

bitre

Chapter 5

Day-to-day living



Chapter 5 Day-to-day living

This chapter discusses aspects of day-to-day living in Northern Australia, with a focus on income support; wealth (asset ownership, liabilities, and so on); the cost of living (with particular reference to groceries); schools, universities and TAFE institutions; and health services.

Between 1995–96 and 2000–01, dependence on government benefits increased in Northern Australia, more than it did across Australia as a whole. This dependence is commensurate with the economic downturn experienced in much of Northern Australia between 1999 and 2001.

In the Northern Australia region, household wealth was lower than that of Australian households generally in 2003–04. The average debt-to-asset ratio was also higher across Northern Australia (17 per cent) than across Australia generally (13 per cent).

With smaller population centres across much of Northern Australia, school sizes and enrolment numbers were often smaller than respective state averages. Few schools in remote parts of Northern Australia offered up to Year 12 tuition, meaning that students wishing to study at this level often had to study outside their home communities.

Of Australia's 9562 schools, 681 (7.1 per cent) were located in Northern Australia. Six hundred and fifteen Northern Australian schools offered up to primary school education, 137 offered up to junior secondary education (this figure includes some mixed primary/secondary schools), and 196 offered up to Year 12 education (this figure includes some mixed primary/secondary schools).

There are few university institutions located within Northern Australia which offer a broad range of course types and levels (although external studies are also available through universities located outside the region). In comparison with the rest of Australia, there are lower percentages of people aged 15 and over at university in Northern Australia, with particularly low percentages seen in northern Western Australia. At the regional level, Darwin-East Arnhem and Northern Queensland had high percentages of students, while the Pilbara and North West Queensland regions had low percentages of students relative to the population aged 15 and over.

There are more females than males at university in Northern Australia (as is the case for Australia generally); however, the gap between the sexes in Northern Australia is greater than in Australia as a whole. This difference between the sexes is particularly apparent in the northern regions of the Northern Territory.

Northern Australian student enrolments at TAFE institutions were generally higher per 1000 people in the population than across Australia as a whole. Even in the remote regions within Northern Australia, the majority of students were able to study at TAFE institutions located in their own region, rather than having to travel large distances to access education, as it is the case with university students.

The proportion of people identifying as health workers per 100 000 residents in the population is lower across Northern Australia than Australia as a whole, especially in parts of northern Western Australia and Queensland. As the remoteness of SLAs from major population centres increased, the proportion of health workers decreased. A more detailed breakdown of nine key health professions indicated that there are smaller proportions of nurses, medical workers, dentists, pharmacists, optometrists, physiotherapists, chiropractors and psychologists within Northern Australia, as compared with the rest of Australia.

Out of Australia's 795 public hospitals, 92 (approximately 11.6 per cent) were located in Northern Australia. Further, 17 of Australia's 549 private hospitals (approximately 3.1 per cent) were located across the region. Most of Northern Australia's hospitals were located in the more populous areas of northern Queensland.

With respect to the cost of living, prices of groceries varied across and within regions. The lowest grocery prices were associated with major centres where there were a number of competing grocery retailers. The highest grocery prices, nearly twice the capital city prices, are characteristic of very remote and isolated places with large proportions of Indigenous people in the population.

5.1 Income support

In 1995–96, across the whole of Northern Australia, the aggregated number of recipients of government benefits per 1000 people (242) was lower than the equivalent rate for the whole of Australia (264) (see Table 5.1.1). However, there were differences at a state level, with the northern regions of Queensland (252) having more recipients per 1000 people than the northern regions of Western Australia (194) and the Northern Territory (228). In particular, as the data above illustrates, the northern regions of Queensland had significantly higher levels of dependence on the Age Pension, amongst what were relatively older resident populations.

Table 5.1.1 Northern Australia—income support and recipients by region, 1995–96 to 2000–01

Region	1995–96 Centrelink benefit recipients per 1000 persons	Percentage of total income by region	1995–96 Age Pension recipients per 1000 persons	Percentage of total income by region	2000–01 Centrelink benefit recipients per 1000 persons	Percentage of total income by region	2000–01 Age Pension recipients per 1000 persons	Percentage of total income by region
Northern Australia (WA)	194	7.0	23.8	1.2	211.8	8.6	24.1	1.2
Pilbara Region	146	4.4	13.6	0.6	150.0	4.9	16.0	0.6
Kimberley Region	274	13.7	40.7	2.7	290.8	17.0	34.5	2.6
Western Australia state total	241	9.4	76.2	3.4	255.7	10.3	81.5	3.5
Northern Australia (NT)	228	9.6	25.8	1.4	253.5	11.6	28.9	1.5
Darwin-East Arnhem Region	219	8.7	22.7	1.1	234.2	10.2	26.8	1.3
Katherine-Lower Top End Region	256	14.8	28.2	2.2	312.7	20.0	29.7	2.4
Barkly-Central NT Region	244	10.9	34.3	2.0	291.7	13.9	35.7	2.0
Northern Territory total	231	9.5	26.1	1.3	255.9	11.4	28.9	1.5
Northern Australia (QLD)	252	10.4	66.3	3.2	273.5	12.2	70.1	3.5
Mackay Region	249	9.6	65.5	3.0	279.9	11.8	72.3	3.4
Northern Region	241	10.0	74.0	3.6	261.3	11.4	73.8	3.5
Far North Region	271	11.8	64.3	3.4	289.5	14.1	68.8	3.7
North West Region	216	8.7	42.5	2.1	219.9	9.3	46.8	2.2
Longreach Region	214	10.1	85.2	4.9	199.1	7.8	85.9	3.6
Queensland state total	268	11.9	83.5	4.2	285.4	12.7	87.0	4.1
Northern Australia subtotal	242	9.9	54.2	2.7	263.9	11.8	57.2	2.9
Australia total	264	10.9	91.7	4.1	272.5	11.0	96.3	4.0

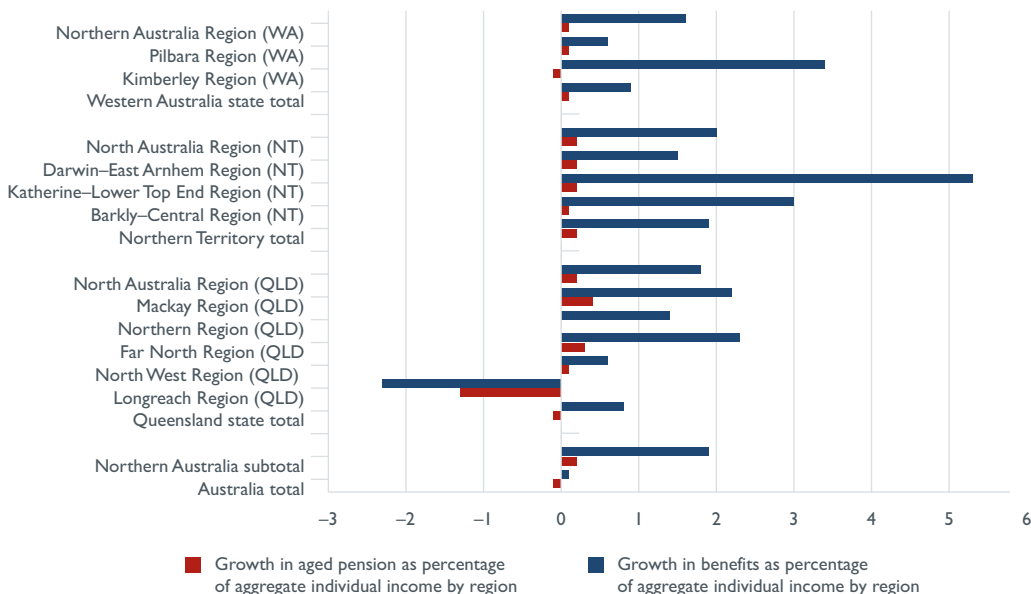
Note: The ABS has calculated total income by adding all individual taxpayer income (provided by the ATO) to all benefit recipient income (provided by FaHCSIA), by SLA. BITRE has aggregated this data to a regional level and calculated rates per 1000 persons in the population of each region.

Source: ABS (2005); ABS (2007a).

There was some variability between regions. The Kimberley Region of Western Australia had more than the national rate of benefit recipients per 1000 people (274), as did Far North Queensland (271). The lowest rates of benefit receipt were in the Pilbara Region of Western Australia (146 per 1000), and the Longreach region of Queensland (214 per 1000).

Table 5.1.1 shows that between 1995–96 and 2000–01, almost all of the Northern Australian regions saw growth in the numbers of income support recipients per 1000 people in the population. However, the proportion of recipients in the population declined in Longreach, from 214 to 199 per 1000 people.

Figure 5.1.1 Northern Australia—income support as a percentage of aggregate individual income by region (growth), 1995–96 to 2000–01



Note: This figure shows growth in reliance on income support as a percentage of total taxable and benefit income, by region, between 1995–96 and 2000–01.

Source: ABS (2005); ABS (2007a).

