SUPPORT DOCUMENT

Examining learning partnerships in northern Australia: VET/ACE connections statistical profile—Support document

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Introduction

This paper summarises a number of socio-economic indicators relating to three large and discrete regions of northern Australia, which are the subject of three case studies of connections between vocational education and training (VET) and adult and community education (ACE). The statistics form a part of the understanding of the regional context in which VET and ACE come together. The case studies form the basis of a research project funded by the National Centre for Vocational Education Research (NCVER) undertaken by a team of researchers from Charles Darwin University.

This report begins with a description of the three case study sites, with accompanying statistics related to demographic indicators. The statistics then reveal contextual information about employment, education, land tenure and Information and Communication Technologies. A final section discusses the implications of the statistics for both learnings at the sites and VET/ACE partnerships. Data used is derived mainly from Australian Bureau of Statistics (ABS) sources with additional contextual information drawn from Geoscience Australia, the National Native Title Tribunal and the 2005 State of the Regions Reports. NCVER 2004 VET student data are also shown and discussed.

Statistical profile methodology

The Profile is based on geographic data drawn from regional areas associated with the study sites. A set of Statistical Local Areas associated with the sites was predetermined for the purposes of this Profile. ABS data is agglomerated and summarised using these sets of data. NVCER data is collected by post-code and the data shown is designed to approximate, as close as possible the Statistical Local Area geographic boundaries.

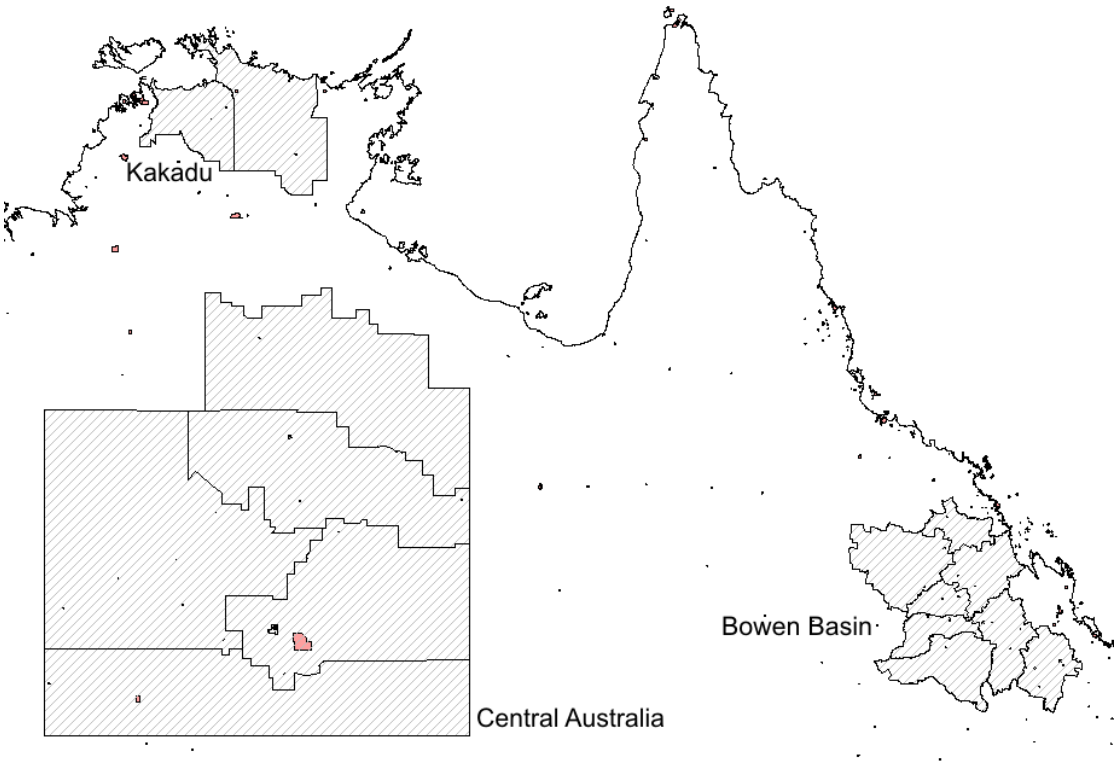
The use of ABS data for this purpose does have limitations. First, it is now more than four years old. Regional changes in these areas will impact to some extent on any conclusions drawn. Second, the VET student population and the general population are quite different in terms of age and demographic make-up and this also makes conclusions about implications for VET difficult to make. Third, the regions themselves are not necessarily homogenous demographic units. For example the Central Australia site covers a vast land area and includes a mix of small to medium urban areas and very remote areas.

However, bearing in mind these limitations, the Profile does provide a useful contextual base, which gives a valuable understanding of the issues faced by residents and training providers living and working there. By themselves the data can be useful for drawing out implications and conclusions about the sites and how the various factors can and do influence training.

Sites

Figure 1 shows the geographic location and spatial boundaries of the three sites used for case studies in this research. The boundaries are used to delineate Australian Bureau of Statistics Census datasets at Statistical Local Area levels used for much of the analysis presented here. The sites are labelled 'Kakadu', 'Central Australia' and 'Bowen Basin'. Kakadu includes the Kakadu National Park, Jabiru and parts of Arnhem Land. Central Australia includes much of the Northern Territory desert region and what is known as the Barkly region. The Bowen Basin includes Statistical Local Areas of an area of central Queensland to the west of Rockhampton and Mackay.

Figure 1. Profile regions mapped to Australian Standard Geographical Classification (ASGC) 2001, Statistical Local Areas



Source: Australian Standard Geographical Classification 2001 boundaries taken from the Integrated Regional Database 2003 (ABS 2003c)

The remainder of this paper will summarise contextual information for these three regions, based largely but not wholly on 2001 Census information obtained from Basic Community Profiles, Expanded Community Profiles, Indigenous Profiles and Time Series Profiles. These data sets are available publicly at the ABS website. Other information is generally sourced from surveys and information that is publicly accessible.

The Statistical Profile will first present a number of regional indicators that help describe the sites in terms of population, language and other demographic indicators. It should be noted that the purpose of this Profile is to place each site in its context so that regional dynamics associated with VET and ACE are understood.

Regional indicators

This section of the Profile presents regional data as described above, for the three sites. The data is presented under headings of: Population and language; Other demographic indicators; Health; Employment; income; Education; Land tenure and use; and Information technology. The data is mapped and tabulated by sites, in most cases using the summative groupings specified in the previous section.

Population and language

Table 1 shows detailed population and Indigenous language data for the Statistical Local Areas of each site, with a summary below each site. The table shows the Bowen Basin as the largest site with a total of 60507 people but with only four per cent self-identifying as Aboriginal or Torres Strait Islanders. The site has very few Indigenous language speakers. The site is comprised of eight Statistical Local Areas, each representing a shire. The largest shire is Emerald, which in 2001, had a population of 14249. In 2001, the largest group of Indigenous people (1254) in the region lived in the Duaringa shire.

More than half of the Central Australia site's population of 49404 lived in Alice Springs at the time of the 2001 Census. Five Statistical Local Areas in the town had a combined population of 28,128. Approximately one third of the site's population describe themselves as Indigenous. More than half of the population living outside Alice Springs described themselves as Indigenous. Almost half of the population outside Alice Springs describe themselves as Australian Indigenous language speakers.

The Kakadu site is the smallest of the three in terms of area and population, with a total of 8459 residents at the 2001 Census. Approximately three-quarters of the population east of the East Alligator River describe themselves as Australian Indigenous language speakers. Across the site, approximately half the population describe themselves as either Aboriginal or Torres Strait Islanders.

Table 1. Detailed breakdown of population and Indigenous language profile for Statistical Local Areas of the case study sites, 2001

Site	Statistical Local Area	Total Indigenous persons	Total Persons	Per cent of population speaks Indigenous language	Per cent of population Indigenous*
Bowen Basin	Banana (S)	373	13489	0.1%	2.8%
	Bauhinia (S)	53	2575	0.1%	2.1%
	Duaringa (S)	1254	7882	0.2%	15.9%
	Emerald (S)	361	14249	0.0%	2.5%
	Peak Downs (S)	63	3299	0.0%	1.9%
	Belyando (S)	198	9883	0.0%	2.0%
	Broadsound (S)	131	6601	0.0%	2.0%
	Nebo (S)	51	2529	0.0%	2.0%
	Bowen Basin total	2484	60507	0.1%	4.1%
Central Australia	Alice Springs (T) – Charles	1030	5044	7.5%	20.4%
	Alice Springs (T) – Heavitree	467	3215	10.5%	14.5%
	Alice Springs (T) – Larapinta	1196	8363	2.0%	14.3%
	Alice Springs (T) – Ross	933	8043	3.8%	11.6%
	Alice Springs (T) – Stuart	628	3513	3.0%	17.9%
	Petermann	1110	4862	19.4%	22.8%
	Sandover – Bal	2688	3599	62.2%	74.7%
	Tanami	4963	6243	72.6%	79.5%
	Tableland	539	1315	17.4%	41.0%
	Tennant Creek (T)	1176	3286	18.7%	35.8%
	Tennant Creek – Bal	1505	1921	63.6%	78.3%
	Central Australia total	21203	170418	22.4%	32.9%
Kakadu	Jabiru (T)	235	1775	4.5%	13.2%
	South Alligator	261	2274	7.3%	11.5%
	West Arnhem	3789	4410	78.8%	85.9%
	Kakadu total	46691	349295	44.0%	50.7%

* Note Indigenous here is used to describe both those who identify as Aboriginal or Torres Strait Islanders
Source: ABS 2002a

Other demographic indicators

Table 2 shows population trends for the 10 years to 2001. Over the 10 year period, the population in the Bowen Basin declined by a little over five per cent, while in Kakadu and Central Australia statistics show increases of 20 per cent and 14 per cent respectively. These trends should be treated with some caution due to a number of factors. The Kakadu site population is dependent to a greater extent than the other sites on visitor numbers. The August census corresponds with the peak tourist season in the Kakadu region. The Central Australia site population is influenced by a high population growth rate among the Indigenous population. The region is also heavily influenced by high regional Indigenous mobility (Taylor 2003; Taylor & Bell 1999; Young et al. 2005) which influences interpretation of changes in Census counts. The Bowen Basin site population has been influenced by a relatively large fly-in fly-out working population. The 2001 population figures corresponded with a down-turn in the coal mining industry, which bottomed out in 1999-2000 (Natural Resources and Mines 2004). Both production and employment in the Queensland coal industry generally are on the rise since that downturn (Bureau of Mining and Petroleum 2005). Employment in 2003-2004 was almost double that of 1999-2000 (Natural Resources and Mines 2005).

