups are especially crucial for Indigenous research students because they organise symposia, workshops and roundtable discussions for research students, encourage discussions around the students' research projects, and act as a peer review group (from the author's interviews, 2011).

Although a national network of Indigenous people in academia exists, it remains largely informal. Various efforts have been made in the past to solidify such efforts; for example, the establishment of the National Indigenous Postgraduate Association Aboriginal Corporation⁸ and the Indigenous Department of the National Union of Students are among such initiatives. There is a recognised need for a solid and ongoing network of Indigenous students and academics in order to accumulate the knowledge of good practice and exchange feedback.

Whilst Indigenous support centres play a critical role in supporting Indigenous students – the thrust of this analyses suggested a re-conceptualisation of this role is needed in some Universities. We recommend an enhanced focus on co-ordinating and enabling an institution-wide strategy. The focus on the Indigenous centre is best conceived as providing the value-add to institutional effort rather than the only part of the institution that is actively engaged in the meeting Indigenous students academic, support and enrichment needs.

An integrated model for Indigenous student recruitment and support strategy

The current situation around recruitment strategies and support of Indigenous Australian students in universities appears to be highly fragmented with various efforts and initiatives addressing Indigenous affairs happening in relative isolation and being distanced from the mainstream university strategies. In some institutions, Indigenous students' recruitment and support is still seen to be the sole responsibility of Indigenous centres rather than that of an Institution as a whole.

7 Voluntary Student Unionism came into effect in 2006 as a result of the Higher Education Support Act 2003, making student participation in unions voluntary.

8 A branch of the Council of Australian Postgraduate Associations.

In order to conceptualise a realignment of a university strategy a new framework is recommended that includes a focus on:

- **Partnerships:** with Indigenous communities, tertiary and non-tertiary education providers and other stakeholder organisations.
- **Pathways:** with a significantly increased focus on the development of ‘pipeline’ programs, which increase the pool of tertiary ready Indigenous students and transition programs which provide academic development of enhancement for Indigenous tertiary students in order to ensure their successful completion. This needs to be coupled with the reform of selection processes.
- **Productivity:** a significantly enhanced focus on improving quality outcomes across the system. This would be integrated with a focus on getting better integration of Indigenous students programs with academic and organisational development strategies.
- **Leadership:** Indigenous leadership is critical to achieve the improvements required within a robust partnership framework. This leadership capability needs to be developed and reflected across the organisational structure of universities, including senior management.

This paradigm ultimately requires a realignment of Indigenous strategy within universities in order to develop a university wide strategy in which Indigenous strategy is integrated within the core business and accountabilities of the institution. This change will not be possible without the development of an Indigenous leadership capability within a university management. The integration of Indigenous strategy requires the embedding of an Indigenous focus into university-wide business planning processes and cycles in order to move beyond the effective marginalisation of Indigenous student programs from university decision-making and the development of adequate structures that enable Indigenous leadership to effect real change.

Factors of Indigenous enrolments and completions

Indigenous enrolments and pathways

While efforts to boost Indigenous enrolment numbers bring results, the high attrition rate for Indigenous students remains a serious concern. This disparity is a consequence of structural disadvantage that begins well before Indigenous students access university education. The Australian secondary education system is increasingly stratified, which significantly affects Indigenous students' post-secondary choices (Skene and Evamy 2009). A phenomenon termed 'leaky pipeline' is used to describe a situation where only a small percentage of Indigenous students graduating from high school are actually eligible for university based on their test results. For example, in 2008 only 11% of Indigenous students completing Year 12 were eligible for university entry. In comparison, 47% of non-Indigenous students who completed Year 12 qualified for university entry in the same year (Anderson and Potok 2011).

Indigenous students' distribution between states and territories, their gender, age, previous educational and professional background, and other factors, coupled with socioeconomic status, all play a role in the current state of Indigenous higher education.

The fact that more than half of all Indigenous higher education students are mature-age students over twenty-five years of age reflects the situation that Indigenous students delay accessing university education in favour of full-time paid employment, often coupled with family and/or community responsibilities. This situation may lead to a loss of productive years in a professional career after receiving university qualification and is especially crucial for such areas as law, medicine and business (Anderson and Potok 2011).

