How did our desert grow? With fluoro shirts on planes lined up in rows.

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Abstract

In 2004, National Centre for Vocational Education Research (NCVER) commissioned a piece of work called *Growing the desert* The final report provided a summary of the analysis of quantitative and qualitative data as it related to the uptake of education and training among Aboriginal and Torres Strait Islander people in the desert region of Australia. This paper revisits that work in the light of the subsequent mining boom and an array of policy changes and interventions that have had significant impacts on the local populations of the desert region.

How did the desert grow since 2004? Based on the analysis of 2011 Australian Bureau of Statistics (ABS) Census data and publicly available NCVER students and courses data it is clear that the mining boom has changed the industrial landscape of the desert. But what impact has it had on the lives of local Aboriginal people? The paper examines the education, training and employment landscape for these Aboriginal people. It considers the implications of the new analysis for education and training providers and for the various industry groups that provide employment in the desert regions of Australia. The analysis draws on research being conducted in the Pathways to Employment project by the Cooperative Research Centre for Remote Economic Participation.

Introduction

The desert region—otherwise described as the 'arid zone'—of Australia covers 45 per cent of Australia's land mass (see Figure 1). Its population is less than one per cent of the total Australian population. Apart from the obvious relative sparseness of the population, what also stands out from a statistical demographic perspective is the mix of non-Indigenous and predominantly Aboriginal[1] people. About one-fifth of the total population identifies as either Aboriginal or Torres Strait Islander. This compares with a little over two per cent in the Australian population. The Aboriginal population itself is different from other Aboriginal and Torres Strait Islander populations in the urbanised areas of the country. The differences—from the mainstream perspective at least—tend to be described in terms of deficit, disadvantage and dysfunction. These negative characterisations are discussed in terms of low standards of literacy and numeracy, lack of jobs, inadequate housing, poor health and substance abuse. Notwithstanding the assumptions underpinning these value-laden judgments which define the apparent problems of remote communities, the solutions are logically defined in terms of 'overcoming disadvantage' 'closing the gap', or alleviating poverty. Education, training and employment are sometimes touted as 'the solution' to these apparent inadequacies: 'real education and real jobs' (Anderson 2012).

Figure 1. Extent of arid zone (desert region) used in analysis by 2001 Australian Standard Geographic Classification Statistical Local Areas

Source: Adapted from (ABS 2003) based on Taylor (2002)

In 2004, the National Centre for Vocational Education and Research (NCVER) together with the Desert Knowledge Cooperative Research Centre (DKCRC) commissioned a major research project that was designed to understand the ways in which, and extent to which, vocational education and training (VET) and adult and community education (ACE) were being used by people living in remote communities. The findings of four case studies in two desert jurisdictions, together with analysis of a variety of secondary data sources, showed a range of ways that adult learning opportunities were being applied to the livelihood needs of those Aboriginal and Torres Strait Islander people living in the desert (Young et al. 2007).

[1] Throughout this paper, First Nations people of Australia are described as Aboriginal and Torres Strait Islanders. Those who usually live in the desert region of Australia are described as Aboriginal peoples.

Some of these ways reflected mainstream applications. Others reflected more innovative applications that were aligned to community needs. In general Aboriginal and Torres Strait Islander people were under-represented in higher level vocational qualifications and were over-represented in fields of study that were not aligned to the job opportunities that existed for desert dwellers more generally.

This paper looks back at those findings and in the light of a mining boom and a range of policy interventions, considers what happened in the desert since 2006 when the research was finalised. It updates the original *Growing the desert* statistical analysis with the latest NCVER and ABS Census data and draws implications from the findings. The current analysis is based on a best fit of Statistical Local Areas in the same overall region as was defined in the *Growing the desert* report. There have been several boundary changes since 2001 which may create some small discrepancies in the data. The findings of this analysis inform the work of the Cooperative Research Centre for Remote Economic Participation and its Pathways to Employment project.

Recap: What did *Growing the desert* find?

