Indigenous Education In Australia: Policy, Participation and Praxis

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The UNESCO Observatory refereed e-journal is based within the Graduate School of Education at The University of Melbourne, Australia. The journal promotes multi-disciplinary research in the Arts and Education and arose out of a recognised need for knowledge sharing in the field. The publication of diverse arts and cultural experiences within a multi-disciplinary context informs the development of future initiatives in this expanding field. There are many instances where the arts work successfully in collaboration with formerly non-traditional partners such as the sciences and health care, and this peer-reviewed journal aims to publish examples of excellence.

Valuable contributions from international researchers are providing evidence of the impact of the arts on individuals, groups and organisations across all sectors of society. The UNESCO Observatory refereed e-journal is a clearing house of research which can be used to support advocacy processes; to improve practice; influence policy making, and benefit the integration of the arts in formal and non-formal educational systems across communities, regions and countries.
This special edition of the UNESCO Observatory E-Journal focuses on education for and about the First Peoples of Australia and bears witness to the many faces of Indigenous education in Australia. It testifies to a complex landscape; places on a map, places in minds and places in spirit that taken together present a snapshot of the tone and dimension of Aboriginal and Torres Strait Islander education in early 2015.

Indigenous education policy is framed by a bi-partisan commitment to ‘closing the gap’. In some instances, Indigenous leaders are framing the debate over how this is best achieved. At the same time, non-Indigenous educators are increasingly becoming aware that equality and mutual respect can only be established once the Australian community opens its mind to the ancient wisdom and the true stories of this place. Many of the articles in this publication identify the ‘gap’ as an epistemological divide and argue that, like any bridge, education measures aimed at ‘closing the gap’ need to be constructed simultaneously from both sides. To that end, a number of papers focus on initiatives being developed and explored by mainstream schools to give authentic voice to the perspectives of First Australians for the benefit of non-Indigenous students.

The papers in Volume One, ‘Indigenous Education in Australia: Policy, Participation and Praxis’, are all concerned with how Western educational structures and institutions work for and with Aboriginal and Torres Strait Islander students. Volume Two of the Journal is entitled ‘Indigenous Education In Australia: Place, Pedagogy and Epistemic Assumptions’. Each of the articles in this volume pertains to the education experiences of people living in remote Australia.

The articles in this publication take the reader through a rich multidisciplinary tapestry that points to the breadth and complexity of the Indigenous education landscape in Australia today. The papers are honest and true to the heterogeneous communities that are the First Peoples of Australia. Similarly, the poetry and artworks that appear here bear witness to the breadth, depth and diversity of artistic talent and tradition in this country. Taken together, they challenge the reader to move beyond a simplistic quest for ‘the silver bullet’ to redress disparity in education outcomes between Indigenous and non-Indigenous Australians. They encourage reflection, innovation, reciprocity, respect and empowerment through education.

We recommend each and every article.

Prof. Mark Rose & Marnie O’Bryan
Guest Editors
Accompanying Piece

Born of the Land
Maree Clarke

Courtesy of the Artist

View artwork
Indigenous Pathways into the Professions

Professor Ian Anderson
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ABSTRACT
In this paper I review the national policy framework for Indigenous Australians and the professions with a focus on the Review of Higher Education Access and Outcomes for Aboriginal and Torres Strait Islander People: Final Report. I also consider the broader context of this issue in national Indigenous policy, and review the data on Aboriginal and Torres Strait Islander participation in the professional workforce and the relevant disciplines in higher education system. In the final section I discuss the implications of this analysis for further policy development.

KEYWORDS
Aboriginal and Torres Strait Islander; Indigenous; professions; social policy; higher education; employment; workforce
INTRODUCTION

Indigenous development requires a focus on social change, institution building and realisation of the capabilities of Indigenous Australia. Within the context of a contemporary liberal democracy it also requires a focus on developing those capabilities that provide an entry for Indigenous Australia into both the national and global economic, social and political structures.

The professions are a cluster of occupations that have the capacity to provide Indigenous Australians with such an entry point. With their particular social position within the occupational structure of the labour market, the professions give a degree of occupational autonomy and closure that is legislatively conferred. They provide a key to critical aspects of social reform, as well as providing a pathway into leadership, and have a pivotal role to play in economic development. It is important, in this respect, to consider if there are particular strategies that need to be employed in order to enhance higher education outcomes in relation to increasing Indigenous Australians’ access to the professions.

An Indigenous higher education strategy would ideally be linked to a broad agenda for building the Indigenous human capital needed for social and economic development. If this is to happen, we will require a robust national policy framework that articulates an evidence-based strategy. This issue was addressed in the Review of Higher Education Access and Outcomes for Aboriginal and Torres Strait Islander People: Final Report (hereafter the Review). In the Review the issue was framed as follows:

Building a class of Aboriginal and Torres Strait Islander professionals who can respond to the needs of their own communities will be vital to meeting Closing the Gap targets. It is also central to the [Expert] Panel’s vision for the future of Aboriginal and Torres Strait Islander success in higher education. The Panel believes that faculties can play a leading role in supporting Aboriginal and Torres Strait Islander students graduating as professionals in their chosen field by forming close partnerships with professional bodies. Professional bodies can drive demand for more Aboriginal and Torres Strait Islander professionals and, together with employers, can support students to excel through scholarships, mentoring, cadetships and work experience.
By increasing the numbers of Aboriginal and Torres Strait Islander professionals across different fields, all Australians will benefit from access to more diverse expertise, knowledge and skills. (Expert Panel 2012: xiv)

The concept of the professional, and the social processes of professionalization including inter-professional relationships, has received considerable attention within the theoretical and empirical literature of the social sciences. A detailed consideration of this literature is beyond the scope of this paper but there is some policy value in problematizing this concept, which I return to in the Discussion section. As a starting point it is worth noting the definition used in the Australian and New Zealand Standard Classification of Occupations:

Professionals perform analytical, conceptual and creative tasks through the application of theoretical knowledge and experience in the fields of the arts, media, business, design, engineering, the physical and life sciences, transport, education, health, information and communications technology, the law, social sciences and social welfare (cited in Lahn 2013).

In this paper I describe the policy framework, set out in the Review, for developing educational pathways into the professions, consider the broader context of this issue in relation to national Indigenous policy, and review the data on Aboriginal and Torres Strait Islander participation in the professions in the workforce and in higher education. In the final section of the paper I discuss the implications of this analysis for further policy development.

INDIGENOUS PEOPLE, THE PROFESSIONS AND NATIONAL POLICY

The Review was commissioned in 2011 during the term of the Gillard Labor Government, and undertaken by an Expert Panel chaired by Professor Larissa Behrendt, Professor of Law and Indigenous Studies at the University of Technology, Sydney. The terms of reference for the Review included advice and recommendations in relation to:

• achieving parity for Aboriginal and Torres Strait Islander students, researchers, and academic and non-academic staff;

• best practice and opportunities for change inside universities and other higher education providers (spanning both Indigenous-specific units and whole-of-university culture, policies, activities and programs);

• the effectiveness of existing Commonwealth Government programs that aim to encourage better outcomes for Indigenous Australians in higher education; and

• the recognition and equivalence of Indigenous knowledge in the higher education sector. (Expert Panel 2012: x)
The Expert Panel made 33 recommendations that encompassed:

- the development of parity targets for students and staff in the higher education sector;
- strategies to enhance the transition into higher education from schools and the vocational education and training sector;
- university organisational models;
- the realignment of Australian Government programs;
- Indigenous knowledge and research;
- the development of the Indigenous higher education workforce, university culture and governance; and

The Review recommendations were focused on those issues for which the Australian Government had direct jurisdiction. Accordingly, those matters that were the direct responsibility of State and Territory governments, such as the schools sector, were framed as recommendations for further development.

However, it was made clear in the Review that 'higher education does not exist in a vacuum' (Expert Panel 2012: 15) and some significant policy issues were highlighted, including:

- secondary school retention and attainment;
- the relatively low numbers of Indigenous students completing high school who are university 'eligible';
- Indigenous students’ aspiration;
- the effectiveness of university outreach program to secondary schools; and
- the retention and completion of Aboriginal and Torres Strait Islander student students once enrolled in the higher education system.

There is also some discussion in the Review on the pathway between the Vocational Education and Training (VET) sector and the higher education system, which noted that the VET sector is not currently providing a pathway into higher education for Indigenous VET graduates even when they are completing high-level courses (Expert Panel 2012: 29-38). Accordingly, the Review made some specific recommendations to address this problem including giving its support to more ‘Aboriginal and Torres Strait Islander students to enrol in and complete higher-level (at least Certificate IV and above), but also diploma and advanced diploma-level, qualifications’ (Expert Panel 2012: 38).

