



THE AUSTRALIAN NATIONAL UNIVERSITY

**Centre for  
Aboriginal  
Economic  
Policy  
Research**



**The relative economic status of  
indigenous people in Western Australia,  
1991 and 1996**

**J. Taylor**

**No. 157/1998**

**Discussion Paper**

## Series Note

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- identify and analyse the factors affecting Aboriginal and Torres Strait Islander participation in the labour force; and
- assist in the development of government strategies aimed at raising the level of Aboriginal and Torres Strait Islander participation in the labour market.

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June 1998

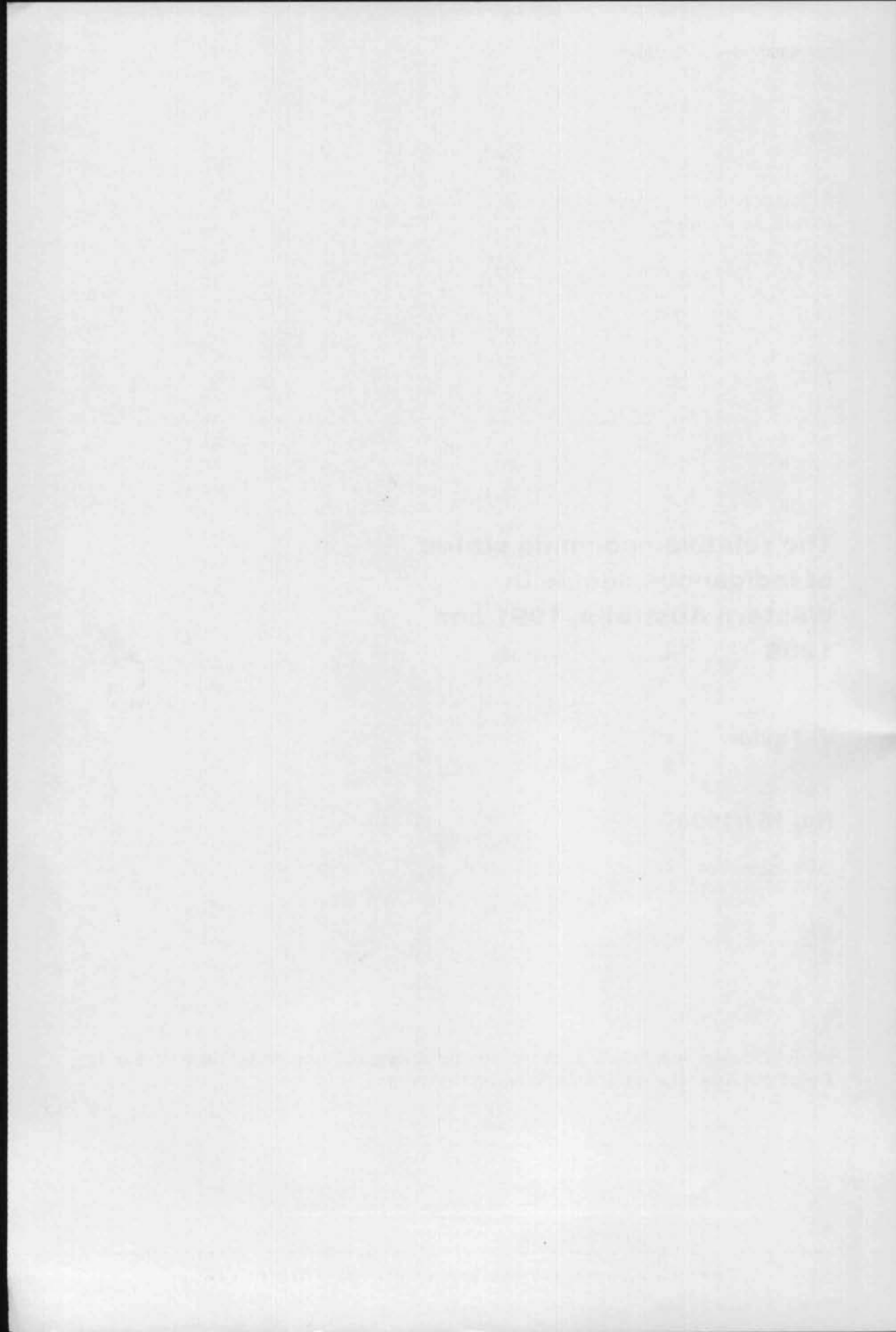
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## Foreword

A component of CAEPR's research charter requires it to examine the economic situation of indigenous Australians at the State and Territory, as well as the national and regional levels of aggregation. Accordingly, in 1994, a series of eight CAEPR Discussion Papers (Discussion Papers 55-62) were published outlining changes in the relative economic status of indigenous Australians in each State and Territory using census data for the period 1986-91. These analyses, together with CAEPR Research Monographs 5 and 6, formed CAEPR's commissioned contribution to the mid-term evaluation of the Aboriginal Employment Development Policy.