The final *Growing The Desert* report (Young et al. 2007) reported on the state of vocational and adult learning in desert regions of Australia. It found among other things that;

- VET participation was not providing Aboriginal desert peoples' pathways through learning to work or to higher level educational participation;
- Participation in VET fluctuated considerably and outcomes in terms of completions and qualifications were poor;
- Labour force participation rates declined substantially across remote areas of Australia since 2002 despite the relatively high participation rates of desert peoples in VET since 1999;
- There was a significant misalignment between the content and delivery models of VET and the prior skills, educational demands and aspirations of Aboriginal desert peoples;
- VET programs were struggling to adapt to and address the type of learning needs arising at the interface of language and cultural differences and the different ways work is constructed and emerging across the desert.

The report also highlighted learnings from four case studies related to mining, housing, arts and community support industry sectors. It commented that:

> The supply of VET services to Indigenous desert people and their communities struggles to meet both expressed demand and relevance in these contexts. The trend that appears to be emerging is one of increased social and economic exclusion and decreasing pathways into work or meaningful study from participation in VET programs. (Young et al. 2007: p. 10)

A number of questions remain in response to these findings. Has VET participation changed? Have vocational outcomes for remote Aboriginal desert people changed? Have more or less people transitioned into paid work? Is the trend toward social and economic exclusion still evident?

The desert training context: what has happened since 2007?

Much has changed since the research was conducted and the report was released. An 'Intervention' has come, gone and morphed into 'Stronger Futures' (Australian Government 2012); large Shires were created in the Northern Territory; Community Development

Employment Projects (CDEP) were wound back; employment services were adjusted and readjusted; 'Closing the Gap' initiatives designed to 'overcome Indigenous disadvantage' were initiated; a 'mining boom' took off and in the middle of all this a 'Global Financial Crisis' occurred. There has been much written about the relative value of many of these initiatives/interventions, particularly as they have affected remote Aboriginal and Torres Strait Islander communities (see for example Langton 2010; O'Mara 2010; Australian Institute of Criminology et al. 2011) . The purpose of this paper is not to examine the relative effectiveness of each of these initiatives and interventions. Rather it is simply to interrogate the relevant data to respond to three questions:

1) Has Aboriginal and Torres Strait Islander VET participation in desert Australia changed?

2) Has there been a change in the uptake of employment opportunities among Aboriginal and Torres Strait Islander people in the desert? And,

3) What training and employment implications are there for Aboriginal and Torres Strait Islander people living in the desert?

Methodology

The *Growing the desert* research project used a mixed methods approach combining a series of qualitative case studies with quantitative analysis of secondary data from the Australian Bureau of Statistics (ABS), the National Centre for Vocational Education Research (NCVER) and an array of other sources (for more details see Young et al. 2007). This paper largely updates some of the key ABS and NCVER data. The 2011 ABS Census data was analysed using Tablebuilder Online (ABS 2012). NCVER data was analysed using Student characteristic SUPERcubes publicly available from the NCVER website (NCVER 2012).

Assumptions

Without wishing to theorise or philosophise too much about the assumptions underpinning the current or the *Growing the desert* project analysis, it may be worthwhile laying out a few key premises on which our research is and was based. The first premise is that Aboriginal and Torres Strait Islander people living in remote communities are generally socio-economically disadvantaged and suffer from attendant poverty and dysfunction. If this was not a concern, the rhetoric around 'closing the gap' (Department of Families Housing Community Services and Indigenous Affairs 2009) and 'overcoming disadvantage' (Steering Committee for the Review of Government Service Provision 2011) would not exist. In terms of values, this disadvantage is identified as a *bad* thing. Philosophically, it would be *good* if this disadvantage was overcome and economically, there were significant improvements in standards of living.