The disciplinary mix of Aboriginal and Torres Strait Islander students in the higher education system was not explicitly tackled within the Review. However, it can be
inferred that the Panel considered this to be an issue particularly from the discussion on pathways into the professions (which included a reference to an earlier version of this paper). It was in this context that the significance of increasing Indigenous participation in mathematics and the sciences was raised. It was also recommended that the guidelines to the Higher Education Participation and Partnership program be refocused on developing academic skills, especially in mathematics and the sciences (Expert Panel 2012: 28).

The need to align the institutional framework of universities in relation to Indigenous students received some attention in the final report of the Review. While this did not appear to diminish the important role played by central Indigenous support units, the Review highlighted the significant accountabilities of faculties in relation to the academic and professional development of Indigenous students. Accordingly, the Expert Panel specifically recommended (in Recommendation 12):

- a refining of the university planning process to account for future needs of an Aboriginal and Torres Strait Islander professional workforce;
- the development of innovative local partnerships to support demand for growing the numbers and breadth of graduates in the professions; and
- supporting the membership of professional bodies and the establishment of Indigenous professional and student associations (Expert Panel 2012: 52-58).

In receiving the final report of the Review, Federal Ministers Chris Evans and Kim Carr committed their government to an implementation plan based on the Review’s framework. In 2012 the Aboriginal and Torres Strait Islander Higher Education Advisory Council (ATSIHEAC) was established to provide advice on developing both the implementation plan and a strategic policy agenda that included five priority goals:

- broadening the disciplines and professions in which Aboriginal and Torres Strait Islander people participate;
- taking an ‘all of institution’ approach;
- developing the Aboriginal and Torres Strait Islander research and academic workforce;
- measuring progress towards achieving the Review’s goals; and
- financing Aboriginal and Torres Strait Islander higher education (ATSIHEAC 2013).

In September 2013, the election of the Abbott Coalition government heralded some changes to Indigenous policy. In his pre-election platform Abbot signalled his intention to establish a Prime Minister’s Indigenous Advisory Council and move Indigenous Affairs into the Department of Prime Minister and Cabinet (DPMC). In doing so, the Coalition indicated its support for the constitutional acknowledgment of Aboriginal people as the first Australians in the Australian Constitution. It also pledged to work with the Australian Employment Covenant and Generation One to train 1,000 indigenous people for guaranteed jobs (Liberal Party of Australia 2013).
It did not, however, provide specific details in relation to its Indigenous education strategy.

Since its election the Abbott Government has progressed its commitment to centralize Indigenous programs within the DPMC, which has resulted in several Indigenous higher education programs moving out of the Education portfolio. However, it has retained responsibility for implementing the recommendations from the Review, which focus 'in particular on ensuring that the mainstream higher education [system] delivers improved outcomes for Aboriginal and Torres Strait Islander people’ and on supporting ATSIHEAC and the work of the Australian Institute for Aboriginal and Torres Strait Islander Studies (Paul 2012).

The Review provides, for the first time, a focus on pathways into the professions as a component of national strategy in Indigenous higher education. However, this issue has been previously taken up in other national Indigenous strategy, as is illustrated in the section that follows through reference to national Indigenous social policy in education, health, justice and housing.

The relevant strategy in the National Aboriginal and Torres Strait Islander Education Policy is incorporated within that policy’s Major Goal 1 (Involvement of Aboriginal and Torres Strait Islander People in Educational Decision-Making) as an objective to:

increase the number of Aboriginal and Torres Strait Islander people employed as educational administrators, teachers, curriculum advisers, teachers assistants, home-school liaison officers and other education workers, including community people engaged in teaching Aboriginal and Torres Strait Islander culture, history and contemporary society, and Aboriginal and Torres Strait Islander languages (DEEWR 2011).

This priority is further reflected in the Aboriginal and Torres Strait Islander Education Action Plan 2010–2014 developed by the Ministerial Council of Education, Early Childhood Development and Youth Affairs. This also includes as a performance indicator the number of Aboriginal and Torres Strait Islander principals, teachers and education workers, and further anticipates the development of a National Aboriginal and Torres Strait Islander Educator Workforce Strategy (MCEEDYA 2010). The Education Action Plan expects further work in this space, particularly in relation to developing a national Aboriginal and Torres Strait Islander health workforce strategy by MCEEDYA. It does not, however, detail the development of strategies to increase the cohort of Indigenous Australians entering higher education, although it does recommend that the Ministerial Council on Tertiary Education and Employment develop a companion document to outline strategies to Close the Gap in training and university employment outcomes.

The National Indigenous Law and Justice Framework 2009–2015 provides a high-level reference to the development of strategies to ‘Increase employment and retention of Aboriginal and Torres Strait Islander peoples in justice and justice-related programs, policy management and service delivery’ (SCAGWGIJ 2009). However, it details no specific strategies on the training or education of this workforce or the development of pathways into the legal professions for Aboriginal and Torres Strait Islander people.
The National Aboriginal and Torres Strait Islander Health Plan 2013–2023 highlights the important role to be played in broader strategy by Aboriginal and Torres Strait Islander health professionals committed to implementing the relevant findings of the Review (Australian Government 2013). This priority had previously been identified in the National Aboriginal and Torres Strait Islander Health Strategic Framework, which made explicit reference to an action priority in relation to 'Increased numbers of Aboriginal and Torres Strait Islander peoples working across all health professions' (NATSIHC 2003: 20). The workforce strategy developed under this earlier strategic framework included, among other things, a focus on the secondary school pipeline (particularly maths and science literacy, careers guidance and role modelling) and support for higher education institutions, curricula development, a whole-of-university strategy, accreditation and standards in relation to the quality of training delivery for Indigenous Australians (NATSIHEC 2008).

The Indigenous Economic Development Strategy 2011–2018 (IEDS) identifies education as its second priority, and includes the objectives of improving:

- school readiness, school attendance and educational outcomes;
- the successful transition from school to work; and
- access to higher education (Australian Government 2011).

The strategies outlined in relation to higher education encompass:

- supporting success in higher education;
- attracting and retaining Indigenous students;
- encouraging students to view higher education as an option; and,
- increasing the Indigenous higher education workforce (Australian Government 2011).

No detail is provided in this strategy on the potential contribution of Indigenous professionals to Indigenous economic development.

INDIGENOUS AUSTRALIANS AND THE PROFESSIONAL WORKFORCE

In the 2011 Census, Indigenous Australians were less likely to participate in the labour force than non-Indigenous Australians (51% compared with 76% adjusted for population structure), with Indigenous males more likely than females to be participating (55% compared with 46%) (ABS 2012). Almost half (42%) of Indigenous people aged 15–64 years were employed and, of those who were employed, half (59%) were employed full-time, with 32 per cent employed part-time (ABS 2012).

Indigenous Australians have quite a different pattern of employment across the industry sectors than other Australians (Figure I). For example, relative to the total Australian population a greater proportion of Indigenous Australian employment
is in the public sector, health care and social assistance sector, mining, arts and recreational services, and education and training sectors. Conversely, relative to the total Australia population a lower proportion of Indigenous Australian employment is in the wholesale and retail trades sectors, construction services, rental hiring and real estate, information and media telecommunications, and financial and insurances services sector. Note, in particular, the significantly lower proportion of Indigenous Australian employment in the professional scientific and technical services sector (2.8% of Indigenous employment compared with 7.8% of non-Indigenous employment) (ABS 2012).

The distribution of Indigenous employment is also distinctly patterned across occupational categories. The Indigenous workforce is found predominantly in low-skilled occupations, with a much lower proportion of managers, administrators and professionals than in the non-Indigenous population (see Figure II). However, there was a reasonable amount of growth in both moderate and high-skilled occupations between 2001 and 2006, which explains the re-distribution across occupational categories (Biddle, Taylor & Yap 2008). The most common occupation group for Indigenous people was labourers (18%), followed by community and personal service workers (17%), and clerical and administrative workers (13%). In contrast, the most common occupation group for non-Indigenous people was professionals (22%) (Figure II).

![Figure II: Occupation of employment: Level One, 2011 Census](source: AIHW 2013. Table provided in Appendix I)
Figure III below shows the breakdown of the professional category, and gives the employment count and occupational distribution across this category. As can be seen, the highest proportion of Indigenous Australians is found within the education category and the lowest in the information communications technology category (with the exception of the undefined group). Indigenous Australians are underrepresented across all the professional sub-categories. These inequalities are further evident when you consider data for select occupational groups. In the 2011 Census there were 336 Indigenous accountants, 39 architects and landscape architects, 177 doctors, 263 lawyers and 4,881 teachers (see Table I in the Appendices for the full analysis).