As part of CAEPR's continual monitoring of indigenous economic status, access to 1996 Census data now enables this series of Discussion Papers to be up-dated for the intercensal period 1991-96. As far as possible care has been taken to ensure direct comparability in statistical content with the earlier series, thereby enabling longer-term analysis of change for the decade 1986-96. It is anticipated that these two series of Discussion Papers, taken together, will be of assistance to policy development at State, Territory and national levels.

Professor Jon Altman  
Director, CAEPR  
June 1998

Summary

The first part of the report deals with the general conditions of the country during the year. It is noted that the weather was generally favorable, and that the crops were a good yield. The population is reported to be increasing, and the government is making efforts to improve the roads and the schools.

The second part of the report deals with the financial condition of the country. It is noted that the government has a surplus, and that the public debt is being paid off. The report also mentions the progress of the various departments, and the work done during the year.

The third part of the report deals with the social conditions of the country. It is noted that the people are generally happy and content, and that there is a general feeling of well-being. The report also mentions the progress of the various social reforms, and the work done during the year.

The fourth part of the report deals with the political conditions of the country. It is noted that the government is stable, and that there is a general feeling of confidence in the government. The report also mentions the progress of the various political reforms, and the work done during the year.

The fifth part of the report deals with the economic conditions of the country. It is noted that the economy is growing, and that there is a general feeling of prosperity. The report also mentions the progress of the various economic reforms, and the work done during the year.

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## Summary

Census data remain the primary source of information on the economic status of indigenous Australians in Western Australia, and certainly the most comprehensive. However, some care is required in their interpretation for public policy purposes. In particular, it should be noted that any change in characteristics observed between censuses does not necessarily apply to the population identified at the start of the intercensal period. In fact, because of the identification of a greater indigenous population in 1996, change to the original 1991 population cannot be adequately established. What can, and should be done at the aggregate State level is to estimate characteristics for the original population using Australian Bureau of Statistics experimental population estimates derived from reverse survival procedures. This has the effect of properly aligning time series data. This problem affects any analysis of aggregate data for Western Australia, though it especially relates to the population counted in Perth. Elsewhere in the State, intercensal change is affected less by this census error.

These issues aside, a key question for policy arising from an examination of census data is whether growth of the population identified by the census question on indigenous origins has resulted in an alteration to the absolute and relative level of indigenous economic status in Western Australia. The results suggest that this is not the case.

- The number of indigenous people recorded as employed has risen, employment rates have been consistently higher and unemployment rates have been lower leading to a closing of the gap in these indicators with the rest of the population.
- However, these achievements, especially in rural areas, are shown to be largely related to sustained expansion of the Community Development Employment Projects (CDEP) scheme as well as enhanced indigenous participation in employment-related labour market programs under the now defunct *Working Nation* initiatives.
- Growth in mainstream, or non-program linked employment, was only just sufficient to keep ahead of population growth and the true level of indigenous employment has been static for some time at barely one-third of that recorded for other Western Australians.
- The relatively low income status of indigenous people has remained effectively unaltered and welfare dependence remains high.

Sustained dependence over the decade to 1996 on programs for economic advancement raises further pressing issues in the context of new directions for indigenous economic policy. These are:

- the shift in CDEP to focus solely on providing employment and skills development with non-working participants becoming clients of the social security system;

- the freeze on further CDEP scheme expansion given that this has absorbed much of the excess labour supply in the past;
- orientation towards private sector activities as the primary source of future employment growth; and
- replacement of the Commonwealth Employment Service by contracted employment provision agencies and the dismantling and restructuring of government employment assistance.

Just what effect these new arrangements will have on employment outcomes for indigenous people is unknown and in need of urgent research. As it stands, there are 27 Job Network member agencies registered in Perth, 12 in Southern Western Australia and 15 in the balance of the State. Of these, only two (one in Perth and one in Derby) are indigenous organisations leaving the whole question of dedicated services for indigenous job-seekers open for scrutiny and analysis.