The second premise is the inevitability of what some describe as 'assimilative tendencies' (Nakata et al. 2008: 140) or 'intent' (Arbon 2008: 62): the cultures of Aboriginal and Torres Strait Islanders are on an inexorable trajectory of change which invariably aligns increasingly with the values, norms and mores of mainstream cultural expectations. This is reflected in the adoption of technologies, increasing mobility and expectations of equitable access to mainstream health and education services—and the policy push for acceptance of the values of work and economic independence (Altman 2010). There is much debate about the morality of these assimilative tendencies, both in non-Indigenous and Aboriginal and Torres Strait Islander circles. Regardless, the *Growing the Desert* work, and the current work, takes this as a given.

Table 1. General indicators for Indigenous and non-Indigenous population groups in the desert region

	2001			2011		
	Aboriginal and Torres Strait Islander	Non-Indigenous*	Total population	Aboriginal and Torres Strait Islander	Non-Indigenous*	Total population
Population	33186	130219	163405	36150	151208	187358
Population aged 15+	20509	95817	116326	24564	129250	153820
Employment CDEP (participant)	4055	343	4428	1273	37	1310
Employment (other)**	3297	61872	65169	6697	82390	88394
Per cent of labour force in CDEP	47.0%	0.5%	5.9%	13.2%	<0.1%	2.8%
Per cent of labour force in other	37.9%	92.9%	86.6%	69.6%	97.4%	85.7%
Per cent of 15+ population in labour	42.7%	71.0%	66.0%	39.1%	65.5%	59.5%
Per cent of 15+ population with certificate I-IV qualifications	4.0%	22.0%	18.8%	10.1%	24.0%	21.8%
Per cent of 15+ completed Year 11/12	13.3%	47.5%	41.4%	21.8%	49.0%	44.7%
Per cent of total population	20.3%	79.7%	100.0%	19.3%	80.7%	100.0%
Change in population in previous 10 yrs	24.0%	-2.2%	2.1%	8.9%	16.1%	14.7%
Per cent of population that speaks an Indigenous language	54.6%	0.2%	11.6%	49.8%	0.1%	9.7%
Per cent of 15+ never attended school	11.9%	0.4%	2.5%	5.3%	0.3%	1.1%

Notes: Total population excludes overseas visitors
* Includes 'not stated'
** For 2011 this is calculated as the total number employed less those identified as participating in CDEP
Source: (ABS 2002; 2003; 2012)

The third premise is that of a causal link between education and employment and well-being: education and training will benefit individuals who participate (Marples 2010). It does so by promoting personal autonomy and practical capability, contributing to social and economic self-reliance, preparing learners for a flourishing life, enabling democratic competence and facilitating the capacity for cooperation (Brighouse 2009; Pring 2010). The tangible benefits of education go beyond its value to the educated person, they impact on the whole of society in terms of social and human capital (Schuller et al. 2004). Philosophically then, it would be *good* if those who are disengaged from learning could be engaged, if for no other reason than to address the inequities and inequalities that exist in our society.

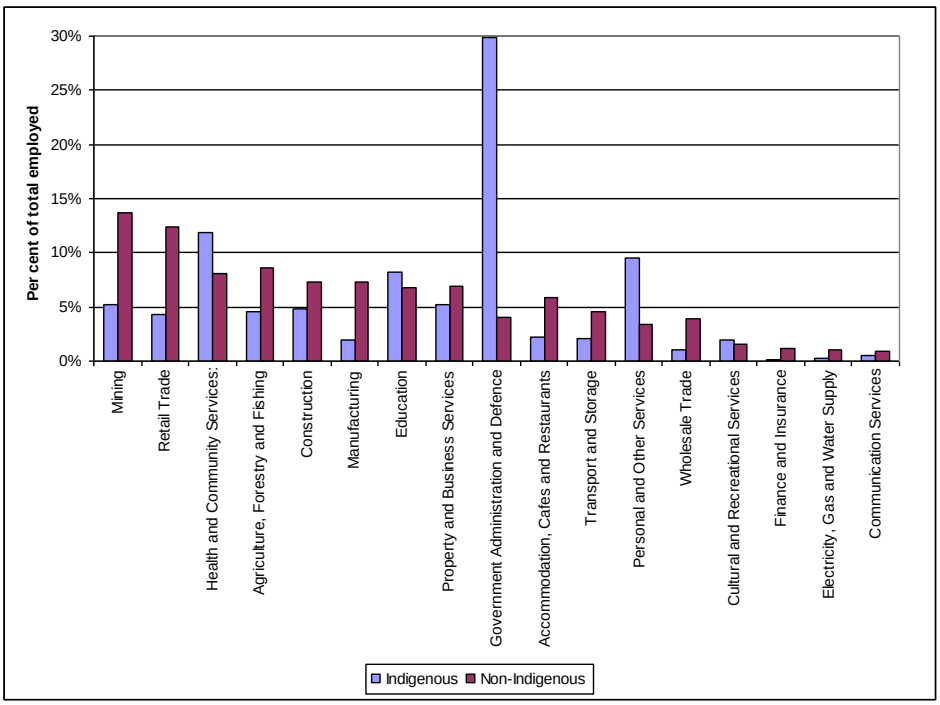
How did the desert grow?

