The relative social and economic status of Indigenous people in Bourke, Brewarrina and Walgett

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ii

# Table of contents

Executive summary	v
PopulationEducation	
Labour force	
Income	
Housing	
Health	ix
Introduction	1
Population	1
Population estimates and projections for Bourke ATSIC Region	2
Population counts for Bourke, Brewarrina and Walgett	
Age and sex structure	6
Education	10
Technical and further education	15
Qualifications	16
Labour force	17
Emerging opportunities	21
CDEP employment	22
Income	25
Employment and non-employment (welfare) income	25
Household income	
Housing	30
Tenure	32
Housing need	33
Health status	34
References	38
Appendix: Bourke, Brewarrina and Walgett towns with 1996	
Census Postal Area boundaries	41

iii

## Tables

Note: Unless specified otherwise, data in the tables and figures refers to all three communities in the study (i.e. Bourke, Brewarrina and Walgett).

Table 1. Census counts and population estimates and projections, Bourke ATSIC	_
region	2
Table 2. Population estimates and projections, Bourke ATSIC region	3
Table 3. Census counts, 1991 and 1996 Censuses	
Table 4. Change in census counts, 1991–96	
Table 5. Median age, years, 1996	
Table 6. Indigenous sex ratios, 1996	
Table 7. Dependency ratios, per cent, 1996	
Table 8. Enrolments in government schools, 1999	
Table 9. TAFE enrolments, per cent, 1999	
Table 10. TAFE attendance and enrolments, per cent, 1996 and 1999	
Table 11. University attendance, 1996	
Table 12. Whether has qualification by age, 1996	. 17
Table 13. CDEP scheme employment, 1996 and 2000	
Table 14. Estimated CDEP scheme employment percentage, 1996	
Table 15. CDEP scheme employment by sex, 2000	
Table 16. CDEP scheme employment by age, per cent, 2000	
Table 17. Unemployed Indigenous people, by number, 1996 and 2000	
Table 18. Median weekly individual income, \$, 1996	. 25
Table 19. Estimated annual income by labour force status, 1996	. 26
Table 20. Estimated annual Centrelink payments, 1999-2000	
Table 21. Household income, 1996	
Table 22. Indigenous dwellings, 1996	. 30
Table 23. Occupancy rates, 1996	. 31
Table 24. Number of bedrooms, 1996	
Table 25. Type of tenure, 1996	. 33
Table 26. Sex and cause-specific mortality rates, Western	
New South Wales, 1986	. 35
Table 27. Top six causes of hospital admission, Indigenous people,	
Bourke LGA, 1993–94 to 1995–96	. 36
Table 28. Hospital admissions by service related groups, Indigenous	
people, Bourke LGA, 1993–94 to 1995–96	. 36
Table 29. Top six causes of hospital admission, Indigenous people,	
Brewarrina LGA, 1993–94 to 1995–96	. 37
Table 30. Hospital admissions by service related groups, Indigenous people,	
Brewarrina LGA, 1993–94 to 1995–96	. 37
Table 31. Top six causes of hospital admission, Indigenous people,	
Walgett LGA, 1993–94 to 1995–96	. 37
Table 32. Hospital admissions by service related groups, Indigenous	
people, Walgett LGA, 1993–94 to 1995–96	. 38

# Figures

Fig. 1.	Walgett, Namoi town camp and Gingie reserve, 1996 Census boundaries	4
Fig. 2.	Proportion of Indigenous people in population, 1991 and 1996	5
Fig. 3.	Indigenous age structure, Bourke, 1996	
Fig. 4.	Indigenous age structure, Brewarrina, 1996	
Fig. 5.	Indigenous age structure, Walgett, 1996	
Fig. 6.	Age structure, Bourke, Brewarrina and Walgett, males, 1996	
Fig. 7.	Age structure, Bourke, Brewarrina and Walgett, females, 1996	
Fig. 8	Ratio of Indigenous to non-Indigenous persons, Bourke, Brewarrina	
0	and Walgett, 1996	9
Fig. 9.	Proportion of age group attending an educational institution,	
0	Bourke, 1996	11
Fig. 10.	Proportion of age group attending an educational institution,	
O	Brewarrina, 1996	11
Fig. 11.	Proportion of age group attending an educational institution,	
O		12
Fig. 12.	Enrolments, government schools by school year, Bourke, 1999	13
Fig. 13.	Enrolments, government schools by school year, Brewarrina, 1999	14
Fig. 14.	Enrolments, government schools by school year, Walgett, 1999	14
	Labour market participation rate, 1996	
	Employment/population ratio, 1996	
Fig. 17.	Unemployment rate, 1996	19
Fig. 18.	Industry, employed persons, Bourke, 1996	
	Industry, employed persons, Brewarrina, 1996	
	Industry, employed persons, Walgett, 1996	

### Abbreviations and acronyms

ABS Australian Bureau of Statistics

AIGC Australian Indigenous Geographical Classification

AIHW Australian Institute of Health and Welfare

ANU The Australian National University

ANZSIC Australian and New Zealand Standard Industrial Classification

ATSIC Aboriginal and Torres Strait Islander Commission
CAEPR Centre for Aboriginal Economic Policy Research

CAEPR Centre for Aboriginal Economic Policy Research

CDEP Community Development Employment Projects (scheme)

DET Department of Education and Training
DOH Department of Housing (New South Wales)
HIPP Housing Infrastructure Priority Projects

IES Indigenous Employment Strategy

LGA Local Government Area

NATSIS National Aboriginal and Torres Strait Islander Survey (1994)

WHO World Health Organisation

### **Executive summary**

This profile of the relative social and economic status of Indigenous people in Bourke, Brewarrina and Walgett was prepared at the request of the New South Wales State Office of the Aboriginal and Torres Strait Islander Commission (ATSIC) to inform discussions to be held between ATSIC Commissioner Steve Gordon, Indigenous representatives from Far West New South Wales and the Deputy Prime Minister, John Anderson. The focus of these discussions is to explore solutions to pressing social and economic problems facing Indigenous communities in these three towns. The report provides a range of social indicators constructed from a variety of published and unpublished sources including the Census of Population and Housing as well as administrative data sets held by ATSIC, Commonwealth and New South Wales government departments, and other locally-based Aboriginal organisations. This process was assisted by consultations with key informants in each of the three towns and with relevant agencies in Sydney and Canberra.

In a fundamental sense, planning for social and economic change is determined by the size, growth and socioeconomic composition of populations. Accordingly, the scope of this profile is limited to those aspects of social and economic life in the region that form the basis of policy interest and intervention. These include the demographic structure and residence patterns of the regional population, labour force status, education, income, welfare, housing, and health status. For each of these categories, the aim was to identify and describe the main characteristics of the population and highlight outstanding features in the data. A further aim was to compare the socioeconomic status of Indigenous residents of the region with that of their non-Indigenous counterparts. Key findings are summarised below.

### Population

• Census counts for the three towns show a consistent pattern of a growing Indigenous population in conjunction with a fall in the count of non-Indigenous people. As a result, the proportion of the population in these towns which is

Indigenous has been steadily increasing. In 1991, 35 per cent of the population of these towns was Aboriginal or Torres Strait Islander, by 1996 this had risen to 41 per cent.

- Nationally, growth rates for the Indigenous population are higher than for the non-Indigenous population. When considered over even a relatively short time frame, these higher growth rates translate into quite large increases in numbers. Two series of projections show that by 2011, the Indigenous population in the Bourke ATSIC region is likely to be between 11,200 and 13,100 people. Taking the lower series as more reliable, this is an increase of 40 per cent in 15 years.
- Despite some probable underenumeration of children and youth, the median age of Indigenous people in the three towns ranged between 19 and 23 years. In contrast, the median age for non-Indigenous people was 33 or 34 years.
- This age profile produces a high dependency ratio with a much higher burden of dependence placed on Indigenous people of working age in these three towns than on non-Indigenous people. In 1996, there were between 66 and 80 Indigenous dependants per 100 Indigenous working-age persons in these towns, compared to between 39 and 52 non-Indigenous dependants per 100 non-Indigenous working-age persons.
- If the ratio is limited to the burden placed on employed persons the differences between Indigenous and non-Indigenous people in these towns was even greater. There were between three and five non-employed persons for every employed Indigenous person in these towns. The situation for non-Indigenous people enumerated in these towns was the reverse with more employed persons than non-employed persons.
- Many of the social and economic issues facing the region focus on the problems of youth. Examples include the need for extra job opportunities to absorb the growing number of new entrants to the labour force as well as for additional housing and community services to accommodate and support the formation of new households. Of particular concern, then, is an apparent underenumeration of youth and young adults. In overcoming this, one option might be to explore the possibility of studying the problem by applying additional resources to the forthcoming 2001 Census. Also, a special survey might be considered to establish the scale and nature of particular difficulties facing youth in each of the three towns.

#### Education

vi

- At most ages through the compulsory years of schooling non-Indigenous attendance is either at or close to 100 per cent. In Brewarrina, it appears that non-Indigenous children of secondary age attend school elsewhere.
- Among Indigenous children attendance is generally lower than for non-Indigenous children, although through the primary school years it is generally above 80 per cent and often 90 per cent.
- However, the overwhelming feature that distinguishes Indigenous school attendance from that of the rest of the school-age population is a steady fall-off in participation from as early as age 14 culminating in very low levels of attendance among 16, 17 and 18 year olds. According to these census data, only 30 per cent of Indigenous youth aged 16 and 17 years attend an educational institution compared to 65 per cent of their non-Indigenous counterparts.
- Indigenous people in the three towns were nearly 5 times less likely to have a post-school qualification than non-Indigenous people. The largest disparity was for the youngest age group, aged 15–24 years, with only 4 per cent of Indigenous people holding a post-school qualification compared to 32 per cent of their non-Indigenous counterparts. In the prime working ages, years when formal

education could be expected to have been completed, only 10 per cent of Indigenous adults had a qualification compared to 42 per cent of non-Indigenous adults.

#### Labour force

- According to 1996 Census data 45 per cent of all Indigenous persons aged 15 years or more in Bourke, Brewarrina and Walgett were in the labour market.
  That is, they were either working or looking for work. In contrast, around 70 per cent of non-Indigenous people were in the same situation.
- The ratio of the employed to the population aged 15 years or more for Indigenous people was 33 per cent, half the equivalent ratio for the non-Indigenous population of the towns. Put another way, about three-quarters of the Indigenous people in the labour force were employed, compared to 95 per cent of non-Indigenous people in the labour force. For both Indigenous males and females, employment/population ratios were lowest in Walgett.
- Amongst the unemployed, however, quite different patterns emerged for the three towns. Unemployment was highest in Walgett at 32 per cent and lowest in Bourke at 22 per cent with rates among males higher than for females.
- By contrast, unemployment for non-Indigenous people was very low in all three towns, possibly reflecting employment-based motives for non-Indigenous people to settle in the region.
- The economic structure of the region overall is a simple one with most employment generated either by agriculture or by a range of supporting service activities, such as retail trade, government administration, education and health and community services. These five industries together account for 62 per cent of employed Indigenous people in the three towns, and 56 per cent of employed non-Indigenous people. However, while non-Indigenous workers are fairly evenly spread over the five main industries, (though with some concentration in retailing), Indigenous people are concentrated in just two industries health and community services and government administration.
- Options for private sector expansion in the region are primarily through the development of irrigated agriculture and tourism with their multiplier effects on employment in retailing, wholesaling, rural services, transport services and accommodation all industries where Indigenous people are currently underrepresented. In both of these areas, options may exist to construct future expansion of activity around increased Indigenous employment as well as joint venturing and co-management with regional Indigenous interests.
- In 1996, the CDEP scheme was by far the major employer in all three towns. This is most striking in Walgett, where nearly all (92%) employment was estimated to be through the CDEP scheme. In Brewarrina, the CDEP scheme accounted for half of all Indigenous people in employment and in Bourke, nearly one in three (31%).
- Data for the participation in these CDEP schemes in 2000 shows that they
  favour participation by males. In Bourke and Brewarrina, over 60 per cent of
  participants were male. Data by sex for Barriekneal CDEP were not available for
  Walgett separately from Lightning Ridge. However, the combined figure still
  shows over 50 per cent of participants were male.
- CDEP scheme employment in these towns does not appear to favour school leavers, with only 9 per cent of participants overall aged 15–17 years. Most participants are aged 18–50 years and are fairly evenly distributed among the age categories in that range.

#### Income

• Overall, personal income for Indigenous people was much lower than for non-Indigenous people in these towns, ranging between 40 per cent and 78 per cent of the equivalent non-Indigenous income.

- In 1996, the estimated total annual income received by Indigenous people in the three communities amounted to \$16.9 million. Almost half of this (\$8 million or 48%) was derived from non-employment sources. What is not known in this calculation is the extent to which wages from CDEP are included as employment income. Suffice to say, that if this were known then the estimate of dependency on non-employment/welfare income would rise on account of the notional link between CDEP wages and Newstart Allowance.
- For non-Indigenous residents, employment contributes the bulk of income with that derived from other sources accounting for only 12 per cent to 17 per cent of gross receipts in the three towns. Among the Indigenous population, however, around half of all income in each town is from non-employment sources.
- To the extent that receipt of income from non-employment sources can be said to represent welfare dependence, then the greatest level of dependence is evident in Walgett.
- One factor contributing to the greater contribution of non-employment income to total Indigenous income is the fact that Indigenous people in employment are in lower paid jobs. On average, Indigenous workers in the region receive between half and three-quarters of what non-Indigenous workers earn and these figures are more or less consistent in each of the three towns.
- Over the 12 month period to the end of March 2000 a total of \$3.2 million was paid to Indigenous clients of Centrelink at Bourke, \$2.3 million to clients at Brewarrina and \$4.1 to clients at Walgett. Allowing for the three-year time gap, the combined amount of \$9.6 million per annum is reasonably close to the census-based estimate of non-employment income of \$8 million for the population in the three townships. Apart from giving some validation to census income data, this also suggests that little has altered in terms of the level of welfare dependence since 1996.