In terms of anticipating where opportunities in the private sector will be generated, an important consideration in Western Australia is the remote rural location of much of the indigenous population:

- some remote communities benefit from export-oriented activities such as mining, pastoral and tourism ventures, but these are typically very localised, capital intensive rather than labour intensive, highly resource dependant and subject to market fluctuation; and
- for most an import substitution model embracing activities such as construction and maintenance, retailing, transport, media, land restoration and management, recreation and horticulture is most appropriate.

It is important to ask how the broad strategy of raising employment levels might be targeted to suit particular regional and local circumstances. An initial requirement is for detailed regionally-based quantitative assessments of the supply of, and demand for, indigenous labour for different economic activities that either exist already or that may be created at the local level. Only then, can the appropriate mix of resources for enterprise development and training be appropriately channelled.

Finally, even if sufficient new work in excess of growing demand were to be generated, it is important to note that the enhancement of occupational status, and not just labour force status, will be necessary to meet policy goals. This places the policy focus firmly in the realm of skills development.

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THE UNIVERSITY OF CHICAGO

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## Introduction

Census-derived social indicators continue to provide the main statistical basis for assessing change in the economic status of indigenous Australians. By way of inference, they also provide a means to assess likely aggregate impacts of indigenous economic policy. Use of such data in this way formed the basis for a mid-term review of the Aboriginal Employment Development Policy (AEDP) in 1993. This involved a series of research papers aimed at establishing relative shifts in indigenous employment and income status between 1986 and 1991 (Taylor 1993a, 1993b; Taylor and Roach 1994).

Findings for Western Australia indicated a rise in the indigenous employment rate and a slight decline in the unemployment rate, but with both of these remaining substantially below equivalent rates for the non-indigenous population (Taylor and Roach 1994). Also of note was a lack of improvement in income relativities with the reason being a heavy reliance on jobs in the Community Development Employment Projects (CDEP) scheme for employment growth. The release of 1996 Census data now provides for an up-date of this economic profile covering the intercensal period 1991-96.

A degree of caution has been expressed with regard to the interpretation of recent change in social indicators for the indigenous population using census data (Australian Bureau of Statistics (ABS) 1998a; Taylor and Bell 1998). This is because indigenous population growth between 1991 and 1996 was augmented by a large number of individuals who had previously not appeared in census data as indigenous. Nationally, some 42 per cent of the intercensal increase in the indigenous population was due to factors other than natural causes (Gray 1997: 13). As a consequence, change in census-based economic indicators cannot be taken at face value and some adjustment to the base year (1991) data is necessary to establish meaningful comparison over time. A method for such an adjustment has been devised using reverse survival techniques (Taylor and Bell 1998) and this is applied here.

## Population size and distribution, 1991 and 1996

To analyse change in the economic status of indigenous people in Western Australia compared to that of the rest of the population, an appreciation of respective population growth rates and spatial distributions is crucial. This is because different pressures are brought to bear on the need for new job creation by variable rates of growth in the working-age population while the economy itself varies in its capacity to create employment in different parts of the State.

Previous analyses of the State's indigenous population have identified a variation in economic status between those resident in urban centres as opposed to rural areas (Taylor and Roach 1994; ABS 1995a, 1996a). Given the policy implications of this structural dimension, and for consistency with data presented

for the 1986–91 intercensal period (Taylor and Roach 1994), the present analysis is organised according to the ABS section-of-State classification with the standard four-way taxonomy for Western Australia reduced to three components by amalgamating data for bounded localities and the rural balance to create a single 'rural' category (0–999 persons).<sup>1</sup> Although this represents an oversimplification of the settlement hierarchy for the indigenous population by failing to distinguish outstation populations from those in larger rural localities, it is validated by the fact that residence in urban, as opposed to a rural areas, remains the crucial determinant of physical access to the mainstream labour market and other economic opportunities.

### **The indigenous population**

At the 1996 Census, a total of 50,786 indigenous people were counted in Western Australia, an increase of 9,004 or 21.5 per cent since 1991. A more reliable indication of the size of the State's indigenous population is provided by the estimated resident population (ERP) which adjusts the census count of usual residents according to an assessment of census error. This produced a population in 1996 of 56,205 which was 11 per cent higher than the 50,423 expected on the basis of ABS experimental projections (ABS 1996b: 17; 1998b: 10). Compared to most other jurisdictions in Australia, and especially those in the south and east of the continent, this gap between the expected and the recorded population in 1996 was relatively small (Taylor 1997b: 4).