Table 1 above goes partway in answering the questions posed earlier—it takes data shown in an early report of the *Growing the desert* research (Guenther 2004), based on 2001 Census data and updates it with 2011 data. A number of observations stand out from a quick look at the data. *Firstly*, the population has grown. The non-Indigenous population grew by about 16 per cent while the Aboriginal and Torres Strait Islander population grew by about nine per cent in the ten years to 2011. *Secondly*, overall employment grew by nearly one-third. Further, there was a dramatic shift away from CDEP employment for Aboriginal and Torres Strait Islanders, to other jobs—about 2800 jobs were lost from CDEP, but these were replaced by 3400 other jobs for this group. Overall there has been a growth in the Aboriginal and Torres Strait Islander population labour market broadly consistent with the growth in the population. *Thirdly*, the proportion of the 15+ Aboriginal and Torres Strait Islander population with certificate I-IV qualifications has more than doubled, from 4.0 per cent to 10 per cent. Similarly, the proportion of the 15+ Aboriginal and Torres Strait Islander population with highest level of schooling at Year 11 or 12 has increased by more than 50 per cent, from 13 to nearly 22 per cent. These growth rates are well above population growth for that age group. Concomitantly, the proportion of the Aboriginal and Torres Strait Islander population that has never attended school has more than halved, down from nearly one in eight in 2001, to just over one in 20 in 2011. *Finally*, the table shows that the proportion of Aboriginal and Torres Strait Islander people who speak a language other than English at home, has declined by about 10 per cent to about 45 per cent of the population. This is perhaps one indication of the 'assimilative tendencies' discussed above.

Based on the assumptions described earlier, there is some very good news in the data. Firstly, the remote world did not come to an end with the (near) demise of CDEP. Jobs that were lost have been replaced with 'other' jobs—and then some more. Secondly, there has been a marked growth in post school qualifications and a marked increase in school retention. Putting these two findings together we should be seeing (at least according to our philosophical assumptions) a marked reduction in 'disadvantage' and a noticeable improvement in individual and community well-being. We will come back to this point later, but for now let us consider these data as 'good news' for remote Aboriginal people living in the Australian desert. The school and employment data, together with the loss of local languages reflects the assimilative process which we took for granted (notwithstanding the possibility that Census counting accuracy has improved).