Northern Australia experienced proportionately less growth in aggregate real taxable income than Australia did between 1995–96 and 2000–01. Figure 5.1.1 shows that between 1995–96 and 2000–01, reliance on income support as a percentage of total taxable and benefit income increased across Northern Australia (1.8 per cent of total taxable and benefit income) more than it did across Australia as a whole (0.1 per cent). As discussed in Chapter 3 (section 3.1) and Chapter 4 (section 4.5), the temporary economic downturn experienced across much of Northern Australia between 1999 and 2001 was more severe in many regions than that experienced across Australia as a whole.

5.2 Wealth

Table 5.2.1 shows that across those communities where data was collected in the Northern Australia region, household wealth was relatively low compared to households across the whole of Australia in 2003–04. It should be noted that discrete Indigenous communities and very remote communities were excluded from the original data used to produce BITRE's wealth database. Had this data been available, it is likely that household wealth figures in some Northern Australian regions would have been lower than those presented here.

In Northern Australia in 2003–04, average net household worth (all household assets minus liabilities) was around \$308 700, whilst across Australia it was around \$467 600. Similarly, average assets per household were worth around \$371 100 in Northern Australia, whilst they were worth \$537 100 across Australia. This is commensurate with lower property values in many Northern Australia communities than average values across Australia as a whole. Average property assets per household were worth around \$127 900 in Northern Australia, whilst amongst Australians generally, they were worth around \$259 900.

Amongst the Northern Australian regions, net household worth was highest in Broome (Kimberley) at around \$345 600 and in Port Hedland and Roebourne (Pilbara), at around \$268 700. Net household worth was lowest in Cloncurry and Mount Isa (North West Queensland), at around \$242 500.

The average debt-to-asset ratio was also higher across Northern Australia (17 per cent) than across Australia generally (13 per cent). Amongst the Northern Australian regions, debt-to-asset ratios were highest in Darwin (Darwin-East Arnhem), at 22 per cent, Alice Springs (Barkly-Central NT), at 21 per cent, and Cloncurry and Mount Isa (North West Queensland) at 21 per cent. They were lowest in Broome (Kimberley), at 14 per cent, and Mackay, at 15 per cent.

Table 5.2.1 Northern Australia — household wealth by region, 2003–04

Region	Estimated number of households	Average net worth per household (\$ thousands)	Average equivalised net worth per household (\$ thousands)	Average assets per household (\$ thousands)	Average liabilities per household (\$ thousands)	Debt to asset ratio per household (per cent)	Average net property assets per household (\$ thousands)
Northern Australia (WA)	303 527	301.3	195.4	359.7	58.4	16.2	126.9
Pilbara Region	9 681	345.6	225.0	413.6	68.0	16.4	171.8
Kimberley Region	4 666	368.7	231.6	430.4	61.7	14.3	150.7
Western Australia state total	741 447	393.5	256.7	462.2	68.7	14.9	202.1
Northern Australia (NT)	51 902	325.1	212.5	413.1	87.9	21.3	142.3
Darwin-East Arnhem Region	39 912	325.9	213.0	415.4	89.4	21.5	145.0
Katherine-Lower Top End Region	2 905	264.3	174.1	325.0	60.7	18.7	83.9
Barkly-Central NT Region	9 085	341.0	222.6	431.1	90.1	20.9	149.0
Northern Territory total	51 902	325.1	212.5	413.1	87.9	21.3	142.3
Northern Australia (QLD)	224 836	305.3	198.7	364.7	59.3	16.3	125.0
Mackay Region	62 879	331.0	215.2	388.3	57.3	14.7	139.3
Northern Region	72 480	294.9	189.4	357.1	62.2	17.4	115.1
Far North Region	81 053	301.3	198.7	359.0	57.7	16.1	127.5
North West Region	8 424	242.5	155.3	308.5	66.0	21.4	79.6
Longreach Region	—	—	—	—	—	—	—
Queensland state total	1 461 557	383.0	247.2	446.2	63.2	14.2	200.2
Northern Australia subtotal	644 610	308.7	200.9	371.1	62.4	16.8	127.9
Australia total	7 577 838	467.6	293.9	537.1	69.4	12.9	259.9

Notes:

- The table above shows selected measures of 'wealth' by region, namely the estimated number of households, average net household worth (assets minus liabilities), average equivalised net worth (taking into account the different average number of people per household in each region), average assets per household, average liabilities per household and average debt-to-asset ratio and average net property assets per household as measures. The original data used in wealth calculations here excluded very remote and Indigenous communities, meaning that many Northern Australian SLAs are not represented at all in the data above, and that this table should be read with caution.
 - The Pilbara Region includes data from Port Hedland and Roebourne only. The Kimberley Region includes data from Broome only.
 - The Darwin-East Arnhem Region information from in and around the city of Darwin only. The Katherine-Top End region includes figures from Katherine only. The Barkly-Central NT Region includes figures from Alice Springs only.
 - The Far North Region includes information from Cairns, Weipa, Johnstone, Douglas, Cardwell, Mareeba, Herberton, Atherton and Eacham only. Many of this region's SLAs are either very remote or Indigenous communities, and were hence excluded from the original data.

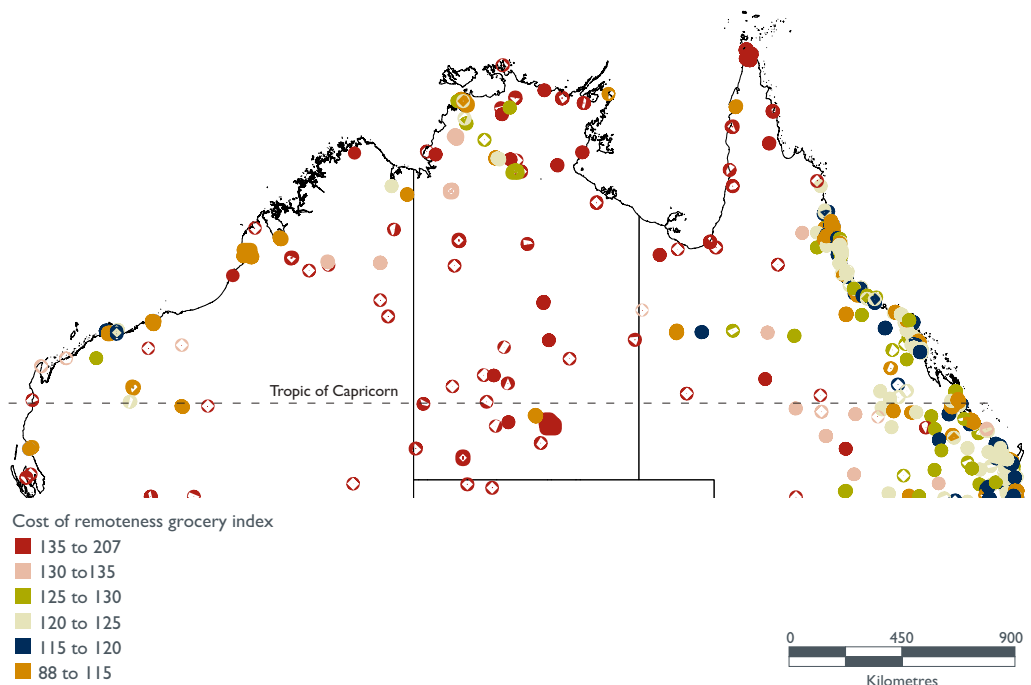
Source: BITRE (2009b).

5.3 The cost of groceries

BITRE has examined a number of social and economic characteristics of regional Australia. An important component of the cost of living in Northern Australia is the cost of groceries retailed in that region. A synthetic index of grocery prices was formulated within BITRE's Cost of Living (forthcoming) project using modelling. The modelling was based on a survey that compared price levels of a basket of groceries purchased in Australia's state capitals with those of 130 selected towns and cities in regional Australia. It is important to remember that these estimates are not the result of direct observations in the centres themselves but based on the trends and patterns across Australia.¹² BITRE expects that actual price levels in individual centres will vary considerably from the estimates.

BITRE's estimation of grocery price levels for selected localities in Northern Australia is illustrated in Map 5.3.1. The lowest levels of grocery prices are associated with major population centres, which contain major chain stores and competing grocery retailers. Higher prices are associated with smaller, more remote communities where there is reduced turnover, less competition and higher transport costs. The very highest levels of grocery prices, some of which are nearly twice the capital city levels, are characteristic of very remote Indigenous communities. However, not all such communities have high prices.

Map 5.3.1 Synthetic grocery price index by population centre, 2006



Notes: This map shows estimated grocery price index ranges by UCL across Northern Australia in 2006.

Source: BITRE (unpublished data).

12. Estimates are based on information to be published in 2009 as part of a larger BITRE project on the cost of living in regional Australia which undertook a survey of prices based on June 2006. Indices set grocery prices across the eight capital cities at 100.

5.4 Schools

Tables 5.4.1 and 5.4.2 show numbers of schools and student enrolments by region in Northern Australia. The data presented reflects a trend toward larger school facilities with higher numbers of student enrolments in dense population areas and major cities. With smaller population centres across much of Northern Australia, school sizes and enrolments are also often smaller than state averages. Tables 5.4.1 and 5.4.2 also show the percentage of the total number of schools in each state (government and private) which were located in Northern Australia.