One of the features of the distribution of indigenous people over the past two decades has been a gradual increase in the proportion resident in urban areas, and especially in the State capital. (Hugo 1991, 1997: 107; Taylor and Roach 1994: 4). Between 1971 and 1991, for example, the proportion of the State's indigenous population recorded in Perth increased from 10 per cent to 28 per cent, while the proportion living in non-metropolitan areas declined from 90 per cent to 72 per cent. Even away from Perth, the main focus of population growth has been in urban centres with the rural share of the census-identified population declining steadily from 60 per cent of the total in 1971 to 34 per cent in 1991.

Analysis of indigenous population change by section-of-State for the most recent intercensal period between 1991 and 1996 indicates that this trend towards urbanisation has continued (Table 1). Comparison of census counts in 1991 and 1996 reveals that the rate of population increase was highest in Perth (46 per cent). As a consequence, the capital accounted for a growing share of the State's indigenous population (29 per cent in 1996, up from 24 per cent in 1991). However, the majority of indigenous people counted in Western Australia (38 per cent) remain located in other urban centres scattered widely across the State and in rural, often remote, places (33 per cent).

**Table 1. Indigenous population counts by section-of-State: Western Australia, 1991 and 1996**

	1991		1996		1991-96	
	No.	Per cent	No.	Per cent	Net change	Per cent change
Major urban	10,236	24.5	14,948	29.4	4,712	46.0
Other urban	17,535	42.0	19,146	37.7	1,611	9.2
Rural	14,011	33.5	16,692	32.9	2,681	19.1
Total	41,782	100.0	50,786	100.0	9,004	21.5

One explanation for relatively higher population growth in Perth is net migration gain from non-metropolitan parts of the State as well as from interstate. Between 1991 and 1996, the net addition to the indigenous population of Perth was 512 from other parts of the State and 256 from interstate, almost double the net gain recorded in the previous intercensal period. No specific research has examined the dynamics of this migration, although Gray (1989: 133) has speculated in the past that state housing provision in the city may have contributed, with initial rural-urban movements sustained by chain migration in much the same way as reported for South Australia by Gale (1972).

Also relevant to an understanding of the relative increase in the indigenous census count in Perth are factors related to the social construction of indigenous identity. As in all other major urban areas in Australia, the recent increase in Perth's indigenous population, at over 9 per cent per annum, was considerably above expectation. At the national level, higher than expected growth in the indigenous population has been attributed to three factors and these are also considered to be operative in Western Australia: an increased propensity on the part of individuals to declare indigenous status on the census form; the population expansionary effects of inter-marriage which results in births of indigenous children being above the level due to indigenous mothers alone; and improved enumeration by the ABS (Gray 1997; Taylor 1997a, b; ABS 1998a, b).

While an overall trend towards urban residence appears unequivocal, a degree of caution is required in the interpretation of section-of-State data. One reason is that substantially divergent regional trends in population counts are apparent that are difficult to explain solely by reference to the demographic and social processes outlined above. In particular, the Aboriginal and Torres Strait Islander Commission's (ATSIC) regions away from the south-east of the State recorded indigenous population counts that were considerably below expectation. This was especially so in Kullari, Derby and Ngada-Ngarli-Yarndu ATSIC regions where annual population growth rates were 1.6, 0.7 and 0.5 per cent, respectively, compared to the State average of more than 4 per cent. Obviously, inter-regional migration may have contributed to this apparent undercount and this remains to be investigated. However, as in other parts of remote Australia

where special indigenous forms are utilised in the census count, enumeration error is suspected as the primary cause (Martin and Taylor 1996; Taylor 1997b).

One pointer to census error is the fact that non-response to the census question on indigenous origins increased by almost 10 per cent between 1991 and 1996 in the northern regions of the State. While the ABS has adjusted census counts for error at the ATSI regional level (ABS 1998b), this is less easy to accomplish at the small area, community level and official population estimates are therefore not available below the ATSI regional level. More importantly, in the context of assessing change in economic status, it is not possible to estimate unreported census characteristics, such as labour force status.

### The non-indigenous population

Far less change in distribution by section-of-State was apparent among the majority balance of the State's population (Table 2). The obvious contrast with the indigenous pattern of settlement remains the overwhelming concentration of population in the Perth metropolitan area despite a slight shift in distribution in favour of other urban areas. The relatively high growth of the majority population in non-metropolitan urban centres contrasts with the situation observed for indigenous people and no doubt reflects a continuation of net migration flows out of Perth to towns in adjacent Statistical Divisions (SDs), especially to the South West SD (Bell 1995: 93-7). Also by way of contrast, non-indigenous population growth in rural areas was relatively slight with the consequence that, compared to the non-indigenous population, indigenous people continue to be over-represented in rural areas, far removed from urban centres and remote from many urban-type services and labour markets.