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Table 2. 10 Year population trends to 2001 for Statistical Local Areas of the case study sites

Site	Statistical Local Area	1991 population	2001 population	Change	Per cent change
Bowen Basin	Banana (S)	14,257	13,489	-768	-5.4%
	Bauhinia (S)	2,565	2,575	10	0.4%
	Duaringa (S)	10,255	7,882	-2,373	-23.1%
	Emerald (S)	10,663	14,249	3,586	33.6%
	Peak Downs (S)	3,959	3,299	-660	-16.7%
	Belyando (S)	11,082	9,883	-1,199	-10.8%
	Broadsound (S)	8,472	6,601	-1,871	-22.1%
	Nebo (S)	2,634	2,529	-105	-4.0%
	Bowen Basin total	**63,887**	**60,507**	**-3,380**	**-5.3%**
Central Australia	Alice Springs (T) – Charles	6,139	5,044	-1,095	-17.8%
	Alice Springs (T) – Heavitree	2,301	3,215	914	39.7%
	Alice Springs (T) – Larapinta	7,531	8,363	832	11.0%
	Alice Springs (T) – Ross	6,222	8,043	1,821	29.3%
	Alice Springs (T) – Stuart	3,334	3,513	179	5.4%
	Petermann	3,647	4,862	1,215	33.3%
	Sandover – Bal	2,255	3,599	1,344	59.6%
	Tanami	5,188	6,243	1,055	20.3%
	Tableland	1,337	1,315	-22	-1.6%
	Tennant Creek (T)	3,480	3,286	-194	-5.6%
	Tennant Creek – Bal	1,929	1,921	-8	-0.4%
	Central Australia total	**43,363**	**49,404**	**6,041**	**13.9%**
Kakadu	Jabiru (T)	1,731	1,775	44	2.5%
	South Alligator	1,602	2,274	672	41.9%
	West Arnhem	3,688	4,410	722	19.6%
	Kakadu total	**7,021**	**8,459**	**1,438**	**20.5%**

Source: ABS 2003a

Table 3 shows data relating to two other important contextual issues: Indigenous population change and household size. The table shows that Indigenous population growth has outstripped non-Indigenous population growth in both the Bowen Basin and Central Australia sites. At the Kakadu site the dynamic is different for a number of reasons. The actual resident population of the region has remained reasonably static over recent years at about 6,600 (ABS 2005). The difference between this number and the 2001 Census figure is explained by visitors. The fluctuation in population is also likely to be explained by changes in tourism numbers but there remains an underlying trend for the resident Indigenous population to grow, with an apparent shift into the Jabiru township. In terms of the household size data, it is apparent from comparisons with data shown in Table 1, that those areas with predominantly Indigenous populations also have relatively high median household sizes. This is particularly notable in the areas of Tanami, West Arnhem and Tennant Creek – Bal where household sizes are about double the size of households in other predominantly non-Indigenous areas.

Table 3. Other demographic data: Indigenous population change and household size

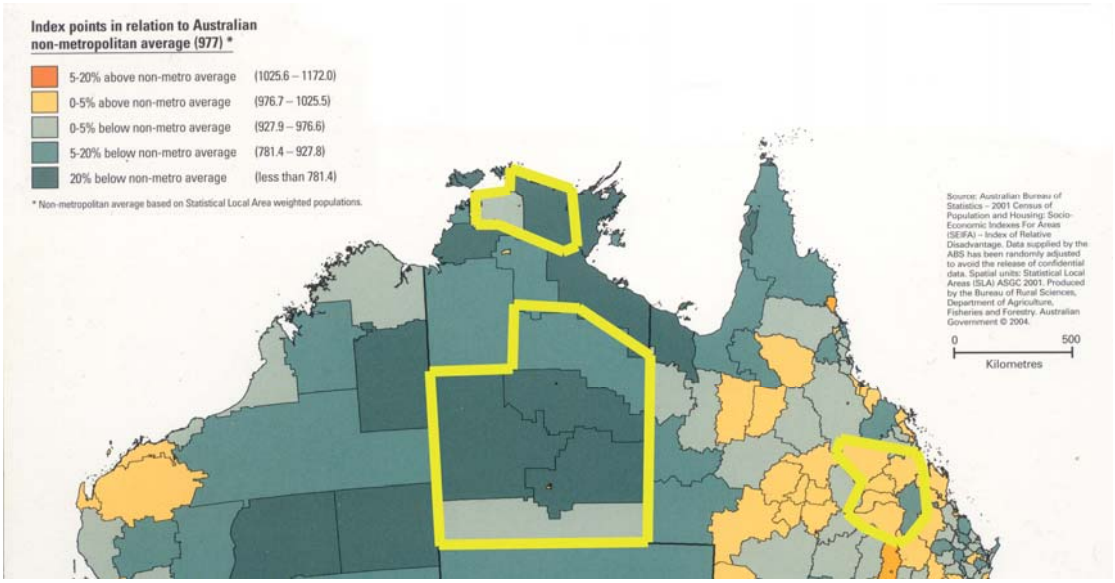
Site	Statistical Local Area	1991 Indigenous population	2001 Indigenous population	Indigenous population change	Median household size
Bowen Basin	Banana (S)	350	373	6.6%	2.7
	Bauhinia (S)	53	52	-1.9%	2.6
	Duaringa (S)	1,192	1,254	5.2%	3.0
	Emerald (S)	154	361	134.4%	2.7
	Peak Downs (S)	28	64	128.6%	3.0
	Belyando (S)	180	198	10.0%	2.8
	Broadsound (S)	129	131	1.6%	2.8
	Nebo (S)	29	53	82.8%	2.8
	Bowen Basin total	2,115	2,486	17.5%	
Central Australia	Alice Springs (T) – Charles	1,042	1,030	-1.2%	2.9
	Alice Springs (T) – Heavitree	356	467	31.2%	2.6
	Alice Springs (T) – Larapinta	871	1,196	37.3%	2.8
	Alice Springs (T) – Ross	695	933	34.2%	2.7
	Alice Springs (T) – Stuart	744	626	-15.9%	2.1
	Petermann	845	1,111	31.5%	2.8
	Sandover – Bal	1,586	2,685	69.3%	4.5
	Tanami	4,316	4,961	14.9%	5.4
	Tableland	489	538	10.0%	3.4
	Tennant Creek (T)	928	1,176	26.7%	2.9
	Tennant Creek – Bal	1,315	1,505	14.4%	5.1
	Central Australia total	13,187	16,228	23.1%	
Kakadu	Jabiru (T)	132	236	78.8%	2.6
	South Alligator	311	259	-16.7%	2.5
	West Arnhem	3,271	3,789	15.8%	6.3
	Kakadu total	3,714	4,284	15.3%	

Source: ABS 2002a, 2003a

Socio-economic index for areas (SEIFA)

Figure 2 shows the Index of relative socio-economic disadvantage mapped to Australian Standard Geographical Classification 2001 Statistical Local Areas, overlaid with site boundaries. The darker colours indicate a greater level of disadvantage based on income levels, unemployment, educational attainment and occupational indicators. The map shows that Bowen Basin scores higher (indicating relatively higher socio-economic advantage). Both Kakadu and Central Australia show relatively high levels of disadvantage.

Figure 2. Socio-economic index for areas (SEIFA), Index of relative socio-economic disadvantage 2001,

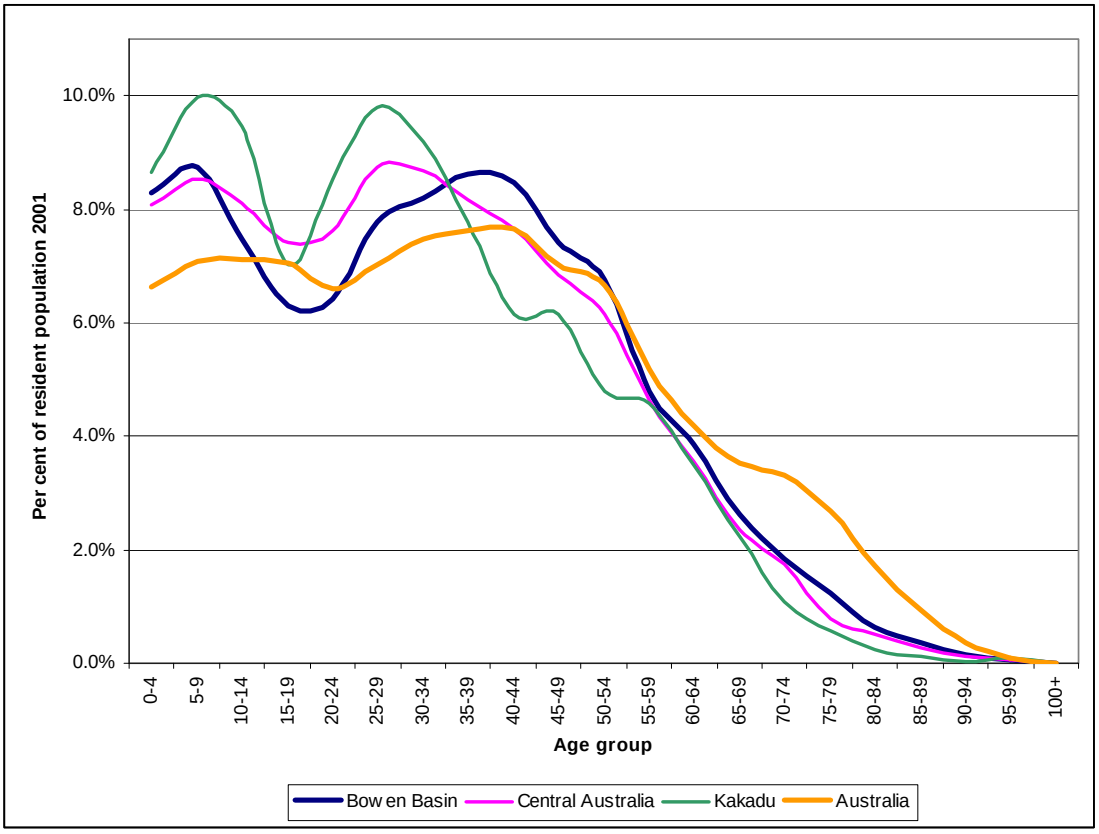


Source: adapted from Haberkorn et al. 2001:98

Age profile

Figure 3 shows an age profile by five year groupings, for each site, compared with a profile for Australia. Each site is characterised by a 'dip' in the proportion of youth, reaching a low point at the 15-19 age group. This is consistent with other rural and remote areas in Australia and is often due to younger people leaving a region for education and employment reasons. The Kakadu profile shows the highest proportion of younger people under the age of 30. The Kakadu profile also shows the fastest rate of decline beyond 30. All the site profiles show a much smaller retired age population than is indicated for the Australia profile.

Figure 3. Age profile, sites compared with Australia 2001



Source: adapted from ABS 2003c

The sites are comprised of diverse population groups and the age profile shown above tends to reduce the variation. For this reason the charts shown from Figure 4 through to Figure 7 are designed to highlight some of the differences for a selection of Statistical Local Areas from the sites. The Australia profile (Figure 4) is shown for comparison purposes. The large 'dip' shown in each of the lines of Figure 5 is indicative of the typical 'youth drain' faced by many rural communities. The above-average figures for 0-4 year olds is consistent with the presence of young families, as is the peak in the lines at around 35 to 40 years. The proportion of retirement aged people in each shire shown is considerably lower than for Australia.