### Housing

- In 1996, just over 30 per cent of the housing stock in the three towns combined was occupied by Indigenous households with the lowest proportion in Bourke (26%) and the highest in Brewarrina (43%).
- Overall, the average number of persons per Indigenous dwelling was 60 per cent higher than for other dwellings with the highest differential in occupancy rates found in Brewarrina.
- Census data indicate an average of 1.37 persons per bedroom in Indigenous dwellings compared to 0.90 persons in non-Indigenous dwellings. This represents a level of crowding which is over 50 per cent higher for Indigenous dwellings. The situation is similar across all three towns.
- Compared to other households, Indigenous households in the three towns remain overwhelmingly dependant on rented accommodation. The consequence is a severely restricted range of housing options for Indigenous families with the onus placed firmly on public housing resources for access to accommodation. In each of the three towns these public resources are increasingly managed by Indigenous housing organisations.
- In order to overcome current levels of housing stress it is estimated that 34 new houses are required in Bourke together with extensions to existing dwellings to provide 28 additional bedrooms. This is in addition to a major program of

housing repair and maintenance earmarked under Health Infrastructure Priority Projects (HIPP) program funding. In Brewarrina, there is a shortage of 107 bedrooms which translates into a need for 25 additional dwellings and five extensions to existing stock. In addition, 51 dwellings require major repairs and maintenance. In Walgett, an estimated 15 new dwellings are required while all current housing managed by Indigenous organisations is considered in need of repair and maintenance works.

#### Health

- A decade ago, the estimated life expectancy at birth for Indigenous people in Western New South Wales was 53 years for males and 64 years for females. Recent analysis of 1996 Census data for New South Wales as a whole suggests that while life expectancy for Aboriginal males may have increased slightly (to 58 years), the figure of 65 years for females remains comparable. Compared to the equivalent figures for all males in New South Wales in 1996 (75 years) and all females (81 years), these estimates starkly outline the continuing outcome of poor health status among Indigenous residents of New South Wales and probably also the region.
- Indigenous mortality rates have been found to vary considerably between communities in Far West New South Wales. In particular, it was found that the number of deaths of Indigenous people observed in Bourke, Brewarrina and Walgett was significantly greater than expected given the prevailing rate of Indigenous mortality across the region. Smaller household size and more employment were associated with lower mortality rates.
- Diseases of the circulatory system account for 58 per cent of the excess risk of
  mortality experienced by Indigenous males in Western New South Wales. This is
  also the main source of excess mortality among females. For Indigenous males,
  diseases of the digestive system, injury and poisoning, neoplasms and
  respiratory diseases are the other major sources of excess mortality. For females,
  endocrine, nutritional and metabolic diseases stand out as do diseases of the
  respiratory system, diseases of the genitourinary system and injury and
  poisoning.
- Indigenous people in the region are admitted to hospital at somewhere between three and five times the rate of all other residents of New South Wales.
- From hospitalisation data it is clear that respiratory diseases, diseases of the digestive system including renal disease, injury and poisoning, and gastroenteritic diseases are primary causes of high morbidity.

1

#### Introduction

This profile of the relative social and economic status of Indigenous people in Bourke, Brewarrina and Walgett was prepared at the request of the New South Wales State Office of the Aboriginal and Torres Strait Islander Commission (ATSIC) to inform discussions to be held between ATSIC Commissioner Steve Gordon, Indigenous representatives from Far West New South Wales and the Deputy Prime Minister, John Anderson. The focus of these discussions is to explore solutions to pressing social and economic problems facing Indigenous communities in these three towns. The report provides a range of social indicators constructed from a variety of published and unpublished sources including the Census of Population and Housing as well as administrative data sets held by ATSIC, Commonwealth and New South Wales government departments, and other locally-based Aboriginal organisations. This process was assisted by consultations with key informants in each of the three towns and with relevant agencies in Sydney and Canberra.

### Population

Establishing the size of the Aboriginal and Torres Strait Islander population in any given area is not straightforward. The primary base for all official population figures is the five-yearly Census of Population and Housing, conducted by the Australian Bureau of Statistics (ABS). Whilst census counts are considered to be very reliable for the total population in all areas, the same cannot be said for the Indigenous population. At the national level, the ABS estimated that the undercount of Indigenous people at the 1996 Census was over three times higher than for other Australians (7% compared to 2%, ABS 1997a: 18). Published census counts and characteristics for Indigenous Australians do not take into account those missed altogether from the census.

Another important issue in using population counts from the census is that of geographic boundaries. The census is designed to collect information from people in the dwelling where they spent census night, regardless of where they might normally live. A question about each person's place of usual residence is asked, however this information is coded, at the lowest level, for Statistical Local Areas, which are generally much larger than an individual Indigenous community. Apart from these census methodological factors, the whole notion of usual residence is probably different for Indigenous Australians than for other Australians. It has been noted elsewhere that Indigenous Australians have high levels of 'circular mobility', that is movement between a select group of houses within a community or between a group of communities and outstations (Smith 1991; Taylor 1998). Individual communities may also act as service centres for smaller communities and outstations, thus having a much larger population for the provision of services than their resident populations would indicate. For these reasons, census counts seldom agree with counts of population obtained by other methods.

Further uncertainty is introduced by non-demographic components of Indigenous population growth. Populations increase in size through natural increase (more births than deaths) and migration (more people moving into an area than moving out). These two factors are referred to as demographic components. The Indigenous population also appears to have a third, non-demographic, component of change which derives from the way people answer the census question on Indigenous status. This has a number of dimensions. As mentioned above, some Indigenous people may be entirely missed from one census but included in the next; others may choose not to answer the Indigenous status question in one census but do so in the next. Analysis of 1991 and 1996 Census data reveals that this process of increasing numbers due to non-demographic changes in the way people are recorded in the census accounted for about half of the increase in count between 1991 and 1996. It

should be noted however that changes in census responses are only a significant factor in the increase in count in urban areas, mostly in the south-eastern corner of Australia (Ross 1999).

Despite these caveats, the census remains the only national source of demographic, social and economic information about Indigenous people at a local level, and certainly the only source that provides direct comparison between the circumstances of Indigenous people compared to that of others at the local level. Census data can still be used but with some degree of caution about the results. The ABS has published guidelines for the interpretation of census data about Indigenous Australians which recommend the use of proportions, rather than absolute numbers, wherever possible (ABS and Australian Institute of Health and Welfare (AIHW) 1999: 158).

### Population estimates and projections for Bourke ATSIC Region

One very important use of census counts is in the production of population estimates and projections. Estimates and projections take the census count as their base and make some adjustments for the people missed from the census and for subsequent births and deaths. The ABS has produced experimental estimates of the size of the Indigenous population for ATSIC Regions but not at lower levels. For example, the estimated Indigenous population of the Bourke ATSIC Region at 30 June 1996 was 7,951, some 8 per cent higher than the census count (ABS 1997b: 17, 1998a: 13).

ATSIC contracted the ABS to produce projections for 1999 and 2000 for use in estimating the number of eligible voters in the 1999 ATSIC Regional Council elections. For the Bourke ATSIC Region, these data give projections of 8,900 and 9,088 Indigenous people at 30 June 1999 and 30 June 2000, respectively (Table 1). Thus, the projection for June 2000, is 24 per cent higher than the census count for August 1996. Whilst, both the estimates and projections quoted here, are referred to as experimental by the ABS this is still a large adjustment factor to apply to census counts. Whether or not such an adjustment factor should be applied is an open question. In this working paper, data for the towns of Bourke, Brewarrina and Walgett are not adjusted in any way as the focus, generally, is on comparisons of proportions of the population with a particular characteristic rather than of absolute numbers. The use of proportions obviates the need for any such adjustment. However, if raw numbers are needed, it should be remembered that the 1996 census counts are at least 8 per cent lower than the estimated population for the same year and probably considerably lower than the current year.

Table 1. Census counts and population estimates and projections, Bourke ATSIC region

	No.	Difference from census count (%)	Difference from 1996 estimate (%)
		Census Count <sup>a</sup>	
1996	7344	-	-
	Esti	mates and Projections <sup>b</sup>	
1996	7951	8.27	-
1999	8900	21.19	11.94
2000	9088	23.75	14.30

Notes: a. As at 6 August 1996.

b. As at 30 June each year.

Source: ABS 1998a; ATSIC unpublished data from ABS.

Authors' projections for 2001, 2006 and 2011 are also provided below (Table 2), using two constant annual growth rates of 2.3 per cent and 3.4 per cent. The former is the annual average growth rate between 1991 and 1996 using 1996-based estimates and the latter is the annual average growth rate between the 1996 estimate and the 2000 projection (ABS 1998a: 3; ABS unpublished data). While such projections can not be taken as certain predictions, they do provide some indication of the likely range in size of the Indigenous population in the region.

Nationally, growth rates for the Indigenous population are higher than for the non-Indigenous population, largely due to the higher fertility of the Indigenous population. When considered over even a relatively short time frame, these higher growth rates translate into quite large increases in numbers. The two series of projections show that by 2011, the Indigenous population in the Bourke ATSIC region is likely to be between 11,200 and 13,100 people. Taking the low series as more reliable, this is an increase of 40 per cent in 15 years.

Table 2. Population estimates and projections<sup>a</sup>, Bourke ATSIC region

	2.3% annual growth	Difference from 1996 estimate	3.4% annual growth	Difference from 1996 estimate
	No.	%	No.	%
1996	7951	-	7951	-
2001	8908	12.04	9398	18.20
2006	9981	25.53	11,108	39.71
2011	11,183	40.65	13,129	65.12

Note: a. As at 30 June each year.

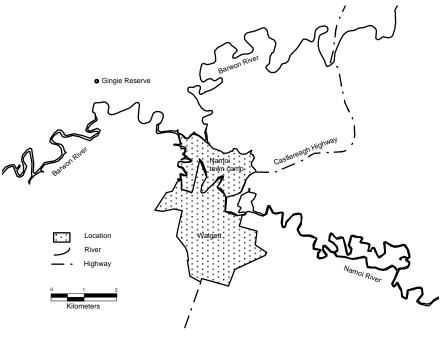
Source: ABS 1998a; Authors' own projections.

### Population counts for Bourke, Brewarrina and Walgett

The areas under consideration for this report are the townships of Bourke, Brewarrina and Walgett. A map showing the locations of these towns and the corresponding postal areas is given in the Appendix. Where published data is available, information for Namoi town camp (on the outskirts of Walgett) and Gingie Reserve (also near Walgett) is included. It should be noted that the Australian Indigenous Geographical Classification (AIGC) as devised by the ABS (1998b) contains an error in relation to Namoi camp and Gingie Reserve. Indigenous Location, IL021302, has been incorrectly labelled as 'Walgett (A): Camp (Gingie Rese)'. This Indigenous Location is in fact Namoi town camp. Gingie Reserve is not separately identified as an Indigenous Location in the AIGC but it is a separate Collection District. As a result some data is available for Gingie Reserve. Unless otherwise stated data for Walgett excludes Namoi camp and Gingie Reserve. Fig. 1 shows the location of Namoi and Gingie Reserve in relation to Walgett.

Data throughout this working paper are presented for Indigenous and non-Indigenous people. In relation to census data, persons who did not answer the Indigenous status question have not been included with 'non-Indigenous'. No data is presented for such non-respondents. It has not always been possible to determine the treatment of non-response with respect to administrative data sources.

Fig. 1. Walgett, Namoi town camp and Gingie reserve, 1996 Census boundaries



Source: ABS CDATA96.

Census counts for the three towns, apart from Gingie Reserve, show a consistent pattern of a growing Indigenous population in conjunction with a fall in the count of non-Indigenous people (Table 3). As a result, the proportion of the population in these towns which is Indigenous has been steadily increasing. In 1991, 35 per cent of the population of these towns was Aboriginal or Torres Strait Islander, by 1996 this had risen to 41 per cent.

Brewarrina has consistently reported the highest proportion of Indigenous people in its count with 42 per cent of the population reporting Indigenous origin in 1991 and over half, 55 per cent, in 1996 (Fig.2). The proportion of Indigenous people in the greater Walgett area approached half in 1996 with 47 per cent of the population of Walgett, Namoi camp and Gingie Reserve being Indigenous people, up from 41 per cent in 1991. Bourke remained the least Indigenous of the three towns, with 31 per cent of its population reporting Indigenous status in 1996, a small increase from 28 per cent in 1991.

Whilst the proportion of Indigenous people in the population of these towns has increased markedly over a five-year period this is not due to large numeric increases in the size of the Indigenous population. As shown in Table 4, with the exception of Brewarrina, increases in the count of Indigenous people have been modest between 1991 and 1996. In contrast, however, all three towns have shown much larger decreases in the non-Indigenous count, both in absolute and relative terms, giving rise to an overall decline in population. This local pattern is reflected in national data for rural and remote Australia, where the Indigenous share of the total population has increased from 13 per cent in 1981 to 18 per cent in 1996 (Taylor 2000: 13).

Table 3. Census counts, 1991 and 1996 Censuses

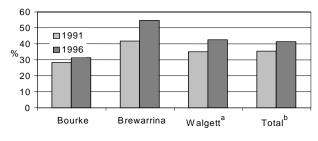
	Bourke	Brewarrina	Walgett	Namoi camp <sup>a</sup>	Gingie Reserve	To	tal
Indigenous status	No.	No.	No.	No.	No.	No.	%
1991							
Indigenous							
Aboriginal Torres Strait	832	489	729	110	118	2278	35.1
Islander Both Aboriginal and Torres Strait	6	0	6	0	0	12	0.2
Islander <sup>b</sup>	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total	838	489	735	110	118	2290	35.3
Non-Indigenous	2050	643	1294	0	24	4011	61.8
Not stated	89	36	65	0	0	190	2.9
Total	2977	1168	2094	110	142	6491	100.0
1996							
Indigenous							
Aboriginal Torres Strait	850	604	828	111	69	2462	40.7
Islander Both Aboriginal and Torres Strait	6	3	3	0	0	12	0.2
Islander <sup>b</sup>	10	0	0	0	0	10	0.2
Total	866	607	831	111	69	2484	41.1
Non-Indigenous	1765	475	1072	13	8	3333	55.2
Not stated	136	30	60	0	0	226	3.7
Total	2767	1112	1963	124	77	6043	100.0

Notes: a. In 1991 Collection District 1040301 included Namoi town camp and a national park. In 1996 this CD was split into two, with one CD for Namoi town camp and another for the national park. Almost all the Indigenous people in this area were enumerated in Namoi town camp and almost all the non-Indigenous people were enumerated in the national park. 1991 figures have been adjusted to set non-Indigenous and not stated counts to 0. The original figures were 100 non-Indigenous and 11 not stated.

b. New category in 1996.

Sources: ABS CLIB91, Table B04; CPROFILE96, Tables I01, B01; 1996 Census unpublished data.

Fig. 2. Proportion of Indigenous people in population, 1991 and 1996



Notes: a.Walgett excludes Namoi town camp and Gingie Reserve.

b. Includes Namoi town camp and Gingie Reserve.

Source: ABS CLIB91 Table B04; CPROFILE, Table I01.