**Table 2. Non-indigenous population counts by section-of-State: Western Australia, 1991 and 1996**

	1991		1996		1991-96	
	No. (Million)	Per cent	No. (Million)	Per cent	Net change	Per cent change
Major urban	1.00	65.3	1.07	64.5	72,481	7.2
Other urban	0.32	20.8	0.37	22.5	53,233	16.6
Rural	0.21	13.9	0.22	13.0	6,557	3.1
Total	1.54	100.0	1.66	100.0	132,271	8.6

### The working-age population, 1991 and 1996

The 1996 Census count of indigenous people aged 15 years and over reveals an increase of 23 per cent since 1991, from 24,783 to 30,560. This rate of increase was far greater than the 8 per cent recorded for non-indigenous adults and was

substantially above expectation based on projections from the 1991 Census. A more realistic indication of change in the number of indigenous adults is provided by experimental population estimates produced by the ABS (1998b). These are constructed by a series of adjustments to the 1996 count. First, by excluding indigenous persons whose parents were both born overseas; second, by assuming indigenous status for a pro rata allocation of non-respondents to the census question on Aboriginal and Torres Strait Islander origins; third, by correcting for net undercount of the indigenous population; and, finally, by adjusting the number of persons aged zero on the basis of registered births (ABS 1998b).

### **Reconstructing the 1991 population**

Inconsistency in census counts is almost a defining feature of the indigenous population. Despite erratic variation over time, the general trend in overall numbers since 1971 has nonetheless been upwards with population growth often exceeding that accounted for by biological factors. Reasons for this anomaly have been the subject of much speculation but it is generally agreed that excess population growth primarily reflects an increased willingness of individuals over time to reveal their ethnic identity in official collections combined with greater efforts made by the ABS to achieve better enumeration.

This being so, the 1996 Census-derived population may be viewed as the best estimate yet of an ultimately unknown number of individuals of Aboriginal or Torres Strait Islander descent. The point here is that those revealed in the 1996 Census are assumed to include individuals who, for whatever reason, did not appear in the 1991 Census count as indigenous. Realistically, to gain a meaningful analysis of intercensal change in employment, these individuals should be restored to the 1991 population. While the census provides no information which can be used to achieve this directly, it is possible to derive an estimate of the 1991 working-age population using the revised 1996 population as a base. The standard demographic technique for reconstituting the initial population in this way is through reverse survival (Shyrock, Siegel and Associates 1976: 262-3, 418-21) and this is applied by the ABS to generate new estimates of the 1991 population (ABS 1998b).

Application of the reverse survival procedure in this context involves taking the population as counted in 1996, disaggregated by age and sex, 'younging' this population by five years and making allowance for deaths that occurred over the intercensal period, to estimate the population in each age-sex group in 1991 (Taylor and Bell 1998). Thus, the population of males aged 20-24 in 1991 is estimated by applying reverse survival ratios to the male population aged 25-29 in 1996. This is essentially the reverse of the standard procedure used in making projections of future population by the cohort-component method. The key to producing reliable estimates by this technique is selection of the correct ratios from an appropriate life table, that is, from a life table which accurately summarises the mortality experience of the relevant population over the period being considered. Application of the reverse survival procedure to reconstitute the

earlier population also assumes that the population is closed to interstate migration.<sup>2</sup>

As indicated in Table 3, this procedure raises the 1991 working-age population from the 24,783 revealed in the census count to an estimate of 30,610. Thus, the estimated increase in the indigenous working-age population over the intercensal period was only 3,202, or 10.5 per cent, which is more in line with the estimated growth of 6.5 per cent recorded for the non-indigenous adult population.

While reverse survival produces an indigenous population growth rate closer to that recorded for the non-indigenous population, reasons for expansion of the working-age group in the respective populations are quite different. For the indigenous population, it reflects the inevitable outcome of demographic processes set in train through high indigenous fertility in the early 1970s (Gray and Tesfaghiorghis 1993; Gray 1997). Growth in the non-indigenous population, on the other hand, is due more to sustained net interstate migration gain. From a policy perspective, the key implication to note is that the rate of indigenous employment growth would need to be greater than for non-indigenous people, and at least equivalent to the growth in the indigenous working-age group, simply to maintain the employment/population ratio at its current low level. The retrogressive nature of this connection is indicated by the fact that employment growth could be relatively high but still have little appreciable impact on labour force status.