**Source:** AIHW 2013. *Table provided in Appendix I*
INDIGENOUS AUSTRALIANS AND THE PROFESSIONS: HIGHER EDUCATION

An analysis of DEEWR Indigenous higher education data (2004-09) undertaken by the Aurora Project (Aurora Project 2011) distinguished both direct pathway and mature age students (direct pathway students who enrolled in university within a few years of finishing high school were defined as being between 15-24 years for undergraduates and up to 29 years for postgraduates). Outcomes for Indigenous students were compared with age-adjusted population targets that were required to reach parity. The patterns described by this analysis are consistent with other similar studies (e.g., Pechenkina & Anderson 2011) while throwing a more detailed spotlight onto the different outcomes for the direct entry and mature age cohorts.

This analysis demonstrated that mature age students represented 118 per cent of the parity target for undergraduate studies and 47 per cent for postgraduate studies. By comparison direct pathway student numbers were at 23 per cent of the undergraduate parity targets and 13 per cent of the parity target for postgraduate studies (Aurora Project 2011). This difference in outcomes for the various age cohorts is consistent with the data published by the National Indigenous Health Equality Council (NIHEC) in relation to health sciences in the university sector. A similar pattern is evident also in relation to completions data. The analysis of outcomes by fields of study reveals variation relevant to this paper. For example, students achieved direct pathways for the following proportion of parity targets:

- agriculture, environmental and related fields (16%);
- architecture and building (11%);
- creative arts (11%);
- education (30%);
- engineering and related technologies (7%);
- health (18%);
- information technology (6%); management and commerce (8%);
- natural and physical sciences (9%); and
- society and culture (18%) (Aurora Project 2011).

NIHEC also undertook detailed work in relation to the health professions, and demonstrated that while enrolment and completion rates for Indigenous students in higher education health-related courses have increased since 2001, the gap has widened because non-Indigenous enrolment and completion rates grew at a faster rate. If the gap were to be halved by 2018 there would need to be an additional 2,046 enrolments and 510 completions in health-related courses, and to Close the Gap would require an additional 2719 enrolments and 740 completions.

Of the undergraduate programs, nursing had the highest numbers (a total of 582 enrolments, or 1.8% of all nursing enrolments), with public health ranked second in
absolute numbers, representing 7 per cent of all enrolments (298, with the majority in specific Indigenous public health courses). There were only 128 Indigenous student undergraduate enrolments in medical studies (1.1% of all medical student enrolments), while other health professions such as optical science, pharmacy, radiography, dental studies and rehabilitation therapies continued to have very low enrolments and completions. NIHEC demonstrated that there were 248 Indigenous student completions in health-related courses in 2008 (of which 152 were for undergraduate courses). Nursing had the highest number of undergraduate completions (71, representing 1% of completions), followed by public health (47, representing 7% of completions) and medical studies (13, representing 0.6% of completions).

The enrolment and completion outcomes across the age cohorts for the health sciences reflected the more general pattern evident in the Aurora Project analysis. Indigenous Australians reached parity in enrolments in the 35-44 year old cohort, but are over-represented in the older cohorts, and have also achieved parity for completions in the 45-54-year-old age cohort and above.

A number of factors impact on the relatively lower completion rates more generally in Indigenous higher education (Pechenkina & Anderson 2011). In the health sciences there are high attrition rates during the early years of higher education, particularly in the first year of a course. Between 2002-03 first-year attrition rates for Indigenous students were around 35-39 per cent compared to 22-23 per cent for non-Indigenous students (NIHEC 2011). Another measure of outcomes relevant here is the success rates of institutions: in 2008 the success rate for Indigenous students studying health-related courses was 74 per cent compared to 93 per cent for non-Indigenous students (NIHEC 2011).

**DISCUSSION: INDIGENOUS AUSTRALIANS THE PROFESSIONS AND POLICY**

Like many concepts used in the social sciences, the professions and the process of professionalization have analytical meanings that are, to a certain extent, distinct from use in everyday language. To most people the term *professional* often refers to standards of ethical and otherwise appropriate behaviour that we expect in a workplace, particularly within a service occupation. In this context we might apply the term loosely to a broad range of occupations including the trades and semi-skilled workers in the service industry, as well as to university-educated occupations that are accredited (such as lawyers, doctors and accountants). Social scientists use the concept to refer to the cluster of occupations in service and organisational management contexts that have both status and exercise different forms of authority over other occupations and citizens.

There are some commonly recognised characteristics of the professions. First, they have agreed qualifications/credentials and professional bodies that regulate membership and the practice of their members. Second, the status and authority of professions has evolved through a complex and contested relationship with governments (and other institutions of the State). As a result, the powers of the professions have been codified through a particular legislative and regulatory
framework, in which doctors and managers are categorised as professionals, while tradespersons and unskilled labourers are not.

Although the distinction between professional and non-professional occupations applied in this way might often seem to be obvious, there are many cases where this is perhaps less clear. This is particularly so when the social status of the occupational group is undergoing change. For example, Aboriginal Health Workers (Indigenous workers in the primary care sector) are trained within the skills-focused Vocational Education and Training (VET) sector, but do not as yet have many of the sociological characteristics of a profession, such as a professional body that regulates membership. However, as the legislative and regulatory framework for Aboriginal Health Workers continues to develop, it could be argued that this occupation is undergoing a process of professionalization. Such processes are often contested when established occupational groups respond to apparent and real encroachments on their occupational territory, as is evident in some contexts in the contestation between primary care nurses and Aboriginal Health Workers (Genat 2006).

The legislative and institutional frameworks for professions confer varying degrees of social and political autonomy onto professional bodies, which in turn enable varying degrees of professional self-regulation. This then structures the relationships between different occupational groups, such as medicine and nursing, although these arrangements are not fixed and have often been historically contested. Professions occupy a position in society characterised by social power, prestige, high income, social status and privileges. Participation in professional structures arguably provides Indigenous Australians with the opportunity to influence the change of professional practices and values in ways that are not available in other political or social institutions (such as government).

That is not to say that professional values are formed in a social vacuum: the norms of professional conduct and values are shaped both through the processes of learning required for professional registration and accreditation, as well as being influenced by broader processes of socialisation. Governments and other social institutions influence the behaviour and practice of the professions through legal mechanisms, such as criminal or trade practices laws, and through funding-related measures such as program grants or subsidies or the development of quality and benchmarking systems.

Indigenous professionals have the potential to use their social and political positions (combined with their professional knowledge and skills) to support the realisation of social policy objectives, Indigenous political leadership and an Indigenous economy. This does not discount the significant contribution of other workers and Indigenous community members more broadly. Rather, professionals can make contributions that deepen and extend those of others through their capabilities, which provide a bridge between Indigenous Australia and our broader social, economic and political structures. For this reason it is perhaps unsurprising that social policy objectives in relation to Indigenous professionals were expressed first within the context of health, law and education policies prior to an explicit formulation within Indigenous higher education strategy.

Professional education and practice also provides the social and political resources, and experience, for political leadership. In Australia there are many examples
of Indigenous people with professional training who have made significant contributions to Indigenous development. Many of our prominent Indigenous leaders practised and contributed to their professional fields prior to making significant and enduring political and social contributions more broadly in Indigenous affairs. The professions, in part, have provided a social context in which to develop their leadership skills, while others have moved more quickly into the leadership space through the completion of their higher education.

Finally, Indigenous professionals have a significant contribution to make to Indigenous economic development through their economic productivity in the business and commercial sectors. The recent IEDS 2011–2018 incorporates a broader view of the role of higher education in Indigenous economic development, compared with earlier iterations (Australian Government 2010), but still has a limited conceptualization of the relationship between Indigenous human capital and economic activity. It is difficult to conceive how, for example, a robust Indigenous business sector could develop without the skills, knowledge and attributes of Indigenous business professionals. This is arguably even more significant in areas where there is considerable actual or potential economic development for Indigenous Australians. The realisation of benefits from the mining sector, for example, will require an informed Indigenous professional class who are able to provide the technical skills and professional knowledge needed to strike a robust agreement with the mining industry based on native title arrangements, the development of sustainable Indigenous corporations and the ability to managing the ensuing Indigenous capital base. To date, Indigenous penetration of the information communications and technology sector has been extremely limited. This is an industry in which employment demand is likely to grow considerably over the next few decades with significant implications for economic development. In order to exploit the potential of this growth we need to pay policy attention to the development of these particular educational pathways.