The Central Australia profile (Figure 6) shows the marked contrast between Alice Springs and the more remote regions of the desert. The steep decline in the graph is consistent with high mortality rates for all age groups. While the remote areas peak at ages 5-9, the Alice Springs area shows a peak at about age 55. The latter is consistent with a highly transient working population composed of few non-Indigenous youth.

The Kakadu profile shown in Figure 7 shows the mainly Indigenous Statistical Local Area of West Arnhem with a similar pattern to the other remote areas of Central Australia. The mainly non-Indigenous populations around Jabiru associated with mining and the National Park show very few youth and children and a large group of younger working aged people. The profiles for Jabiru and South Alligator peak at around age 30.

Figure 4. Age profile, Australia 2001

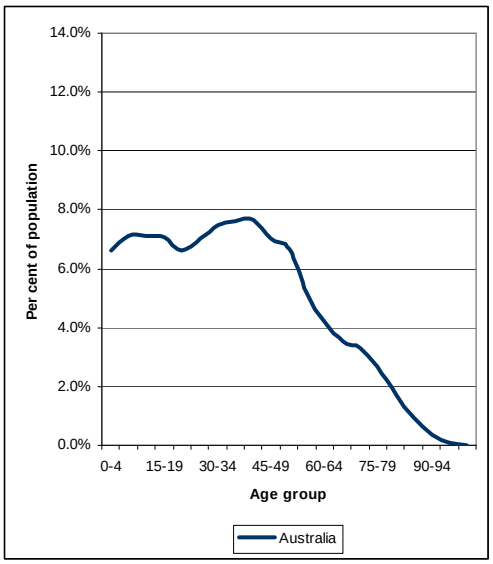


Figure 5. Age profile selected Statistical Local Areas, Bowen Basin, 2001

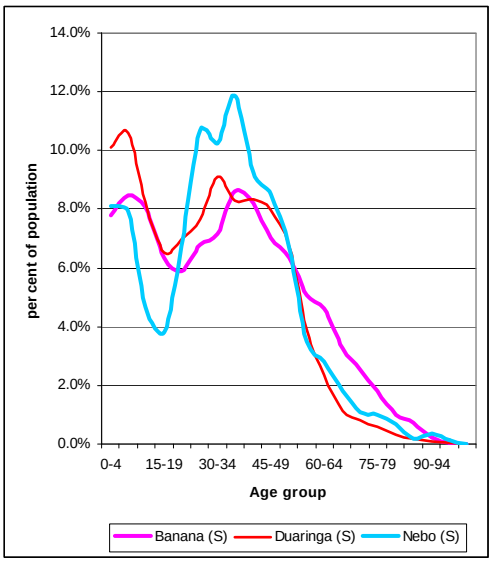


Figure 6. Age profile, selected Statistical Local Areas, Central Aust. 2001

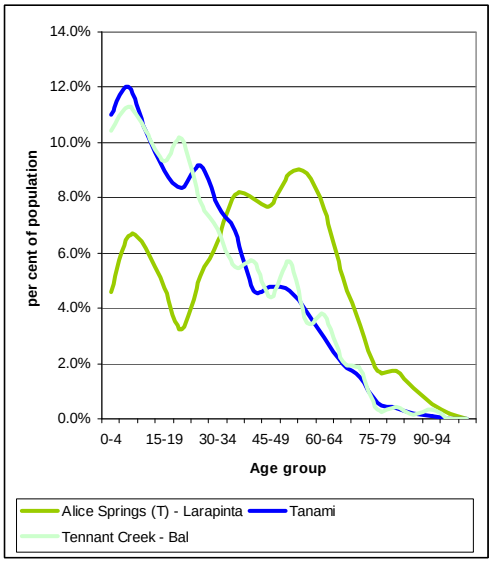
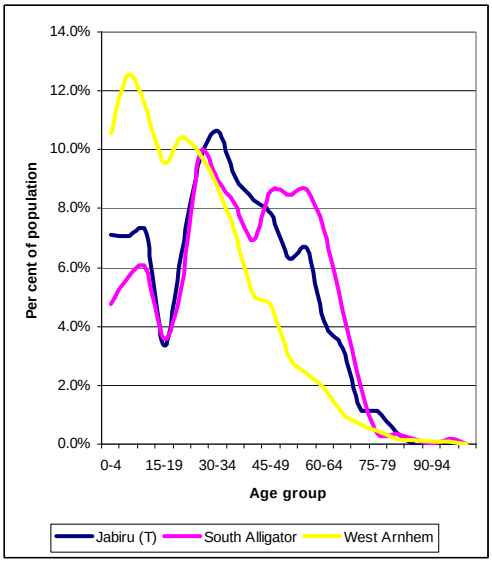


Figure 7, Age profile, selected Statistical Local Areas, Kakadu, 2001



Source: Charts adapted using ABS 2003c

Student age profile

Table 4, based on NCVER (2005) data, compares the VET student age profile with the general population age profile. It could be reasonably expected that there would be a greater proportion of 19–24 year olds in the VET student population than in the general population because of the nature of post-compulsory education. In general terms each of the three sites follows a similar pattern with the largest age group being the 25–44 year group. However, it is apparent from the data shown that the VET student population includes a slightly greater proportion of mature aged students in the Bowen Basin compared to the other sites. The proportion of youth (under 25 years) is fairly consistent across the sites despite the younger age profile in Kakadu and Central Australia.

Table 4. Student age profile by site compared with general population

	Bowen Basin		Central Australia		Kakadu	
Age groups	**VET students**	**General population**	**VET students**	**General population**	**VET students**	**General population**
19 and under	21.9%	30.8%	23.8%	32.1%	23.3%	35.1%
20–24	15.7%	6.4%	15.4%	7.6%	13.1%	8.5%
25–44	41.6%	33.1%	42.9%	33.3%	48.6%	32.9%
45–64	19.1%	22.8%	15.2%	21.2%	13.4%	19.1%
65 and over	0.7%	6.9%	1.1%	5.8%	1.4%	4.4%
Not stated/unknown	1.0%		1.6%		0.2%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: NCVER 2005 special request, ABS 2003c

Health

Table 5 shows selected health indicators for each site compared with Australian jurisdictions. While the Bowen Basin indicators correspond closely with the average figures for each jurisdiction, the Northern Territory sites show significantly higher infant mortality rates, fertility rates and death rates. The high death rates are consistent with the age profiles shown in Figure 6 and Figure 7 above.

Table 5. Selected health indicators by site compared with all jurisdictions, 2001

Site	Infant Mortality Rate (x1000)	Total Fertility Rate (x1000)	Indirect Standardised Death Rate (x1000)
Central Australia Average	10.9	2.33	14.4
Kakadu Average	9.9	2.77	19.7
Bowen Basin Average	6.3	2.10	7.2
Queensland Average	5.9	1.79	7.0
Northern Territory Average	11.4	2.22	11.9
Victoria Average	5.0	1.63	6.7
South Australia Average	4.5	1.70	6.9
Western Australia Average	4.7	1.77	6.6
Tasmania Average	6.6	1.92	7.6
Australian Capital Territory	4.3	1.59	6.2
New South Wales Average	5.5	1.80	6.9

Source: ABS 2003c

Employment

The following sub-sections consider the three regions in terms of employment. Data are presented under headings of: Industry of employment; Labour force status; and Employment and Community Development Employment Projects.

Industry of employment

Table 6 shows the relative importance of particular industry groups for the three sites. Of note in Kakadu is the importance of tourism, where employment in 'accommodation, cafes and restaurants' is twice the average for Australia. This industry is also relatively strong in Central Australia. In the Bowen Basin, mining stands out as the predominant employer. Employment in mining is about 20 times more likely in the region compared with Australia as a whole.

Agriculture is also a strong industry of employment with more than one in six people employed in the industry, compared with one in 25 nationally. In the two Northern Territory sites, employment in 'government administration and defence' is strongest and is partly explained by an emphasis on defence in the region but more likely by the importance of employment in Community Development Employment Projects for Indigenous people. A high proportion of employment in this category is classified under this heading. 'Health and community services', the main topic of the Central Australia case study is a major industry of employment in the region. Though not shown in the summary table, the relative strength of 'health' and 'retail' in Central Australia is limited to the main centres of Alice Springs and Tennant Creek.

Table 6. Industry of employment, 2001 by site, compared with Australia

	Per cent of persons aged 15 and over				
Site	**Bowen Basin**	**Central Australia**	**Kakadu**	**Grand Total**	**Australia**
Accommodation, Cafes and Restaurants	4.3%	8.6%	9.8%	6.2%	4.9%
Agriculture, Forestry and Fishing	17.0%	4.2%	2.8%	11.4%	4.0%
Communication Services	0.7%	0.7%	0.5%	0.7%	1.8%
Construction	6.6%	6.7%	3.7%	6.5%	6.7%
Cultural and Recreational Services	0.8%	3.7%	3.7%	2.0%	2.4%
Education	6.1%	8.7%	7.8%	7.1%	7.2%
Electricity, Gas and Water Supply	1.5%	0.8%	0.4%	1.2%	0.7%
Finance and Insurance	1.0%	1.1%	0.9%	1.1%	3.8%
Government Administration and Defence	3.0%	12.2%	30.2%	7.8%	4.5%
Health and Community Services	4.4%	10.9%	6.5%	7.0%	9.7%
Manufacturing	4.5%	3.3%	2.2%	3.9%	12.2%
Mining	21.3%	2.0%	9.2%	13.4%	0.9%
Non-classifiable economic units	0.6%	0.8%	1.1%	0.7%	0.6%
Not stated	1.7%	2.1%	2.1%	1.9%	1.7%
Personal and Other Services	2.1%	6.0%	3.0%	3.6%	3.6%
Property and Business Services	5.3%	7.0%	3.7%	5.9%	11.1%
Retail Trade	9.9%	11.9%	5.9%	10.5%	14.6%
Transport and Storage	4.3%	6.1%	4.4%	5.0%	4.3%
Wholesale Trade	5.0%	3.0%	2.4%	4.1%	5.3%
				100.00%	100.00%

Source: ABS 2002a

Labour force status

Table 7 shows labour force figures for the entire working aged population, comparing the three sites with Australia as a whole. At the time of the 2001 Census, the national unemployment rate was reported to be 7.4 per cent. Official unemployment rates for each of the three sites was relatively lower than this at less than five per cent. The relatively high proportion of full time employees and high participation rate in the Bowen Basin site differentiates this site from the Northern Territory sites, particularly Kakadu, which has a participation rate more than 10 percentage points lower than the national average. While the participation of females in the labour force overall is consistent with the national average, the summary data masks a significant variation in the figures within the sites, particularly the Northern Territory sites. The urban areas show up to 70 per cent participation, while some of the remote areas show no more than 30 per cent participation among females. The table shows the masking effect of low labour force participation due to Community Development Employment Project employment (see also Table 8).