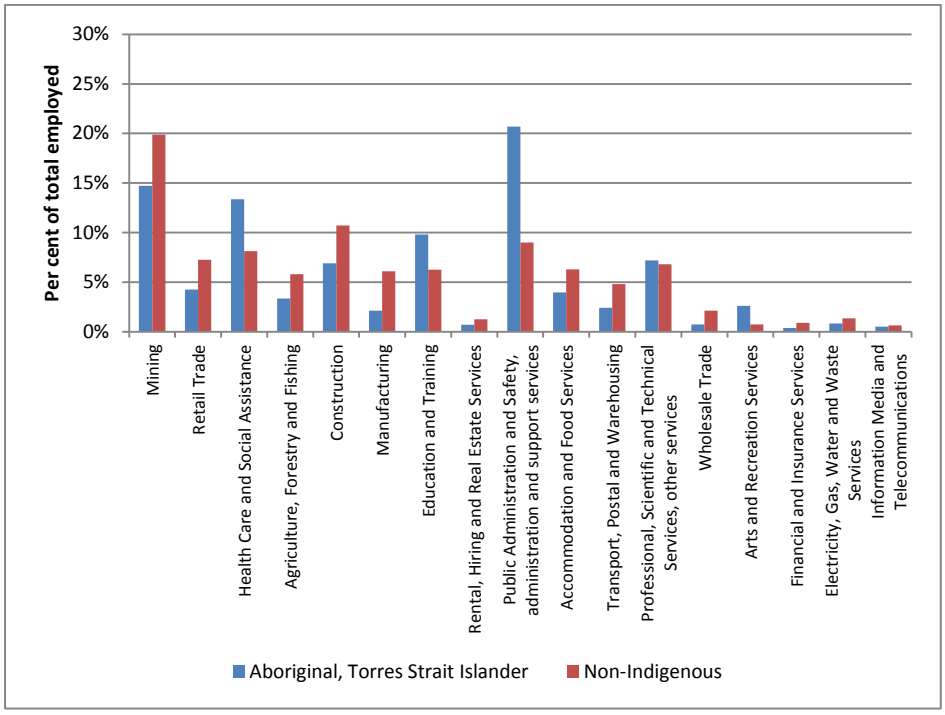
Figure 2 below, shows industry of employment for Aboriginal and Torres Strait Islander and non-Indigenous people, for desert regions of Australia in 2001. Figure 3, which follows takes the nearest equivalent ABS classified Indigenous areas and presents comparable data.

Figure 2. Industry of employment for Aboriginal and Torres Strait Islander and non-Indigenous employed persons, for desert ATSIC (Aboriginal and Torres Strait Islander Council) regions



Source: (Guenther 2004)

Figure 3. Industry of employment for Aboriginal and Torres Strait Islander and non-Indigenous employed persons, for desert Indigenous Areas* (IAREs)



Source: (ABS 2012). *These areas correspond as closely as possible to the 2001 ATSIC areas used.

Comparing the figures, there are several things that stand out. The first is the decline in the proportion of Aboriginal and Torres Strait Islander people who are employed in 'Government Administration and Defence' (compared with the comparable category of Public Administration in Figure 3) from 30 per cent to just over 20 per cent. This decline

corresponds with the decline in CDEP employment noted in Table 1. Aboriginal and Torres Strait Islander employment in mining is up from about five per cent in 2001 to nearly 15 per cent in 2011. The rate of growth outstrips the non-Indigenous growth considerably. Construction is the other major growth industry. In 2001 it was the fifth largest employer. In 2011 it was the second largest employer. The growth in employment though has been mainly among non-Indigenous people—employment has grown by almost 90 per cent for this group, but among Aboriginal and Torres Strait Islanders it has grown by 60 per cent.

Updating another of the *Growing the desert* tables, Table 2 shows NCVER data presented in the report (Young et al. 2007: 24) together with recent data. At the time of the report, the analysis suggested: 'There is emerging evidence that Indigenous participation in VET across the desert may be faltering and there has been a significant decline in the labour force participation of remote Indigenous peoples since 2002' (p. 8). The updated data for 2011 suggests that this assertion it is not true now. There has been a nearly 40 per cent growth in VET Aboriginal and Torres Strait Islander participation in the ten years to 2011. However, we recognise that Centrelink, workplace safety requirements as well as the shift away from CDEP to more standard forms of work may have contributed to this growth.