**Table 3. Estimated population aged 15 years and over: indigenous and non-indigenous people in Western Australia, 1991 and 1996**

	1991	1996	1991-96	
			Net change	Per cent change
Indigenous	30,610	33,812	3,202	10.5
Non-indigenous	1,256,683	1,148,258	82,264	6.5

Source: ABS 1996b: 14, 1998b: 9-10.

### Labour force status, 1991 and 1996

In examining change in the labour force status of indigenous people, census count data are utilised for two reasons. First, to maintain consistency with data from previous analysis of indigenous economic status in Western Australia (Taylor and Roach 1994). Second, to enable an examination of change by section-of-State, a geographic level for which estimated resident population data are not available. It should also be noted that labour force status is expressed as a proportion of the 15-64 year old working-age group.

Three standard social indicators are used for this purpose: the employment rate, representing the percentage of persons aged 15–64 years who indicated in the census that they were in employment during the week prior to enumeration; the unemployment rate, expressing those who indicated that they were not in employment but had actively looked for work during the four weeks prior to enumeration as a percentage of those in the labour force (those employed plus those unemployed); and the labour force participation rate, representing persons in the labour force as a percentage of those of working age.

**Table 4. Labour force status of indigenous and non-indigenous people: Western Australia, 1991 and 1996**

	Indigenous		Non-indigenous	
	1991 (1)	1996 (1)	1991 (2)	1996 (2)
Employment rate	32.9	42.4	64.4	68.1
Unemployment rate	36.1	19.1	12.1	7.9
Participation rate	51.4	52.5	73.3	73.9
Ratios (1/2):				
Employment rate	0.51	0.62		
Unemployment rate	3.00	2.42		
Participation rate	0.70	0.71		

Note: All figures exclude those who did not state their labour force status.

The overall employment rate recorded for indigenous people by the 1991 Census (including those in the CDEP scheme and in labour market programs) was distinctly higher in 1991 (33 per cent) compared to 1986 (29 per cent) (Taylor and Roach 1994: 7). In 1996, an even higher rate (42 per cent) was revealed (Table 4). While the employment rate for the non-indigenous population has also been higher at successive censuses, the gap between indigenous and non-indigenous rates recorded by the census has narrowed markedly as indicated by the rise in the ratio of rates for the two populations from 0.51 in 1991 to 0.62 in 1996 (Table 4). Despite this, the key feature of indigenous employment status is the fact that it remains substantially below the State average and is still barely two-thirds of the level recorded for non-indigenous adults. At the same time, it should be noted that this relative improvement in the indigenous employment rate has been achieved against a background of sustained higher growth in the indigenous population of working age.

Not surprisingly, given this substantially higher employment rate, the census-derived indigenous unemployment rate was much lower in 1996 at 19 per cent compared to 1991 at 36 per cent (Table 4). However, the non-indigenous unemployment rate was also lower in 1996 (8 per cent compared to 12 per cent). As a consequence, the unemployment level among indigenous people improved relatively but still stands at two-and-a-half times the level recorded for non-indigenous adults in Western Australia.

It is important to qualify discussions of relative employment and unemployment rates with data on relative rates of labour force participation, since the proportion of the indigenous population formally attached to the labour market has historically been well below the State average. The 1996 Census indicates that this is still the case as the indigenous labour force participation rate was only slightly higher in 1996 (52 per cent) compared to 1991 (51 per cent) and thus remained relatively stable at barely half the level recorded for the rest of the working-age population (Table 4). This effectively means that around half of all indigenous people of working age are either not working nor actively seeking work. It also suggests that the increase in employment is likely to have resulted more from people shifting out of unemployment as opposed to entering the workforce for the first time.

One factor which may have dampened growth in the indigenous labour force participation rate, regardless of which measure is used, is the effect of policies designed to encourage higher levels of attendance and retention in educational institutions (Schwab 1995). In this context, it is worth noting that attendance at educational institutions among indigenous persons aged 15 years and over was 56 per cent higher at the 1996 Census compared to the previous census. In 1991, a total of 2,914 adults were recorded as attending an educational institution compared to 4,548 in 1996, a difference of 1,634. This increase was sufficient to raise the proportion of the census-identified adult population in attendance at educational institutions from 12.3 per cent to 15.6 per cent.

### **Section-of-State and gender variations**

One of the features of indigenous labour force status observed from the 1991 Census was a degree of difference between urban and rural populations, especially among males. Contrary to what might be expected, the best labour market outcomes were observed in rural areas, although this was mostly as a consequence of CDEP scheme employment. This pattern of labour force status by section-of-State was reinforced over the most recent intercensal period.