The Review places a high priority on creating pathways for Indigenous Australians into the professions. This reinforces both the growing priority on this issue in other areas of Indigenous social policy and the need to strengthen the focus of this issue in Indigenous economic policy. To test the robustness of this policy framework I will now consider:

- the development of educational pathways;
- the institutional framework required to improve outcomes; and
- the development of the data systems needed to monitor outcomes.

**EDUCATIONAL PATHWAYS INTO THE PROFESSIONS**

The relative disadvantage experienced by Indigenous secondary school students is well documented. In 2007 national data indicated that the apparent retention rate for Indigenous students in Years 7/8 was 42.9 per cent, an increase from 40.6 per cent in 2006 and 32.1 per cent in 1998 (ABS & AIHW 2008). The gap widens even more in the senior years, with a 9.2% point difference at Year 10 and a 32.7% point
difference by Year 12 in 2007. Data published by NIHEC, as illustrated in Figure IV, demonstrate the improvement in secondary school retention.

Although the retention of Indigenous students until Year 10 from Years 7/8 has been improving, it continues to remain below that of the total student populations (89% compared to 99.8% in 2008). The analysis of schools’ retention data produced by NIHEC suggests that if the current trend continues, the gap between Indigenous and other Year 10 students’ retention rates would narrow and almost close by 2020 (0.5%). However, although the apparent retention rate from Year 7/8 to Year 12 for Indigenous students has also been improving, a significant gap (20 percentage points) would remain if the current trend continues to 2020 (with apparent retention rates of 60% compared to 80%). NIHEC’s analysis illustrates the difference between the outcomes based on current trends and the trend that would be required to close the gap by half (Figure IV compared with Figure XIV).

Source: NIHEC 2011:18
The entry into higher education, and subsequent development of professional pathways, requires a focus on increasing retention into Year 12. However, this is not in itself sufficient to ensure a transition into higher education, nor indeed entry into the professions. One analysis of the educational transition of a cohort of 15-year-old Indigenous students in 2003 demonstrated that of the 30 per cent who completed Year 12, only one-sixth made the transition to higher education by the age of 18 (compared with 50% of non-Indigenous students who completed Year 12) (CSHE 2008). In comparison, a relatively higher proportion of Indigenous students transition into the VET sector. By the age of 17, when the school participation rate had dropped to 40 per cent, there were more Indigenous students enrolled in VET than in school (CSHE 2008).

Limited aspirations and knowledge about career options are a significant factor in keeping the pool of Indigenous students transitioning from secondary school to higher education relatively small. In a study of Aboriginal secondary school students in New South Wales, Craven et al. (2005) demonstrated that significantly more Indigenous students aspire to leave school early and participate in technical education,
while significantly more non-Indigenous students want to go to university (although
Craven et al. also demonstrated that Indigenous students are more likely to value
school attendance and get good grades). Qualitative work in the same study with a
small group of high-achieving Indigenous secondary school students also suggested
that they were not getting accurate career information about educational pathways
and prerequisites.

All these issues are acknowledged as important in the Review, but particular
emphasis is placed on developing strategies that enhance attainment for Indigenous
students completing secondary school in order to increase the number who are
tertiary eligible. The significance placed in the Review on developing the secondary
school pipeline is also underscored by the Aurora Project analysis that highlights the
difference between the parity gap for this group of Indigenous student compared
with the mature-age cohort. This issue is particularly germane to the development
of professional careers in which opportunities for leadership are more limited for
mature-age graduates whose professional development is relatively delayed, and for
whom some of the early graduate career opportunities, such as internships, may be
less feasible given their family and other financial commitments.

It is significant, too, that Indigenous Australian students continue to have poorer
educational outcomes in secondary school, thereby limiting their options in terms
of transitioning into higher education. A benchmark for these outcomes is provided
by the Programme for International Student Assessment (PISA). In 2006 the mean
PISA score for Indigenous students for reading literacy was 448 (compared with 531
for non-Indigenous students); for mathematical literacy it was 440 (compared with
526); and for science literacy it was 434 (compared with 527) (Craven et al. 2005).
However, although a significant number of Indigenous Australian students actually
achieved a high proficiency in reading, mathematical and scientific literacy, there
is a significant gap between the best performing Indigenous and non-Indigenous
students at the top end of the distribution curve.

Although we need to continue our focus on strategies to address under-performance,
developing the higher education pathway also requires supporting those students at
the top end of the distribution curve to excel. In reading and mathematics literacy,
almost two-thirds (61%) of Indigenous students performed at or above base level
compared to 87 per cent of non-Indigenous students (NIHEC 2011). There is a
particular need to focus on mathematics and science literacy for if we are to enhance
educational pathways into the professions, policy and practice needs to grapple with
the challenge of improved outcomes in relation to both these two disciplines. This
is particularly true for professions that sit within the applied sciences – such as
engineering, medicine, nursing and allied health, the information communications
and technology field – but also for other professions such as commerce.

This is a broader issue for Australian secondary school students more generally.
In the Australia Council for Learned Academies international review of science,
technology, engineering and mathematics (STEM) education strategies it identified
key strategies to improve STEM outcomes (Marginson et al. 2013). In relation to
Indigenous students the review identified the following key issues:

- the significance of language issues that underpin
  conceptual development and understanding;
• potential mismatches between education and cultural beliefs about the world and those in science and mathematics; and

• problems for Indigenous students dealing with institutional cultures, particularly at university level and in STEM faculties and disciplines.

The report also identified a number of good practices (Marginson et al. 2013: 149), including:

• culturally responsive teaching;

• recognition of Indigenous knowledges in STEM curricula;

• involvement of Elders in curriculum development;

• outreach to schools;

• working with industry to establish pathways into the professional workforce;

• professional development for academic for staff and students in respect for Indigenous ways of knowing; and

• support programs including scholarships, transition programs and academic assistance.

In their retrospective analysis of the 2006 PISA, McConney et al. (2011) demonstrated that Indigenous science literacy lagged behind non-Indigenous literacy by about 83.5 points or 0.76 standard deviation units. However, they also demonstrated that Indigenous science interest led that of non-Indigenous students by 10 points of 0.1 SD. In their regression modelling of this data they showed that reading literacy accounted for 62 per cent of science literacy variance, while interest in science had a weak effect.

In a further analysis of the 2006 PISA – this time with data on Indigenous/non-Indigenous Australian and New Zealand secondary school students (Woods-McConney et al. 2013) – science engagement (a broader construct that incorporates student attitudes, interests and self-beliefs) was shown to have a correlation with science literacy. However, variance in science engagement most strongly correlated with the extent to which students engaged with science activities outside of school, with in-school activities having a weak relationship. In this analysis socio-economic status, time spent on science lessons and study, and the character of science teaching explained most of the science literacy variance but only a weak correlation with engagement.

The 2012 PISA outcomes underscore the significance of these issues. In the period between PISA 2000 and PISA 2012, reading literacy performance declined significantly for both Indigenous students and non-Indigenous students (by 20 and 16 score points respectively) (Thomson, De Bortoli & Buckley 2013). Mathematical literacy performance for Indigenous students, however, remained constant from PISA 2003 to PISA 2009, and there were no significant changes in the mean scientific literacy score of Indigenous students between PISA 2006 and PISA 2012. The average mathematical literacy performance for non-Indigenous students has been decreasing.
from PISA 2003, with a significant decline of 19 score points on average between PISA 2003 and PISA 2012. Although the proportion of low-performing Indigenous students did not change significantly between PISA 2003 and PISA 2012, there was a significant decrease (2%) in the proportion of top-performing Indigenous students between PISA 2003 and PISA 2012 (Thomson, De Bortoli & Buckley 2013).

Clearly, these are all significant issues that require an integrated Indigenous educational strategy. However, programs that improve retention and those which boost mean performance are not of themselves going to be sufficient to increase the transition rates to university. In order to realise this objective, educational strategies need to improve the proportion of high-performing Indigenous students and strengthen their outcomes. Although this is true across all aspect of educational attainment, maths and science is particularly important if we are to improve outcomes in relation to professional education.