Table 4. Change in census counts, 1991–96

	Bou	ırke	Brewa	arrina	W	/algett		Totala
	No.	%	No.	%	No.	%	No.	%
Indigenous	28	3.3	118	24.1	96	13.1	194	8.5
Non-Indigenous	-285	-13.9	-168	-26.1	-222	-17.2	-678	-16.9
Not stated	47	52.8	-6	-16.7	-5	-7.7	36	18.9
Total	-210	-7.1	-56	-4.8	-131	-6.3	-448	-6.9

Note: a. Includes Namoi town camp and Gingie Reserve.

Sources: ABS CLIB91 Table, B04; CPROFILE96, Tables I01, B01; 1996 Census unpublished data.

### Age and sex structure

Nationally, the Indigenous population is younger than the non-Indigenous population. This reflects their relatively higher fertility and mortality than that of non-Indigenous people (ABS 1998a: 5). For Australia as a whole, half the Indigenous population is aged 20 years or less (the median age), whereas the equivalent figure for the total population is 34 years (ABS 1998c: 4). The three towns under consideration are no exception to this pattern (see Figs.3–5). The median age of Indigenous people ranged between 17 for Namoi town camp to 23 for Brewarrina. In contrast, the median age for non-Indigenous people was between 33 and 39 although there were very few non-Indigenous people enumerated in Namoi town camp thus the median age for this group should be treated with caution (Table 5).

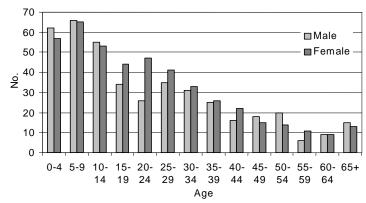
Table 5. Median age, years, 1996

	Indigenous	Non-Indigenous	Difference
Bourke	19	33	14
Brewarrina	23	33	10
Walgett	21	34	13
Namoi town camp	17	39	22

Source: ABS CPROFILE96, Table I02.

Detailed graphs of age structure for the three towns raise some data quality issues concerning census data. The median age is lower for Indigenous males than for Indigenous females in all three towns but particularly for Walgett (18 years versus 23 years). The graphs below (Figs. 6–7) show the differences between counts of males and females by age for the three towns.

Fig. 3. Indigenous age structure, Bourke, 1996

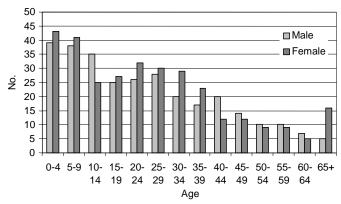


Source: ABS CPROFILE96, Table I03.

Data for Bourke appear to show a lack of males in the 15–19 and 20–24 years age groups. This is consistent with underenumeration rates for the general population which tend to be highest for young men (ABS 1997a: 15). The age groups 10–14 and 15–19 also seem low for both sexes.

Brewarrina, on the other hand displayed a lack of females in the 10–14 years age group but a lack of males in the 20–24 years group. The 15–19 year old age group for both sexes also seems to have too few people.

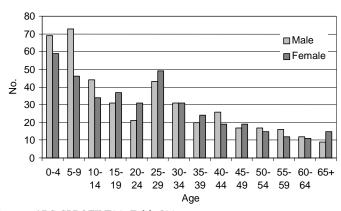
Fig. 4. Indigenous age structure, Brewarrina, 1996



Source: ABS CPROFILE96, Table I03.

The age structure of Walgett showed the most unusual pattern with reported low numbers of females aged 0-4, 5-9 and 10-14; and generally very low numbers of persons aged between 10 and 24 years. As for Bourke, young men aged between 15 and 29 years appear to have been undercounted considerably.

Fig. 5. Indigenous age structure, Walgett, 1996

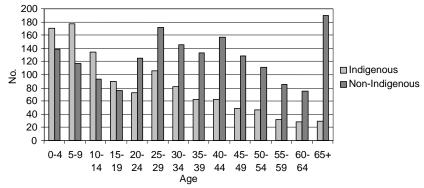


Source: ABS CPROFILE96, Table I03.

These data for age and sex structure should be treated with caution. At least some of the anomalies could be errors in the census enumeration, however it is also possible that some of the differences in age groups may reflect some work- and education-related mobility. At the same time, they suggest a need for much improved enumeration of Indigenous youth, especially given that many of the social and economic issues facing the region focus on the problems of youth. One option might be to explore the possibility of applying additional resources to the forthcoming 2001 Census to overcome apparent underenumeration of this group. A special survey might also be designed to establish the scale and nature of particular difficulties facing youth in each of the three towns.

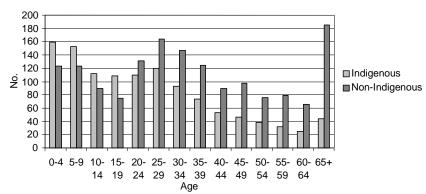
The very different age structures of the Indigenous and non-Indigenous populations in the three towns is demonstrated in Figures 6 and 7. As evidenced by the median ages (Table 5), the Indigenous population is dominated by young people and the non-Indigenous population is aging. Future implications of the relative age structures can only be guessed at but, in conjunction with a decline in the non-Indigenous population of these towns between 1991 and 1996, it would seem to indicate a process whereby the aging non-Indigenous population is being replaced by a youthful Indigenous one.

Fig. 6. Age structure, Bourke, Brewarrina and Walgett, males, 1996



Source: ABS CPROFILE96, Table I03.

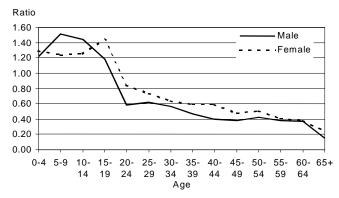
Fig. 7. Age structure, Bourke, Brewarrina and Walgett, females, 1996



Source: ABS CPROFILE96, Table I03.

The extent of the structure of this population as a young Indigenous population and an aging non-Indigenous population is shown in Fig. 8 which gives the ratio of Indigenous to non-Indigenous people by age group. For youth age groups, that is those aged under 20, Indigenous people outnumber non-Indigenous people by around 30 per cent. Past age 20, however, non-Indigenous people dominate, so that at the oldest age group, 65 years or more, there are five non-Indigenous people for every one Indigenous person.

Fig. 8 Ratio of Indigenous to non-Indigenous persons, Bourke, Brewarrina and Walgett, 1996



Source: ABS CPROFILE96, Table I03.

Another way of presenting differences by age and sex is the sex ratio (number of males per 100 females). Using the Australian population as the standard population, the average sex ratio at birth is 105.5 male births per 100 female births in any given year (Thorburn 1999: 549). Assuming that the population is closed to migration or is not affected by events such as war, the sex ratio should remain above 100 until age 60, based on current life tables of the total Australian population. Even allowing for the higher mortality of Indigenous Australians at all ages, by using an Indigenous specific life table, the sex ratio should still be above 100 until age 37. Thus, in Table 6, sex ratios should be above 100 until the 35–39 years age group.

However, sex ratios may be less reliable for small populations. As mentioned above, sex ratios are also affected by events which may favour one sex, for instance postwar immigration to Australia favoured males (ABS 1997c: 27). At a local level, sex ratios are difficult to interpret. Table 6 clearly shows anomalies in sex ratios by age in these three towns. It is likely that this is the result of selective mobility in and out of the towns and difficulties in census enumeraiton. As previously noted, young men are missed more often from the census than other age groups.

Table 6. Indigenous sex ratios<sup>a</sup>, 1996

Age	Bourke	Brewarrina	Walgett	Total
0-4	108.8	90.7	116.9	106.9
5-9	101.5	92.7	158.7	116.4
10-14	103.8	140.0	129.4	119.6
15-19	77.3	92.6	83.8	83.3
20-24	55.3	81.3	67.7	66.4
25-29	85.4	93.3	87.8	88.3
30-34	93.9	69.0	100.0	88.2
35-39	96.2	73.9	83.3	84.9
40-44	72.7	166.7	136.8	117.0
45-49	120.0	116.7	89.5	106.5
50-54	142.9	111.1	113.3	123.7
55-59	54.5	111.1	133.3	100.0
60-64	100.0	140.0	109.1	112.0
65+	115.4	31.3	60.0	65.9
Total	92.9	93.9	106.7	97.9

Note: a. Sex ratio is the number of males divided by number of females times 100.

Source: ABS CPROFILE96, Table I03.

Dependency ratios attempt to measure the extent of the probable burden of care placed on potentially economically productive members of a community by those too young or too old to provide for themselves. An alternative to this approach is to measure the burden on those most likely to be contributing economically, that is the

employed. It should be noted that these ratios assume that all Indigenous people will rely exclusively on other Indigenous people for support and all non-Indigenous people will rely solely on non-Indigenous people.

Overall, the 'dependency ratio' is the number of children, aged 0–14 years and the number of older people, aged 65 and over, per 100 people aged 15 to 64. It is recognised that given lower life expectancy for Indigenous Australians there are very few Indigenous people aged over 65. Even so, the dependency ratio as it is usually calculated shows that there is a much higher burden of dependence placed on Indigenous people of working age in these three towns than on non-Indigenous people. In 1996, there were between 66 and 80 Indigenous dependants per 100 Indigenous working-age persons in these towns, compared to between 39 and 52 non-Indigenous dependants per 100 non-Indigenous working-age persons (Table 7).

Limiting dependence just to children reveals even greater disparity. This simply reflects the relative abundance of children in Indigenous communities and the relative lack of old people. For non-Indigenous people, dependants are more likely to be aged than to be young.

If the ratio is limited to the burden placed on employed persons the differences between Indigenous and non-Indigenous people in these towns was even greater. There were 3–5 non-employed persons for every employed Indigenous person in these towns. The situation for non-Indigenous people enumerated in these towns was reversed with the balance of non-employed and employed persons either equal or balanced in favour of employed persons. The same result held for childhood burden on the employed.

Table 7. Dependency ratios, per cent, 1996

	Dependencya	Childhood <sup>b</sup> dependency	Economic <sup>c</sup> burden	Childhood <sup>d</sup> burden
		Indige	enous	
Bourke	80.1	74.3	398.9	205.7
Brewarrina	65.8	60.1	353.0	164.2
Walgett	72.3	67.3	535.1	248.1
Total	73.3	67.8	425.5	205.7
		Non-Ind	igenous	
Bourke	51.6	35.0	100.3	46.2
Brewarrina	49.8	30.0	95.5	39.1
Walgett	38.7	23.4	72.6	29.1
Total	46.9	30.3	89.8	39.1

Notes

- a. The dependency ratio is the number of persons aged 0-14 and 65 years and over expressed as a percentage of the population aged 15-64 years.
- b. The childhood dependency ratio is the number of persons aged 0-14 years expressed as a percentage of the population aged 15-64 years.
- c. The economic burden ratio is the number of persons aged 0-14 and 65 years and over or who are not employed expressed as a percentage of the employed population.
- d. The childhood burden ratio is the number of persons aged 0-14 years expressed as a percentage of the employed population.

Source: ABS CPROFILE96, Table I02.

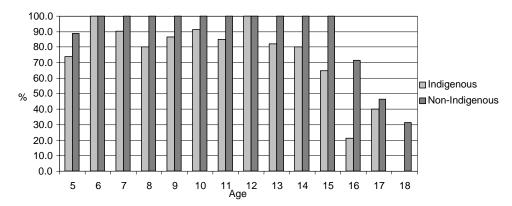
### Education

From the standpoint of social and economic development, educational achievement is considered vital in the acquisition of human capital. This point has been demonstrated empirically for Indigenous people as a whole using data from the 1991 Census and the 1994 National Aboriginal and Torres Strait Islander Survey (ABS and Centre for Aboriginal Economic Policy Research (CAEPR) 1996; Daly 1995; Hunter 1996). While these studies reveal a clear positive relationship between economic status and level of educational achievement (as measured by standard indicators such as age left school, highest level of school completed and post-school

qualifications), an important limitation is their lack of measurement of the quality of education outcomes in terms of school attendance and skills acquisition. For example, age at leaving school does not necessarily equate with grade level achievement. In fact, for many Indigenous students age or grade level can be a poor indicator of achievement as they can perform substantially below age and grade levels. Thus, while data on participation in the education system provide an important indication of access and utilisation, they reveal nothing about outcomes in terms of demonstrated ability, no matter from what perspective this might be measured. Likewise, school enrolment or participation rates can be misleading in the absence of data on actual school attendance.

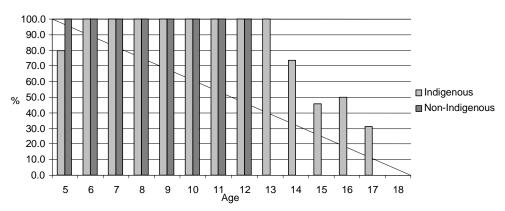
Notwithstanding these qualifications, there is sufficient information available from the census and from administrative data collected by schools to indicate that levels of Indigenous education in the region are poor. Participation in schooling, represented by census attendance and school enrolment data, is considered first. Figs. 9–11 compare the proportion of Indigenous children and youth in single age groups who were attending an educational institution in 1996 with the equivalent rates for their non-Indigenous counterparts.

Fig. 9. Proportion of age group attending an educational institution, Bourke, 1996



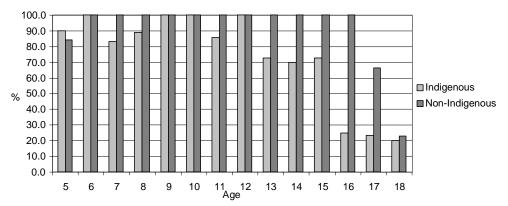
Source: ABS 1996 Census unpublished data.

Fig. 10. Proportion of age group attending an educational institution, Brewarrina, 1996



Source: ABS 1996 Census unpublished data.

Fig. 11. Proportion of age group attending an educational institution, Walgett, 1996



Source: ABS 1996 Census unpublished data.

The situation in all three towns is very similar. At most ages through the compulsory years of schooling non-Indigenous attendance is either at or close to 100 per cent. In Brewarrina, it appears that either non-Indigenous children of secondary age attend school elsewhere or there are serious data quality problems. Among Indigenous children attendance is generally lower than for non-Indigenous children, although through the primary school years it is generally above 80 per cent and often 90 per cent. Brewarrina again represents the exception with 100 per cent attendance in primary ages. However, the overwhelming feature that distinguishes Indigenous school attendance from that of the rest of the population is a steady fall-off in participation from as early as age 14 culminating in very low levels of attendance among 16, 17 and 18 year olds. According to these census data, only 30 per cent of Indigenous youth aged 16 and 17 years attend an educational institution compared to 65 per cent of their non-Indigenous counterparts. Some of these data should be treated with caution as the numbers of students involved are very small, particularly for non-Indigenous students in the upper ages.