Table 7. Labour force status (selected statistics), by site, compared with Australia, 2001

Site	Per cent of labour force unemployed	Per cent of working aged population employed	Per cent of working aged population employed full time	Per cent of females not working*
Bowen Basin	4.4%	65.4%	47.4%	45.2%
Central Australia	4.4%	55.9%	37.3%	44.3%
Kakadu	4.6%	45.6%	24.4%	57.8%
Total all sites	4.4%	60.3%	41.8%	45.6%
Australia	7.4%	55.9%	36.1%	48.3%

Note* 'not working' here means either unemployed or not in the labour force
Source: ABS 2003a

Employment and Community Development Employment Projects

Table 8 summarises Indigenous employment and Community Development Employment Project data for each site. In the Bowen Basin the only shire with Community Development Employment Project employment was Duaringa. Duaringa shire was split in 2002 to form an Aboriginal Council area. This is associated with the Woorabinda community. The table shows a marked difference between the Bowen Basin and the Northern Territory sites, which rely to a much higher degree on Community Development Employment Project employment for Indigenous people. The Kakadu site relies the most on Community Development Employment Project employment, with nearly three-quarters of the Indigenous workforce employed in Community Development Employment Projects.

Table 8. Indigenous employment and Community Development Employment Project

Site	Indigenous persons in Community Development Employment Project employment	Indigenous labour force	Indigenous persons not in labour force	Per cent of Indigenous labour force in Community Development Employment Project	Per cent of Indigenous working aged population not working*
Bowen Basin	139	824	580	16.9%	52.8%
Central Australia	1401	3245	6829	43.2%	71.9%
Kakadu	698	941	1658	74.2%	65.9%

Note* Nationally, this figure was 44.1% in 2001. 'Not working' is here defined as those reported to be unemployed plus those not in labour force.
Source: ABS 2002b

Income profile

Table 9 shows an income profile for each site, compared with Australia. There are clear differences in the overall profile. The Bowen Basin is characterised by relatively high proportions of $1000+ per week earners—twice the rate for Australia. The Central Australia site overall is consistent with Australia as a whole. The Kakadu site shows that low income earners (less than $200 per week) are about 50 per cent more likely than in Australia as a whole.

Table 9. Income profile by site, compared with Australia 2001

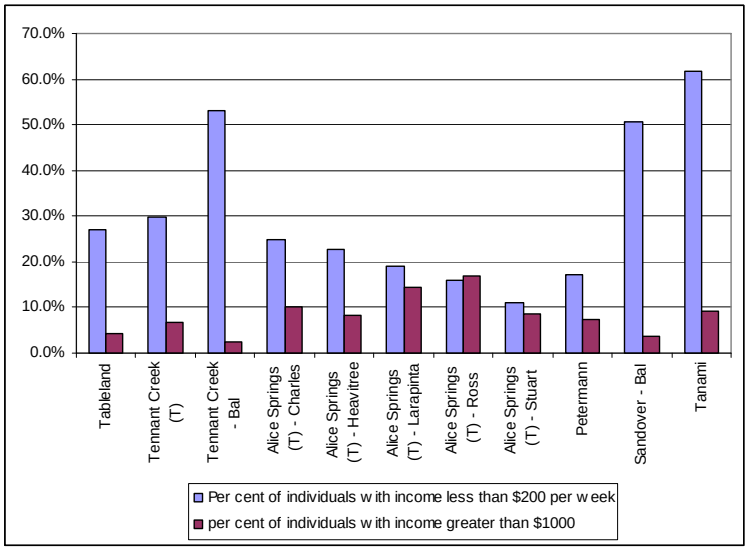
Site	Per cent of persons 15 and over with incomes less than $200 per week	Per cent of persons 15 and over with incomes greater than $1000 per week
Bowen Basin	25.1%	20.3%
Central Australia	27.7%	10.2%
Kakadu	39.7%	8.3%
Total	27.2%	15.2%
Australia	26.8%	10.6%

Source: ABS 2003c

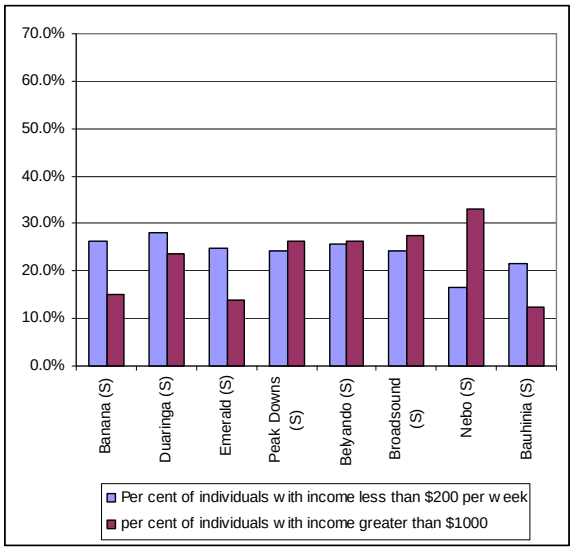
The above table however does not show the differences that occur in regions across the sites. These differences are shown for each Statistical Local Area graphically in Figure 8. The proportion of low income earners is markedly higher in the more remote areas of the Central Australia site. Note also the difference between the profile in the Kakadu site. The West Arnhem area has the highest proportion of low income earners among all Statistical Local Areas from the three sites.

Figure 8. Income profile for individual weekly income, by Statistical Local Area

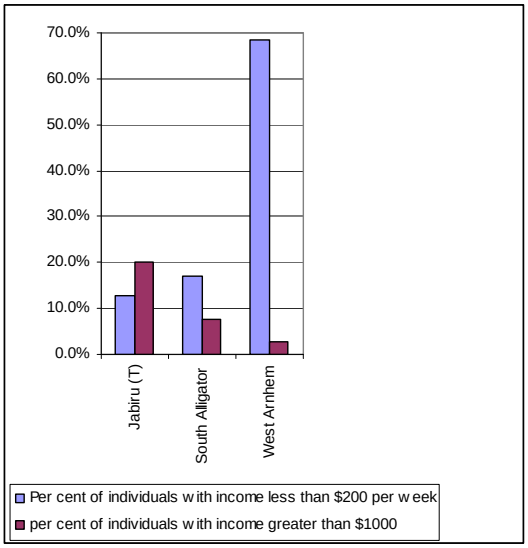
Central Australia Statistical Local Areas



Bowen Basin Statistical Local Areas



Kakadu Statistical Local Areas



Source: Adapted from ABS 2003c

Table 10, drawn from the *State of the Regions Report 2005-06*, shows the income disadvantage experienced by the Northern Territory sites. In terms of Net Flow Of Funds from Centrelink/Community Development Employment Project sources, the region ranks 64th out of 64 regions described in the Report. What this data means is that around half of the income derived by people living in the region comes from social security sources and this is the highest rate of any region in Australia.

Table 10. Social security indicators, 'Lingiari' region*, Northern Territory

SOCIAL SECURITY

	% Pop.	Aust. average
Short term Newstart	2.23	0.91
Long term Newstart	8.27	1.38
Total Newstart	10.50	2.29
Mature Age Allowance	0.12	0.11
Disability Support (DSP)	2.92	3.42
DSP, aged under 25	0.20	0.22
Youth unemployment	1.72	0.47
Parenting Payment Single (PPS)	3.15	2.25
PPS, aged under 25	0.80	0.29
	Social Security % NFOF	**Rank**
1999	27.67	59
2001	45.61	64
2003	40.95	64
2004	55.77	64
2005	47.53	64

Note*: Lingiari is roughly equivalent to the the ABS Statistical Division of Northern Territory – Bal and includes both the Central Australia and Kakadu sites.
NFOF: Net Flow of Funds
Source: National Economics 2005

Education

This section of the Profile considers ABS and NCVER data relating to education. First, consideration is given to the level of schooling profile based on ABS Census data. Following on profiles for qualifications and field of study again based on Census data. Finally, the section draws together relevant field of study, qualification and language NCVER data relating to VET students from the 2004 data collection.

School profile

Table 11 shows the proportion of the population achieving progressive levels of schooling at the time of the 2001 Census. Compared with Australia, the level of Year 12 completion was relatively low across all sites. On average, the proportion of senior secondary completion was nearly 10 per cent below the national average. The largest group of persons aged 15 and over in the Bowen Basin site had completed Year 10 or equivalent levels at school. More than 20 per cent of all persons aged 15 and over had either not attended school or not achieved a level beyond Year 8. This is twice the rate for Australia as a whole.

Table 11. Highest level of schooling by site, compared with Australia 2001

	Per cent of persons aged 15 and over						
Site	**Year 8 or below**	**Year 9 or equivalent**	**Year 10 or equivalent**	**Year 11 or equivalent**	**Year 12 or equivalent**	**Still at school**	**Did not go to school**
Bowen Basin	11.1%	7.6%	33.9%	7.7%	28.9%	2.6%	0.4%
Central Australia	16.1%	8.3%	19.4%	11.4%	28.1%	2.8%	4.1%
Kakadu	17.4%	11.9%	18.1%	7.9%	21.4%	2.2%	4.7%
Grand Total	13.5%	8.1%	26.9%	9.2%	28.1%	2.6%	2.2%
Australia	9.4%	7.5%	23.8%	9.6%	37.7%	3.4%	1.0%

Source: ABS 2003c

Qualification profile

Table 12 shows the qualification profile of persons aged 15 and over at the time of the 2001 Census at each site and compares this with Australia. The relatively high proportion of Certificate qualifications held in the Bowen Basin site stands out. This is consistent with the employment profile and the corresponding importance of the mining industry (see Table 6). Despite the relatively high participation in VET among Indigenous people, this does not translate into Certificate qualifications at the Central Australia and Kakadu sites.

Table 12. Qualification profile by site, compared with Australia 2001

	Per cent of persons aged 15 and over					
Site	**Total persons aged 15+**	**Advanced Diploma and Diploma**	**Bachelor Degree**	**Certificate**	**Graduate Diploma and Graduate Certificate**	**Postgraduate Degree**
Bowen Basin	45380	3.8%	5.7%	18.6%	0.8%	0.6%
Central Australia	35026	5.1%	7.8%	14.1%	1.6%	1.5%
Kakadu	5382	3.8%	6.4%	11.1%	1.4%	1.5%
Total	85788	4.3%	6.6%	16.3%	1.2%	1.0%
Australia	14,856,774	6.0%	9.7%	15.8%	1.4%	1.8%

Source: ABS 2003c

Field of study

Field of study data shown in Table 13 and Table 14 highlight the gender differences among learners in the three case study sites. The profile for females diverges at each case study site from the Australian profile. While the national profile shows that the largest group of females have studied in fields of management and commerce, in both the Bowen Basin and Kakadu sites, females were most likely to have studied in the field of education. In Central Australia, the largest group of women with a post-school qualification had studied in the field of health.