INDIGENOUS AUSTRALIANS, THE VET SECTOR AND THE HEALTH SCIENCES

The Review identified the need to address the challenges of articulation between the VET and higher education sectors. In 2012 Indigenous students constituted 4.6 per cent of the national VET sector cohort at approximately double their proportional representation in the total Australian population. However, Indigenous participation is mostly clustered at the lower Australian Qualifications Framework (AQF) levels with significant under-representation at the higher levels of the AQF range. In the 2012 national VET cohort, Indigenous completions at AQF Diploma and above level constituted 1.4 per cent of the total, while at Certificate 1 level they constituted 12.1 per cent of total student completions (NCVER 2012). However, the Review found that there was evidence that the VET sector was not providing pathways into higher education for Aboriginal and Torres Strait Islander VET graduates, even those completing the higher level programs.

This will be particular important in those industry clusters where the workforce significantly straddles both the VET and Higher Education sector. Take the health sciences, for example: in 2007 Indigenous students accounted for 6 per cent of enrolments and 3 per cent of health-related completions across the VET sector (with enrolment rates of 187 per 10,000 compared to 73 per 10,000 and completion rates of 12 per 10,000 compared to 7 per 10,000). The most popular health-related course for Indigenous students in 2007 was public health (3661 enrolments and 223 completions), followed by nursing (405 enrolments and 82 completions). Training for AHWs, the second largest Indigenous occupational group in the sector, is provided by the VET sector. In 2006 the VET load pass rate for Indigenous students studying health-related courses was 67 per cent, compared to 80 per cent for non-Indigenous students.

However, the lack of clearly defined articulation pathways only serves to reinforce the clustering of the Aboriginal health workforce in the non-professional occupational strata. It is likely that this is also a significant issue for other areas of practice such as information communications technology, drafting and architecture
and the engineering-related disciplines. However, demand for university places in professional training is growing and the incentives for improving the flow between the VET and higher education sectors are relatively weak. To that end, it may be that industry could play a stronger role particularly if it were to signal high demand for Indigenous professional employment, stimulating the development of transition pathways between the VET and higher education sector. At the moment, the demand for professional training places in the higher education sector is so high from the broader non-Indigenous market there is a lack of institutional incentives for providers to devote the attention and resources needed to develop the articulation strategies for the relatively small Indigenous market.

RELATIONSHIPS BETWEEN UNIVERSITIES, PROFESSIONAL BODIES AND INDUSTRY

The professional bodies and industry more broadly have played a key role in shifting the performance of the higher education system in relation to Indigenous health professional training. Over the past decade there have been a number of iterations of national Indigenous workforce strategy, which has in turn been reinforced through specific professional strategies led by or engaging the relevant professional bodies.

For example, the Indigenous Nursing Education Working Group, established by the Australian Government Department of Health and Ageing (now the Department of Health) and the Australian Congress of Deans of Nursing, developed the report *Gettin em n keepin em*. The report had 32 recommendations focused on the inclusion of Indigenous health in nursing curricula and the recruitment and retention of Indigenous nurses in the health workforce (Indigenous Nursing Education Working Group 2002). The Committee of Deans of Australian Medical Schools (now Medical Deans Australia and New Zealand) also developed a national curricula framework for the inclusion of Indigenous health in medical education, which subsequently informed the standards for the accreditation of medical schools by the Australasian Medical Council (CDAMS 2004). The Australian Indigenous Doctors Association (AIDA) developed a strategy for the recruitment and retention of Aboriginal and Torres Strait Islander students into medical education, which AIDA has subsequently used to frame its collaborative engagement across the health sector and CDAMS (Mackean et al. 2007).

In this policy landscape, Indigenous professional organisations such as AIDA, the Council of Aboriginal and Torres Strait Islander Nurses, and others have proved to be important for the embedding and advocacy of reform within professional systems and structures. What is particularly important in this context is the way in which social policy framework in Indigenous health provides scaffolding for a range of higher education strategies that create institutional environments within which Indigenous students can be supported and engaged. Curricula reform provides a learning context that, although aimed at building the capabilities of students more broadly, also creates a context for developing a culturally inclusive learning environment. Significantly, the leadership of professional structures, in part supported and led by Indigenous professional bodies, has been a critical element of this broader strategy.

Arguably this is more than just a consequence of good policy scaffolding. The relationship between AIDA, the medical colleges and the medical faculties, for
example, has provided the basis for a social transformation of the place of Indigenous issues within the medical profession. However, it appears that the role of faculties is paramount, with faculty leadership and accountabilities possibly the key to university performance in relation to Indigenous participation in higher education.

In framing its recommendations the Review was clearly influenced by the strategies used to improve educational outcomes for Indigenous Australians in the health professions. However, the extent to which these lessons can be used in other professional contexts remains to be seen. What may be an issue are the relative influence of different industry and professional bodies and the extent to which they can influence the different drivers. So it may be, for example, that professions such as medicine or education may figure more highly in the aspirations of Indigenous students in secondary school than perhaps architecture or accountancy. Furthermore, while some industries, such as the mining sector, may have influence on priority setting agendas within, for example, schools of engineering, they have limited influence in relation to what needs to change in the delivery of schools education where we need to see the improved attainment in mathematics that’s needed for students to gain entry into engineering degrees.

**CONCLUSION**

A robust policy framework that increases the participation and completion of Indigenous students in higher education is needed to improve pathways into the professions. This is well captured in the Review and represents a significant advance in national Indigenous policy, which up to this point had been silent on the broader educational platform required to achieve this important outcome. That is not to say that the issues of professional education and Indigenous participation in the professional workforce have not been given priority. However, prior to the Review this had largely been framed by broader social policy rather than by more specific strategy in higher education. It is the role of the Indigenous professional workforce in a national Indigenous economic strategy that now requires attention. In a policy environment with a strong focus on Indigenous employment, it will be critically important to ensure that strategy sufficiently attuned to this vital policy issue of professional employment in order to maximize the longer terms economic and social policy objectives.

While the Review’s policy framework provides the baseline needed to build educational pathways into the professions, more work will be required in relation to science and mathematics for Indigenous secondary school student, and in improving the articulation between the VET and higher education sectors. More work is also needed to facilitate the focus on Indigenous issues in the relevant industry and professional bodies and, more specifically, to build the relationships between these bodies and the universities. All of which requires a robust data system, in order to monitor change and system-wide level, along with an evidence base to guide the reform of policy and practice.
## APPENDICES

### Table 1: Industry of employment\(^{(a)(b)}\) by Indigenous status\(^{(c)}\), persons aged 15 years and over, 2011

<table>
<thead>
<tr>
<th>Industry</th>
<th>Indigenous</th>
<th>Non-Indigenous</th>
<th>Indigenous %</th>
<th>Non-Indigenous %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, Forestry and Fishing</td>
<td>3,635</td>
<td>243,813</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Mining</td>
<td>5,428</td>
<td>170,152</td>
<td>3.8</td>
<td>1.7</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>9,520</td>
<td>886,181</td>
<td>6.6</td>
<td>9.1</td>
</tr>
<tr>
<td>Electricity, Gas, Water and Waste Services</td>
<td>1,656</td>
<td>113,382</td>
<td>1.2</td>
<td>1.2</td>
</tr>
<tr>
<td>Construction</td>
<td>11,749</td>
<td>811,126</td>
<td>8.2</td>
<td>8.3</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>3,311</td>
<td>397,948</td>
<td>2.3</td>
<td>4.1</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>12,089</td>
<td>1,037,748</td>
<td>8.4</td>
<td>10.7</td>
</tr>
<tr>
<td>Accommodation and Food Services</td>
<td>9,864</td>
<td>634,950</td>
<td>6.9</td>
<td>6.5</td>
</tr>
<tr>
<td>Transport, Postal and Warehousing</td>
<td>6,398</td>
<td>469,091</td>
<td>4.5</td>
<td>4.8</td>
</tr>
<tr>
<td>Information Media and Telecommunications</td>
<td>1,300</td>
<td>176,004</td>
<td>0.9</td>
<td>1.8</td>
</tr>
<tr>
<td>Financial and Insurance Services</td>
<td>1,933</td>
<td>373,784</td>
<td>1.3</td>
<td>3.8</td>
</tr>
<tr>
<td>Rental, Hiring and Real Estate Services</td>
<td>1,409</td>
<td>156,600</td>
<td>1.0</td>
<td>1.6</td>
</tr>
<tr>
<td>Professional, Scientific and Technical Services</td>
<td>3,983</td>
<td>722,934</td>
<td>2.8</td>
<td>7.4</td>
</tr>
<tr>
<td>Administrative and Support Services</td>
<td>5,282</td>
<td>316,165</td>
<td>3.7</td>
<td>3.2</td>
</tr>
<tr>
<td>Public Administration and Safety</td>
<td>18,728</td>
<td>667,772</td>
<td>13.0</td>
<td>6.9</td>
</tr>
<tr>
<td>Education and Training</td>
<td>13,183</td>
<td>787,543</td>
<td>9.2</td>
<td>8.1</td>
</tr>
<tr>
<td>Health Care and Social Assistance</td>
<td>21,501</td>
<td>1,138,767</td>
<td>15.0</td>
<td>11.7</td>
</tr>
<tr>
<td>Arts and Recreation Services</td>
<td>2,940</td>
<td>147,744</td>
<td>2.0</td>
<td>1.5</td>
</tr>
<tr>
<td>Other Services</td>
<td>7,474</td>
<td>368,172</td>
<td>5.2</td>
<td>3.8</td>
</tr>
<tr>
<td>Inadequately described</td>
<td>2,360</td>
<td>120,070</td>
<td>1.6</td>
<td>1.2</td>
</tr>
<tr>
<td><strong>Total(^{(a)})</strong></td>
<td><strong>143,743</strong></td>
<td><strong>9,739,946</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

(a) Excludes unemployed persons, looking for either full-time or part-time work; persons not in the labour force; persons with labour force status not stated and persons aged under 15 years.