A similar picture emerges from school enrolment data provided by the New South Wales Department of Education and Training in respect of Bourke Public School, Bourke High School, Brewarrina Central School, Walgett Public School and Walgett High School. Data on Indigenous enrolments in these institutions are available only from the mid-year schools census which refers to the situation at June 30 each year. As an administrative collection this requires that the Indigenous status of children is declared. As the Indigenous status question is not always asked in administrative settings it is likely that some underenumeration may occur. In addition enrolment rates can not be calculated due to uncertainties in the size of the population, thus an appropriate denominator is not available. The number of Indigenous and non-Indigenous enrolments at each of the State schools in the three towns are shown in Table 8 as at June 30, 1999 while Figs. 12–14 display the pattern of enrolments across individual school years.

Table 8. Enrolments in government schools, 1999

	Inc	digenous		Non-Indigenous
	No.	Proportion of total enrolments %	No.	Proportion of total enrolments %
Bourke				
Kinder	30	65.2	16	34.8
Years 1-6	118	55.4	95	44.6
Years 7-12	61	44.5	76	55.5
Brewarrina				
Kinder	20	95.2	1	4.8
Years 1-6	127	99.2	1	0.8
Years 7-12	79	92.9	6	7.1
Walgett				
Kinder	33	94.3	2	5.7
Years 1-6	151	95.0	8	5.0
Years 7-12	70	57.4	52	42.6

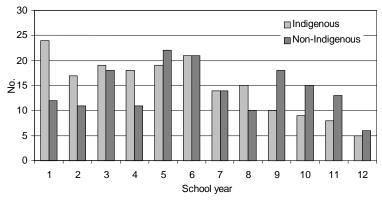
Note: Includes Bourke Public School, Bourke High School, Brewarrina Central School, Walgett Public School and Walgett High School only. Excludes special schools.

Source: NSW Department of Education and Training, unpublished data.

The first point to note is that enrolments in State schools are predominantly Indigenous enrolments, especially in Brewarrina and Walgett. The data for Brewarrina, in particular, confirm the earlier census based hypothesis that non-Indigenous children go to school elsewhere. In fact, in Brewarrina and Walgett, enrolments in State primary schools consist almost entirely of Indigenous children producing an enrolment profile very similar to that found in the remotest Aboriginal communities.

The second point to emerge from these figures is that there appears to be considerable attrition of Indigenous enrolments with little evidence of a steady progression of cohorts from one year to the next. This produces a downward general trend in enrolments from relatively high levels in the early primary years. Within this trend, clear breaks are evident around the transition from primary to high school years, while the drop off to very low enrolment in Year 12 is also very marked.

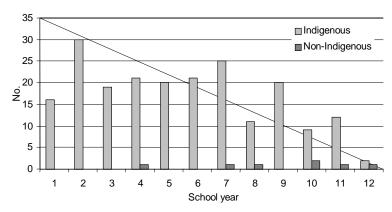
Fig. 12. Enrolments, government schools by school year, Bourke, 1999



Note: Excludes special schools.

Source: New South Wales Department of Education and Training, unpublished data.

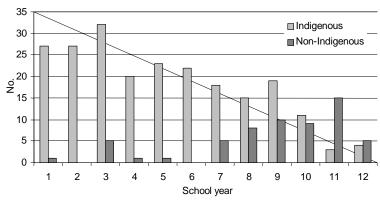
Fig. 13. Enrolments, government schools by school year, Brewarrina, 1999



Note: Excludes special schools.

Source: New South Wales Department of Education and Training, unpublished data.

Fig. 14. Enrolments, government schools by school year, Walgett, 1999



Note: Excludes special schools.

Source: New South Wales Department of Education and Training, unpublished data.

The final observation is that enrolments are somewhat erratic with numbers in certain school years exceeding those in previous years. While this may reflect natural age variation between cohorts given the small size of the populations, it may also be indicative of other more socially-based influences such as the effect of mobility in and out of the region among school age children or, alternatively, it may reflect data quality problems. It should also be reiterated that these enrolment data refer to the situation in mid-year and the likelihood is that enrolments would be higher in preceding months following the commencement of the school year and lower in subsequent months towards the end.

In addition to these enrolments in State schools, Indigenous children also enrol in one of several Catholic schools in the region. In Bourke, for example, St. Ignatius Primary school had 89 Indigenous students in July 1999 out of a total of 185 (48%). In Brewarrina, St. Patrick's Primary had 29 Indigenous students out of a total enrolment of 94 (31%). In Walgett, St Joseph's Primary had an enrolment of 56 Indigenous students out of a total enrolment of 194 (29%). Attempts to acquire detailed information on Indigenous students in Catholic schools were requested from

the New South Wales Catholic Education Office but were unavailable at the time of writing.

Further details about schooling are available from the Commonwealth Senate Inquiry into Indigenous Education conducted in 1999. This indicates a high turnover of Indigenous students at both Primary and High school levels at all schools because of the itinerant nature of many households. At Bourke High School, for example, in the first two terms of 1999 a total of 78 movements of Indigenous students was recorded. Overall, during the year, the Principals of Bourke Primary and High schools report up to 15 per cent turnover of students for a variety of reasons including seasonal fruit picking in places such as Dareton, visiting incarcerated relatives in places such as Dubbo or for other family reasons (Commonwealth of Australia 1999a: 57, 69). This leads to considerable interruption in student progress. Mobility is not just an issue in regard to students. In Brewarrina Central School, for example, in 1998, 19 out of 23 staff (82%) were new appointments, and of these 11 were first-time teachers. A further problem reported from Brewarrina is absenteeism, particularly among boys at ages 14 and 15 years who view themselves as ready to drop out of school (Commonwealth of Australia 1999b: 11, 12). Student turnover is also high. Between February 6 and March 23 1999, there were 46 new enrolments at Brewarrina Central School while 22 students left (Commonwealth of Australia 1999b: 13). Over the previous school year, there were a total of 116 new Indigenous enrolments but over the course of the year almost half as many students (57) left (Commonwealth of Australia 1999b: 14).

#### Technical and further education

Indigenous students made up nearly half (48%) of all enrolments in TAFE colleges in Bourke, Brewarrina and Walgett for 1999 (Table 9). With few exceptions, individual courses seemed to attract enrolments almost exclusively from either Indigenous people or non-Indigenous people. Of the 38 courses run in 1999 over the three locations, only one approached equal numbers of Indigenous and non-Indigenous students. In addition, the levels at which Indigenous and non-Indigenous students undertook TAFE courses varied. Indigenous students were more likely to enrol for higher-level certificate courses than were non-Indigenous students. These results suggest that the TAFE sector fulfils quite different roles for Indigenous and non-Indigenous people. It is likely that for unemployed Indigenous people in the region, enrolment at TAFE provides an important means of fulfilling the requirements of the activity test. It may also be a requirement for participation in certain Community Development Employment Projects (CDEP) scheme activities. At the same time, very low rates of post-school qualification among Indigenous people (see next section) suggest that TAFE is the main source of post-school education for Indigenous people in the region. By contrast, relatively low rates of local TAFE enrolment among non-Indigenous people set against their notably higher levels of qualification (see next section) suggest that they exercise other options for further study such as distance education or attendance at TAFE or university away from these towns.

Table 9. TAFE enrolments<sup>a</sup>, per cent, 1999

	Bou	ırke	Brew	arrina	Walgett		
	Indigenous	Non- Indigenous	Indigenous	Non- Indigenous	Indigenous	Non- Indigenous	
Certificate	25.5	11.0	5.6	1.3	12.5	3.7	
Other	57.5	75.2	89.8	98.7	70.3	65.9	
Not applicable Total	17.0 100.0	13.8 100.0	4.6 100.0	0.0 100.0	17.2 100.0	30.3 100.0	

Note: a. Schwab and Anderson's (1999: 16) classification of TAFE courses into certificate, other and not applicable is used. Certificate comprises AQF II and III. Other includes statements of attainment, AQF I, TAFE statements and certificates not elsewhere classified. Not applicable comprises short courses.

Source: NSW Department of Education and Training, unpublished data

Attempting to compare TAFE data with data on attendance from the 1996 Census highlights several potential data problems (Table 10). Counts from the 1996 Census of persons attending a Technical or Further Education Institution are very low compared to 1999 records of TAFE enrolments obtained from the New South Wales Department of Education and Training. Whilst this may represent a real increase in the number of students at TAFE between 1996 and 1999, it is also likely that at least some of the discrepancy is due to enumeration issues in the census and the nature of the TAFE courses being undertaken. Most of the TAFE courses undertaken in Bourke, Brewarrina and Walgett were short in duration with very few running for the full year. The census is taken for one day—6 August 1996—thus if a student was not enrolled at that particular day it is unlikely that they will be recorded in the census as attending TAFE.

Table 10. TAFE attendance and enrolments, per cent, 1996 and 1999

	Censu	ıs 1996ª		NSW DET 1999
	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
Bourke	3	27	153	218
Brewarrina	7	9	197	77
Walgett	7	36	256	267

Note: a Census responses of 'Technical or further educational institution (including TAFE colleges)'.

Source: ABS 1996 Census unpublished data; NSW Department of Education and Training (DET) unpublished data.

#### Qualifications

Overall, non-Indigenous people at the 1996 Census were around seven times more likely to report that they were attending a university or other higher educational institution (not TAFE) (Table 11). The census question encompassed both on campus and distance education. However, it is likely that most persons reporting attending university in these towns are studying by distance education given the distance to the nearest university campus. Census data cannot give an indication of how many students leave Bourke, Brewarrina and Walgett for higher education elsewhere, as students in another place are instructed to report their usual residence as the place of the university or college.

Table 11. University attendance<sup>a</sup>, 1996

	Indigenous No.	Non-Indigenous No.	Ratio Indigenous to non-Indigenous
Bourke	3	32	0.09
Brewarrina	3	11	0.27
Walgett	6	40	0.15
Total	12	83	0.14_

Note: a. Census responses of 'University or other higher educational institution'.

Source: ABS 1996 Census, unpublished data.

The standard education pathway for most young non-Indigenous people is school and university with no more than a one year break in between. Given this and the prevalence of the three- or four- year university degree, most non-Indigenous university students will have graduated in their early 20s. The fact that Indigenous people aged 15–24 years were nearly nine times less likely to have obtained a post-school qualification than their non-Indigenous peers indicates that achievement in higher education among young Indigenous people, whether away from home or by distance education, is very low (Table 12).

Overall, Indigenous people in these locations were nearly five times less likely to have a post-school qualification than non-Indigenous people. The largest disparity was for the youngest age group, 15–24 years with only 4 per cent of Indigenous people holding a post-school qualification compared to 32 per cent of their non-Indigenous counterparts. In the prime working ages, years when formal education could be expected to have been completed, only 10 per cent of Indigenous adults had a qualification compared to 42 per cent of non-Indigenous adults.

Table 12. Whether has qualification by age<sup>a</sup>, 1996

	Indigenous	Non-Indigenous	Ratio Indigenous:
	%	%	Non-Indigenous
15-24 Years			
Has qualification	3.6	32.2	0.11
No qualification	82.5	61.7	1.34
Not stated	13.9	6.1	2.26
Total	100.0	100.0	
25-44 Years			
Has qualification	9.6	41.6	0.23
No qualification	76.5	53.3	1.44
Not stated	14.0	5.2	2.70
Total	100.0	100.0	
45 Years and Over			
Has qualification	5.3	23.3	0.23
No qualification	85.1	68.6	1.24
Not stated	9.6	8.1	1.19
Total	100.0	100.0	
Total			
Has qualification	6.8	32.5	0.21
No qualification	80.4	60.9	1.32
Not stated	12.8	6.5	1.96
Total	100.0	100.0	

Note: a. Includes Bourke, Brewarrina, Walgett, Namoi town camp and Gingie Reserve.

Source: ABS 1996 Census, unpublished data.

#### Labour force

There are several data sources relating to the labour force status of Indigenous people in these towns. These are the census, data from ATSIC on CDEP scheme participation and data from Centrelink on the payment of unemployment allowances.

Nationally, 1996 Census data show that Indigenous people are less likely to be participating in the labour force than non-Indigenous people. They also suffer unemployment rates twice as high as those for non-Indigenous people, are heavily reliant upon the CDEP scheme for employment, are more likely to be working part-time and are more likely to be working in labouring occupations rather than managerial or professional jobs (ABS 1999; ATSIC 2000; Taylor & Hunter 1998).

According to 1996 Census data 45 per cent of all Indigenous persons aged 15 years or more in Bourke, Brewarrina and Walgett were in the labour market (Fig. 15). That is, they were either working or looking for work. In contrast, around 70 per cent of non-Indigenous people were in the same situation. While participation rates were generally similar across the three towns, Indigenous men were more likely to be in the labour force in Brewarrina than in the other towns. Indigenous women in Walgett, on the other hand, were slightly less likely to be in the labour force than Indigenous women in Bourke or Brewarrina. As is the case for the total population Indigenous women were far less likely to be in the labour force than Indigenous men.

Broadly, those who participate in the labour force are divided into those who work (the employed) and those who are looking for work (the unemployed). The ratio of the employed to the population aged 15 years or more for Indigenous people was 33 per cent, half the equivalent ratio for the non-Indigenous population of the towns (Fig. 16). Put another way, about three-quarters of the Indigenous people in the labour force were employed, compared to 95 per cent of non-Indigenous people in the labour force. For both Indigenous males and females, employment/population ratios were lowest in Walgett.

Among the unemployed, however, quite different patterns emerged for the three towns (Fig. 17). Unemployment was highest in Walgett at 32 per cent and lowest in Bourke at 22 per cent. Data for Walgett are affected, however, by a high rate of non-response to the labour force questions and may therefore be less reliable.

This general pattern also held true for Indigenous males. Indigenous men were most likely to be unemployed in Walgett, followed by Brewarrina and then Bourke. The unemployment rate is expressed as a percentage of the labour force (i.e. employed plus unemployed). As a result, low numbers of employed persons result in higher unemployment rates. If the number of unemployed persons is expressed as a percentage of the total population (not stated included) then the level of male unemployment was the same in Brewarrina and Walgett but lower in Bourke.

Unemployment rates for Indigenous women present a different picture. The unemployment rate is highest in Walgett again, but lowest in Brewarrina with Bourke in an intermediate position. As for males, labour force data for Walgett is affected by high non-response. If the unemployed are considered as a proportion of all persons then the proportions are the same for Bourke and Walgett.

Overall unemployment for non-Indigenous people was very low in all three towns, possibly reflecting employment-based motives for non-Indigenous people to settle in these towns. One commentator has recently described non-Indigenous settlement in rural and remote areas as 'opportunistic' (Taylor 2000). Thus, while non-Indigenous people may move in for work, when employment turns to unemployment, they will also move out.