Table 13. Field of study profile, females with non-school qualifications by site compared with Australia 2001

	Per cent of persons aged 15 and over			
Field of study, females	**Bowen Basin**	**Central Australia**	**Kakadu**	**Australia**
Agriculture, Environmental & Related Studies	0.84%	0.73%	1.05%	0.45%
Architecture and Building	0.06%	0.15%	0.12%	0.28%
Creative Arts	0.54%	1.28%	0.74%	1.55%
Education	5.99%	5.47%	5.39%	4.96%
Engineering and Related Technologies	0.81%	0.63%	0.39%	1.03%
Field of Study inadequately described	0.24%	0.43%	0.43%	0.45%
Food, Hospitality and Personal Services	2.71%	2.41%	1.32%	2.51%
Health	4.76%	7.35%	3.84%	6.10%
Information Technology	0.31%	0.33%	0.23%	0.62%
Management and Commerce	4.54%	5.42%	4.34%	8.22%
Mixed Field Programmes	0.02%	0.08%	0.00%	0.04%
Natural and Physical Sciences	0.58%	0.82%	0.85%	1.09%
Not applicable*	69.01%	59.75%	63.26%	58.83%
Not stated	7.45%	10.94%	15.08%	9.30%
Society and Culture	2.15%	4.21%	2.98%	4.59%
Grand Total	100.00%	100.00%	100.00%	100.00%

Note* Includes persons who do not have a qualification and persons who have a qualification out of scope of the Australian Standard Classification of Education.

Source: ABS 2003a

The male profile is more consistent with the national profile, with 'engineering and related technologies' being the main field of study for all sites. However, consistent with the qualification and employment profile shown earlier, the focus on this field of study is much clearer in the Bowen Basin site.

The other notable feature of the data presented in both tables is the relatively high proportion of people without qualifications, compared to Australia as a whole. Among women this difference is most notable in the Bowen Basin site and among males this is most notable in the Kakadu site.

Table 14. Field of study profile, males with non-school qualifications, by site compared with Australia 2001

	Per cent of persons aged 15 and over			
Field of study, males	**Bowen Basin**	**Central Australia**	**Kakadu**	**Australia**
Agriculture, Environmental & Related Studies	2.33%	1.77%	1.75%	1.46%
Architecture and Building	3.69%	4.37%	3.53%	5.30%
Creative Arts	0.20%	0.76%	0.46%	1.11%
Education	1.16%	2.01%	1.79%	1.82%
Engineering and Related Technologies	22.48%	13.92%	11.78%	16.42%
Field of Study inadequately described	0.39%	0.38%	0.25%	0.50%
Food, Hospitality and Personal Services	1.53%	2.10%	1.50%	1.76%
Health	0.85%	1.78%	1.43%	1.77%
Information Technology	0.22%	0.66%	0.43%	1.47%
Management and Commerce	2.03%	3.22%	2.78%	5.91%
Mixed Field Programmes	0.02%	0.03%	0.00%	0.03%
Natural and Physical Sciences	0.71%	1.12%	2.11%	1.50%
Not applicable*	52.23%	52.20%	55.59%	48.64%
Not stated	11.50%	13.10%	15.21%	9.37%
Society and Culture	0.64%	2.58%	1.39%	2.94%
Grand Total	100.00%	100.00%	100.00%	100.00%

Note* Includes persons who do not have a qualification and persons who have a qualification out of scope of the Australian Standard Classification of Education.

Source: ABS 2003d

NCVER data

Students and courses data shown in Table 15 compares 2004 student data collected by NCVER from public and private providers for each region covered by the study sites, with national data and corresponding employment data. The table highlights the emphasis on training for the mining industry, particularly in the Bowen Basin, where 43 per cent of all trainees were studying in 'engineering and related technologies' fields of study. The high proportion of 'subject only enrolments' in Central Australia is reflected mainly among Indigenous students, 27 per cent of which were enrolled in this field. This group along with 'mixed field' programs are probably more like ACE than what could be described as mainstream VET. It is interesting to note that the percentages shown in Table 15 for this group do not match those shown in Table 14 or Table 13 (which relate to Census data). This is probably because the NCVER data is based on provider data and Census data is based on perception of individuals. The NCVER field of study data for Kakadu shows the emphasis of training for tourism and hospitality related industries.

Table 15. NCVER field of study data compared with employment in related industries

Field of study	*2004 VET students, Bowen Basin*	*2004 VET students, Central Australia*	*2004 VET students, Kakadu*	*VET students, all areas****	*2004 VET students, Australia*	*Employment in related industries** 2001 (all areas***)*
Natural and physical sciences	0.1%	0.3%	0.0%	0.1%	0.4%	
Information technology	1.6%	1.9%	6.0%	1.8%	3.9%	0.7%
Engineering and related technologies	43.3%	12.1%	15.3%	33.8%	16.2%	18.5%
Architecture and building	1.9%	7.2%	0.6%	3.3%	6.4%	6.5%
Agriculture, environmental and related studies	6.3%	5.4%	13.6%	6.3%	5.0%	11.4%
Health	8.0%	5.1%	2.8%	7.0%	5.1%	7.0%
Education	2.1%	5.0%	11.1%	3.1%	3.2%	7.1%
Management and commerce	16.9%	12.3%	10.5%	15.4%	20.6%	21.6%
Society and culture	5.7%	11.8%	7.7%	7.5%	10.2%	
Creative arts	0.4%	8.1%	0.0%	2.5%	3.0%	2.0%
Food, hospitality and personal services	6.1%	1.4%	17.0%	5.2%	9.5%	9.8%
Mixed field programs*	7.6%	10.0%	4.3%	8.1%	11.8%	15.4%
Subject only enrolment	0.0%	19.4%	11.1%	5.7%	4.7%	
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Student numbers	7664	3049	352	11065		

Source: ABS 2003c, NCVER 2005 special request

* Includes not stated and inadequately described

** see concordance of fields of study with industries of employment, Appendix 1, Table 20

*** all areas refers to a combination of Bowen Basin, Central Australia and Kakadu data

Table 16 shows qualification data by Indigenous status for each study region and compares these with Australia as a whole. The difference between Indigenous and non-Indigenous qualification profiles is most notable for Central Australia and Kakadu. The profiles are closest for the Bowen Basin, though even there about twice the proportion of Indigenous students are shown to be studying at Certificate I and II compared to non-Indigenous students. In Central Australia 56 per cent of non-Indigenous students were studying at Certificate III level or above, compared with 18 per cent of Indigenous students. Comparing the regional data with national NCVER figures in the last column, there are also some notable differences. Firstly, the proportion of Indigenous people studying at Certificate I and II levels is around twice the national average. Secondly, non-Indigenous students tend to be more likely to study at Certificate III and IV levels than the national average. Thirdly, the 'not known' level of study for Indigenous students in the Northern

Territory sites makes up about one-quarter of all students in these two regions, compared to five per cent nationally. The significance of these latter statistics is difficult to interpret as by definition:

> Data items reported in the [Students and courses] publication as unknown for the following reasons: an organisation or provider has not collected the information, a student chose not to respond to a certain question on the enrolment form or invalid information has been supplied. (NCVER 2005, Technical notes)

However, given the nature of training in these two regions it may be reasonable to deduce that the level of training was difficult to define within a single AQF category.

Table 16. NCVER qualification data by Indigenous status, compared with Australia

	Bowen Basin		Central Australia		Kakadu		Australia
Major Qualification**	**Indigenous**	**Non-Indigenous**	**Indigenous**	**Non-Indigenous**	**Indigenous**	**Non-Indigenous**	**All**
Diplomas and above	2%	6%	2%	6%	1%	2%	11%
AQF Certificate IV	8%	12%	4%	20%	6%	25%	12%
AQF Certificate III	36%	45%	12%	30%	20%	18%	26%
AQF Certificate II	23%	17%	27%	22%	47%	32%	16%
AQF Certificate I	15%	4%	22%	5%	8%	12%	5%
Senior Secondary	0%	0%	0%	0%	0%	0%	0%
Non award Courses	5%	3%	0%	1%	0%	2%	8%
Miscellaneous Education	11%	14%	6%	13%	1%	6%	17%
Not known	0%	0%	26%	3%	19%	3%	5%
Student numbers*	299	6514	2106	876	171	175	

Source: NCVER 2005 special request

* Excludes those whose Indigenous status was 'not stated'

** Per cent totals may not add to 100% due to rounding

Table 17 shows VET participation by language spoken, compared with the general population. Generally the table suggests that in a given region non-English speakers are less likely to participate in VET than the general population. This is most pronounced in Kakadu where the data suggests that non-English speakers (in this case Indigenous language speakers) are less than half as likely to participate in VET courses than might be expected. The differential in the Bowen Basin is similar but given the low proportion of non-English speakers and the relatively larger proportion of students and people with an unknown language, the same claims are difficult to sustain. When interpreting this data, consideration should also be given to the demographic profile of students, who are generally younger than the overall population.

Table 17. VET participation by language spoken, compared with general population

	Bowen Basin		Central Australia		Kakadu	
Language spoken at home	**Student population**	**General population**	**Student population**	**General population**	**Student population**	**General population**
English	96.0%	92.7%	69.3%	65.4%	77.6%	46.3%
Non-English Speaking Background	0.5%	1.8%	23.2%	26.5%	17.9%	46.3%
Not known	3.5%	5.5%	7.5%	8.1%	4.5%	7.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

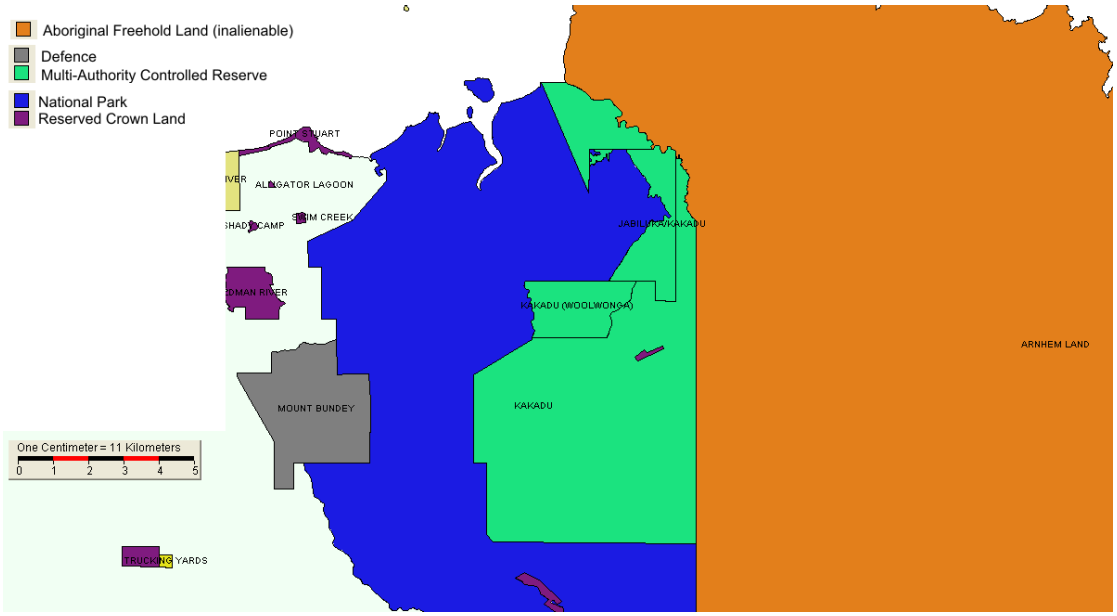
Land tenure and use

This section uses a series of maps to highlight the land tenure and use data from each of the three sites. As such the maps highlight the use of public lands and the ownership/tenure of these lands in relation to Native Title claims. These maps are important from an education perspective because they demonstrate to a large extent how people in the regions associate with their land—associated with this identity is a range of skills that are required for land management and productive economic enterprises.