Table 2. Remote and very remote Aboriginal and Torres Strait Islander students

Remote and very remote	NSW '000	QLD '000	SA '000	WA '000	NT '000	Total '000
2001	2.1	3.7	0.9	3.8	6.1	16.6
2005	2.4	3.8	0.8	4.7	6.7	18.4
2011	3.4	4.8	1.3	5.7	7.9	23.2
Per cent change for period						
2001–2005	14.3%	0.0%	-11.1%	23.7%	9.8%	10.8%
2001-2011	61.9%	29.7%	44.4%	50.0%	29.5%	39.8%

Source: (NCVER 2006; 2012) (publicly available data)

A concern we have is that those in the more remote communities who are more likely to speak a language other than English, are missing out on training. What the latest Students and Courses (NCVER 2012) data shown in Table 3 suggests, is that in the Northern Territory at least, this is not the case. Language speakers are slightly over-represented in the data.

Table 3. Language spoken at home, desert jurisdictions and remoteness

	Main language spoken at home, Aboriginal and Torres Strait Islander students									
Remoteness	English					Non-English				
Study type	NSW	QLD	SA	WA	NT	NSW	QLD	SA	WA	NT
Remote										
Full-time	230	125	48	53	50	2	2	-	2	29
Part-time	2170	952	230	672	846	8	6	16	78	1486
Very remote										
Full-time	71	321	49	304	148	1	68	8	49	95
Part-time	748	2558	344	3495	1798	19	445	159	848	3213

Source: (NCVER 2012)

We are careful however, not to jump to a conclusion that they are also engaging in the emerging employment opportunities as a result. Table 4 suggests that very few language speakers are employed in mining. They are more likely to find work in Public Administration and Safety, Education and Training and Health Care and Social Assistance. This may also be due to increased spending from governments for improved service delivery. Table 4 suggests

that Aboriginal and Torres Strait Islander workers in mining are more likely to come from outside the desert region than from within it.

Table 4. Selected industries of employment by language spoken at home, 2011 for desert Statistical Local Areas (SLAs)

Industry of employment	Australian Indigenous Languages	Other languages	Total
Mining	89	21550	21639
Construction	77	8122	8199
Retail Trade	118	5583	5701
Administrative and Support Services	106	2670	2776
Public Administration and Safety	974	6269	7243
Education and Training	404	5491	5895
Health Care and Social Assistance	383	6845	7228
Arts and Recreation Services	234	884	1118
Other Services	360	3070	3430
Other industry of employment categories	211	25777	25988
Total	2956	86261	89217

Discussion: responding to the questions

Has Aboriginal and Torres Strait Islander VET participation in desert Australia changed?

The *Growing the desert* research suggested that participation in VET was faltering and fragile. The current data from NCVER suggests that since 2005 there has been a steady increase in the uptake of VET, such that in 2011, the number of Aboriginal and Torres Strait Islander students undertaking VET courses in remote and very remote regions was almost 40 per cent higher than in 2001. This compares with nearly 20 per cent growth in the Aboriginal and Torres Strait Islander population in the desert region. Further, participation among Aboriginal and Torres Strait Islanders who speak a language other than English at home is strong. About one-third of all very remote Aboriginal and Torres Strait Islander trainees fall into this category. The proportion of the desert Aboriginal and Torres Strait Islander population with certificate I-IV qualifications has also grown at a much faster rate than the population, from 4.0 per cent in 2001 to 10 per cent in 2011. On the surface, this is good news.

Has there been a change in the uptake of employment opportunities among Aboriginal and Torres Strait Islander people in the desert?

The uptake of mining jobs among Aboriginal and Torres Strait Islanders in the desert has been significant and is consistent with other analysis of very remote Australia (Gray et al. 2013). In 2001 about five per cent of Aboriginal and Torres Strait Islander employment was in mining. In 2011 it was approaching 15 per cent. This may reflect the follow-through of the intent of programs like those reported in the Newmont Case Study in the *Growing the desert* report. The phasing out of CDEP has not resulted in net loss of jobs. On the surface, this is good news. However, it would appear that few mining jobs (less than 20 per cent of those going to Aboriginal and Torres Strait Islanders) are taken up by those who usually live in desert communities and it may be that jobs previously badged as CDEP are now being rebadged under headings of ‘Administrative and Support Services’, ‘Public Administration and Safety’, ‘Education and Training’, and ‘Health Care and Social Assistance’.