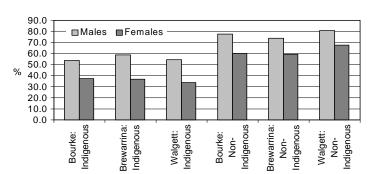
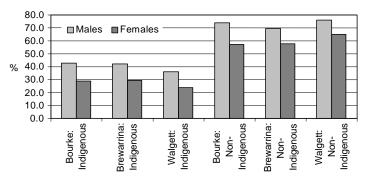


Fig. 15. Labour market participation rate, 1996

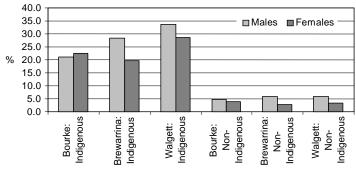
Source: ABS CPROFILE96, Table I12.

Fig. 16. Employment/population ratio, 1996



Source: ABS CPROFILE96, Table I12.

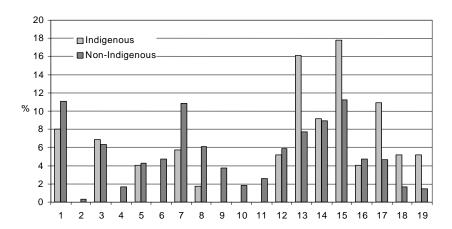
Fig. 17. Unemployment rate, 1996



Source: ABS CPROFILE96, Table I12.

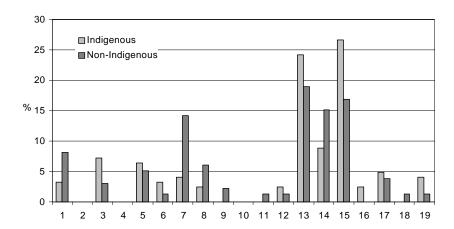
The distribution of Indigenous and non-Indigenous employment across the main industry categories of the Australian and New Zealand Standard Industrial Classification (ANZSIC) are shown for each town in Fig. 18–20. The overall economic structure of the region is a simple one with most employment generated either by agriculture or by a range of supporting service activities, such as retail trade, government administration, education and health and community services. These five industries together account for 62 per cent of employed Indigenous people in the three towns, and 56 per cent of employed non-Indigenous people. However, while non-Indigenous workers are fairly evenly spread over the five main industries (though with some concentration in retailing), Indigenous people are concentrated in just two industries—health and community services and government administration.

Fig. 18. Industry, employed persons, Bourke, 1996



Note: 1. Agriculture; 2. Mining; 3. Manufacturing; 4. Electricity, water and gas; 5. Construction; 6. Wholesale trade; 7. Retail trade; 8. Accommodation, cafes & restaurants; 9. Transport; 10. Communication; 11. Finance; 12 Property and business services; 13. Government administration and defence; 14. Education; 15. Health and community services; 16. Cultural & recreational services; 17. Personal services; 18. Not classifiable; 19. Not stated. Source: ABS CPROFILE 96, Table I13.

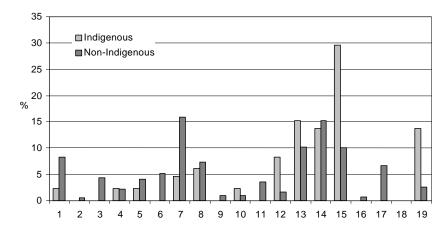
Fig. 19. Industry, employed persons, Brewarrina, 1996



Note: 1. Agriculture; 2. Mining; 3. Manufacturing; 4. Electricity, water and gas; 5. Construction; 6. Wholesale trade; 7. Retail trade; 8. Accommodation, cafes & restaurants; 9. Transport; 10. Communication; 11. Finance; 12 Property and business services; 13. Government administration and defence; 14. Education; 15. Health and community services; 16. Cultural & recreational services; 17. Personal services; 18. Not classifiable; 19. Not stated.

Source: ABS CPROFILE 96, Table I13.

Fig. 20. Industry, employed persons, Walgett, 1996



Note: 1. Agriculture; 2. Mining; 3. Manufacturing; 4. Electricity, water and gas; 5. Construction; 6. Wholesale trade; 7. Retail trade; 8. Accommodation, cafes & restaurants; 9. Transport; 10. Communication; 11. Finance; 12 Property and business services; 13. Government administration and defence; 14. Education; 15. Health and community services; 16. Cultural & recreational services; 17. Personal services; 18. Not classifiable; 19. Not stated.

Source: ABS CPROFILE 96, Table I13.

#### **Emerging opportunities**

Despite the intent of policy to expand the industry base of Indigenous employment, it is clear from Fig. 18–20 that Indigenous people remain heavily reliant for work on relatively few areas of economic activity and are also relatively absent from key local employers, for example, retail trade, agriculture and tourism-related industries such as accommodation, cafes and restaurants. This is a significant finding in light of the fact that one of the more viable options for private sector expansion in the region is through the development of tourism with its multiplier effects on employment in retailing, wholesaling and accommodation—all industries where Indigenous people are under-represented. One specific initiative that holds promise for Indigenous employment is a locally initiated river and tourist development focused on portraying outback life and history along the lines of the Stockman Hall of Fame in Longreach. If successful, this has capacity to employ up to 35 local Indigenous people.

The other potential growth area, agriculture, has already started to take steps to increase Indigenous employment in line with developments in the Moree region where cotton growers have for some time made use of Indigenous employment strategies to source their labour. Success in this area has now extended into the retail sector with Woolworths in Moree employing 15 Indigenous staff. Altogether, a total of 85 Indigenous people have been placed under initiatives developed by the Indigenous Employment Strategy (IES) in the Moree region, and 65 of these are in full-time positions (Commonwealth of Australia 2000: 15666). A similar chain of events could emerge in the Bourke area where already there are seven full-time trainees being employed in agricultural enterprises under the IES.

An indication of the value of agricultural production as well as its potential for growth and employment multiplier effects is provided by a recent analysis of the socioeconomic impact of water availability on irrigated agriculture along the Darling River and the town of Bourke (Hassall & Associates 1999). This shows that irrigated agriculture in the Bourke region has experienced sustained growth with an area of production of just over 14,000 hectares in 1997–97. Of this, cotton comprises 82 per cent of the area with the balance made up of irrigated cereals, peanuts, and

horticultural crops which have expanded in importance in the last three years (Hassall & Associates 1999: 12).

This report also provides an indication of the importance of irrigated agriculture to the regional economy. In total, the value of irrigated agricultural production in 1998 was estimated at \$52.5 million. As for employment, it is estimated that as many as 310 equivalent full-time jobs were generated directly by irrigated agriculture in the Bourke region in 1996, representing as much as 20 per cent of total employment in the region. As for indirect economic and employment impacts, it is estimated that irrigation contributes approximately \$71 million to gross output in the Bourke Shire and generates around 690 jobs (Hassall and Associates 1999: 17). Individual enterprises that benefit from this multiplier effect include fuel depots, rural service and supply companies, agronomists, tyre retailers, machinery outlets and assorted merchants and retailers—all industries providing little Indigenous employment to date.

While irrigated agriculture is obviously vital to the local economy its continued growth is obviously constrained by available water supply. In this regard, water reform initiatives involving environmental flow rules sponsored by the New South Wales government have particular relevance. One consequence of this for relations between the industry and Indigenous interests in the region is the need for greater cooperation in access to and use of land and water resources with potential to increase Indigenous employment generation and joint venture opportunities. So far, Indigenous engagement with the industry has largely been confined to seasonal and casual employment as labourers.

### CDEP employment

A primary cause of this industry segregation of the Indigenous labour market is that jobs growth has largely occurred as a consequence of an expansion in CDEP scheme participation which is focussed largely on community services. The 1996 Census reported only 13 persons employed under the CDEP scheme (ABS CPROFILE96: Table I12). However, there are three CDEP schemes covering Bourke, Brewarrina and Walgett, each commencing some time before 1996. They are: Gundabooka Aboriginal Corporation in Bourke (1993); Northern Star Aboriginal Corporation in Brewarrina (1994); and Barriekneal Housing and Community covering both Lightning Ridge and Walgett (1989). Prior to 1998 Walgett was covered by its own CDEP scheme, Gamilaroi.

ATSIC data for August 1996 (census month) showed 323 participants in these three CDEP schemes. There are two possible reasons for this discrepancy between ATSIC data and census data. The first is that not all CDEP participants will have actually worked in any one week. The census asks about work in the week prior to census night. Previous research has produced an estimate that 60 per cent of participants in remote areas and 80 per cent in non-remote areas will be working at any given time (Deloitte Touche Tohmatsu 1993; Taylor 1993; Taylor & Bell 1998).

The second is census methodology in relation to the labour force questions. Special procedures were used to record CDEP employment in the census but only in the, mostly rural and remote, areas where special interview forms were used to enumerate Indigenous people. There were no such forms used in the Bourke ATSIC Region in 1996. The ABS has estimated that around 13 per cent of the CDEP participants in Bourke region were recorded in the 1996 Census (Working Group to Establish Guidelines for Interpreting Indigenous Census Data 1998). As a result, data provided by ATSIC are considered to be much more reliable than the census results for CDEP scheme employment.

Data provided by ATSIC (Table 13) show an increase in the number of participants in both Bourke and Brewarrina but a decline in Walgett. Advice from ATSIC suggests that the decline in participation in the Walgett scheme occurred in 1998 when

Gamilaroi CDEP was transferred to Barriekneal CDEP. At that time participants were given the choice of transferring to Barriekneal CDEP or leaving the CDEP scheme altogether.

Table 13. CDEP scheme employment, 1996 and 2000

	August 1996	March 2000	Change
	No.	No.	%
Bourkea	72	123	70.8
Brewarrina <sup>b</sup>	87	113	29.9
Walgett <sup>c</sup>	164	116	-29.3

Notes: a. Gundabooka Aboriginal Corporation incorporated 1992.

b. Northern Star Aboriginal Corporation incorporated 1993.

c. Gamilaroi CDEP Aboriginal Corporation in 1996 and Barriekneal Housing and Community in 2000.

Source: ATSIC, Bourke Regional Office.

As discussed earlier, not all CDEP scheme participants will be in employment in any given week. Thus, to compare ATSIC data with census data requires an adjustment to be made to the ATSIC data. Based on previous research a figure of 80 per cent of participants is used to produce an estimate of the number of CDEP workers at a particular time (Taylor and Bell 1998). Census data has also been adjusted for the people missed in the census. It is assumed that the characteristics of the people missed were distributed in proportionally the same way as the characteristics of the people counted. The figure used is 8 per cent which is the difference between the census count and the estimated resident population for Bourke ATSIC Region. It is also assumed that all working CDEP scheme participants will be recorded as employed in the census.

Bearing in mind the assumptions used to produce these figures, the results (Table 14) show that, in 1996, the CDEP scheme was a major employer in all three towns. Most striking was Walgett, where nearly all (92%) employment was estimated to be through the CDEP scheme. In Brewarrina, the CDEP scheme accounted for half of all Indigenous people in employment and in Bourke, nearly one in three (31%).

Table 14. Estimated CDEP scheme employment percentage, 1996

	Estimated CDEP employeda	Estimated Census employment <sup>b</sup>	CDEP scheme employment <sup>c</sup>
	No.	No.	%_
Bourke	58	184	31.4
Brewarrina	70	140	49.6
Walgett	131	143	92.0

Note:

- a. Number of participants estimated to be working in any one week as 80 per cent of total participants. See Taylor & Bell 1998.
- b. Number of Census employed increased by 8 per cent to adjust for Census undercount.
- c. Percentage of total employment.

Source: ATSIC CDEP section unpublished data; ABS CPROFILE, Table I12.

Data on the participation in these CDEP schemes in 2000 shows that they favour participation by males. In Bourke and Brewarrina, over 60 per cent of participants were male. Data by sex for Barriekneal CDEP were not available for Walgett separately from Lightning Ridge. However, the combined figure still shows over 50 per cent of participants were male (Table 15).

This points to a difference in how Indigenous men and women access the labour market and income support. Census data showed that Indigenous women were less likely to be in the labour force than Indigenous men with only 36 per cent of women participating compared to 55 per cent of men (ABS CPROFILE96: Table I12). The influence of childcare needs on the labour market choices of Indigenous women is apparent through data from the 1994 National Aboriginal and Torres Strait Islander

Survey (NATSIS). NATSIS results revealed that 'childcare and other family responsibilities' was overwhelmingly the most common reason reported by women of prime working ages for not seeking work, even though they would have liked to work (ABS & CAEPR 1996). Data from Centrelink also show that 69 per cent of Centrelink payments, made to Indigenous people, at the end of the first quarter in 2000 were made to females. Most of these were family payments whereas most payments made to males were Newstart Allowances.

Table 15. CDEP scheme employment by sex, 2000

	Males	Females	Total
	%	%	No.
Bourke	61.0	39.0	123
Brewarrina	64.6	35.4	113
Walgetta	56.9	43.1	269

Note: a. Includes Lightning Ridge. Source: ATSIC, Bourke Regional Office.

CDEP scheme employment in these towns does not appear to favour school leavers, with only nine per cent of participants overall aged 15–17 years (Table 16). Most participants are aged 18–50 years and are fairly evenly distributed among the age categories in that range.

Table 16. CDEP scheme employment by age, per cent, 2000

	Bourke	Brewarrina	Walgett <sup>a</sup>	Total
0-14	0.0	0.0	0.4	0.2
15-17	9.8	4.4	10.8	9.1
18-25	30.1	22.1	25.7	25.9
26-35	28.5	31.0	28.3	28.9
36-50	26.8	36.3	30.1	30.7
51-65	4.9	6.2	3.7	4.6
66 years or more	0.0	0.0	1.1	0.6
	no.	no.	no.	no.
Total	123	113	269	505

Note: (a) Includes Lightning Ridge. Source: ATSIC, Bourke Regional Office.

Aside from census and survey attempts to measure the numbers of Indigenous people who are unemployed, there is another way in which these can be identified by using Centrelink data on the payment of Newstart Allowances. Of course, as with all administrative data, this is dependent on Indigenous people being identified as such in Centrelink records and the extent to which they are cannot be adequately established in the absence of an appropriate benchmark. It should also be noted that the Centrelink definition of unemployment is likely to be more stringent than that applied by the census. The census gives being registered with Centrelink as an example of actively looking for work. It should also be noted that the Centrelink data are for postcodes in 2000 whereas census data are for the smaller Indigenous Areas in 1996. With these caveats in mind, it is interesting to compare unemployment statistics from the census with those derived from Centrelink records (Table 17).