Table 5.4.1 Northern Australia—government school enrolments by region, 2008

Region	Number of government schools 2008	Percentage of government schools in state	Number of students enrolled (government) 2008	Percentage of government school students in state	Average government school enrolment
Northern Australia (WA)	54	6.7	13 002	5.2	241
Pilbara Region	31	3.9	8 035	3.2	259
Kimberley Region	23	2.9	4 967	2.0	216
Western Australia state total	804	100.0	250 170	100.0	311
Northern Australia (NT)	141	93.4	32 247	99.0	229
Darwin-East Arnhem Region	75	49.7	23 021	70.7	307
Katherine-Lower Top End Region	25	16.6	3 773	11.6	151
Barkly-Central NT Region	41	27.2	5 453	16.7	133
Northern Territory total	151	100.0	32 582	100.0	216
Northern Australia (QLD)	319	25.1	86 208	17.9	270
Mackay Region	89	7.0	23 358	4.9	262
Northern Region	75	5.9	23 926	5.0	319
Far North Region	124	9.8	33 271	6.9	268
North West Region	27	2.1	5 003	1.0	185
Longreach Region	4	0.3	650	0.1	163
Queensland state total	1 270	100.0	480 444	100.0	378
North Australia subtotal	514	–	131 457	–	256
Australia total	6 833	–	2 264 554	–	331

Notes:

- For comparative purposes, ABS data was used to provide Australian totals for 2008. It should be noted that the enrolment figures provided by schools are significantly higher than ABS numbers.
- This table shows the number of government schools and student enrolments by region in Northern Australia. In the raw data tables provided by the Queensland Government, special school sections of state schools were shown separately in order to distinguish the existence of these facilities. However, because enrolment figures were not provided for special school sections of existing state schools separately from the wider school population, only whole schools were counted in calculating the number of schools and enrolments in Queensland in this table.

Sources: ABS (2008f); Independent Schools Queensland (2008); Northern Territory Government Department of Education and Training (2008a); Northern Territory Government Department of Education and Training (2008b); Queensland Catholic Education Commission (2008); Queensland Department of Education, Training and the Arts (2008a); Queensland Department of Education, Training and the Arts (2008b); Western Australia Department of Education and Training Information Services (2008a); Western Australia Department of Education and Training Information Services (2008b).

Table 5.4.2 Northern Australia—private school enrolments by region, 2008

<i>Region</i>	<i>Number of non-government schools 2008</i>	<i>Percentage of non-government schools in state</i>	<i>Number of students enrolled (non-government) 2008</i>	<i>Percentage of non-government school students in state</i>	<i>Average non-government school enrolment</i>
Northern Australia (WA)	26	8.3	3 247	2.6	125
Pilbara Region	7	2.2	1 140	0.9	163
Kimberley Region	19	6.1	2 107	1.7	111
Western Australia state total	313	100.0	127 150	100.0	406
Northern Australia (NT)	34	97.1	9 534	94.7	280
Darwin-East Arnhem Region	26	74.3	6 934	68.9	267
Katherine-Lower Top End Region	2	5.7	278	2.8	139
Barkly-Central NT Region	6	17.1	2 322	23.1	387
Northern Territory total	35	100.0	10 063	100.0	288
Northern Australia (QLD)	107	21.4	37 910	16.7	354
Mackay Region	23	4.6	9 833	4.3	428
Northern Region	35	7.0	13 239	5.8	378
Far North Region	40	8.0	13 676	6.0	342
North West Region	8	1.6	1 026	0.5	128
Longreach Region	1	0.2	136	0.1	136
Queensland state total	499	100.0	226 755	100.0	454
Northern Australia subtotal	167	–	50 691	–	304
Australia total ¹	2 729	–	1 169 737	–	429

Notes:

- For comparative purposes, ABS data was used to provide Australian totals for 2008. It should be noted that the enrolment figures provided by schools are significantly higher than ABS numbers.
- This table shows the number of non-government schools and student enrolments by region in Northern Australia.

Sources: ABS (2008f); Independent Schools Queensland (2008); Northern Territory Government Department of Education and Training (2008a); Northern Territory Government Department of Education and Training (2008b); Queensland Catholic Education Commission (2008); Queensland Department of Education, Training and the Arts (2008a); Queensland Department of Education, Training and the Arts (2008b); Western Australia Department of Education and Training Information Services (2008a); Western Australia Department of Education and Training Information Services (2008b).

There are higher proportions of students enrolled in government schools and lower proportions enrolled in non-government schools within Northern Australia, as compared with the rest of Australia (see Table 5.4.3). In particular, there were higher proportions of students enrolled in government schools in northern Western Australia and the north of the Northern Territory. Low proportions of students in private schools were observed in the Katherine-Lower Top End, Pilbara, North West Queensland and Longreach regions, as compared with the rest of Australia. A high proportion of the available schooling facilities in regions with very remote communities were provided by the state (such as Barkly-Central NT in the Northern Territory, the Kimberley and Pilbara regions in Western Australia, and North West Queensland).

Table 5.4.3 Northern Australia—student enrolments by school type (per cent of total enrolments) by region, 2008

<i>Region</i>	<i>Total number of students enrolled 2008</i>	<i>Average enrolment (all schools)</i>	<i>Proportion of students in government schools</i>	<i>Proportion of students in non-government schools</i>
Northern Australia (WA)	16 249	203	80.0	20.0
Pilbara Region	9 175	241	87.6	12.4
Kimberley Region	7 074	168	70.2	29.8
Western Australia state total	377 320	338	74.8	25.2
Northern Australia (NT)	41 781	239	81.4	18.6
Darwin-East Arnhem Region	29 955	297	81.2	18.8
Katherine-Lower Top End Region	4 051	150	93.6	6.4
Barkly-Central NT Region	7 775	165	77.0	23.0
Northern Territory total	42 645	229	80.9	19.1
Northern Australia (QLD)	124 118	291	76.6	23.4
Mackay Region	33 191	296	77.1	22.9
Northern Region	37 165	338	73.7	26.3
Far North Region	46 947	286	77.4	22.6
North West Region	6 029	172	85.5	14.5
Longreach Region	786	157	85.2	14.8
Queensland state total	707 199	428	75.7	24.3
Northern Australia subtotal	182 148	267	78.2	21.8
Australia total ¹	3 434 291	359	65.9	34.1

Notes:

- For comparative purposes, ABS data was used to provide Australian totals for 2008. It should be noted that the enrolment figures provided by schools are significantly higher than ABS numbers.
- This table shows the number and proportion of student enrolments by type of school in Northern Queensland. For the above regions, the figures presented do not necessarily reflect an availability of choice between state and private facilities within regions. In some remote regions, students may have no option but to attend private boarding facilities in order to complete senior education, for example.

Sources: ABS (2008f); Independent Schools Queensland (2008); Northern Territory Government Department of Education and Training (2008a); Northern Territory Government Department of Education and Training (2008b); Queensland Catholic Education Commission (2008); Queensland Department of Education, Training and the Arts (2008a); Queensland Department of Education, Training and the Arts (2008b); Western Australia Department of Education and Training Information Services (2008a); Western Australia Department of Education and Training Information Services (2008b).

Data in Table 5.4.4 indicates that few schools in regions characterised by very remote communities offered up to Year 12 tuition, meaning that students wishing to study at this level often had to study outside their home communities. It should also be noted that in the Northern Territory in particular, many schools counted as 'high schools' were intermediate schools which offered Years 7 to 9, as the Territory often separates high schools in this manner. Hence, even in Darwin, the proportion of high schools offering up to Year 12 education is lower than in other states. However, we can still see significant differences between Darwin-East Arnhem and the balance of the Territory in the availability of schools offering tuition up to Year 12.

Table 5.4.4 Northern Australia—school by year levels and Vocational Education and Training (VET) offered by region, 2008

Region	Number of schools offering primary years (preschools are included in this count)	Number of high schools not offering Year 12	Number of high schools offering Year 12	Proportion of high schools offering Year 12	Number of schools known to offer Vocational Education and Training (VET)
Northern Australia (WA)	34	22	23	51.1	–
Pilbara Region	19	6	12	66.7	–
Kimberley Region	15	16	11	40.7	–
Western Australia state total	748	93	276	74.8	–
Northern Australia (NT)	148	93	22	19.1	11
Darwin-East Arnhem Region	81	39	16	29.1	9
Katherine-Lower Top End Region	25	21	2	8.7	2
Barkly-Central NT Region	42	33	4	10.8	
Northern Territory total	161	104	23	18.1	12
Northern Australia (QLD)	433	22	151	87.3	86
Mackay Region	112	2	37	94.9	22
Northern Region	111	2	43	95.6	28
Far North Region	168	9	60	87.0	33
North West Region	37	8	10	55.6	2
Longreach Region	5	1	1	50	1
Queensland state total	1 426	76	450	85.6	–
Northern Australia subtotal	615	137	196	58.9	97

Note: This table shows the number of schools offering primary years, high schools not offering Year 12, high schools offering Year 12 and those high schools known to offer Vocational Education and Training (VET) in Northern Australia. VET figures here represent only those schools known by BITRE to provide VET. They are not to be used for comparative purposes. State authorities pointed out that virtually all schools offering Year 12 also offered VET to their students. Schools may also offer VET below Year 12. For example, the Northern Territory Government specifically pointed out that their VET figures did not include most remote schools and schools offering VET in Years 8 and 9. BITRE did not obtain VET figures from the Queensland Catholic Schools Association, meaning that only government and independent private schools are included in the totals above. The Queensland Government itself was unable to provide VET figures for state schools within the timeframes required, so a basic scan of the national database of Registered Training Organisations was made instead. The figure above shows all schools which offer primary school years. However, many schools in Queensland and the Northern Territory offer primary school and high school together. Hence, these schools are also included in counts of high schools. Schools offering pre-school and the prep year are included in the primary schools count above.