The issue of the 'pipeline' can also be applied to the situation around pathways into postgraduate studies, specifically into higher degrees by research. The issue of small numbers of Indigenous Higher Degree by Research students predicated the insufficient numbers of Indigenous academic staff. Due partly to the small number of Indigenous students in postgraduate study, there are indications that Indigenous students may feel isolated and 'out of their depth' studying in universities at this level (IHEAC 2006). Evidently, there is a strong need to encourage more Indigenous students to enrol in postgraduate degrees so they can act as role models and research supervisors and participate in university governance, management and development of Indigenous agendas in research, teaching and support.

Indigenous completions and educational achievement

In 2006 the IHEAC called for a 'strong empirical dimension' and evidence-based policies and programs in order to advance Indigenous education (IHEAC 2006). The Council requested more strength-based research and emphasised the importance of recording and analysing stories of what works well across the Indigenous higher education industry.

The past decade saw an emerging body of empirical research around factors of Indigenous students succeeding in universities. Some examples of recent research around factors behind Indigenous students' success in higher education are the works of Michelle Trudgett (2009) and Maree Toombs (Toombs and Gorman 2010) among others. Ekaterina Pechenkina's current doctoral research on 'cultures' of success existing in universities with high Indigenous completion rates fits in within this paradigm shift.

Some examples of successful programs serving to improve Indigenous students' standing in universities are Indigenous-specific preparatory courses in various disciplines ranging from law to medicine (for example, the initiatives currently existing in The University of Newcastle, The University of Queensland, and The University of Western Australia), diverse health initiatives and Indigenous support programs on a national level, such as the annual Indigenous postgraduate summer school at The University of Melbourne (Andersen, Bunda et al. 2008).

Based on the data from interviews and participant-observation currently being conducted by the author among Indigenous students and staff at The University of Melbourne, a number of preliminary findings highlight the factors behind Indigenous students' success. Students report unwavering family support as a crucial factor in pushing them forward in their studies. However, when such support is absent or insufficient, students admit that finding an alternative support network at the university is instrumental for their success. Such networks are found around key academics and staff members, both Indigenous and non-Indigenous, who often go beyond their duties and responsibilities to support the students. Existence of strong networks of postgraduate research students in conjunction with an Indigenous postgraduate association and staff was also cited as an important factor. The role of networks external to the university (for example, Tarwirri, the Indigenous Law Students and Lawyers Association of Victoria or the Australian Indigenous Doctors Association) was also mentioned.

The role of maintaining links with Indigenous communities was mentioned both as a factor of Indigenous students' successful recruitment and educational achievement. However, there is a new dimension of community (developed as a result of the author's research), that of a campus-based Indigenous community. The acceptance into this community of peers and mentors was cited as an important factor in students' academic success. Overall, perseverance and resilience of Indigenous students and their personal drive to succeed, in some cases even 'despite of' university and official support structures, were crucial to the students' success (from the author's interviews, 2010, 2011).

Examples of successful initiatives overseas can provide a valuable comparative framework to look at the formation of Indigenous educational success. For example, in the United States hundreds of millions of dollars are invested each year into more than a thousand academic initiatives aimed at helping promising minority students from disadvantaged backgrounds, including Native Americans, African Americans and Hispanic Americans. These programs serve to prepare the students for university and to support them while they are there

(Anderson and Potok 2011). Examples of such initiatives include residential academic summer camps for high school students where, besides receiving additional training in mathematics, science and English, the students are mentored and advised on preparing for university admission.

From the New Zealand experience, the factors instrumental in improving Maori students' outcomes include affirmative action realised through active recruitment in schools and in communities by Maori liaison officers, fostering a sense of 'family' and maximising effects of peer support, and collaborating and maintaining active links between universities and Maori communities (IHEAC 2006). In Australia initiatives such as The Indigenous Youth Leadership Program, Indigenous Youth Mobility Program and Dare to Lead, among others, need to be supported and further developed and extended.

Raising awareness of Indigenous issues among non-Indigenous people is also important in tackling Indigenous disparity in higher education. For example, courses such as 'Race, Culture, Indigeneity and the Politics of Public Health (Kowal and Paradies 2010)' can be used to address this awareness issue among non-Indigenous populations.

By studying the factors of Indigenous academic success and higher educational models in institutions demonstrating high Indigenous completions, it is possible to identify the key points of such models and expand and/or replicate them elsewhere.