Public land use

Figure 9 highlights the significance of four types of land use in the Kakadu region. To the west, defence manages an area of land. The national park is jointly managed under a board of management. The Kakadu Board of Management, which has an Aboriginal majority (ten out of fifteen members), representing the Aboriginal traditional owners of land in the park, was established in 1989 (Department of Environment and Heritage 2005; Kakadu Board of Management and Parks Australia 1998). Embedded within the park boundary, but excluded from the Park, is an area operated by Energy Resources Australia that includes the Ranger mine and the proposed Jabiluka development. To the east of the East Alligator River is Arnhem Land, described as inalienable Aboriginal Freehold Land.

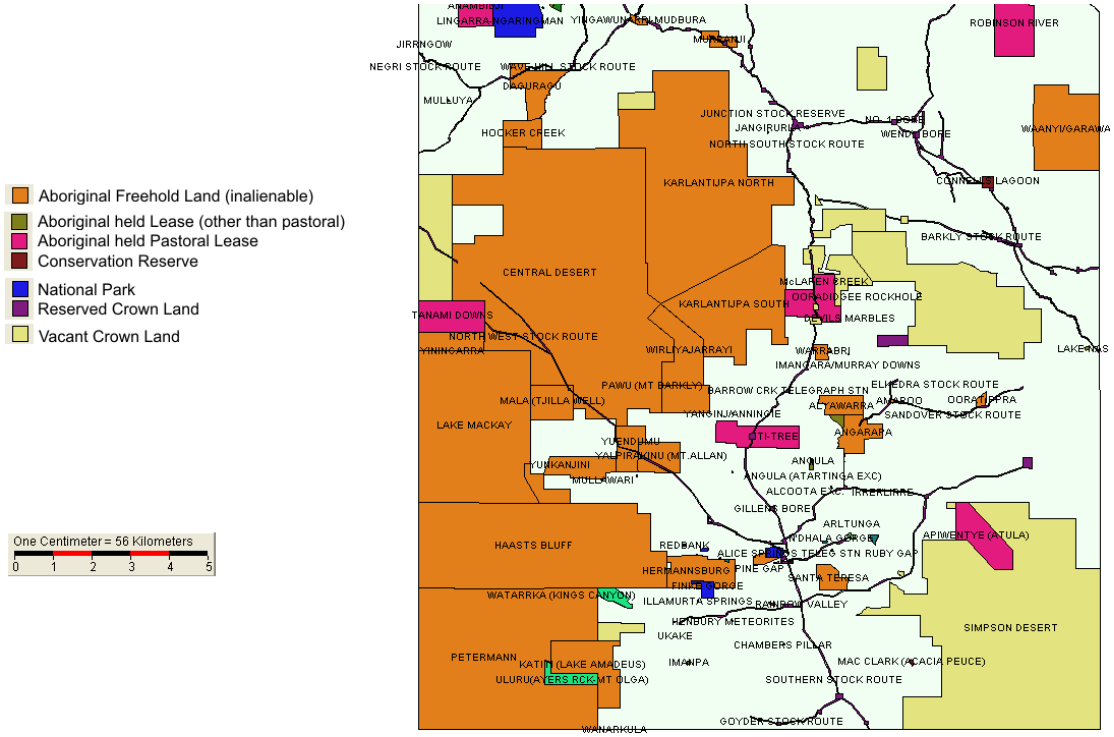
Figure 9. National Public and Aboriginal Lands, Kakadu, Northern Territory



Source: Geoscience Australia 2004, based on pre-1998 land tenure

Figure 10 shows a map of the Central Australia site with boundaries of national public and Aboriginal lands. The map highlights large areas of Aboriginal Freehold land to the west, some Aboriginal pastoral leases, scattered across the region, large areas of vacant crown land, and some national parks. The blank area in the centre is comprised to a large extent of pastoral leases.

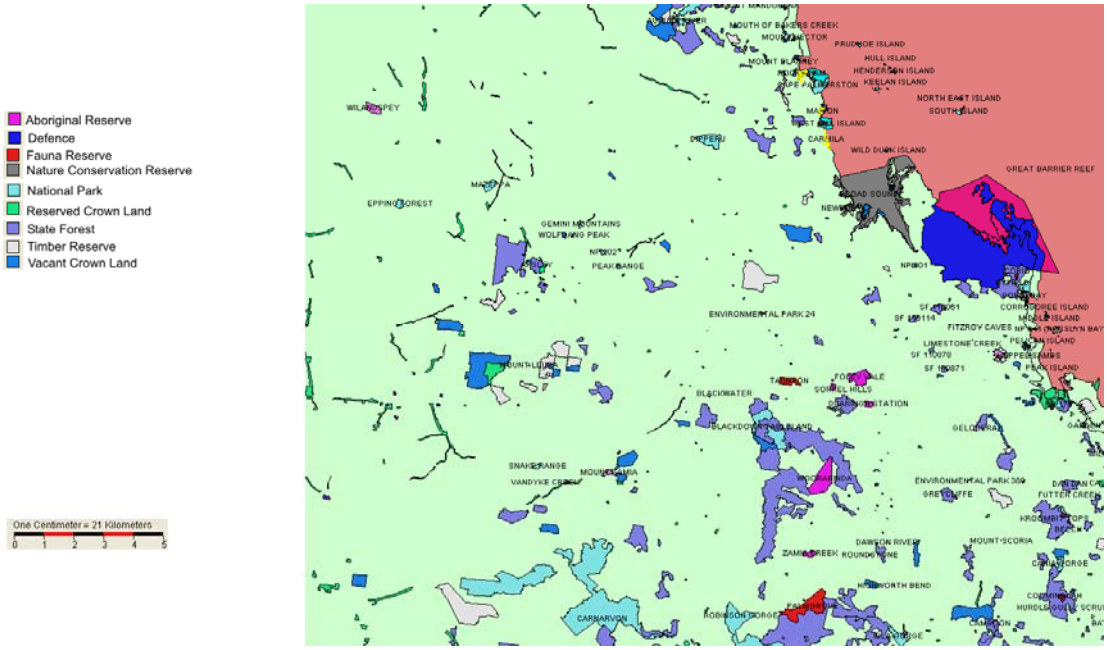
Figure 10. National Public and Aboriginal Lands, Central Australia, Northern Territory



Source: Geoscience Australia 2004

Land use for the Bowen Basin site is shown in Figure 11. The inland defined areas are comprised of a mixture of national parks, state forest, vacant crown land and some timber reserves.

Figure 11. National Public and Aboriginal Lands , Bowen Basin, Queensland

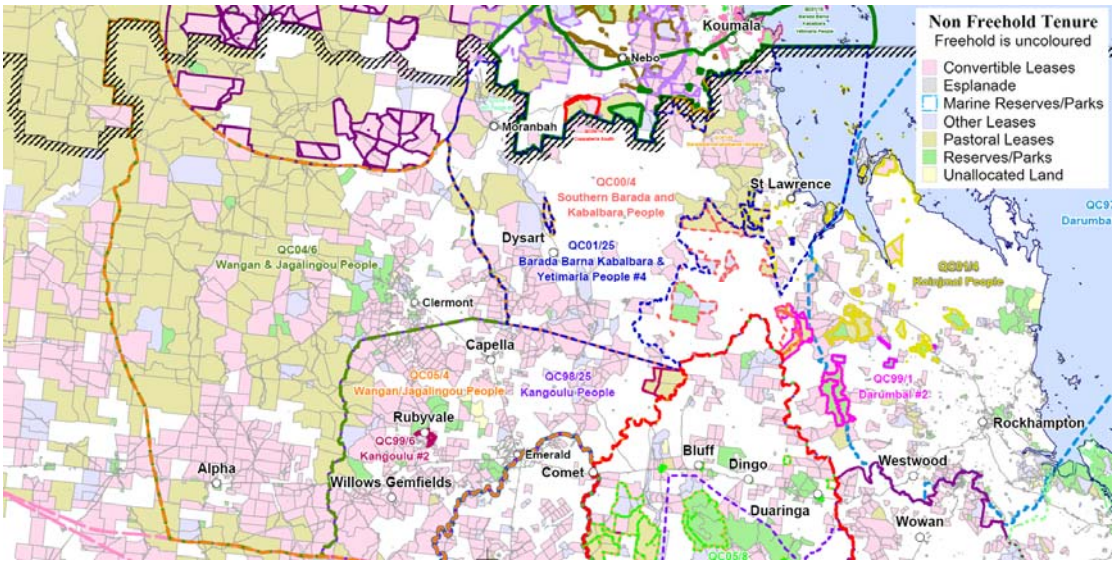


Source: Geoscience Australia 2004

Native Title and land tenure

Figure 12 shows that the bulk of the undefined areas in Figure 11 are made up of pastoral leases and convertible leases. The boundaries represent areas of application under Native Title under the Register of Native Title Claims. None of these applications have been determined by the Tribunal.

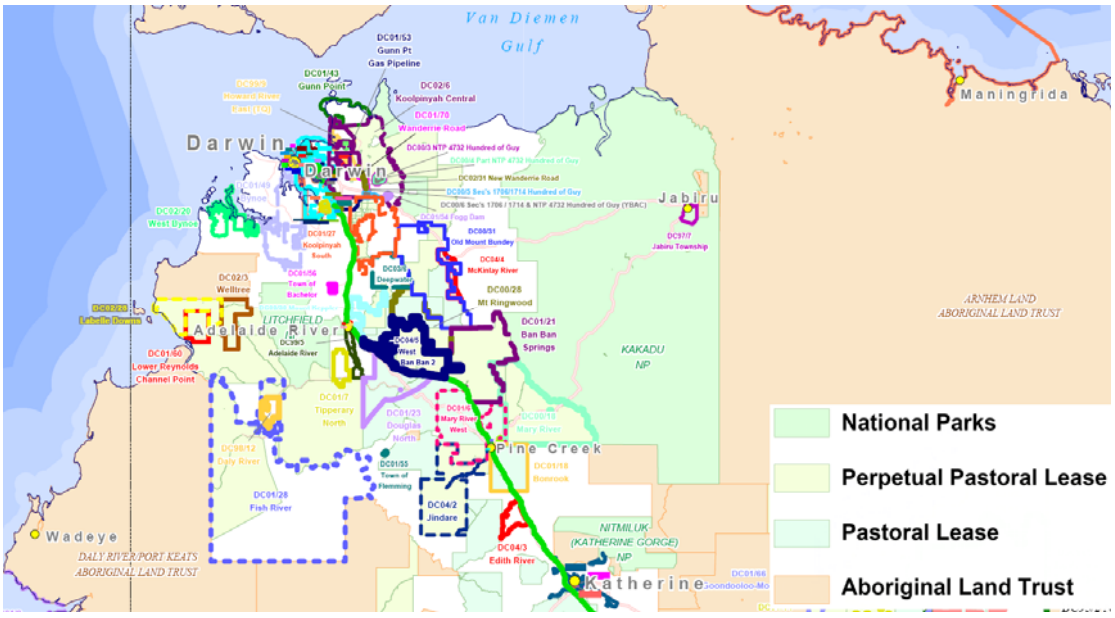
Figure 12. Queensland Central Native Applications and Title Determination Areas



Source: NNTT 2005

Figure 13 confirms the boundaries shown in the Public Lands map of Figure 9. The only undetermined claim in the area covers Jabiru.