Sources: Independent Schools Queensland (2008); Northern Territory Government Department of Education and Training (2008a); Northern Territory Government Department of Education and Training (2008b); Queensland Catholic Education Commission (2008); Queensland Department of Education, Training and the Arts (2008a); Queensland Department of Education, Training and the Arts (2008b); Western Australia Department of Education and Training Information Services (2008a); Western Australia Department of Education and Training Information Services (2008b).

5.5 Universities

In order to attend university, Northern Australian students are often faced with the prospect of leaving the region to undertake on-campus study elsewhere in more densely populated parts of Australia. Alternatively, they may decide to study externally from home. Some find that their external study needs are also best met by southern universities. Among these people are students who travel long distances to attend short 'residential' on-campus workshops outside Northern Australia, in larger city centres.

Table 5.5.1 shows that while there are a number of university facilities in Northern Australia, few offer a broad range of courses, or qualifications up to the Postgraduate level. Many offer external studies only. This is particularly so across much of the Northern Territory and northern Western Australia, which are more sparsely populated than northern Queensland.

In 2007 in the Northern Territory, the Batchelor Institute of Indigenous Tertiary Education had almost 800 students, with 31 people studying at the Postgraduate level. Students at this university often study via small external study centres, which are spread across a number of Indigenous communities (in addition to the annexes listed in Table 5.5.1). Apart from the Batchelor Institute, Charles Darwin University is the only on-campus tertiary education option for students wishing to live and study in the Northern Territory.

Within northern Western Australia there are also relatively few study options compared to those offered in the south. All of the Western Australia universities offering education across the northern region are based in Perth. One campus in northern Western Australia offers Postgraduate qualifications.¹³

Within the more populous regions of northern Queensland there are more study options available to students, given that there are two larger universities (Central Queensland University and James Cook University) with main campuses in this area. However, the more sparsely populated regions of northern Queensland also offer a limited range of on-campus study options to students. For example, the James Cook University outlet in the North West Region provides health-related courses only.

Table 5.5.2 provides information on the number of students by broad course level at each university which has a campus in Northern Australia. These numbers are for the entire university, that is, they represent all students enrolled at the university, not just those who are within Northern Australia. In the case of Central Queensland University, a number of students would not be from within Northern Australia, as the university has also campuses in Sydney, Melbourne, Brisbane and the Gold Coast. In the case of Curtin University of Technology and the University of Notre Dame, the vast majority of these students would be located outside of northern Western Australia, in and around Perth, which is where the main campuses are situated. Universities which have students in northern Queensland, Western Australia and the Northern Territory who are studying by correspondence are not considered in this table, as no data was available.

13. The University of Notre Dame, Broome.

Table 5.5.1 Northern Australia — university campuses, by region, 2007

Region	Campus	University	Main campus located in Northern Australia	Courses offered
Northern Australia (WA)	Karratha	Curtin University of Technology	No	Up to Bachelor and Graduate Diploma of Education
	Port Hedland	Curtin University of Technology	No	Up to Bachelor and Graduate Diploma of Education
	Broome	The University of Notre Dame	No	Selected Undergraduate and Postgraduate programs
	Kununurra	Batchelor Insitute of Indigenous Tertiary Education	Yes (NT)	Annex—external study centre
Northern Australia (NT)	Batchelor	Batchelor Insitute of Indigenous Tertiary Education	Yes (NT)	VET to Postgraduate
	Darwin	Batchelor Insitute of Indigenous Tertiary Education	Yes (NT)	Annex—external study centre
	Nhulunbuy	Batchelor Insitute of Indigenous Tertiary Education	Yes (NT)	Annex—external study centre
	Casuarina	Charles Darwin University	Yes (NT)	Up to Postgraduate
	Palmerston	Charles Darwin University	Yes (NT)	VET
	Jabiru	Charles Darwin University	Yes (NT)	VET
	Nhulunbuy	Charles Darwin University	Yes (NT)	VET
	Katherine	Batchelor Insitute of Indigenous Tertiary Education	Yes (NT)	Annex—external study centre
	Katherine	Charles Darwin University	Yes (NT)	VET
	Tennant Creek	Batchelor Insitute of Indigenous Tertiary Education	Yes (NT)	Annex—external study centre
Barkly-Central NT Region	Tennant Creek	Charles Darwin University	Yes (NT)	VET
	Alice Springs	Batchelor Insitute of Indigenous Tertiary Education	Yes (NT)	VET to Postgraduate
	Alice Springs	Charles Darwin University	Yes (NT)	VET and undergraduate degrees
Northern Australia (QLD)	Mackay	James Cook University	Yes (QLD)	External study centre
	Mackay	Central Queensland University	Yes (QLD)	Up to Postgraduate
	Townsville	James Cook University	Yes (QLD)	Up to Postgraduate
	Cairns	James Cook University	Yes (QLD)	Up to Postgraduate
	Thursday Island	James Cook University	Yes (QLD)	Nursing and education studies
	Yarrabah (QLD)	Batchelor Insitute of Indigenous Tertiary Education	Yes (NT)	Annex—external study centre
	Mount Isa	James Cook University	Yes (QLD)	Undergraduate nursing and health related courses
	Centre for Rural and Remote Health			
	Health			
	None			
	Longreach Region			

Notes: This table lists all university campuses which lie within Northern Australia, along with information related to the courses which are offered to students. The table does not consider universities which provide students within Northern Australia with the option to study by correspondence; such data was not available.

Sources: Batchelor Insitute of Indigenous Tertiary Education 2008a; Batchelor Insitute of Indigenous Tertiary Education 2008b; Central Queensland University 2008a; Central Queensland University 2008b; Charles Darwin University 2008a; Charles Darwin University 2008b; Curtin University of Technology 2008; Curtin University 2008a; James Cook University 2008a; James Cook University 2008b; James Cook University 2008c; James Cook University 2008d; James Cook University 2008e; The University of Notre Dame Australia 2008.

Table 5.5.2 Universities with a campus in Northern Australia—all students by higher education provider and broad level of course, full year 2007

Region	Main campus in Northern Australia	Doctorate by research work	Master's by research	Master's by course-work	Other post-graduate	Subtotal post-graduate	Bachelor degree	Associate degree	Other under-graduate	Subtotal under-graduate	Enabling courses	Non-award courses	Total
Northern Australia (NT)													
Batchelor Institute of Indigenous Tertiary Education	Yes		8		23	31	172		254	426	269		726
Charles Darwin University	Yes	176	13	29	370	526	4 061	32	22	4 115	631	13	5 873
Northern Australia (QLD)													
Central Queensland University	Yes	225	37	63	5 709	1 689	11 707	71	346	12 124	1 028	177	21 052
James Cook University	Yes	592	72	107	1 949	776	11 304		98	11 402	64	613	15 575
Northern Australia (WA)													
Curtin University of Technology	No	1 431	1	312	4 644	2 645	29 531	271	221	30 023	256	1 062	40 374
The University of Notre Dame	No	40	0	9	453	251	4916	0	89	5005	144	322	6224

Note: As data was not available for individual campuses, these numbers are for the entire university. That is, they represent all students enrolled at the university, not just students within Northern Australia. Consequently, subtotals for each of the Northern Australia states have not been provided, as it would be misleading to suggest that all students who are enrolled at the Central Queensland University, for example, are from northern Queensland.

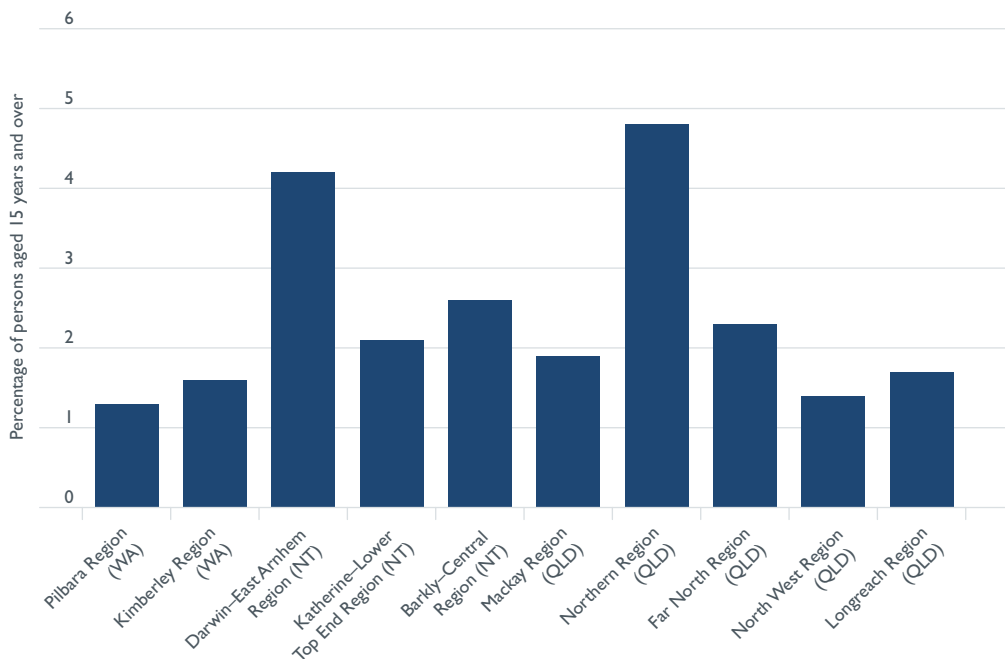
Source: DEEWR (2008c).