Conclusion

The IHEAC's call for an integrated policy approach emphasised a need for simultaneous action by all educational stakeholders in order to address the three main areas of concern: the recruitment and support of Indigenous students; the recruitment, support and promotion of Indigenous staff; and the building and strengthening of Indigenous studies and Indigenous research (IHEAC 2006). By working on initiatives addressing these areas, we can achieve the IHEAC vision for a higher education system where Indigenous knowledges and cultures are developed and celebrated and 'Indigenous people are active in university governance, leadership and management' (IHEAC 2006).

Indigenous cultures and knowledges still do not have an appropriate profile on most Australian campuses. Enhancement of the prominence and status of Indigenous cultures, knowledges and studies on campus is important to boost Indigenous students' outcomes in higher education. At the core of the reform should be:

- making Indigenous knowledges and cultures more visible,
- enhancing the position of Indigenous support centres,
- strengthening communication and collaboration between Indigenous support centres, faculties and other stakeholders on campus and externally, and
- streamlining transitions between schools, TAFE colleges and universities.

Inclusion of Indigenous staff on teaching awards selection committees, confirmation, completion and promotion panels, introduction of training programs and short courses open to all staff can be examples of the steps taken to improve the situation. The universities' vocabulary and imagery (such as building signage, websites, graduation ceremonies, official documentations) can also be instrumental in making the educational environment more inclusive of an Indigenous presence (IHEAC 2006).

The knowledge and awareness of Indigenous cultures need to become a recognised global graduate attribute and be included among attributes listed on the universities' websites (Page and Asmar 2010). University officials need to be better informed about Indigenous issues and need to become influential advocates for Indigenous people, knowledges and cultures. Likewise, university councils need to be more familiar with the contemporary issues in Indigenous higher education and the policies and programs that are needed to address disadvantage. Thus, universities need to appoint suitable Indigenous people to university councils and other governing bodies. In exploring new possibilities for enhancing the status of Indigenous people and awareness of Indigenous knowledges, universities need to review undergraduate curricula and the place of Indigenous studies within it.

To ensure that Indigenous students achieve in higher education, a change in institutional structure is needed. Significant resources need to be continuously invested into Indigenous staffing, course design and Indigenous support services and initiatives. For students admitted via alternative pathways programs, there need to be available foundational units and

numeracy and computer skills workshops, along with other types of academic and peer support (Skene and Evamy 2009). For some universities the improvement lies in increased access; for others, it lies in improved retention—but for all universities, identifying what works and how it can be expanded and duplicated should be the main priority.

To achieve a significant positive change in Indigenous educational outcomes and overall Indigenous development, a critical shift in Indigenous higher education policy is needed. While stepping away from the old model (commonly known as the ‘enclave’ model) of funding and management of Indigenous affairs but retaining its key elements, a new hybridised model needs to be formed based on the key indicators of partnerships, pathways, productivity and leadership.

Under some models the recruitment and support of Indigenous students were viewed as a sole responsibility of Indigenous centres, consequentially isolating Indigenous students and staff from the broader university environment. Indigenous outcomes need to be moved from such a policy periphery and integrated into the main student support framework.

Another issue arising from the old policy setting is the overall level of Indigenous students’ academic readiness. With the main emphasis on Indigenous students’ recruitment, the students’ levels of university readiness is being overlooked and, coupled with a lack of crucial support systems and resources in place, it results in a high attrition rate for Indigenous students nation-wide. Therefore, universities and other Indigenous education stakeholders need to heavily invest into pathways and transition initiatives to address the issue of Indigenous students’ academic unpreparedness. Instead of the policy that encourages universities to compete for prospective Indigenous students from the same pool of applicants, it is necessary to invest into expansion of this pool to ensure more Indigenous students are university-ready.

An Indigenous educational agenda and strategies cannot remain on the educational periphery any longer and must be connected into the broader Indigenous social and economic development strategies and aligned with university-wide planning processes and annual business cycles. The focus of Indigenous education must move beyond equity-only orientation, and pathways into higher education need to be expanded and diversified.

The current funding system promotes passive ‘point of entry’ recruitment and does not sufficiently reward quality or innovation. Refocusing current funding programs to support the emphasis on the issues of the ‘pipeline’, and focusing on pathways and transitions in Indigenous education strategy and developing a ‘quality and innovations pool’, will ensure that institutions are rewarded for quality and measurable outcomes in Indigenous students’ recruitment, support and completion indicators. Indigenous educational strategy aligned with university-wide strategies will allow us to move beyond the current organisational framework and develop adequate structures that enable Indigenous leadership to effect real change.

Further information about the Review can be found on the DEEWR website at <http://www.deewr.gov.au/IHER>

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