Figure 13. Northern Territory Native Applications and Title Determination Areas, Kakadu region

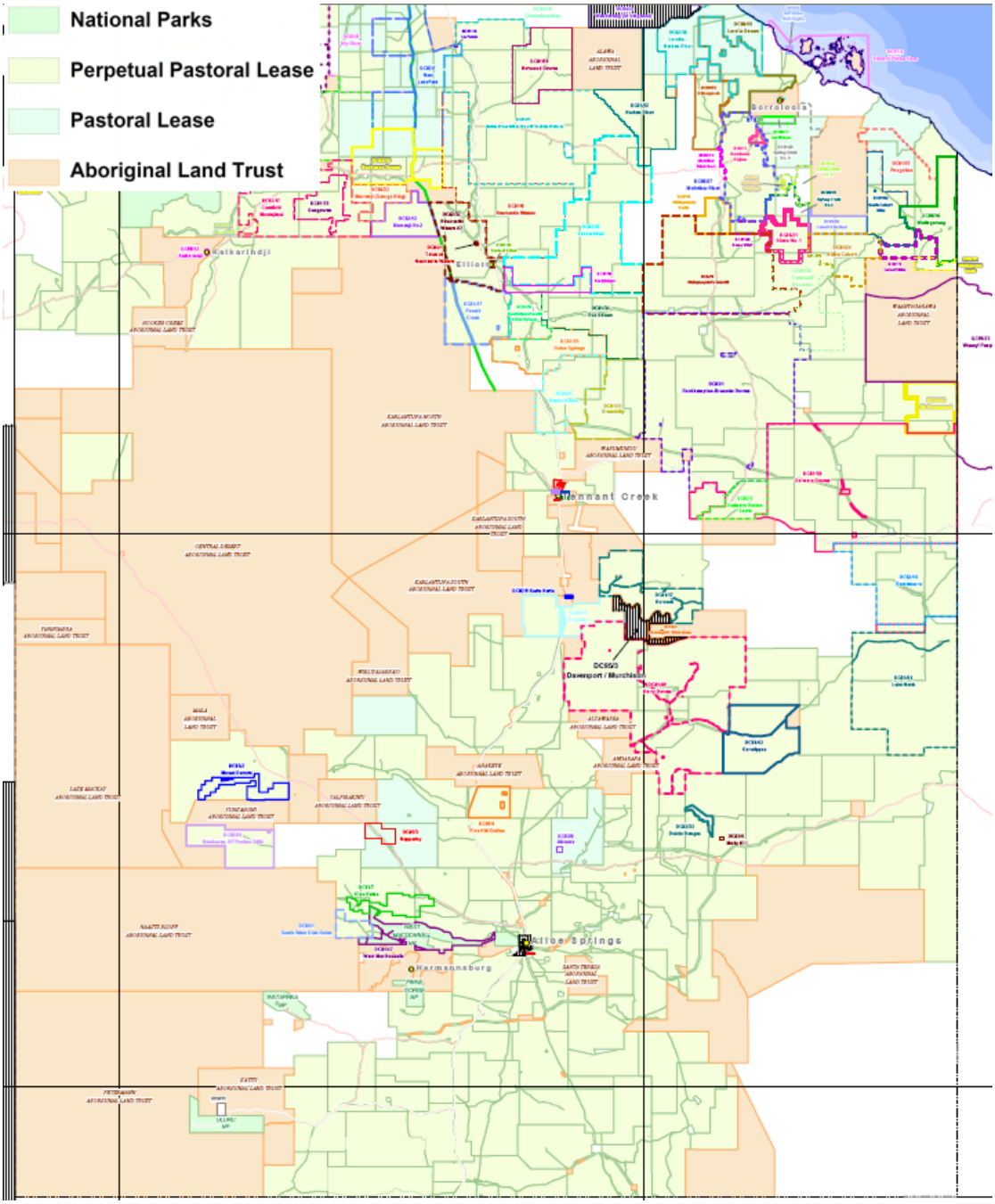


Source: NNTT 2005

Figure 14 shows few undetermined applications for Native Title in the Central Australia site. Most of these are in existing pastoral leases and are yet to be determined. The only

determinations in the region include Alice Springs and Davenport/Murchison, 200km south of Tennant Creek. The map shows little change from the Public Lands map shown in Figure 10.

Figure 14. Northern Territory Native Applications and Title Determination Areas, Central Australia region



Source: NNTT 2005

Comparing land use across the three sites, there are notable differences. Both the Central Australia and Kakadu sites have large areas that are controlled or joint managed by Indigenous peoples. By contrast the Bowen Basin site is composed of a mix of pastoral and convertible leases and freehold land.

Information and communication technology use

Table 18 shows the proportion of the population using Internet and computers in the week prior to the 2001 Census. All three sites recorded lower use rates than the Australia as a whole. For the Bowen Basin the difference is consistent with a consistently rural/urban differential that has existed (around 10 percentage points) since ABS began collecting data in 1998 (ABS 2004) and which still remains. The lower result for the Kakadu site show a much larger difference. Given the rate of change in uptake of Information Technology and the ever increasing roll-out of infrastructure to remote locations around the Northern Territory, it is hard to say whether these 2001 figures mean too much, in 2006. They may simply reflect a further lag in uptake and infrastructure roll-out. Part of the result may be explained by the low education levels of attainment noted earlier for the Kakadu site (see Table 11).

Table 18. Computer and Internet use by site, compared with Australia 2001

Site	Total population	Per cent using a computer at home in the week prior to the Census	Per cent of people using Internet in the week prior to the Census
Bowen Basin Total	60119	38.8%	29.0%
Central Australia Total	46515	27.0%	26.3%
Kakadu Total	7487	13.5%	15.5%
Total	114121	32.3%	27.0%
Australia	18,769,249	42.0%	36.7%

Source: ABS 2003c

The issue of infrastructure roll-out is confirmed in Table 19, which draws on data from the 2005 *State of the Regions Report*. The table shows that broadband (ADSL) coverage for the region is the third lowest among all the Report's 64 regions.

Table 19. ADSL coverage, 'Lingiari' region*, Northern Territory

ADSL COVERAGE

	Rate	Aust. Average	Rank
Coverage, % pop	46.6	90.4	62
Number of exchanges	32	[redacted]	
Number exchanges enabled	7	[redacted]	
% of exchanges enabled	21.9	34.3	51
Number HIBIS exchanges	0	[redacted]	
Exchanges per 10,000 pop.	3.4	2.7	33
Lowest (%)	11.7	Unincorporated NT	
Highest (%)	100.0	Alice Springs	
% children	49.4	89.6	62
% of area covered	0.0	1.2	63

Note*: Lingiari is roughly equivalent to the the ABS Statistical Division of Northern Territory – Bal and includes both the Central Australia and Kakadu sites.

Source: National Economics 2005

Implications and conclusions

Demographic profiles

The data shows that for all sites while non-Indigenous population is tending to decline, the Indigenous population is tending to increase. In the Bowen Basin this is from a low Indigenous population base and overall will not make a significant difference for learning or partnerships in the region. The notable exception appears in the shire of Duaringa, which in 2001 included the Aboriginal community of Woorabinda. In the other two sites, the withdrawal of non-Indigenous people from the resident population will have a direct impact on the changing nature of partnerships. This is probably most notable in Kakadu, with the current Ranger mine ore body almost exhausted.

The age profile at the three sites has its own consequences for learning and partnerships. The high proportion of young people and children in the more remote parts of the Northern Territory sites has important consequences for compulsory education. It also has implications because it restricts the capacity of parents to engage in income generation activities. This is reflected in the income profiles for the Northern Territory sites, particularly outside the main centres of Alice Springs, Tennant Creek and Jabiru. The high fertility and mortality rates and consequent age profiles highlight the need for health education activities and partnerships at these sites. In particular the demographic profile suggests that there is a need for learnings around parenting, child care and child nutrition.

The age profile for the Bowen Basin site is not inconsistent with other rural areas of Australia with large numbers of youth leaving the region for education and further training. The loss of youth has significant consequences for the formation of local skills for the region's agricultural and mining industry and impacts on the skills shortages being experienced in the region. The profiles highlight the need for partnerships between communities and industry to ensure training opportunities exist for young people to progress into mining industry careers.

Employment profiles

The employment profiles of the three sites reflect the economies of the regions. The economy of the Bowen Basin site is heavily dependent on coal mining and agriculture with more than 38 per cent of employment focussed on these two industry groups. This compares with less than five per cent for Australia as a whole. This reliance on two industries creates some vulnerability for the region. A downturn in one industry will seriously impact on the region in terms of employment and wealth. The current skills shortage being experienced in the region reflects another vulnerability—attracting people to a remote region. This vulnerability is reflected in the *2005-06 State of the Region* indicators for population sustainability, which rank Broadsound Shire at 586 out of 623 Australian local government areas and Duaringa at 552 (National Economics 2005). These opportunities and vulnerabilities highlight the need for learnings that both diversify and reinforce the economic base of the Bowen Basin communities. Diversification could come in the form of providing alternative forms of employment and enterprise. Reinforcement should come in the form of targeted skills development programs that directly support skills shortage areas. There is some recognition of these dual needs in current regional management plans and analysis (Central Highlands Development Corporation 2004; Central Queensland A New Millenium 2002)

The employment profiles of the Northern Territory sites suggests a distinctly different approach to skills formation and partnership development. The heavy dependence on Community

Development Employment Project employment and the multiple economic and social challenges faced by residents of the region—particularly those outside the urbanised areas of Jabiru, Tennant Creek and Alice Springs—suggests that learnings must be focused around building the foundational capacity of the region. At the same time learnings that facilitate a transition to sustainable economic activity—either employment or enterprise—would provide opportunities for residents of the region. There is clear evidence in the literature that Indigenous people can take advantage of the high number of visitors to the regions, many of who are wanting an 'authentic' tourism experience (Cave 2005; Northern Territory Department of Local Government Housing and Sport 2005). Ellis (2003) commenting on Indigenous tourism strategy at a 2003 Indigenous Economic Forum suggested that authenticity 'is not necessarily a priority for Indigenous product but interaction is a desirable feature in consumer's minds'. Learnings must therefore reflect the importance of imparting an understanding of both consumers and potential Indigenous labour market entrants. The same could equally apply to enterprise ventures in the arts, bush tucker, tour-guiding, all of which rely on visitors to the region. Formation of partnerships in this context requires a complementary range of resources (human and financial) and will probably involve long term government support to ensure sustainability of the ventures. The lessons from apparently successful partnerships such as the 'Nabarlek' project (Harrison 2004) point to these kind of partnership. This music industry enterprise involved funding commitment from NT Department of Employment, Education and Training, support from a Community Development Employment Project management organisation, commitment from a key music industry stakeholder, and two training providers. Harrison's case study of Nabarlek identifies five separate Territory and Commonwealth funding sources and commitment (in-kind and sponsorship) from several commercial enterprises.