There are lower percentages of people at university in Northern Australia than in Australia generally (see Table 5.5.3). In particular, there are very low proportions of people within northern Western Australia who are studying at a tertiary institution (1.4 per cent compared with the national average of 4.7 per cent).

There are relatively high percentages of people at university in the Darwin-East Arnhem and Northern Queensland regions. This is probably linked to students coming in to Darwin and Townsville from outlying areas of the Northern Territory and northern Queensland, hence student numbers being particularly concentrated here.

Meanwhile there are low proportions of people at university in the Pilbara, Kimberley and North West regions. Low percentages of university students in such regions indicate that they are not places where people go to study. They also indicate that major employment industries located in this region may have little requirement for locally-based tertiary education facilities.

Figure 5.5.1 Northern Australia—percentage of persons at university or other tertiary institution, by region, 2006



Note: The above figure shows the proportion of the population aged over 15 years who are currently at university or other tertiary institutions in Northern Australia.

Source: ABS (2006b).

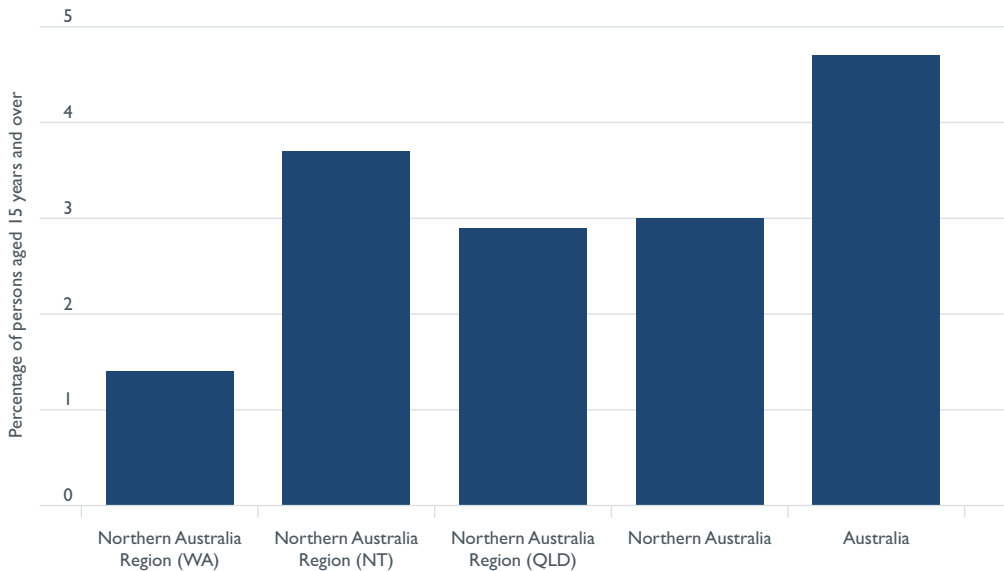
Table 5.5.3 Northern Australia—number and percentage of people at university or other tertiary institutions, by region, 2006

Region	Persons, aged 15 years and over			Males, aged 15 years and over			Females, aged 15 years and over		
	Usually resident adult population, total	University or other tertiary Institution, persons	University or other tertiary Institution (per cent)	Usually resident adult population, total	University or other tertiary Institution, males	University or other tertiary Institution (per cent)	Usually resident adult population, total	University or other tertiary Institution, females	University or other tertiary Institution (per cent)
Northern Australia (WA)	59 161	837	1.4	32 570	267	0.8	26 591	570	2.1
Pilbara Region	34 878	443	1.3	19 760	166	0.8	15 118	277	1.8
Kimberley Region	24 283	394	1.6	12 810	101	0.8	11 473	293	2.6
Western Australia state total	1 649 037	73 096	4.4	827 865	31 355	3.8	821 172	41 741	5.1
Northern Australia (NT)	155 869	5 756	3.7	81 259	2 109	2.6	74 610	3 647	4.9
Darwin-East Arnhem Region	111 535	4 684	4.2	59 070	1 738	2.9	52 465	2 946	5.6
Katherine-Lower Top End Region	13 155	275	2.1	6 706	101	1.5	6 449	174	2.7
Barkly-Central NT Region	31 179	797	2.6	15 483	270	1.7	15 696	527	3.4
Northern Territory total	159 134	5 819	3.7	82 849	2 108	2.5	76 285	3 711	4.9
Northern Australia (QLD)	532 580	15 534	2.9	272 546	5 667	2.1	260 034	9 867	3.8
Mackay Region	146 320	2 852	1.9	76 409	1 017	1.3	69 911	1 835	2.6
Northern Region	164 398	7 941	4.8	82 916	3 007	3.6	81 482	4 934	6.1
Far North Region	192 175	4 330	2.3	97 399	1 500	1.5	94 776	2 830	3.0
North West Region	26 790	362	1.4	14 406	133	0.9	12 384	229	1.8
Longreach Region	2 897	49	1.7	1 416	10	0.7	1 481	39	2.6
Queensland state total	3 256 955	137 846	4.2	1 614 410	57 129	3.5	1 642 545	80 717	4.9
Northern Australia subtotal	747 610	22 127	3.0	386 375	8 043	2.1	361 235	14 084	3.9
Australia total	15 918 076	745 457	4.7	7 777 915	324 196	4.2	8 140 161	421 261	5.2

Notes: The above table shows the proportion of the population aged over 15 years who are currently at university or other tertiary institutions. The data allows for comparisons to be made between genders, and for the Northern Australia subregions and states.

Source: ABS (2006b).

Figure 5.5.2 Northern Australia—percentage of persons at university or other tertiary institution, 2006

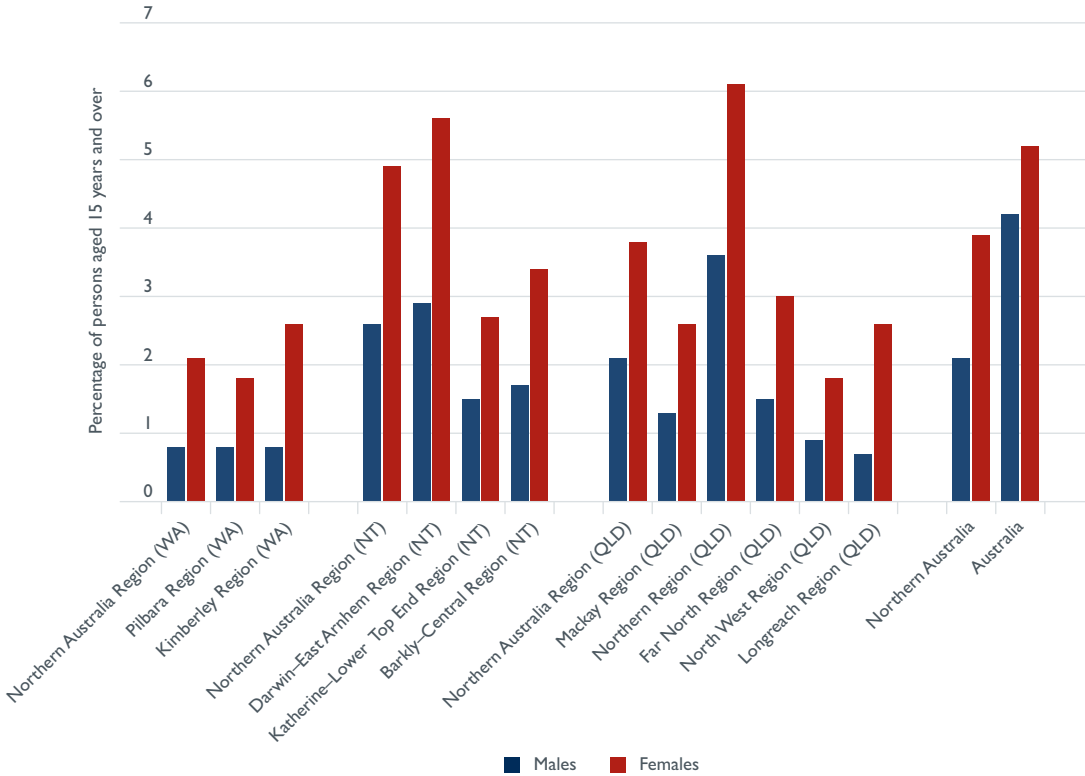


Note: The above figures show the proportion of the population aged over 15 years who are currently at university or other tertiary institutions. The data allows for comparisons to be made between the Northern Australia subregions, states and Australia.