(b) Coded using the Australian and New Zealand Standard Industrial Classification (ANZSIC), 2006 (Revision 1.0).

(c) Excludes those with Indigenous status not stated.

Note: Estimates from TableBuilder are randomly adjusted to avoid the release of confidential data. Discrepancies may occur between sums of the component items and totals.

Source: AIHW 2013 analysis of ABS 2011 Census (TableBuilder)
## APPENDICES

### Table II: Occupation of employment (level one category)<sup>(a)(b)</sup>, by Indigenous status<sup>(c)</sup>, persons aged 15 years and over, 2011

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Employment count Indigenous</th>
<th>Employment count non-Indigenous</th>
<th>Employment count total&lt;sup&gt;(a)&lt;/sup&gt;</th>
<th>Employment distribution Indigenous</th>
<th>Employment distribution non-Indigenous</th>
<th>Indigenous proportion of known Employment count % of Total</th>
<th>Rank Indigenous (1-10)</th>
<th>Rank non-Indigenous (1-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professionals</td>
<td>19,362</td>
<td>2,116,683</td>
<td>2,136,045</td>
<td>13.1</td>
<td>21.5</td>
<td>0.9</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Clerical and Administrative Workers</td>
<td>19,217</td>
<td>1,456,718</td>
<td>1,475,935</td>
<td>13.0</td>
<td>14.8</td>
<td>1.3</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Technicians and Trades Workers</td>
<td>19,010</td>
<td>1,395,271</td>
<td>1,414,281</td>
<td>12.9</td>
<td>14.2</td>
<td>1.3</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Managers</td>
<td>9,408</td>
<td>1,277,230</td>
<td>1,286,638</td>
<td>6.4</td>
<td>13.0</td>
<td>0.7</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Community and Personal Service Workers</td>
<td>24,485</td>
<td>940,407</td>
<td>964,892</td>
<td>16.6</td>
<td>9.6</td>
<td>2.5</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Labourers</td>
<td>25,934</td>
<td>911,605</td>
<td>937,539</td>
<td>17.6</td>
<td>9.3</td>
<td>2.8</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Sales Workers</td>
<td>10,957</td>
<td>924,485</td>
<td>935,442</td>
<td>7.4</td>
<td>9.4</td>
<td>1.2</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Machinery Operators and Drivers</td>
<td>13,689</td>
<td>639,895</td>
<td>653,584</td>
<td>9.3</td>
<td>6.5</td>
<td>2.1</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Inadequately described</td>
<td>2,628</td>
<td>104,862</td>
<td>107,490</td>
<td>1.8</td>
<td>1.1</td>
<td>2.4</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Not stated</td>
<td>3,013</td>
<td>73,703</td>
<td>76,716</td>
<td>2.0</td>
<td>0.7</td>
<td>3.9</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>147,703</strong></td>
<td><strong>9,840,859</strong></td>
<td><strong>9,988,562</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td><strong>1.5</strong></td>
<td>.</td>
<td>.</td>
</tr>
</tbody>
</table>

<sup>(a)</sup> Excludes unemployed persons, looking for either full-time or part-time work; persons not in the labour force; persons with labour force status not stated and persons aged under 15 years.

<sup>(b)</sup> Coded using the Australian and New Zealand Standard Classification of Occupations (ANZSCO), 1st Edition, Revision 1.

<sup>(c)</sup> Excludes those with Indigenous status not stated.

Note: Estimates from TableBuilder are randomly adjusted to avoid the release of confidential data. Discrepancies may occur between sums of the component items and totals.

Source: AIHW 2013 analysis of ABS 2011 Census (TableBuilder)
### APPENDICES

#### Table III: Occupation of employment, professional level 2\(^{(a)(b)}\), by Indigenous status\(^{(c)}\), persons aged 15 years and over, 2011

<table>
<thead>
<tr>
<th>Employment count</th>
<th>Employment count</th>
<th>Employment count</th>
<th>Employment distribution</th>
<th>Employment distribution</th>
<th>Employment distribution</th>
<th>Indigenous as per cent of known employment count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indigenous</td>
<td>non-Indigenous</td>
<td>total(^{(c)})</td>
<td>Indigenous</td>
<td>non-Indigenous</td>
<td>total(^{(c)})</td>
<td></td>
</tr>
<tr>
<td>Arts and Media Professionals</td>
<td>1,230</td>
<td>74,149</td>
<td>75,379</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
</tr>
<tr>
<td>Business, Human Resource and Marketing Professionals</td>
<td>4,078</td>
<td>513,619</td>
<td>517,697</td>
<td>2.8</td>
<td>5.2</td>
<td>5.2</td>
</tr>
<tr>
<td>Design, Engineering, Science and Transport Professionals</td>
<td>1,938</td>
<td>299,499</td>
<td>301,437</td>
<td>1.3</td>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Education Professionals</td>
<td>4,880</td>
<td>440,501</td>
<td>445,381</td>
<td>3.3</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>Health Professionals</td>
<td>3,239</td>
<td>428,365</td>
<td>431,604</td>
<td>2.2</td>
<td>4.4</td>
<td>4.4</td>
</tr>
<tr>
<td>ICT Professionals</td>
<td>416</td>
<td>172,149</td>
<td>172,565</td>
<td>0.3</td>
<td>1.7</td>
<td>1.7</td>
</tr>
<tr>
<td>Legal, Social and Welfare Professionals</td>
<td>3,283</td>
<td>156,721</td>
<td>160,004</td>
<td>2.2</td>
<td>1.6</td>
<td>1.6</td>
</tr>
<tr>
<td>Professionals not further defined</td>
<td>298</td>
<td>31,680</td>
<td>31,978</td>
<td>0.2</td>
<td>0.3</td>
<td>0.3</td>
</tr>
</tbody>
</table>

\(^{(a)}\) Excludes unemployed persons, looking for either full-time or part-time work; persons not in the labour force; persons with labour force status not stated and persons aged under 15 years.

\(^{(b)}\) Coded using the Australian and New Zealand Standard Classification of Occupations (ANZSCO), First Edition, Revision 1.

\(^{(c)}\) Excludes those with Indigenous status not stated.

Note: Estimates from TableBuilder are randomly adjusted to avoid the release of confidential data. Discrepancies may occur between sums of the component items and totals.
### Table IV: Occupation of employment for selected occupations\(^{(a)(b)(c)}\), by Indigenous status, persons aged 15 years and over, 2011

<table>
<thead>
<tr>
<th>ANZSCO code</th>
<th>Employment count Indigenous</th>
<th>Employment count non-Indigenous</th>
<th>Employment count total(^{(a)})</th>
<th>Indigenous as per cent of professional category</th>
<th>Non-Indigenous as per cent of professional category</th>
<th>Total(^{(c)}) per cent of professional category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountants</td>
<td></td>
<td></td>
<td>137,328</td>
<td>137,664</td>
<td>138,297</td>
<td>8.2</td>
</tr>
<tr>
<td>Architects and Landscape Architects</td>
<td></td>
<td></td>
<td>17,741</td>
<td>445,376</td>
<td>447,117</td>
<td>2.0</td>
</tr>
<tr>
<td>Teachers</td>
<td></td>
<td></td>
<td>17,810</td>
<td>17,879</td>
<td>17,859</td>
<td>100.0</td>
</tr>
<tr>
<td>Doctors</td>
<td></td>
<td></td>
<td>69,792</td>
<td>69,969</td>
<td>70,038</td>
<td>5.5</td>
</tr>
<tr>
<td>Lawyers</td>
<td></td>
<td></td>
<td>54,395</td>
<td>54,658</td>
<td>54,984</td>
<td>8.0</td>
</tr>
<tr>
<td>Total across selected occupations</td>
<td>5,696</td>
<td>719,781</td>
<td>725,477</td>
<td>728,644</td>
<td>32.7</td>
<td>39.1</td>
</tr>
</tbody>
</table>

(a) Excludes unemployed persons, looking for either full-time or part-time work; persons not in the labour force; persons with labour force status not stated and persons aged under 15 years.