What training and employment implications are there for Aboriginal and Torres Strait Islander people living in the desert?

A question that arises from this analysis is whether the increase in training that has taken place in the 10 years to 2011, has resulted in jobs where growth opportunities have occurred. It appears unlikely that people who usually live in remote communities are accessing mining jobs to any great extent. The small proportion of language speakers engaged in mining underpins this assertion. It remains to be seen whether the kind of training being undertaken by thousands of Aboriginal and Torres Strait Islander people directly relates to the kinds of jobs that have become increasingly available in the desert. Some may question whether the jobs are there. But the analysis presented here paints a different story. In the 10 years to 2011, there were 23 000 additional jobs (see Table 1) created in the desert. We recognise though that the numbers only tell part of the story about training and employment—the on the ground lived experiences would shed light on why the numbers are the way they are.

The second question that arises is whether the training offered matches the needs of people living in remote communities. There is often a fixation with the idea that training should not be for training's sake. The assumption behind this is that the main purpose for training is to help trainees get into employment or improve their employment options. Yet the purposes of education, as discussed earlier, are broader than 'to get a job' and there is an argument that gaining knowledge can be for its own sake (Marples 2010: 38). It may be therefore worthwhile rethinking VET in remote communities in a broader context of well-being. In this light, we may ask a different set of questions about the outcomes of training. Has it led to improved community safety? Has it increased social capital? Has it resulted in increased sense of individual well-being, self-confidence and self-esteem? Has it given people freedom to make choices about their futures? Has it prepared trainees for a life outside the community (acknowledging the drift to urban centres)? Has it supported cultural and more specifically, language maintenance? Has it promoted values congruent with the ideals and cultures of remote communities? It could be argued that the above outcomes are outside the scope of VET and this proposition would be true if a narrowly focused view of education and training is adopted.

There are several implications from this analysis for practitioners and providers. These implications include considerations for delivery, content, cost and trainer professional development. A full exploration of these considerations cannot be given justice in this paper and will be the subject of a subsequent paper.

Conclusions

The initial thrust of this paper has been to present a largely 'good news' picture of the Aboriginal and Torres Strait Islander populations of the desert region of Australia. The story is 'good' viewed through the lens of the assumptions that established the *Growing the desert* project, which challenged systems to rise to the challenges of providing meaningful training and employment opportunities for those living in remote desert communities. It appears that the systems have risen to the challenge largely as a result of the mining boom but also partly as a result of an array of policy initiatives. The latest statistics suggest that the VET system is well supported in remote communities with increasing proportions of the adult population completing certificates albeit not in areas directly related to mining.

There are risks with an unquestioning acceptance of the 'good news'. *First*, Aboriginal people who usually live in the desert (as opposed to those who fly in and fly out) are not engaging to the same extent in the mining industry. A visit to Perth airport on any weekday

morning highlights this. The Qantas Club is not full of suits. It is full of fluoro shirts. *Second*, there is a disconnect between training delivered and the opportunities presented by mining and construction. *Third*, a reliance on the mining boom is risky. It will end. The above assumes that the main measure of success lies in the economic imperatives of VET.

Previously, McRae-Williams and Guenther (2012) pointed to the need to rethink what an effective 'pathway' might be. Just because the people who usually live in the desert are not buying into the emergent pathway options presented by mining and construction does not mean that VET has failed or that the apparent disconnect between training and jobs is a bad thing. VET is bigger than that. The sooner those of us who are in the system recognise this, the sooner we may be able to reimagine new possibilities for training that better fit the livelihood needs and expectations of remote communities. The real power of VET is not necessarily in the money or work that it brings, but in the shift in identity and the freedom it gives to individuals to take control of their destinies. These measures need to be considered when we assess the success of VET in the desert.

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