Source: ABS (2006b).

In line with the national trend, there were more females than males at university in Northern Australia; however, the gap between the sexes is greater than is seen in the rest of Australia. This is particularly true of the northern Northern Territory, where 2.6 per cent of males were at university compared with 4.9 per cent of females. The lowest percentage of males at university was seen in the Longreach, Pilbara and Kimberley regions (see Table 5.5.1). On the other hand, high percentages were seen in the Northern Queensland (3.7 per cent) and Darwin-East Arnhem (2.9 per cent) regions, although both of these still lie below the national average (4.2 per cent). Amongst the female population in Northern Australia, there were fewer females at university in the Pilbara and North West regions. Like the male population, the highest percentages of females were in the Northern Queensland (6.1 per cent) and Darwin-East Arnhem (5.6 per cent) regions, which were higher than the national average (5.2 per cent).

Figure 5.5.3 Northern Australia—percentage of people at university or other tertiary institutions, by region, by gender, 2006



Notes: The above graph shows the proportion of the population aged over 15 years, by gender, which are currently studying at a university or other tertiary institutions. The figure allows for comparisons to be made between the Northern Australia subregions and states.

Source: ABS (2006b).

5.6 TAFE institutions

TAFE institutions play a significant role in education in Northern Australia. In Table 5.6.1, the physical distribution of TAFE institutions and training delivery outlets across the region in 2007 is shown.

Table 5.6.1 Northern Australia—location of TAFE institutions and training delivery locations, 2007

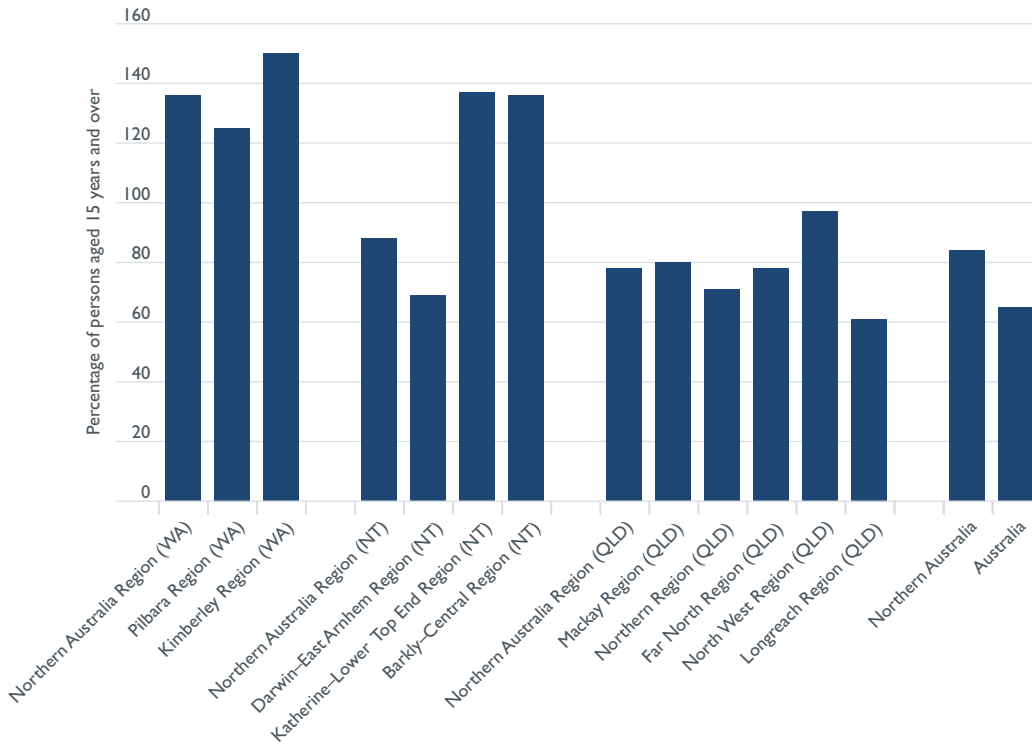
<i>Region</i>	<i>Number of TAFE college business entities located in region</i>	<i>Number of training delivery locations</i>
Northern Australia (WA)		
Pilbara Region	2	14
Kimberley Region	2	7
Northern Australia (NT)		
Darwin-East Arnhem Region	3	139
Katherine-Lower Top End Region	3	74
Barkly-Central NT Region	8	97
Northern Australia (QLD)		
Mackay Region	8	27
Northern Region	7	20
Far North Region	6	24
North West Region	8	17
Longreach Region	1	1
Australia total	71	1 502

Notes: This table shows the location of TAFE institutions (business entities), and the number of training delivery locations by region in Northern Australia. Some TAFE institutions are physically spread across more than one region. The training delivery locations listed in the second column of data do not always belong to the colleges listed in the first column of data. TAFE institutions from outside the region may also have delivery locations there.

Source: NCVET (2008).

As discussed in Chapter 4 (Section 4.6), Certificate-level qualifications were particularly dominant amongst adults in Northern Australia. In Figure 5.6.1, it can be seen that enrolments in TAFE institutions were also generally higher per 1000 people in the population than across Australia as a whole. Enrolments per 1000 people in the population were highest in the Kimberley Region (150 per 1000 people) of Western Australia, along with the Katherine-Lower Top End Region (137 per 1000 people) and the Barkly-Central NT Region (136 per 1000 people) of the Northern Territory. Student enrolment levels were at their lowest in the Longreach (61 per 1000 people) and Darwin-East Arnhem (69 per 1000 people) regions.

Figure 5.6.1 Northern Australia—usually resident enrolled TAFE students per 1000 population by region, 2007



Note: This figure shows the number of usually resident, enrolled TAFE students per 1000 people in the population, by region.

Source: NCVER (2008); ABS for DOHA (2008).

In Table 5.6.2, it can be seen that even in regions characterised by remote and Indigenous communities (such as the Kimberley, Barkly-Central NT and Katherine-Lower Top End regions), the majority of students were able to study through TAFE institutions located within their own regions in Northern Australia.

Table 5.6.2 Northern Australia—percentage of usually resident students studying at TAFE institutions within or outside their own region, by region, 2007

Region	Total students (per cent)	Studying within their own region	Studying outside home region, within Northern Australia (per cent)	Studying outside home region, outside Northern Australia (per cent)	Studying within an unknown region (per cent)
Northern Australia (WA)	100.0	81.6	–	16.0	0.1
Pilbara Region	100.0	79.6	1.4	18.9	0.1
Kimberley Region	100.0	84.0	3.4	12.4	0.2
Northern Australia (NT)	100.0	57.8	–	10.4	24.9
Darwin-East Arnhem Region	100.0	44.8	5.3	8.3	41.6
Katherine-Lower Top End Region	100.0	76.3	15.3	2.4	6.0
Barkly-Central NT Region	100.0	73.2	5.8	17.7	3.3
Northern Australia (QLD)	100.0	67.1	–	18.4	0.0
Mackay Region	100.0	55.8	23.9	20.3	0.0
Northern Region	100.0	74.5	8.6	16.8	0.1
Far North Region	100.0	72.4	10.2	17.4	0.0
North West Region	100.0	59.2	20.7	20.0	0.1
Longreach Region	100.0	0.4	33.8	65.8	0.0
Northern Australia subtotal	100.0	67.0	11.1	16.3	5.6

Note: The table above shows the proportion of students studying at TAFE colleges based in their own region, compared with the proportion of students studying at TAFE colleges located outside their home region. TAFE colleges based outside any given region may also have dedicated delivery centres physically located within that region. It should be noted that the vast majority of Australian students studying in an 'unknown region' (i.e. unknown to NCVER) reside in Northern Australia, hence the data should be treated with some caution.

Source: NCVER (2008).

5.7 Health

In Northern Australia, according to 2006 Census data, the proportion of people identifying as health workers per 100 000 people in the population is lower than the proportion of Australians generally. Table 5.7.1 shows that the number of health workers per 100 000 people is particularly low in the Mackay, Kimberley, Pilbara, Darwin-East Arnhem, North West and Far North Queensland regions. Furthermore, at the SLA level, many of the more remote areas across northern Australia have especially low proportions of health workers in comparison to the national average.

Readers interested in finding out more about the complex issues and difficulties involved in meeting existing service needs in certain parts of rural and remote areas across Australia, and about shortages of health professionals, may wish to consult DOHA's *Report on the Audit of Health Workforce in Rural and Regional Australia* (2008).