Table 17. Unemployed Indigenous people, by number, 1996 and 2000

	Ma	les	Fem	ales	Total		
	Census 1996	Centrelink 2000	Census 1996	Centrelink 2000	Census 1996	Centrelink 2000	
Bourke	25	101	22	27	47	128	
Brewarrina	29	80	14	20	43	100	
Walgett	39	120	22	42	61	162	
Total	93	301	58	89	151	390	

Note: Census data refers to Indigenous Areas which are smaller than the postal areas used for Centrelink data. See appendix for a map of postal areas.

Source: ABS CPROFILE96, Table I12; Centrelink unpublished data.

#### Income

While income can be derived from many sources, there are essentially two broad groupings—wage and salary income and, other income. The census draws no distinction between these two types of income. Estimates of non-wage and salary income however can be gleaned by cross-classifying income with labour force status or by reference to other data sources such as Centrelink payments (see below).

Overall, personal income for Indigenous people was much lower than for non-Indigenous people in these towns, ranging between 40 per cent and 78 per cent of the equivalent non-Indigenous income (Table 18).

Non-Indigenous women reported much lower incomes than non-Indigenous men, however income for Indigenous women was about the same as for Indigenous men. This probably reflects, for Indigenous people, the prevalence of welfare income for both men and women, but for non-Indigenous people, the relatively lower participation in the labour force of women when compared to men.

Table 18. Median weekly individual income, \$, 1996

		Indigenous		N	Non-Indigenous			Ratio		
	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	
Bourke	187	187	187	457	270	379	0.4	0.7	0.5	
Brewarrina	224	207	216	374	264	326	0.6	0.8	0.7	
Walgett	172	191	182	436	275	373	0.4	0.7	0.5	
Namoi town campa	149	207	177	250	224	225	0.6	0.9	0.8	

Note: a. Note that median income for non-Indigenous people in Namoi town camp is based on responses for only nine males and four females. These data should be treated with care. Source: ABS CPROFILE96. Table IO2.

### Employment and non-employment (welfare) income

An important question in terms of the Indigenous economy in Far West New South Wales concerns the relative contribution made to total income from employment as opposed to other sources, usually comprised predominantly of welfare payments. Table 19 shows the estimated contribution to regional income from employment and non-employment sources for Indigenous and non-Indigenous adults respectively. As the census does not directly distinguish income from employment and income from other sources, for the purposes of these estimates, it is assumed that employed persons derive all of their income from that employment. According to these calculations, the overall estimated total annual Indigenous income in the three communities amounted to \$16.9 million and almost half of this (\$8 million or 48%) is derived from non-employment sources. What is not known in this calculation is the extent to which wages from CDEP are included as employment income. Suffice to say, that if this were known then the estimate of dependency on non-

employment/welfare income would rise on account of the notional link between CDEP wages and Newstart Allowance.

There is a stark contrast between Indigenous and non-Indigenous residents of the region in terms of their reliance on income from sources other than employment. For non-Indigenous residents, employment contributes the bulk of income with that derived from other sources accounting for only 12 per cent to 17 per cent of gross receipts in the three towns. Among the Indigenous population, however, around half of all income in each town is from non-employment sources. To the extent that receipt of income from non-employment sources can be said to represent welfare dependence, then the greatest level of dependence is evident in Walgett. These figures, in part, reflect the differing labour force profile of Indigenous and non-Indigenous residents, with non-Indigenous people far more likely to be in employment than Indigenous people.

Table 19. Estimated annual income by labour force status, 1996

			I	ndigenous	5		Non-In	digenous
	Persons			Estimated total nnual income <sup>a</sup> Pe		sons		ted total income <sup>a</sup>
	No.	%	\$	%	No.	%	\$	%
Bourke								
Employed	174	35.7	3,471,156	57.8	881	65.9	24,495,744	86.1
Unemployed Not in the labour	47	9.7	426,972	7.1	40	3.0	270,192	1.0
force Total	266 487	54.6 100.0	2,109,484 6,007,612	35.1 100.0	416 1337	31.1 100.0	3,672,968 28,438,904	12.9 100.0
Brewarrina								
Employed	134	36.0	2,561,312	54.4	243	64.1	6,101,472	83.3
Unemployed Not in the labour	44	11.8	367,796	7.8	10	2.6	96,720	1.3
force Total	194 372	52.2 100.0	1,775,540 4,704,648	37.7 100.0	126 379	33.2 100.0	1,122,368 7,320,560	15.3 100.0
Walgett <sup>b</sup>								
Employed	162	29.3	2,821,364	45.3	629	70.2	16,489,772	87.6
Unemployed Not in the labour	78	14.1	529,828	8.5	37	4.1	387,764	2.1
force	312	56.5	2,877,472	46.2	230	25.7	1,943,812	10.3
Total	552	100.0	6,228,664	100.0	896	100.0	18,821,348	100.0
Total								
Employed	469	33.3	8,880,820	52.5	1751	67.1	47,086,988	86.3
Unemployed Not in the labour	169	12.0	1,340,196	7.9	86	3.3	750,464	1.4
force	772	54.8	6,689,696	39.6	771	29.6	6,705,816	12.3
Total	1410	100.0	16,910,712	100.0	2608	100.0	54,543,268	100.0

Notes: (a) Based on a midpoint of census income ranges. The number of persons in each category is then multiplied by the midpoint value and summed to give an estimated total income for each category. Not stated responses are excluded.

(b) Walgett includes Namoi town camp and Gingie Reserve.

Source: ABS 1996 Census unpublished data.

One factor contributing to the greater contribution of non-employment income to total Indigenous income is the fact that Indigenous people in employment are in lower paid jobs. Overall, Indigenous workers in the region earn between half and three-quarters of what non-Indigenous workers earn (Table 18) and these figures are more or less consistent in each of the three towns. Thus, any attempt to reduce welfare dependence would not just require the creation of more jobs for Indigenous people, it would also require enhanced participation in higher paid occupations.

In an attempt to benchmark census data, information was obtained from Centrelink on the number and type of benefit payments to Indigenous and non-Indigenous clients, although it should be noted that these data are available at postcode level only which incorporates the population of each town plus their substantial rural hinterlands. These reveal that over the 12 month period to the end of March 2000 a

total of \$3.2 million was paid to clients at Bourke, \$2.3 million to clients at Brewarrina and \$4.1 to clients at Walgett (Table 20). Allowing for the three year time gap, the combined amount of \$9.6 million per annum is reasonably close to the census-based estimate of non-employment income of \$8 million for the population in the three townships. Apart from giving some validation to census income data, this also suggests that little has altered in terms of the level of welfare dependence since 1996.

It should be noted that not all allowances and pensions are mutually exclusive. For example, it is possible for someone to receive both family allowance and parenting payments while other combinations of payments are also possible depending on the circumstances of each claimant. This overlap prevents the calculation of any regional dollar average. Nonetheless, the range of basic rates that apply to each payment as well as the criteria for eligibility do provide some indication of the economic status of recipients.

Table 20 shows the distribution of payments by type to clients in each of the three towns for the fortnight period at the end of March 2000. The first point to note is that the number of family allowance payments is very similar to the 1996 Census counts of Indigenous families in each locality—in Bourke the census counted 190 families while Centrelink data indicate 156 family payments; in Brewarrina the census counted 149 families and Centrelink data indicate 92 family payments; in Walgett the census counted 190 families while Centrelink data indicate 201 family payments. Altogether, if the 1996 Census figure of 529 Indigenous families in the region is still accurate in 1999-2000, then 449 or 85 per cent were in receipt of family payments. This high proportion is not surprising given that eligibility for these payments is subject to income and asset tests with ceilings generally above the income distribution for Indigenous people as described by census data. However, the actual amount of family allowance payments varies according to the number and age of dependents with a minimum rate per child of \$23.70 per fortnight and a maximum of \$128.80. A large family supplement of \$7.80 is also payable for the fourth and each subsequent child.

As for parenting payments, a similar correspondence is evident between census and Centrelink data in respect of the number of sole parent families. According to the 1996 Census, there were 83 sole parent families in Bourke while Centrelink data record a total of 105 single parenting payments. In Brewarrina, the equivalent figures were 55 census-identified sole parents and 62 payments; in Walgett the figures were 78 and 54. Altogether, with 216 census-identified sole parent families and 221 sole payments, the indication is that the vast majority of sole parents in the region are in receipt of welfare support. As is the case generally, 86 per cent of these Indigenous sole parents were female. The wider point here is that these payments are made to provide financial assistance to low income families with dependent children. Additional assistance is provided to families with only one main source of income, including sole parents, with a dependent child aged under five years. It is also meant to provide increased choice for parents in balancing work and family responsibilities. Given the Indigenous income distribution as described, recipients in the region are likely to be on maximum rates for this payment receiving up to \$361 per fortnight for sole parent and \$293 for partnered recipients.

The other major welfare payment (Newstart Allowance) is for unemployed persons eligible by virtue of being over 21 years, being registered with Centrelink and in compliance with the terms of an activity test based on proven job search, or vocational training, or rehabilitation or some other agreed activity, such as voluntary work. This compliance effectively indicates that an individual is actively seeking paid work and is willing to undertake suitable paid work. Payments for Newstart Allowance amount to \$325 per fortnight for single people with no children, \$352 for single people with children, and \$293 each for partners. In Far West New South Wales, it seems that available work is insufficient to meet the demand from those seeking employment. Furthermore, as noted earlier, the Centrelink data on

payments of Newstart Allowance indicate a greater level of unemployment than that recorded by the census.

From a Centrelink perspective, disability payments are available for individuals who by virtue of a physical, intellectual or psychiatric impairment are deemed unable to work or to undertake educational or vocational training which would equip them for work. At a more human level, they are indicative of people who lack independence in their everyday lives. According to the payments data, it appears that there are 145 such individuals (32 in Bourke, 40 in Brewarrina and 73 in Walgett), although caution should be applied in using this figure as it is not known whether all disabled people receive entitlements. Whatever the real numbers, the crucial factor for disabled community members is whether sufficient disability services exist including, rehabilitation, community and recreational access, respite, meals, home help, independent living and life skills training, personal care assistance, employment support and education support.

Table 20. Estimated annual Centrelink payments<sup>a</sup>, 1999–2000

·	Postcod	e 2840 (Bourke)	Postcode 283	9 (Brewarrina)	Postcode	2832 (Walgett)
	Payments (a) No.	Estimated annual value §	Payments (a) No.	Estimated annual value §	Payments (a) No.	Estimated annual value §
Indigenous						
Pensions:						
Age Pension	5	39,393	11	86,665	34	267,873
Disability Support Pension	32	263,333	40	329,167	73	600,729
Double Orphan Pension	1	1,000	0	0	0	0
Mature Age Allowance	0	0	1	9,500	1	9,500
Sickness Allowance	0	0	0	0	1	8,500
Widow Allowance	2	14,000	1	7,000	2	14,000
Wife Pension	1	7,600	0	0	5	38,000
Widow Class B	0	0	0	0	0	0
Total pensions	41	325,326	53	432,331	116	938,602
Family:						
Family Payment	156	586,997	92	346,178	201	756,324
Family Tax Payment	92	59,197	66	42,467	151	97,159
Carer Payment	3	20,200	1	6,733	10	67,333
Childcare Assistance	12	0	6	0	1	0
Child Disability Allowance	11	14,781	3	4,031	19	25,531
Parenting Payment Single Parenting Payment	105	862,340	62	509,191	54	443,489
Partnered	21	73,500	14	49,000	78	273,000
Partner Allowance	0	0	0	0	1	3,667
Total family	400	1,617,016	244	957,601	515	1,666,504
Unemployment:						
Youth Allowance	24	123,000	9	46,125	17	87,125
Newstart Allowance	127	1,093,755	100	861,224	158	1,360,735
Newstart MAA	1	9,000	0	0	4	36,000
Total unemployment	152	1,225,755	109	907,349	179	1,483,860
Total <sup>b</sup>	593	3,168,097	406	2,297,282	810	4,088,965
Non-Indigenous						
Pensions:						
Age Pension	225	1,772,688	95	748,468	144	1,134,520
Disability Support Pension	129	1,061,563	69	567,813	89	732,396
Double Orphan Pension	0	0	0	0	0	0
Mature Age Allowance	0	0	0	0	1	9,500
Sickness Allowance	1	8,500	2	17,000	2	17,000
Widow Allowance	0	0	0	0	1	7,000
Wife Pension	7	53,200	4	30,400	9	68,400
Widow Class B	2	22,000	0	0	1	11,000
Total pensions	364	2,917,950	170	1,363,681	247	1,979,816
Family:						
Family Payment	353	1,328,270	131	492,927	183	688,593
Family Tax Payment	168	108,098	61	39,250	87	55,980
Carer Payment	5	33,667	0	0	8	53,867
Childcare Assistance	64	0	30	0	7	0
Child Disability Allowance	26	34,938	4	5,375	16	21,500
Parenting Payment Single Parenting Payment	71	583,106	36	295,660	66	542,043
Partnered	94	329,000	31	108,500	27	94,500
Partner Allowance	13	47,667	1	3,667	11	40,333
Total family	794	2,464,745	294	945,378	405	1,496,815
Unemployment:	00	104 700	~	05.075	40	005 750
Youth Allowance Newstart Allowance	36	184,500	7 32	35,875	46	235,750
Newstart Allowance Newstart MAA	86	740,653		275,592	115	990,408
	4 126	36,000	1 40	9,000 320,467	7	63,000
Total unemployment		961,153			168	1,289,158
Total <sup>b</sup>	1,290	6,365,849	505	2,630,776	823	4,773,789

Notes: a. End of quarter 1, 2000. b. Includes 10 other payments such as Austudy, Farm family restart, Mobility allowance and

Special benefit.

Source: Centrelink unpublished data.

#### Household income

Given the relative absence of Indigenous people from the mainstream labour market in Far West New South Wales, it is not surprising to find that average incomes fall within the range set for welfare recipients. Consequently, the vast majority of households probably exist below the poverty line. This last observation is deliberately hesitant because information on costs and expenditure are not available without conducting a household survey.

Nationally, Indigenous households are larger than non-Indigenous households, having on average one extra member (ABS 1998c: 25). In Bourke, Brewarrina and Walgett, Indigenous households had around 1.5 more residents than non-Indigenous households. However, median household incomes for Indigenous households are the same as or lower than median incomes for non-Indigenous households in these three towns. When expressed as average income per household resident, Indigenous households operated with about half the income per resident than did non-Indigenous households.