Education

Each of the three sites show signs of falling short of achieving average Australian schooling standards. In the Bowen Basin site this is reflected in relatively low Year 12 retention rates. In the Northern Territory sites it is reflected in low Year 10 rates and high non-participation rates. A number of implications arise from these two statistical observations. An underpinning assumption here is that skills and knowledge do make a difference to the chances of employment and to economic benefit for individuals (Guenther & Falk 2002; Kilpatrick & Millar 2004; OECD 2000, 2003, 2004, 2005). A further assumption is that education and learning has a range of other social and economic benefits related to social participation, crime reduction, mental health and self-concept (Clemans et al. 2003; Feinstein 2002; Feinstein & Sabates 2005; Kearns 2004; Schuller et al. 2002).

There is an intergenerational influence that impacts the propensity of students to participate in education and aspire to higher levels of education. For example, the learning experiences and aspirations of parents has an influence on the educational expectations of children (Kilpatrick & Guenther 2000). If parents, for example, perceive value in education then it can be argued that this value is at least partly assumed by their children (House of Representatives Standing Committee on Education and Training 2004; Lee 2000). The converse of course applies equally. These assumptions are built into strategic policy frameworks such as the Northern Territory's *Indigenous Education Strategic Plan 2000-2004* (NT Department of Employment, Education and Training 2001) and Queensland's *Smart State Strategy 2005-2015* (Queensland Government 2005). One of the challenges then for those working in the field of post-compulsory education is to ensure that learning is valued by parents as well as children. In order to achieve substantive social and economic benefits for children partnerships need to form around these multiple goals: fostering value in education, designing programs that promote social participation, and pursuing outcomes that satisfy the economic aspirations of the community.

In the Bowen Basin there is some evidence that this is already happening. For example one of the programs under BHP Billiton Mitsubishi Alliance's *Community Partnerships Program* are designed to increase literacy and numeracy capacity of students through a professional development program with local teachers (BHP Billiton Mitsubishi Alliance 2004; Centre for Social Responsibility in Mining 2005). The profile of the program is raised through well-publicised events such as a 'Celebration Day' where 'interested people… were invited to share with participating teachers the successes and learnings from their involvement in the [action] research project' (Jaksic & Anderson 2005). While the results are as not yet public, findings from the VET/ACE connections research suggests that the program has been effective in increasing the value of literacy and numeracy among parents and students.

A further challenge, particularly for the Northern Territory sites is to make the connection between learning and economic and social benefits that follow. There is no doubt that despite the rhetoric about the need for 'real jobs' in remote (Indigenous) communities (Abbott 2002; Australian Broadcasting Corporation 2005) real and meaningful work is carried out in these remote contexts. Whether it is badged as 'Community Development Employment Projects' or 'caring for country' or 'Indigenous economic enterprise' is not the issue. Altman (2003:5), responding to this issue comments that:

> We need to move beyond thinking in terms of mainstream jobs, training, or CDEP as a transition. Rather we need to afford people the dignity of recognizing their economic contributions.

The challenge then, is to foster partnerships for learnings that enable communities to see the linkage between learning and these recognised activities.

A related challenge is to reduce the differentials between Indigenous and non-Indigenous participation in post-compulsory education. The data presented showed that the differential is not necessarily in the numbers of participants, but in the level of participation. This is of course a complex issue and is dependent on a number of interdependent issues that require a multi-faceted approach (Northern Territory Council of Social Services 2004). Some of these issues are highlighted in the contextual data shown in this paper. They include socio-economic disadvantage associated with housing, labour force participation, health and compulsory education.

Land use

Land use has implications for the nature of learning that occurs on and with the land. The significant Indigenous interests in the use of Central Australia and Kakadu lands will have a bearing on the field of study of those learnings. It would be reasonable to expect, for example that learnings in these areas will be related to conservation and land management. The other distinctive of both these regions is the significance of the World Heritage listed national parks: Kakadu and Uluṟu-Kata Tjuṯa. The consequence of these sites means that to some extent the economies of the region will be determined by tourism. Learnings could reasonably be expected to reflect these land uses. The learning partnerships that are formed will also reflect these land uses. Partnerships in the Northern Territory sites will necessarily involve Indigenous interests and interfaces with other land use stakeholders: government agencies, tourism operators, and an array of local and national providers including land management and conservation specialists. An added complexity at the Kakadu site is the presence of the Ranger mine, which presents both opportunities and challenges in terms of the multiple land uses of the region.

By contrast, the land use profile of Bowen Basin, is more consistent with learnings associated with large primary production enterprises in both agriculture and mining. Because of the large proportion of private ownership or leasehold land the involvement of government as a partner

could be expected to be less. The income profile of the region also means that the burden for cost of learning will inevitably fall more on the 'shoulders' of individuals and enterprises.

Information and Communication Technology applications

Information and Communication Technologies are one way that the 'tyranny of distance' can be overcome. They can be applied to educational contexts in a number of ways and at a number of levels. These are well documented in the literature (e.g. Guenther 2005; Guenther & Dwyer 2005; Guenther & Kilpatrick 2003; OECD 2005; Sawyer 2004; Young et al. 2005). They include learnings for people of all ages, Indigenous people, people studying at higher education, vocational education and people learning in informal adult and community education courses. However, the data shown in this report suggest that, particularly in the Northern Territory sites, access to broadband technologies that are most useful for the broadest range of applications, is problematic. This issue is not so much of a problem at the Bowen Basin site where infrastructure roll-out is well underway. However the other issue concerns the willingness of learners to engage with the technology. Again this is more of an issue for the Northern Territory sites where English literacy and numeracy are barriers to what remains a predominantly text-based learning environment. The profile data here points to the need for careful and selective use of technologies for learning activities. Partnerships that use information and communication technology applications as a platform for learning are likely to be more effective where communities are able to fully take advantage of the technologies. The BHP Billiton Mitsubishi Alliance Community Partnership Program described earlier, has one project that uses information and communication technologies. It involves a partnership with Education Queensland and Learning Network Queensland (Centre for Social Responsibility in Mining 2005).

Conclusions

This statistical profile has presented contextual data, mainly from the Australian Bureau of Statistics that reveal factors forming the backdrop of VET/ACE partnerships at three study sites: the Bowen Basin in central Queensland, the Kakadu region of West Arnhem and the desert region of Central Australia. The profile reveals several defining characteristics for each of the three sites.

The Bowen Basin is marked by an economy based on mining and agriculture. The qualification and field of study profiles reflect this economic base. It has a strong employment and income profile and other characteristics that are consistent with many areas of rural and regional Australia. The school profile shows relatively low Year 12 retention levels. At present, the challenges for the region are about meeting the skills needs of industry in key skill shortage areas. Partnerships can be expected to arise from industry-community initiatives that build the skill base of the region. This can be done through encouraging higher Year 12 retention and offering pathways for younger people that feed directly into local industries. In terms of VET/ACE connections, this may mean supporting parents to place a greater value on educational foundations and lifelong learning. There is evidence to suggest that partnerships are being formed for these purposes.

The Kakadu site is marked by a mixed economic base, reliant on tourism, mining and government services including Community Development Employment Projects, which employs 74 per cent of Indigenous people. There is a clear difference between the mainly non-Indigenous area around Jabiru and the mainly Indigenous area outside the main centre. This is reflected in different income, demographic, employment and qualification profiles. Year 10 retention is low and health indicators show high infant mortality and death rates. Information and communication technology uptake is very low and the opportunities for using information and

communication technologies are limited by infrastructure and English literacy levels of the Indigenous population. The need for adult learning is determined in part by the industry base of the region, which is in turn determined by land use constraints. Opportunities for Indigenous adults to engage in meaningful work and vocational activities do exist. Many of these opportunities are built on foundations of vocational qualifications. However, in order to achieve these vocational qualifications, Indigenous adults need additional learning support in the form of foundational English literacy and numeracy and understanding of the premises on which tourism and mining enterprises are built. VET/ACE partnerships can facilitate these supports. Given the key role of government, tourism and mining industry, it could be expected that partnerships will form around these stakeholder groups along with the traditional owners of the region.

The Central Australia site is built on a mix of economic bases, which are determined to a large extent by an urban or remote context. The data shown suggests that the region is supported by the government and retail sectors. The retail sector is only strong in the urban centres of Alice Springs and Tennant Creek. The health and community service sector is also a relatively strong employer in the region, but again, the strength of this sector is largely confined to the two main centres. The government sector's strength is partly due to Community Development Employment Projects, which employs 48 per cent of Indigenous people. As with the Kakadu site, the region is marked by low Year 10 retention, poor standards of health and in remote areas, strong use of Indigenous languages. Opportunities for meaningful work do exist but again, as with Kakadu, they are to a large extent dependent on underpinning English language, literacy and numeracy. The definition of meaningful work need not be restricted to 'mainstream' employment and a range of other opportunities to exist including Indigenous enterprise and caring for country activities. The high fertility rates among Indigenous people mean that the need for community-based child care and associated learnings (related to parenting and nutrition) are also needed. VET/ACE partnerships in this contexts can provide the necessary linkages between vocational learning needs and community education needs.

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Appendices

Appendix 1

Table 20. Concordance of field of study and industry of employment

Field of study	Industry of employment
Natural and physical sciences Information technology	Communication services
Engineering and related technologies	Mining, manufacturing, electricity, gas and water supply
Architecture and building	Construction
Agriculture, environmental and related studies	Agriculture, forestry and fishing
Health	Health and community
Education	Education
Management and commerce	Retail, wholesale, Finance, Property and business services
Society and culture Creative arts	Cultural and recreational services
Food, hospitality and personal services	Accommodation, cafes and restaurants, Personal and other services
Mixed field programs	Transport, Non-classifiable economic units, Not stated, Government and defence

Source: Table based on main fields of study associated with occupations available at http://jobsearch.gov.au/training

Region	Post codes
Central Australia	860, 862, 870, 872
Kakadu	886
Bowen Basin	4702, 4709, 4714, 4715, 4716, 4717, 4718, 4719, 4720, 4721, 4722, 4742, 4743, 4744, 4745, 4746