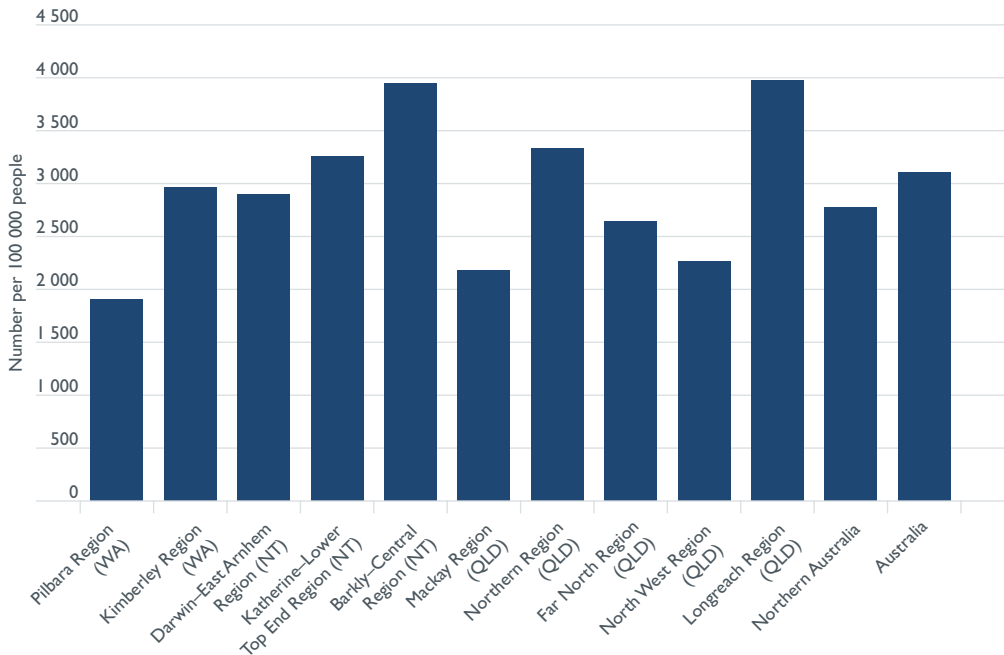
Table 5.7.1 Northern Australia—employed persons in health-related occupations, by region, 2006

Region	(per 100 000 population)									
	Population	Medical workers	Nursing	Dental Chiropractors and osteopaths	Optometrists and orthoptists	Pharmacists	Physio-therapists	Psychologists	Aboriginal health workers	Total health workers
Northern Australia (WA)	72 363	166	938	53	10	25	39	55	102	2 330
Pilbara Region	43 065	125	815	60	7	14	30	58	26	1 902
Kimberley Region	29 298	225	1 120	41	14	41	51	51	215	2 959
Western Australia state total	1 954 683	267	1 397	166	12	77	68	90	8	3 141
Northern Australia (NT)	187 134	295	1 255	113	10	48	46	59	117	3 138
Darwin-East Arnhem Region	133 721	295	1 223	121	11	51	49	64	96	2 900
Katherine-Lower Top End Region	16 466	134	960	36		55	24	30	279	3 255
Barkly-Central NT Region	36 947	365	1 502	119	8	35	49	54	122	3 946
Northern Territory total	190 881	291	1 236	111	11	47	46	58	120	3 123
Northern Australia (QLD)	642 414	213	1 218	130	11	59	35	59	22	2 719
Mackay Region	175 133	155	1 008	108	18	54	26	40		2 183
Northern Region	199 225	300	1 544	154	6	71	42	81	7	3 331
Far North Region	231 057	195	1 119	138	11	60	35	58	44	2 644
North West Region	33 476	143	977	48		18	30	24	75	2 267
Longreach Region	3 523	85	1 987	85			85	85		3 974
Queensland state total	3 891 666	267	1 349	160	13	76	57	62	6	2 963
Northern Australia subtotal	901 911	227	1 203	120	11	54	38	59	48	2 775
Australia total	19 813 078	287	1 413	149	17	77	62	69	5	3 102

Notes: This table provides information on nine key health professions within Northern Australia, as a proportion of the population. It should be noted that the total number of health workers includes all health professions; it is not limited to the nine key professions which have been explored in greater depth. The data refers to people who described themselves as health workers only. It does not distinguish between people actively working, working part-time, or not currently working, for example. BITRE summed the SLA data in order to obtain the state and national totals.

Source: Australian Government Department of Health and Ageing (DOHA) (2008).

Figure 5.7.1 Northern Australia—health workers per 100 000 people, by region, 2006



Note: This graph provides information on the total number of health workers within Northern Australia. The data refers to people who described themselves as health workers only. It does not distinguish between people actively working, working part-time, or not currently working, for example. BITRE summed the SLA data in order to obtain the state and national totals.

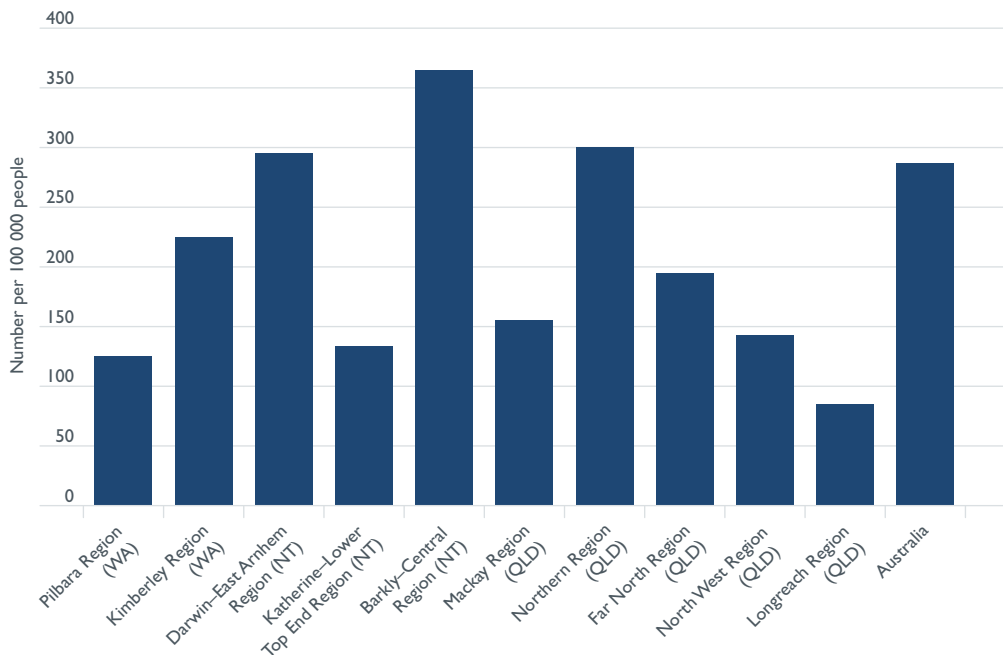
Source: DOHA (2008).

In line with national trends, the proportion of health professionals in the population decreased in Northern Australia as remoteness and distance from larger cities increases. Almost all of the key health professions had lower proportions of workers per 100 000 people in the population within Northern Australia than the rest of Australia (see Table 5.7.1). For example, the proportion of nurses, pharmacists and physiotherapists was far lower within Northern Australia than in the rest of Australia. The only exception to this was the proportion of Aboriginal health workers, which was higher within Northern Australia. The greater proportion of Aboriginal health workers in Northern Australia is to be expected given the higher proportion of Indigenous Australians living in these areas (see Chapter 2).

Figure 5.7.2 indicates that the proportion of medical workers was higher in the Darwin-East Arnhem, Barkly-Central NT and Northern Queensland regions. On the other hand, there were low proportions of medical workers per 100 000 in the Longreach (85), Pilbara (125) and Katherine-Lower Top End (134) regions in comparison with the national average (287). The proportion of dental workers per 100 000 people in the population within Northern Australia was lower than the rest of Australia. In particular the regions of North West Queensland (48), Kimberley (41) and the Katherine-Lower Top End (36) had low proportions per 100 000 people in comparison to the national ratio (149). Similarly, access to optometrists and orthoptists was much lower in parts of Northern Australia, such as the Kimberley, Katherine-Lower Top End, Barkly-

Central NT, Longreach and North West Queensland which had no medical workers in these categories. It is likely that many people living in these areas travel into larger towns in order to access such services. Alternatively, people living in more remote regions may rely on visiting services provided through the state and territory health authorities in order to access dental and optical care.

Figure 5.7.2 Northern Australia – medical workers per 100 000 people, by region, 2006



Note: This graph shows the number of medical workers per 100 000 people in the northern regions of Western Australia, the Northern Territory and Queensland, compared with their respective state totals and Australia. Medical workers include professions such as general practitioners, anaesthetists and surgeons. The data refers to people who described themselves as health workers only. It does not distinguish between people actively working, working part-time, or not currently working, for example. BITRE summed the SLA data in order to obtain the state and national totals.

Source: DOHA (2008).