(b) The ‘per cent of professional category’ columns in Table IV are calculated by dividing the number in the specified occupation category by the appropriate higher-level occupation category break-down in table III. For example: the number of ‘Accountants’ (ANZSCO code 2211) was divided by the number in the ‘Business, Human Resource and Marketing Professionals’ (ANZSCO code 22) – so 8.2% of Indigenous Business, Human Resource and Marketing Professionals are accountants, compared with 26.7% of non-Indigenous Business, Human Resource and Marketing Professionals are accountants.

(b) Coded using the Australian and New Zealand Standard Classification of Occupations (ANZSCO), 1st Edition, Revision 1.

(c) Excludes those with Indigenous status not stated.

Note: Estimates from TableBuilder are randomly adjusted to avoid the release of confidential data. Discrepancies may occur between sums of the component items and totals.

Source: AIHW 2013 analysis of ABS 2011 Census (TableBuilder)
REFERENCES

Aurora Project (2011). *Evidence of the need for increased support for Aboriginal and Torres Strait Islander students – Statistical analysis and lessons from the United States. Commissioned paper: Review of higher education access and outcomes for Aboriginal and Torres Strait Islander people (draft).* Sydney: The Aurora Project.


Aboriginal and Torres Strait Islander Higher Education Advisory Council (ATSIHEAC) (2012). *2012–2015 Workplan.* Canberra: ATSIHEAC.


National Aboriginal and Torres Strait Islander Health Council (NATSIHC) (2003). *National Strategic Framework for Aboriginal and Torres Strait Islander Health: Framework for action by governments*. Canberra: NATSIHC.

National Aboriginal and Torres Strait Islander Health Equality Council (NATSIHEC) (2008), *A blueprint for action: Pathways into the health workforce for Aboriginal and Torres Strait Islander people*. Canberra: Commonwealth of Australia.


Paul, L. (2012). Correspondence to Co-Chair Aboriginal and Torres Strait Islander Higher Education Council, 23 December 2012.


This image is from the exhibition “Beyond the Blak – Tik’n all boxes.” The multi-media installation and performance Ritual & Ceremony 2014 by Maree Clark addressed ideas of ritual & ceremony practices of the artist’s Ancestors. This vivid and haunting work focuses on the mourning practices of people from the Murray/Darling/Murrumbidgee river. Processes of recovery, which enable people to reconnect with their cultural heritage are central to Maree’s philosophy. The artist believes in the potential of art to heal and inspire people to positively identify with their Aboriginality – a process that for some continues to be difficult given the ongoing effects of colonisation.

MAREE CLARKE

Maree Clarke, a Mutti Mutti, Yorta Yorta, BoonWurrung woman from Mildura in northwest Victoria, is a multi disciplinary artist living and working in Melbourne.

Maree Clarke is a pivotal figure in the reclamation of southeast Australian Aboriginal art practices, reviving elements of Aboriginal culture that were lost over the period of colonisation, as well as a leader in nurturing and promoting the diversity of contemporary southeast Aboriginal artists.

Maree's continuing desire to affirm and reconnect with her cultural heritage has seen her revivification of the traditional possum skin cloaks, together with the production of contemporary designs of kangaroo teeth necklaces, and string headbands adorned with kangaroo teeth and echidna quills. Maree Clarke's multi media installations of photography, painting, sculpture and video installation further explore the customary ceremonies, rituals and language of her ancestors.

Maree Clarke is represented in the collections of the National Gallery of Australia, Canberra; the National Gallery of Victoria, Melbourne; and Museum Victoria, Melbourne amongst others.
EXHIBITION HISTORY

SOLO EXHIBITIONS

2011  Ritual & Ceremony, Bunjilaka Gallery, Melbourne Museum, Melbourne VIC

GROUP EXHIBITIONS

2015  Colonial Afterlives, Salamanca Arts Centre, Hobart TAS and national tour


2014  Victorian Indigenous Art Awards, Ballarat Art Gallery, Ballarat VIC

North South East West, Vivien Anderson Gallery at Fortyfivedownstairs, Melbourne VIC

Beyond the Black, Substation Gallery, Melbourne VIC

The Women’s Show, Vivien Anderson Gallery, Melbourne VIC

2013-14 Melbourne Now, National Gallery of Victoria, Melbourne VIC

2013  New Iconic, Vivien Anderson Gallery, Melbourne VIC

The Women’s Show, Vivien Anderson Gallery, Melbourne VIC

Traditional and Contemporary Jewellery & Objects, G3 Gallery, Melbourne VIC

2012  SoFukinNative, Black Dot Gallery (Fringe Festival exhibition), Melbourne VIC

Ritual and Ceremony - KOPI Exhibition G3 Gallery, Melbourne VIC

Kooriemania, City of Monash, Melbourne VIC

Ritual & Ceremony - KOPI Exhibition, Havana, Cuba

2011  Saying No, Museum of Contemporary African Diasporan Art, Brooklyn NY, USA

Building Blocks (Reconciliation Week exhibition), Counihan Gallery, Melbourne VIC

2010  Nyah- bunyar (KOPI Installation), Melbourne International Arts Festival, The Arts Centre, Melbourne VIC

Power Clothes of the Commonwealth, Representing Australia at the Delhi Commonwealth Games (with Vicki Couzens), India
Winyarr-Ngu-Bala, Manningham Gallery Reconciliation exhibition, Melbourne VIC

2008 Ng Woka, Woka Nganin: Maree Clarke, Vicki Couzens and Lee Darroch, Bunjilaka Gallery, Melbourne Museum, Melbourne VIC

2007 Old Messages New Media, Counihan Gallery, Melbourne VIC

2005 SOIL, Melbourne Fringe installation with Kimba Thompson, Ricardo Idagi & Bernardo, Treasury Building, Melbourne VIC

2004 ‘Awakening’ Conservations with our Ancestors: Cultural Exchange Exhibition with Koorie and Maori Women, Koorie Heritage Trust, Melbourne VIC

NAIDOC Exhibition, Incinerator Footscray Melbourne VIC

2001 SCAR: a Stolen Vision, City Square installation, Melbourne VIC

RESIDENCIES, COMMISSIONS, PROJECTS

2013 Public art commission, Footscray City Council, Melbourne VIC

2012 Artist in Residence (3 months), Prato, Italy

Link-Up Victoria Photographic Project - interview and photograph 50 Aboriginal and non-Aboriginal people about the Anniversary of the Apology

Museum Victoria project – researching small pox epidemic from NSW into Victoria and creation of a permanent installation for Museum Victoria’s redevelopment, Melbourne VIC

Melbourne University Indigenous Art Lecture series, Melbourne VIC

Victorian Women’s Trust: Birthing Project - researching traditional Birthing practices of Aboriginal women in Victoria

Kindness Australia - India Cultural Exchange, Canberra ACT and Melbourne VIC

Swinburne University Exhibition and Lecture series, Melbourne VIC

Drawing Out Conference and Exhibition, University of the Arts, London UK

Possum Skin Cloak Artist Residency, Footscray Community Arts Centre Melbourne VIC; Heatherhill Primary School, Melbourne VIC; Worawa and Scotch College, Melbourne VIC

Possum Skin Cloak workshop, Dubbo NSW; Gerringong NSW

Textile Possum Skin Cloak workshop, Wandsworth London UK


Transience Artists Residency, Bundanoon NSW
Healing Foundation Possum Skin Cloak Project - working with 8 communities to create Possum Skin Cloaks

2010  Possum Skin Cloak Project with Lee Darroch. Newcastle NSW

2009/10  Frankston Foreshore Public Art Project - Bronze Kangaroo Apple (with Vicki Couzens)

2009/10  Point Cook Public Art Project - Renewal Frog Dreaming Growling Grassland Frog Eggs (with Vicki Couzens)

2009/10  Monash City Council Public Art Commission - Spirit of the Land: Bunjil’s Feather (with Vicki Couzens)

2009  Possum Skin Cloak workshop (with Lee Darroch), Lake Macquarie Art Gallery NSW

2008  Glass panel for Oxfam’s new Melbourne offices

2008  Cultural exchange, Canada

2008  Possum skin cloak project (with Lee Darroch), Pacific Arts Festival, America Samoa

COLLECTIONS

National Gallery of Victoria, Melbourne VIC

Museum Victoria, Melbourne VIC

National Museum of Australia, Canberra ACT

Monash University Art Collection - Prato Campus, Tuscany, Italy

Koorie Heritage Trust, Melbourne VIC

Stonington Council, Melbourne VIC

Port Phillip Council Art Collection, Melbourne VIC

Mildura Art Centre Collection, Mildura VIC
Michael Cook is an award-winning photographer who worked commercially both in Australia and overseas for twenty-five years. In 2009, Cook was drawn into art photography by an increasingly urgent desire to learn about his Indigenous ancestry and explore that aspect of his identity. Cook’s first solo art exhibition, Through My Eyes (2010), contained images of Australian prime ministers overlaid with the faces of Australian Indigenes. This work explored the potential interconnectedness of generations of Australians and its importance was recognised with selection for the Western Australian Indigenous Art Awards 2011 at the Art Gallery of Western Australia.