Table 5 shows the change between 1991 and 1996 in the numbers of indigenous and non-indigenous people employed by section-of-State. Overall, indigenous employment grew at a rate four times higher than that recorded for the rest of the adult population. Furthermore, this relative growth occurred regardless of location, although the highest rate of intercensal increase (70 per cent) was recorded in Perth. Despite the widespread distribution of job growth, the share of indigenous employment recorded in urban areas was below the level expected on the basis of per capita share. In contrast, rural areas still have a greater than per capita share of employment. This difference is a function of the nature of indigenous job creation which, in rural areas of Western Australia, has been heavily associated with expansion of the CDEP scheme.

**Table 5. Employment among indigenous and non-indigenous people by section-of-State: Western Australia, 1991 and 1996**

	Per cent employed		Change	
	1991	1996	Net	Per cent
Indigenous				
Major urban	23.9	25.7	1,237	70.2
Other urban	34.9	34.7	1,483	58.0
Rural	41.2	39.6	1,585	52.2
Total	100.0	100.0	4,305	58.5
Non-indigenous				
Major urban	65.4	65.3	58,516	13.7
Other urban	19.7	20.8	25,796	20.1
Rural	14.9	13.9	5,953	6.1
Total	100.0	100.0	90,265	13.9

At the time of the 1996 Census, a total of 7,442 indigenous people were registered with the ATSI as participants in 86 CDEP schemes across the State. This compared to 3,996 participants in 55 schemes in 1991. As in 1991, the majority of participants in 1996 (74 per cent) were located in remote rural localities. The question of how many of these participants were recorded by the census as employed and what effect this had on the change in employment status is addressed in a later section.

The effect of variable jobs growth on changes in labour force status for indigenous and non-indigenous males and females by section-of-State is shown in Tables 6 and 7. Among indigenous adults, most change, in terms of a higher employment rate and lower unemployment rate, occurred in other urban and rural areas. Consequently, one interesting feature of the 1996 distribution of labour force status is that the employment rate among indigenous people in Perth is now lower than elsewhere in the State while the unemployment rate is highest. This geographic pattern of labour force status is not dissimilar to that observed among the non-indigenous labour force, especially among males (Table 7). However, reasons for this better labour force status away from Perth are likely to vary with employment outcomes for indigenous adults more dependant on special employment programs, most notably the CDEP scheme. For many non-indigenous adults, the very fact of residence in many non-metropolitan parts of the State is employment-linked.

As for gender differences, the employment rate for indigenous females remains substantially below that of indigenous males, although some improvement in the relative position of females is evident in rural areas. This underlines the very low labour force status of indigenous women in Western Australia, as they also fall considerably behind their non-indigenous counterparts with an overall employment rate at less than half that of other women in the State and an unemployment rate which is more than twice as high. Furthermore,

almost two-thirds of indigenous women remain outside of the labour force compared to only one-third of other women and indigenous men.

Overall, the key policy point to arise from these data is that while indigenous labour force status has shifted in line with the rest of the population, and while a narrowing of the gap in labour force status is evident, labour market outcomes for indigenous people have remained substantially behind those recorded for the non-indigenous population regardless of sex and location.

**Table 6. Labour force status of indigenous people by section-of-State and sex: Western Australia, 1991 and 1996**

	Major urban		Other urban		Rural		Total	
	1991	1996	1991	1996	1991	1996	1991	1996
<b>Males</b>								
Employment rate	36.5	42.3	33.3	48.4	50.5	59.0	40.4	50.5
Unemployment rate	47.0	31.7	47.5	25.0	22.0	10.7	38.0	21.5
Participation rate	68.8	62.0	63.4	64.5	64.7	66.1	65.2	64.4
<b>Females</b>								
Employment rate	27.4	31.1	22.7	33.0	28.0	41.2	25.6	34.9
Unemployment rate	34.2	21.8	38.9	17.6	22.7	7.9	32.8	15.7
Participation rate	41.6	39.8	37.1	40.0	36.2	44.8	38.0	41.4

**Table 7. Labour force status of non-indigenous people by section-of-State and sex: Western Australia, 1991 and 1996**

	Major urban		Other urban		Rural		Total	
	1991	1996	1991	1996	1991	1996	1991	1996
<b>Males</b>								
Employment rate	71.9	75.2	75.2	77.1	77.7	80.7	73.4	76.4
Unemployment rate	13.9	8.9	12.7	8.9	10.5	6.2	13.2	8.5
Participation rate	83.5	82.6	86.2	84.6	86.8	85.9	84.5	83.5
<b>Females</b>								
Employment rate	56.1	60.7	51.6	55.7	56.3	61.0	55.2	59.7
Unemployment rate	10.8	7.1	11.2	8.3	8.9	5.5	10.6	7.1
Participation rate	62.8	65.3	58.1	60.7	61.8	64.6	61.8	64.3