Table 21. Household income, 1996

	Indigenous households	Other households	Ratio Indigenous to Other
	Median Weekly Hou	sehold Income (\$)	
Bourke	489	627	0.8
Brewarrina	528	514	1.0
Walgett	459	627	0.7
	Number of Persons	Per Dwelling (no.)	
Bourke	3.92	2.57	1.5
Brewarrina	3.98	2.24	1.8
Walgett	4.01	2.43	1.7
	Average Income Per Ho	ousehold Resident (\$)	
Bourke	125	244	0.5
Brewarrina	133	229	0.6
Walgett	114	258	0.4

Source: ABS CPROFILE96, Tables I17, I21.

# Housing

Census data on Indigenous households and dwellings are available only at the Indigenous Area level which, in the case of Walgett, restricts the analysis to the township area alone. According to the 1996 Census, a total of 552 dwellings in the three towns were occupied by Indigenous households. Overall, then, just over 30 per cent of the housing stock in the three towns combined was occupied by Indigenous households with the lowest proportion in Bourke (26%) and the highest in Brewarrina (43%) as indicated in Table 22.

Table 22. Indigenous dwellings, 1996

	Indigenous dwellings	Other dwellings	Indigenous as proportion of total
	No.	No.	%
Bourke	210	607	25.7
Brewarrina	144	187	43.5
Walgett	198	411	32.5
Total	552	1,205	31.4

Source: ABS CPROFILE, Table I21.

It is interesting to consider these data on the proportion of Indigenous dwellings in each locality against their respective Indigenous shares of population (see Table 3). In Bourke, for example, Indigenous people accounted for 31 per cent of the population in 1996 and so the share of the housing stock occupied by Indigenous

households is lower than might be expected. This is also the case in Brewarrina where 55 per cent of the population is Indigenous but Indigenous households occupy only 44 per cent of dwellings. Likewise in Walgett where 42 per cent of the population is Indigenous but only 33 per cent of dwellings. Of course, these lower than expected shares of urban housing stock are likely to reflect differences in age distribution, family structure and household size between the Indigenous and non-Indigenous populations. It should also be pointed out that an Indigenous dwelling is so defined only if the reference person or spouse in the dwelling identifies as Indigenous. Nonetheless, there may be some indication here regarding the relative access of Indigenous people to available housing in the three settings which may, in part, be a function of relative access to home purchase and private rental accommodation. These issues can be explored with reference to data on dwelling size and tenure.

Differences in household size are clearly illustrated by housing occupancy rates. These are much higher for Indigenous dwellings compared to other dwellings and little variation is evident in this regard between the three towns (Table 23). Overall, the average number of persons per Indigenous dwelling is 60 per cent higher than for other dwellings with the highest differential in occupancy rates found in Brewarrina.

Table 23. Occupancy rates<sup>a</sup>, 1996

	Indigenous dwellings	Other dwellings	Ratio Indigenous to non-Indigenous
Bourke	3.92	2.57	1.53
Brewarrina	3.98	2.24	1.78
Walgett	4.01	2.43	1.65
Total	3.97	2.47	1.61

Note: a. Average number of persons per dwelling.

Source: ABS CPROFILE96, Table I21.

While these higher Indigenous occupancy rates are of interest, a more precise measure of relative overcrowding in housing stock is provided by an assessment of population distribution according to the size of dwellings as measured by the number of bedrooms. Three bedroom dwellings are the most common size available and account for around half of all Indigenous and non-Indigenous households (Table 24). The main variation in this regard appears to be the greater incidence of four-bedroom dwellings among Indigenous households in Brewarrina and Walgett. However, in terms of housing adequacy it is the number of bedrooms per capita that matters. Overall in the three towns there are 1.37 persons per bedroom in Indigenous dwellings compared to 0.90 persons in non-Indigenous dwellings. This represents a level of crowding which is over 50 per cent higher for Indigenous dwellings than for other dwellings. The situation is similar across all three towns.

Table 24. Number of bedrooms, 1996

	Bourke	Brewarrina	Walgett	Total
Indigenous Dwellings (%)				
0-1 <sup>a</sup>	6.7	7.4	7.4	7.1
2	15.8	6.7	16.5	13.7
3	57.4	52.6	42.6	50.9
4	17.2	33.3	33.5	27.1
5 or more	2.9	0.0	0.0	1.1
Total <sup>b</sup>	100.0	100.0	100.0	100.0
_	no.	no.	no.	no.
Total dwellings <sup>b</sup>	209	135	188	532
Average no. persons per bedroom	1.35	1.31	1.37	1.35
Other Dwellings (%)				
0-1a	9.1	8.2	9.7	9.2
2	18.4	25.3	24.4	21.5
3	51.3	50.0	46.8	49.5
4	18.3	13.2	16.9	17.0
5 or more	2.9	3.3	2.2	2.7
Total <sup>b</sup>	100.0	100.0	100.0	100.0
Total dwellings <sup>b</sup> (number)	591	182	402	1175
Average no. persons per bedroom	0.93	0.82	0.89	0.90

Notes: a. 0-1 bedrooms includes bedsitters

b. Excludes bedrooms not stated.

Source: ABS CPROFILE96 Table I23

#### **Tenure**

Given the vital role played by home ownership in the developmental cycle of Australian families, and the attempts by ATSIC and its predecessors over the years to raise the level of Indigenous home ownership, it is striking to note that compared to other households, Indigenous households in the three towns remain overwhelmingly dependant on rented accommodation (Table 25).

Historically, a key factor in the privatisation of housing stock in Australia has been a general community perception of home ownership as a primary means of enhancing economic status through the provision of secure and, over the longer-term, affordable housing. Thus, equity accumulated in the family home has tended to represent the major part of household wealth for many people. As well as providing financial security for retirement and unemployment, this equity also yields other economic benefits such as collateral for loans. While the relative absence of Indigenous people from the property market thus limits their options for achieving greater financial security and equity, there is a structural difficulty here as this results from a lack of financial capacity in the first place. In other words, the relative lack of home ownership is both a cause and effect of low economic status among Indigenous people, especially in terms of inter-generational flows of income.

The consequence is a severely restricted range of housing options for Indigenous families with the onus placed firmly on public housing resources for access to accommodation. In each of the three towns these public resources are increasingly managed by Indigenous housing organisations.

No doubt one factor also contributing to relatively lower rates of private tenure for Indigenous households are differences in age structure in terms of stages in the life cycle. For example, the much higher proportion of non-Indigenous dwellings that are fully owned is partly a measure of the older average age of the principal occupants. At the same time, the gap in the proportion of dwellings under mortgage should also be noted, especially in Walgett, as this hints at the other underlying determinant of low private tenure among Indigenous households which is lack of sufficient income to service repayments.

Table 25. Type of tenure, 1996

	Bour	ke	Brewarı	rina	Walget	t		Total
	No.	%	No.	%	No.	%	No.	%
			INDIO	GENOUS DW	/ELLINGS			
Fully owned	28	13.7	31	22.1	21	11.8	80	15.3
Being								
purchased	29	14.2	11	7.9	11	6.2	51	9.8
Rented	147	72.1	98	70.0	146	82.0	391	74.9
Totala	204	100.0	140	100.0	178	100.0	522	100.0
			O'	THER DWEL	LINGS			
Fully owned	244	42.1	88	48.9	154	39.1	486	42.2
Being								
purchased	123	21.2	23	12.8	73	18.5	219	19.0
Rented	212	36.6	69	38.3	167	42.4	448	38.9
Totala	579	100.0	180	100.0	394	100.0	1153	100.0

Note: a. Excludes tenure 'other' and not stated.

Source: ABS CPROFILE96 Table I22.

Within the rental sector, census data suggest that the majority of Indigenous households occupy New South Wales Department of Housing (DOH) dwellings. Overall, in 1996, just over half (51%) of all Indigenous households in the rental sector, where the landlord was given, were recorded as occupying DOH dwellings. This proportion was much higher in Walgett (64%) compared to Brewarrina (46%) and Bourke (41%). A relatively high proportion of households were also found in housing managed by Community Housing organisations. According to the census this was especially so in Bourke (31%) and Brewarrina (33%), but in Walgett a very low proportion was recorded (4%) (ABS CPROFILE: Table I25).

These census data on tenure within the rental sector are at odds with information gathered as part of the Community Housing and Environmental Health Planning process conducted in each of the towns in 1998/99. For example, while the census recorded only five households renting from Indigenous housing organisations in Walgett, a survey in 1999 found that the Walgett Local Aboriginal Land Council managed 21 houses in the township while a further 8 township dwellings formerly managed by the Barwon Aboriginal Community were under the control of the Murdi Paaki Housing Corporation (Rose Consultants 1999). In addition to this, the Land Council had responsibilities for 22 houses in Namoi and 17 at Gingie Reserve. Likewise in Bourke, a total of 75 houses were recorded under the control of Indigenous Community Housing organisations at the end of 1998 (Burns Aldis 1998: 51) which is substantially more than the 45 households recorded by the census two years earlier. A similar situation is reported in Brewarrina where the number of dwellings managed by Indigenous housing organisations in 1999 was also much higher than reported by the census (93 compared to 31) (GHD 2000).

There were also disagreements between Department of Housing data and census data for government rentals, with census data reporting higher levels of government rental than the departmental data. This gives rise to the possibility that some of the discrepancy for community housing is due to misclassification of community housing as government housing.

## Housing need

Deficiencies in the provision of housing for Indigenous people in the region are manifest in a number of ways (Burns Aldis 1998: 55). First, housing stress results from multiple families living in one dwelling. According to the 1996 Census, 10 per cent of family dwellings in the three towns had more than one resident family. This stress is also compounded by the lack of capacity to accommodate new household formation—a dynamic which is likely to increase the stress on housing stock if not addressed owing to the youthful structure of the Indigenous population and its

relatively rapid growth. These factors in turn lead to the occupation of sub-standard housing and a shortage of bedrooms as indicated by relatively high occupancy rates. Other deficiencies may be measured in terms of environmental health hazards and loss of functionality of dwellings, as well as by the deterioration of community assets and loss of amenity.

As part of the Community Housing and Environmental Health Planning process conducted in each of the towns in 1998–99, assessments were made of the requirements for additional housing necessary to meet acceptable occupancy and health and safety standards and overcome these deficiencies. In Bourke, it was estimated that a total of 34 new houses are required together with extensions to existing dwellings to provide 28 additional bedrooms (Burns Aldis 1998: 55). In addition, a major program of housing repair and maintenance was earmarked under HIPP funding. In Brewarrina, an assessment of housing needs in 1999 found a shortage of 107 bedrooms which translates into a need for 25 additional dwellings and five extensions to existing stock. In addition, 51 dwellings require major repairs and maintenance (GHD 2000). In Walgett, an estimated 15 new dwellings are required while all current housing managed by Indigenous organisations was considered in need of repair and maintenance works (Rose Consultants 1999).

#### Health status

An analysis of Indigenous mortality in Western New South Wales conducted in 1989 found that in comparison to the total New South Wales population, Indigenous men and women had 'higher levels of mortality at all ages, but especially during early and middle adulthood; much lower life expectancies; and a greater incidence of deaths due to accidents, poisonings and violence, circulatory and respiratory diseases' (Hogg 1990: 109). It also found that the distinct pattern of mortality in the Far West was a product of the social and economic status of Indigenous people relative to that of the rest of the population. A key finding of the study was an estimated life expectancy at birth of 53 years for Indigenous males in Western New South Wales and of 64 years for females (Hogg 1990: 113). Recent analysis of 1996 Census data for New South Wales as a whole suggests that while life expectancy for Aboriginal males may have increased slightly (to 58 years), the figure of 65 years for females remains comparable (Gray 1997: 12). Compared to the equivalent figures for all males in New South Wales in 1996 (75 years) and all females (81 years) (ABS 1997d: 10), these estimates starkly outline the continuing outcome of poor health status among Indigenous residents of New South Wales, and probably also the region.

Another key finding was the observation that Indigenous mortality rates varied considerably between communities within Western New South Wales (Hogg 1990: 118). In particular, it was found that the number of deaths of Indigenous people observed in Bourke, Brewarrina and Walgett was significantly greater than expected given the prevailing rate of Indigenous mortality across the region. From correlation tests, it was found that these mortality rates were associated with average household size (crowding) and percentage of the labour force in employment, that is smaller households and more employment was associated with lower mortality rates (Hogg 1990: 119).

As for the causes of differential mortality, Hogg (1990) compared Indigenous cause-specific mortality rates in Western New South Wales with their equivalents for the New South Wales population as a whole according to ICD-9 chapter. From this the proportion of overall excess risk attributable to individual disease categories was calculated. Thus, from Table 26, diseases of the circulatory system are shown to account for 58 per cent of the excess risk of mortality experienced by Indigenous males in Western New South Wales. Table 26 shows that this is also the main source of excess mortality among females. For Indigenous males, diseases of the digestive system, injury and poisoning, neoplasms and respiratory diseases are the other major sources of excess mortality. For females, endocrine, nutritional and metabolic

diseases stand out as do diseases of the respiratory system, diseases of the genitourinary system and injury and poisoning.

Table 26. Sex and cause-specific mortality rates, Western New South Wales, 1986

	Males			Females		
	Indigenous	NSW	Proportion of excess risk	Indigenous	NSW	Proportion of excess risk
Cause of death (ICD-9 code)			%			%
All causes	24.0	11.1	100.0	15.1	7.1	100.0
Infectious and parasitic	0.2	0.0	0.8	0.2	0.0	2.3
Neoplasms	3.1	2.1	6.6	1.9	1.6	0.2
Endocrine, nutritional and						
metabolic	0.1	0.2	0.0	1.4	0.1	15.2
Mental disorders	0.3	0.1	1.6	0.1	0.1	0.4
Nervous system and sense						
organs	0.2	0.1	0.3	0.1	0.2	0.4
Circulatory system	13.0	3.8	57.6	7.5	3.7	45.3
Respiratory system	1.4	0.6	5.1	1.5	0.5	14.2
Digestive system	1.8	0.1	10.4	0.5	0.3	2.5
Genitourinary system	0.5	0.1	2.4	0.7	0.1	7.0
Congenital anomalies	0.2	0.0	0.6	0.0	0.0	0.0
Perinatal conditions	0.2	0.1	0.7	0.0	0.0	0.1
Symptoms and ill-defined						
conditions	1.0	0.1	5.6	0.2	0.0	1.6
External causes (injury and						
poisoning)	2.0	0.7	8.6	1.0	0.3	8.3

Source: Hogg 1990: 115.

As for morbidity statistics, information on the health status of Indigenous residents of Far West New South Wales is available in the form of inpatient data collected by the New South Wales Health Department in the course of operating the health care system. The primary source of data is from hospital admissions and separations. Three points should be noted in regard to this. First, the latest available data provided by the Far West Population Health Unit are for the three year period 1993–94 to 1995–96. Second, recording of Indigenous status in hospital records in New South Wales is incomplete, although there is some indication that this may be more complete in areas such as the Far West where Indigenous people form a higher proportion of the regional population. Finally, the data are available at the Local Government Area (LGA) level only and so incorporate the residents of Bourke, Brewarrina and Walgett towns as well as those in surrounding areas. In addition, data for Walgett LGA has been combined with those for Coonamble LGA.