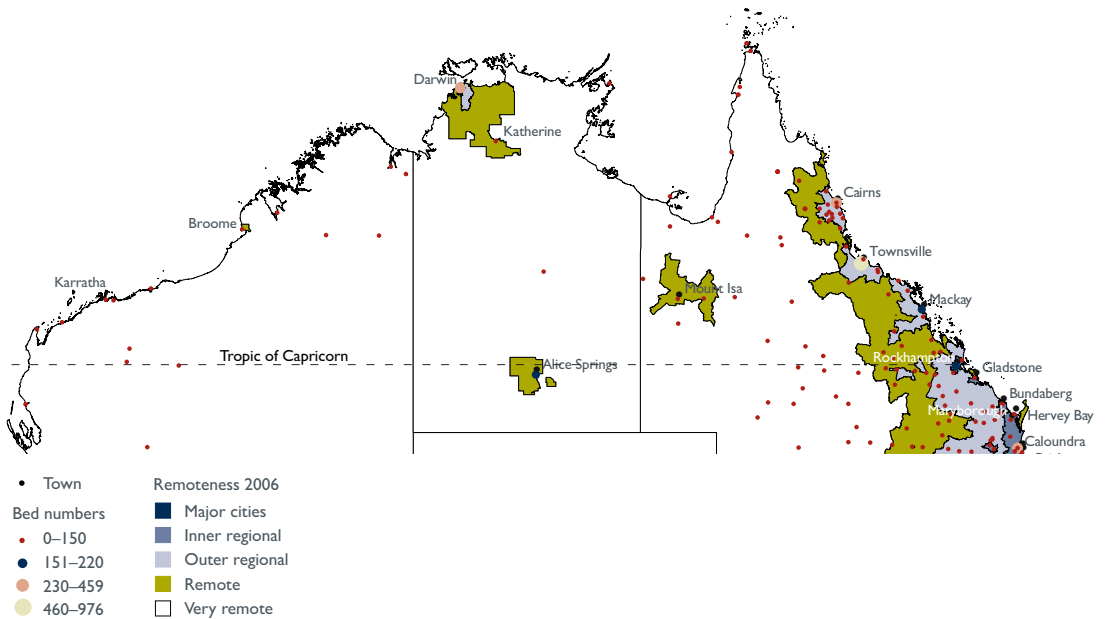
Map 5.7.1 shows the location of public hospitals across Northern Australia. In 2006, there were no private hospitals in northern Western Australia and one private hospital in the Northern Territory (located in Darwin). Within northern Queensland, there was only one private hospital across the very remote and remote areas, and five hospitals in the outer regional areas of Cairns (one hospital), Townsville (two hospitals) and Mackay (two hospitals). Thus, throughout much of Northern Australia there is a reliance on public hospitals to service the health needs of the population.

Map 5.7.2 shows the location of Aboriginal Medical Services within Northern Australia. Aboriginal Health Services are community controlled services which provide primary health care to Indigenous patients. The health centres offer a range of primary health care, substance misuse and mental health services, such as social and emotional wellbeing counselling; foster care placement for children; immunisation; disease management; health checks; education programs; and aged

care. The Northern Australia regions of Barkly-Central NT, Katherine-Lower Top End, Darwin-East Arnhem, Kimberley and Far North Queensland all have high numbers of these medical services.

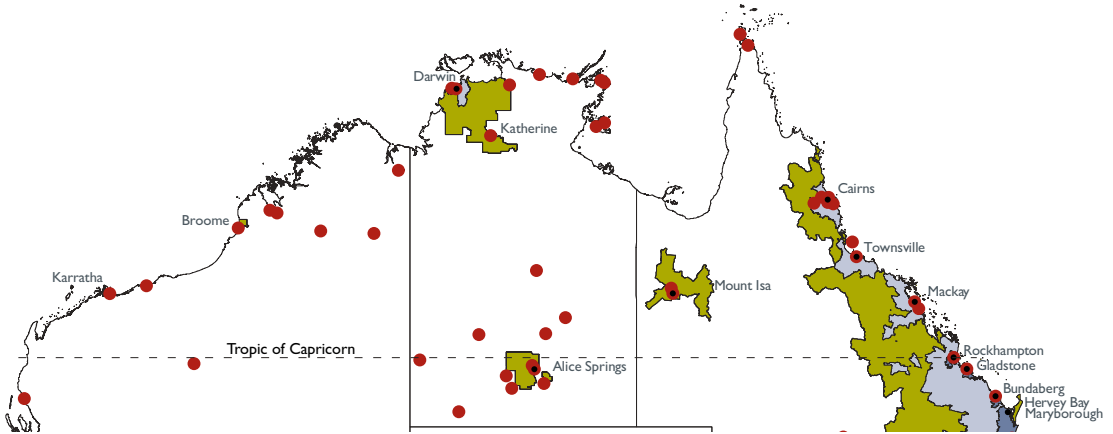
In many remote regions of Northern Australia, there is often a reliance on the Royal Flying Doctor Service (RFDS) to provide aero-medical transportation and health care (see Map 5.7.3). The RFDS provides traditional health services such as emergency aero-medical evacuations, primary and community health care clinics, remote consultations and medical chests, along with other activities such as interhospital patient transfers.

Map 5.7.1 Northern Australia—public hospital locations, May 2006



Source: DOHA (2008).

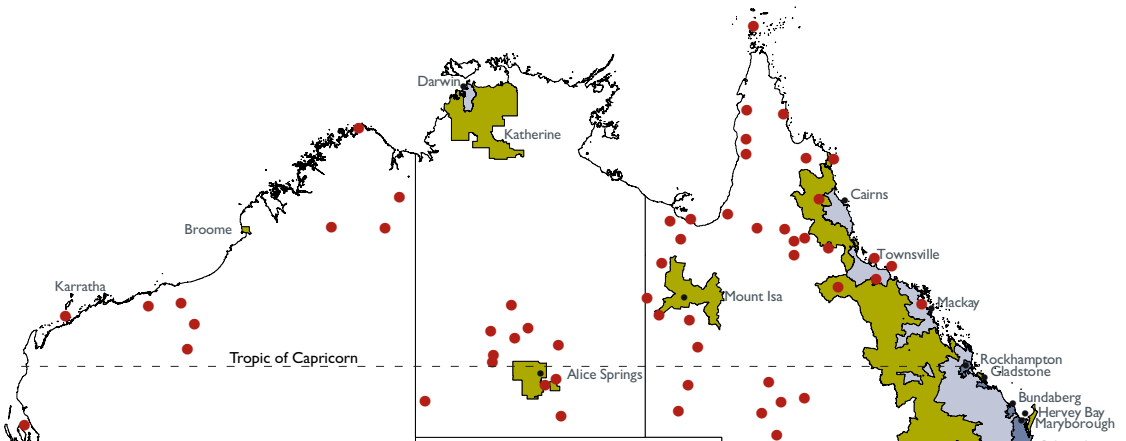
Map 5.7.2 Northern Australia—Aboriginal Medical Services, 2006



- Town
 - Aboriginal medical services
- Remoteness 2006
- Major cities
 - Inner regional
 - Outer regional
 - Remote
 - Very remote

Source: DOHA (2008).

Map 5.7.3 Northern Australia—Royal Flying Doctor Service locations, February 2008



- Town
 - Royal Flying Doctor Service
- Remoteness 2006
- Major cities
 - Inner regional
 - Outer regional
 - Remote
 - Very remote

Source: DOHA (2008).

As shown in Table 5.7.2, 92 of Australia's 795 public hospitals (approximately 11.6 per cent) were located in Northern Australia. Further, 17 of Australia's 549 private hospitals (approximately 3.1 per cent) were located across the region. Most of Northern Australia's hospitals were located in the more populous areas of northern Queensland.

Table 5.7.2 Northern Australia—public and private hospitals, 2006–07

<i>Region</i>	<i>Public hospitals</i>	<i>Percentage of all Australian public hospitals</i>	<i>Private hospitals</i>	<i>Percentage of all Australian private hospitals</i>	<i>Total population (number) by region</i>	<i>Percentage of total Australian population</i>
Northern Australia (WA)	13	1.6	1	0.2	79 510	0.4
Northern Australia (NT)	5	0.6	1	0.2	206 347	1.0
Northern Australia (QLD)	74	9.3	15	2.7	683 184	3.3
Northern Australia subtotal	92	11.6	17	3.1	969 041	4.7
Western Australia state total	95	11.9	43	7.8	2 059 045	9.9
Northern Territory total	5	0.6	1	0.2	210 674	1.0
Queensland state total	177	22.3	108	19.7	4 091 546	19.8
Australia total	795	100	549	100	20 697 880	100

Sources: AIHW (2008); ABS (2008g).

Table 5.7.2 also shows the percentage of Australian hospitals in Northern Australia and the percentage of Australian people living in Northern Australia. For a range of reasons, these figures should be treated with caution. First, although it would appear that public hospitals in Northern Australia are relatively numerous compared to the populations they serve, many of these may be small clinics with limited bed capacity and basic medical services offered. Furthermore, hospital numbers alone do not illustrate the range of ways in which Northern Australians' medical needs are serviced, including through the Royal Flying Doctor Service and patient transfers to larger hospitals in southern Australia for specialist treatment.

Data relating to day-to-day living available in the online compendium

5.1 Income support

- Northern Australia—income support and recipients by region, 1995–96 to 2000–01 (Source: ABS).

5.2 Wealth

- Northern Australia—average household wealth by region, 2003–04 (Source: BITRE)
- Northern Australia—aggregate household wealth by region, 2003–04 (Source: BITRE).

5.3 Cost of living

- Northern Australia—BITRE synthetic estimates of grocery index by UCL.

5.4 Schools

- Northern Australia—schools by state, district, name, type, year levels offer, total student enrolment, town and postcode.

5.5 Universities

- Northern Australia—persons at university or other tertiary institutions, by SLA, 2006.

5.6 TAFE institutions

- Northern Australia—enrolled TAFE students by place of residence by region, 2007.

5.7 Health

- Northern Australia—number and percentage of people with a severe disability, by SLA, 2006.
- Northern Australia—number and proportion of health workers, by SLA, 2006.