Cook was adopted and brought up in a family who, while not of Indigenous descent, were heavily involved in supporting Indigenous rights. He said, “I was raised with a strong understanding of my Aboriginal ancestry thanks to my parents... When I produce art, I feel a stronger connection with my ancestry. This helps me to understand Australian history-in particular, my history.” His Aboriginal heritage informs and extends his art.

Cook’s photographic practice is unusual. He constructs his images in a manner more akin to painting than the traditional photographic studio or documentary model. Instead he begins with an idea, regarding the image as his blank canvas. Photographic layering is then used to build the image to provide aesthetic depth. Also, he characteristically works in photographic series. Unfolding tableaux offer enigmatic narratives which are not prescribed but left open to interpretation.

In 2011 he exhibited two new series, Broken Dreams and Undiscovered, together under the title of Uninhabited. Their importance was acknowledged when they were acquired by the National Gallery of Australia and shown in its UnDisclosed: 2nd National Indigenous Art Triennial. They show Cook’s developing artistic vision in their exploration of incidents from Australian colonial history, both real...
and imagined. Visually striking, technically complex and with sensitive invention, Cook’s images occupy a new space in the Australian artistic imagination.

His series Civilised (2012) was selected to promote The 7th Asia Pacific Triennial of Contemporary Art (APT7) at Queensland Art Gallery/Gallery of Modern Art in 2012, and was included in the ground-breaking My Country: I Still Call Australia Home: Contemporary Art from Black Australia (QAGoMA, 2013). Cook’s latest body of work, Majority Rule (2013), has been selected for inclusion in the international 19th Biennale of Sydney: You Imagine What You Desire.

Extract from: Martin-Chew, Louise, Michael Cook [ex. cat.], Andrew Baker Art Dealer, Brisbane, 2013

MAJORITY RULE – DESCRIPTION

Majority Rule is marked by its aesthetic departure from Michael Cook’s previous work. While thematic and conceptual connections with some of his earlier series are evident, the setting of this suite is in contrast to the Australian land- and beach-scapes of earlier images.

This is a depiction of the urbane within the urban. Colonial buildings, the style of solid sandstone architecture which may be seen in almost any city in the Western world, paved streets and a city skyline are the backdrop for a black man, dressed in a suit, carrying a briefcase like the archetypal businessman. His figure, in different attitudes, populates the footpath. He is multiplied (in some scenes up to twenty times), a pointer to the unreality of the scene.

Currently, Australia’s Indigenes are a small minority, comprising only three to four percent of the total Australian population. Consequently, black faces have little visibility in Australian capital cities and this series of images defies that reality—yet acknowledges it simultaneously with the use of only one model multiple times to build the crowd because, Cook noted, “The reality is it is hard to find models who look characteristically Indigenous. ‘Indigenous’ is many things and physical characteristics have little to do with this identification. So while looking Indigenous has nothing to do with Indigeneity, in my aesthetic I seek out a strong character in a model’s physicality.”

The multiple versions of the subject populate generic city locations: a subway tunnel, an old-style bus, and city streets. Old Parliament House and Canberra’s High Court are more iconic buildings, and take Cook’s protagonist to the seat of Australian political power. As such, Cook’s imagery challenges our ingrained belief systems, yet these images do not offer judgement—they are observational, asking questions, setting up lively interactions within their scenes, without proffering neat nor prescriptive conclusions.

Cook noted, “I was never taught Aboriginal history at school, only about the European settlement of Australia. What I learnt in school was similar to the first European settlers’ beliefs, with words like ‘natives’ and ‘discovery of Australia’. Looking back now, I realise that it was a false way of teaching, and that it hid the truth about the treatment of Aborigines over the past four hundred years.”
The colour of the man’s skin is the disjunction that prompts the viewer to wonder, and then wonder at their own wonder. It becomes a gauge for internalised racism. Australian audiences may ponder why this collection of well-dressed black men in a city street strikes a discordant note, an atmospheric that feels wrong, unusual, discomfiting. The era of the photograph is undefined but feels vintage, retro, with its black and white tonality speaking to our protagonist’s clothing—the lapels of his jacket, the flare in his pin-striped trousers, the sober hat, the dark braces over his white shirt and the stately dignity of his bearing, all of which suggest a period up to fifty years ago. Yet there are other references to iconic Western culture—the bowler hat in Majority Rules (Memorial) revisits the shape of the anti-hero in the anarchic 1971 Stanley Kubrick film, A Clockwork Orange, or a silent Charlie Chaplin-style comedic figure.

In Majority Rule Cook poses an insoluble dilemma as he acknowledges the discriminatory nature of society. How it would be if these statistics were reversed? After the explorers arrived in Australia, the Indigenous population was decimated. This was, in part, because Aboriginal people were without immunity to introduced diseases. “The majority always has the rule and the minority doesn’t. Then there is racism that arises as a result.”

There is a formality in these works, with strong architectural lines and perspective to a distant vanishing point. Majority Rule (Bridge) is suggestive of Raphael’s School of Athens (Raphael Sanzio, 1509-11). The synergistic connections between variations on the individual, the vanishing points created with the straight lines of the street, footpath pavers and the collection of rectangular assemblages of city buildings and windows provide a stage-like setting for Cook’s individuals. The figures standing in the street appear as if alone, and lacking a social or familial relationship to each other in their physical attitudes, yet are visually bound together. Cook may be positing the kind of anomic or normlessness that isolates individuals within community—the type of First World dysfunction that regularly fills the columns of Australian newspapers.

Another image from the series, Majority Rule (Tunnel), records Cook’s model in multiple attitudes, standing, static again, in a public transport space generally characterised by rushing—of people and of the wind that echoes through these underground spaces as trains arrive and leave. Individuals are frozen within their tightly composed cocoon of concrete and tiles. This conformity—of dress, behaviour and social norms—is another theme in this series, particularly evident in Majority Rule (Memorial).

Most Western cities have war memorials and in a particularly poignant image, the black businessman ascends and descends the sandstone steps that surround a rotunda-style war memorial in a city centre. The war memorial is sacrosanct returned servicemen’s territory. Aboriginal and Torres Strait Islanders have been involved in fighting for Australia in all wars since the Boer War in 1901 but, while they were paid equally for their work in the armed forces and fought alongside white Australians, on their return home they were subject to the same discrimination they faced before serving their country. Following World War II, only on Anzac Day were they welcomed into returned services league clubs. On other days of the year, Aboriginals might meet their white comrades for a drink but had to stay outside
the building or on the verandah. (It is interesting to note that the right to vote on a country-wide basis was not granted to Aboriginal and Torres Strait Islanders until 1967.)

Cook’s images populate the war memorial with the black faces that have been unacknowledged in Australia’s military history. The memorial itself speaks to other colonial buildings in the central business district, its roundness inspired by Grecian classic revival buildings, and Cook’s figures occupy the steps, moving up one side and down the other, so as to surround and possess the rotunda.

Cook’s use of the bespectacled figure in Majority Rule (Parliament) evokes the precedent and dignity of Australia’s first Indigenous Member of Parliament, Senator Neville Bonner. In Majority Rule (Bus), a figure at the front reads a vintage magazine titled WALKABOUT, noting and satirising the stereotypes that have driven popular expectations.

There is a lean aesthetic and increased contemporary edge in this series. Cook’s interest in the impact of Australia’s history on its original inhabitants comes into sharp focus, and the highly choreographed images are witty, stylish and slick.

LOUISE MARTIN-CHEW, FEBRUARY 2014