There were a total of 14,265 admissions to hospital of Indigenous residents of Bourke, Brewarrina and Walgett/Coonamble over the period in question. Using census data as the base population (which is questionable), this represents an admission rate per 1,000 persons of 1,377 for Bourke, 1,543 for Brewarrina and 859 for Walgett/Coonamble. By contrast, the admission rate for the population of New South Wales as a whole is 298 per 1,000 people. The indication from this is that Indigenous people in the region are admitted to hospital at somewhere between three to five times the rate of all other State residents.

As for the causes of hospitalisation, these are coded using the World Health Organisation (WHO) method of disease classification which follows the 9th Revision, International Classification of Diseases (ICD-9). Briefly, this consists of 17 primary categories of disease plus two supplementary (V and E code) classifications dealing with routine contact with health workers and external causes of injury and poisoning.

From this classification, Table 27 shows the top six causes of admission for Indigenous residents of Bourke. Clearly, respiratory disease is a major health problem among Indigenous people in Bourke. This is particularly so among children

in the 0-14 years age group who accounted for two-thirds of all admissions for respiratory disease. Overall, the Indigenous admission rate for respiratory conditions was 16 times higher than the New South Wales average and a significant difference occurred at all ages for both males and females.

Table 27. Top six causes of hospital admission, Indigenous people, Bourke LGA, 1993–94 to 1995–96

	Admissions No.	Indigenous Admission Rate	NSW Admission Rate	Ratio Indigenous to NSW rates
ICD-9 Chapter				
Respiratory	788	256.0	15.6	16.4
Symptoms, signs and ill- defined conditions	531	172.5	15.0	11.5
Injury and poisoning	435	141.3	20.9	6.8
Digestive system	399	129.6	34.7	3.7
V-codes (Social Admissions)	291	94.5	54.2	1.7
Skin and subcutaneous tissue	284	92.3	5.2	17.8

Source: NSW Health Department, Far West Population Health Unit.

Data are also available indicating the type of procedure or medical service provided on admission to hospital. Table 28 shows the number of admissions of Indigenous residents of Bourke ranked according to Service Related Groups. Aside from admissions for miscellaneous surgery, the impact of respiratory disease on hospital procedures is highlighted as is the effect of renal disease. Compared to the New South Wales average, however, dentistry and drug and alcohol services are substantially impacted by Indigenous admissions.

Table 28. Hospital admissions by service related groups, Indigenous people, Bourke LGA, 1993–94 to 1995–96

	Admissions No	Indigenous Admission Rate	NSW Admission Rate	Ratio Indigenous to NSW rates
Miscellaneous surgery	694	225.5	20.1	11.2
Respiratory medicine	567	184.2	14.8	12.4
Dentistry	342	111.1	3.2	34.7
Obstetrics	334	108.5	33.5	3.2
Gastroenterology	321	104.3	32.2	3.2
Miscellaneous medicine	276	89.7	9.1	9.9
Orthopaedics	208	67.6	22.4	3.0
Neurology	198	64.3	7.4	8.7
Cardiology	183	59.5	15.9	3.7
Drug and Alcohol	166	53.9	2.0	27.0
Renal medicine	142	46.1	3.6	12.8
Gynaecology	121	39.3	17.1	2.3

Source: NSW Health Department, Far West Population Health Unit.

A broadly similar pattern of morbidity is evident in Brewarrina and Walgett/Coonamble with respiratory diseases, diseases of the digestive system and injury and poisoning all featuring in the top six causes of hospitalisation and at substantially higher rates than among the rest of the population. In both places, though, most admissions are classified under V (Social Admissions) codes. This is a supplementary category within the ICD-9 and refers to individuals who are not currently sick but are required to utilise hospital services for treatment of an ongoing condition, check-ups or immunisation. The relatively high rate of Indigenous to non-Indigenous admissions classified under V-codes (especially in Brewarrina) may be an indicator of higher Indigenous morbidity, though it may simply reflect the fact that Indigenous people in Brewarrina, and to a lesser extent in Walgett/Coonamble, tend to utilise hospital services in preference to private medical practitioners. Table 30 indicates that treatment for renal disease may be a primary

reason for routine hospitalisation in Brewarrina, although in the absence of patient level data it is not clear to what extent these admissions include repeat visits.

Table 29. Top six causes of hospital admission, Indigenous people, Brewarrina LGA, 1993–94 to 1995–96

	Admissions No.	Indigenous Admission Rate	NSW Admission Rate	Ratio Indigenous to NSW rates
ICD-9 Chapter				
V-codes (Social Admissions)	1,132	401.4	54.2	7.4
Respiratory	593	210.3	16.5	12.7
Symptoms, signs & ill-				
defined conditions	413	146.5	15.0	9.8
Digestive system	370	131.2	34.8	3.8
Injury & poisoning	324	114.9	20.9	5.5
Complications of childbirth,				
pregnancy & puerperium	266	94.3	23.6	4.0

Source: NSW Health Department, Far West Population Health Unit.

Table 30. Hospital admissions by service related groups, Indigenous people, Brewarrina LGA, 1993–94 to 1995–96

	Admissions No.	Indigenous Admission Rate	NSW Admission Rate	Ratio Indigenous to NSW rates
Renal dialysis	858	304.3	17.8	17.1
Respiratory medicine	443	157.1	14.8	10.6
Miscellaneous surgery	421	149.3	20.1	7.4
Obstetrics	377	133.7	33.5	4.0
Gastroenterology	337	119.5	32.2	3.7
Miscellaneous medicine	310	109.9	9.1	12.1
Dentistry	252	89.4	3.2	27.9
Renal medicine	196	69.5	3.6	19.3
Neurology	174	61.7	7.4	8.3
Cardiology	163	57.8	15.9	3.6
Orthopaedics	125	44.3	22.4	2.0
Psychiatry	108	38.3	9.4	4.1

Source: NSW Health Department, Far West Population Health Unit.

Table 31. Top six causes of hospital admission, Indigenous people, Walgett LGA, 1993–94 to 1995–96

	Admissions No.	Indigenous Admission Rate	NSW Admission Rate	Ratio Indigenous to NSW rates
ICD-9 Chapter				
V-codes (Social Admissions)	924	139.8	54.2	2.6
Respiratory	792	119.8	15.6	7.7
Injury & poisoning	510	77.2	20.9	3.7
Digestive system	485	73.4	34.7	2.1
Nervous system Complications of childbirth,	455	68.8	14.6	4.7
pregnancy & puerperium	420	63.5	23.6	2.7

Source: NSW Health Department, Far West Population Health Unit.

Table 32. Hospital admissions by service related groups, Indigenous people, Walgett LGA, 1993-94 to 1995-96

	Admissions No.	Indigenous Admission Rate	NSW Admission Rate	Ratio Indigenous to NSW rates
Respiratory medicine	649	98.2	14.8	6.6
Obstetrics	630	95.3	33.5	2.8
Neurology	528	79.9	7.4	10.8
Gastroenterology	480	72.6	32.2	2.3
Miscellaneous surgery	448	67.8	20.1	3.4
Renal dialysis	411	62.2	17.8	3.5
Miscellaneous medicine	322	48.7	9.1	5.4
Cardiology	271	41.0	15.9	2.6
Dentistry	244	36.9	3.2	11.5
Renal medicine	240	36.3	3.6	10.1
Drug and Alcohol	240	36.3	2.0	18.2
Orthopaedics	187	28.3	22.4	1.3

Source: NSW Health Department, Far West Population Health Unit.

The persistence of high mortality among Indigenous adults in the region and the much higher rates of morbidity reported for Indigenous residents of the three towns no doubt places severe physical constraints on the capacity of individuals to make prolonged and active contributions to family and community life, and on their ability to beneficially participate in the regional economy. There is a negative feedback between socioeconomic status and health outcomes such that the causes of low health status are increasingly recognised as socioeconomic in origin and yet Indigenous people are often prevented from fully overcoming their disadvantage in areas such as education, training, the labour market and the accumulation of material wealth by virtue of poor health and low life expectancy (Berkman & Kawachi 2000; Gray & Hogg 1989). Breaking this nexus may require simultaneous progress on all fronts.

## References

Australian Bureau of Statistics (ABS) 1997a. 1996 Census of Population and Housing: Data Quality - Undercount, Cat. no. 2940.0, ABS, Canberra.

Australian Bureau of Statistics (ABS) 1997b. *Population Distribution, Indigenous Australians*, Cat. no. 4705.0, ABS, Canberra.

Australian Bureau of Statistics (ABS) 1997c. *Australian Demographic Trends 1997*, Cat. no. 3102.0, ABS, Canberra.

Australian Bureau of Statistics (ABS) 1997d. *Deaths Australia 1996*, Cat. no. 3302.0, ABS, Canberra

Australian Bureau of Statistics (ABS) 1998a. *Experimental Estimates of the Aboriginal and Torres Strait Islander Population, 30 June 1991 – 30 June 1996,* Cat. no. 3230.0, ABS, Canberra.

Australian Bureau of Statistics (ABS) 1998b. *Australian Indigenous Geographical Classification*, 1996, Cat. no. 4706.0.30.001, ABS, Canberra.

Australian Bureau of Statistics (ABS) 1998c. 1996 Census of Population and Housing: Aboriginal and Torres Strait Islander People, Australia, Cat. no. 2034.0, ABS, Canberra.

Australian Bureau of Statistics (ABS) 1999. 'Aboriginal and Torres Strait Islander Australians: A statistical profile from the 1996 Census', in *Year Book Australia 1999*, Cat. no. 1301.0, ABS, Canberra, pp102-112.

Australian Bureau of Statistics (ABS) and Australian Institute of Health and Welfare (AIHW) 1999. *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples*, Cat. no. 4704.0, ABS, Canberra.

Australian Bureau of Statistics (ABS) and Centre for Aboriginal Economic Policy Research (CAEPR) 1996. 1994 National Aboriginal and Torres Strait Islander Survey: Employment Outcomes for Indigenous Australians, Cat. no. 4199.0, ABS, Canberra.

Aboriginal and Torres Strait Islander Commission (ATSIC) 2000. Annual Report 1999, ATSIC, Canberra.

- Berkman, L.F. and Kawachi, I. 2000. Social Epidemiology, Oxford University Press, Oxford.
- Burns Aldis 1998, *Housing and Environmental Health Plan for the Bourke Community: Draft Report*, Bourke Working Party, December 1998.
- Commonwealth of Australia 1999a. Official Committee Hansard: Senate Employment, Workplace Relations, Small Business and Education References Committee: Indigenous Education, Monday 26 July, 1999, Bourke.
- Commonwealth of Australia 1999b. Official Committee Hansard: Senate Employment, Workplace Relations, Small Business and Education References Committee: Indigenous Education, Monday 26 July, 1999, Brewarrina.
- Commonwealth of Australia 2000. House of Representatives Official Hansard, Tuesday 11 April, Canberra.
- Daly, A. 1995. Occasional Paper: Aboriginal and Torres Strait Islander People in the Australian Labour Market, 1986 and 1991, Cat. no. 6253.0, Australian Bureau of Statistics, Canberra.
- Deloitte Touche Tohmatsu 1993. *No Reverse Gear: A National Review of the Community Development Employment Projects Scheme,* Report to the Aboriginal and Torres Strait Islander Commission, Canberra.
- GHD 2000. Community Housing and Environmental Health Plan Volume 1, Brewarrina Aboriginal Community, February 2000.
- Gray, A. 1997. 'The explosion of aboriginality: components of indigenous population growth, 1991–1996', *CAEPR Discussion Paper No. 142*, CAEPR, ANU, Canberra.
- Gray, A. and Hogg, R. 1989. *Mortality of Aboriginal Australians in Western New South Wales,* 1984–1987, New South Wales Department of Health, Sydney.
- Hassall and Associates 1999. Socio-economic impact of reduced water availability on the irrigation industry and town of Bourke, NSW, Report prepared for Darling River Food and Fibre, April 1999.
- Hogg, R. 1990. 'Insights into Aboriginal mortality in Western New South Wales', in A. Gray (ed.) A Matter of Life and Death: Contemporary Aboriginal Mortality, Aboriginal Studies Press, Canberra, pp109-25.
- Hunter, B. 1996. 'The determinants of Indigenous employment outcomes: the importance of education and training', *CAEPR Discussion Paper No. 115*, CAEPR, ANU, Canberra.
- Rose Consultants 1999. Walgett Housing and Environmental Health Plan Design Report, Gamilaroi Goondi Community Working Party, February 1999.
- Ross, K. 1999. Occasional Paper: Population Issues, Indigenous Australians, 1996, Cat. no. 4708.0, ABS, Canberra.
- Schwab, R.G. and Anderson, I. 1999. 'Trends in indigenous participation in health sciences education: the vocational education and training sector, 1994-97', *CAEPR Discussion Paper No. 179*, CAEPR, ANU, Canberra.
- Smith, D.E. 1991. 'Toward an Aboriginal household expenditure survey: conceptual, methodological and cultural considerations', *CAEPR Discussion Paper No. 10*, CAEPR, ANU, Canberra.
- Taylor, J. 1993. Regional Change in the Economic Status of Indigenous Australians, 1986–91, CAEPR Monograph No. 6, CAEPR, ANU, Canberra.
- Taylor, J. 1998. 'Measuring short-term population mobility among Indigenous Australians: options and implications', *Australian Geographer*, 29 (1): 125–37.
- Taylor, J. 2000. 'Transformations of the Indigenous population: recent and future trends', *CAEPR Discussion Paper No. 194*, CAEPR, ANU, Canberra.
- Taylor, J. and Bell, M. 1998. 'Making sense of census data: a components analysis of employment change among Indigenous Australians', *Journal of the Australian Population Association*, 15 (1): 35–51.

Taylor, J. and Hunter, B. 1998. *The Job Still Ahead: Economic Costs of Continuing Indigenous Employment Disparity*, ATSIC, Canberra.

- Thorburn, C. 1999. 'Birth, Death, Passports and Pensions', *Australian Actuarial Journal* 5(4): 531–624.
- Working Group to Establish Guidelines for Interpreting Indigenous Census Data 1998. Making Use of Indigenous Statistics from Census Data — Guidelines, in K. Ross 1999, Occasional Paper: Population Issues Indigenous Australians, 1996, Cat. no. 4708.0, ABS, Canberra, pp57-68.

Appendix: Bourke, Brewarrina and Walgett towns with 1996 Census Postal Area boundaries