### Interpreting indigenous employment change, 1991 and 1996

On the face of it, results from the 1996 Census regarding indigenous employment suggest a good news story—an increase of 5,777 people in work, constituting a

growth of 58 per cent since 1991 (almost 12 per cent per annum). This apparent growth occurred at a time when the overall number of Western Australians in employment increased by less than 3 per cent per annum. With a rate of employment expansion at the level implied by this intercensal change, the policy goal of statistical equality in employment for indigenous people begins to look more achievable, contrary to earlier informed assessment (Sanders 1991). However, the ABS has advised a degree of caution when interpreting apparent change to indigenous census characteristics as any variation may simply be a consequence of non-demographic increase in the population (ABS 1998a)

Most research on this problem has been conducted in the United States with respect to changes in the size and composition of the American Indian population (Snipp 1986, 1997; Eschbach 1995; Sandefur, Rindfuss and Cohen 1996; Eschbach, Supple and Snipp 1998). It is noted, for example, that the amount needed to make intercensal increase in numbers balance after accounting for births, deaths and migration is usually small. However, in ethnic populations defined by self-identification, as in the case of American Indians, this 'error of closure' is often large due to shifts in the propensity of individuals to declare their ethnicity on census forms.<sup>3</sup>

What is not clear in such an event, is whether any aggregate change observed in population characteristics over time involves an alteration in the circumstances of the original population or whether it merely reflects the particular features of individuals appearing in the population for the first time. For example, it is possible that a comparison of census characteristics in 1991 and 1996 could point to an improvement in economic status while the condition of the original (1991) population had actually worsened. The problem for analysts and policy-makers is that any such change in the condition of the original population is undetectable. All that can be noted is different aggregate status. While there is some scope for estimating the compositional impact of newcomers to the population using fixed population characteristics, such as age left school (Eschbach, Supple and Snipp 1998; Hunter 1998), for characteristics that are variable over time, such as employment status, this is simply not possible.

One correction to employment change data that can and should be made, however, is to establish a more realistic time series by estimating separate components of employment at each census date. As a first step in this process, compensation for the effect of excess population increase is achieved by using the revised ABS estimate of the 1991 working-age population to re-align the 1991 employment level with an equivalent estimation for 1996. A further step is to then estimate the contribution made to employment growth by non-market related government program interventions. This has the effect of revealing the underlying trend in mainstream employment by discounting any cosmetic change brought about by merely administrative shifts in the labour force status of individuals.

### Revising employment change

Because reverse survival inevitably alters the age distribution, age-specific employment rates from the 1991 Census are applied to the new estimated five-year age distribution of the working-age group to generate an upward adjustment to the census-derived employment figure. Thus, as shown in Table 8, employment in 1991 rises from the census count figure of 7,355 to an estimated 8,797. Likewise, the 1996 employment figure from the census is adjusted to align with the 1996 ERP. This produces an estimate of employment in 1996 of 12,975. Using this adjusted estimate of 1991 employment as the new base, the intercensal rise in the number of indigenous people employed becomes 4,178 representing a increase of 47.5 per cent. While this is a lower growth rate than the 58 per cent increase obtained from a direct comparison of 1991 and 1996 Census employment figures, it is nonetheless still considerably above expectation based on previous employment trends in the State (Taylor and Roach 1994: 10). However, a proportion of this additional growth can be accounted for by program intervention and this contribution has also to be estimated.

**Table 8. Estimated indigenous employment in Western Australia, 1991 and 1996**

	1991		1996
	Census count	Estimate from reverse survival	ERP
Population aged 15+	24,783	30,610	33,812
Employed	7,355	8,797	12,975

### Program intervention and employment growth

An important consideration when accounting for variation in the number of indigenous people recorded as employed is the fact that administrative changes in the way the State handles entitlements for the unemployed and those not in the labour force can effect a change in their labour force status as recorded by the census. Such program influences derive primarily from participation as paid employees in the CDEP scheme and also via Department of Employment Education Training and Youth Affairs (DEETYA) labour market programs that were in operation at the time of the 1991 and 1996 Censuses.

According to the ABS, the labour force status of labour market program participants is recorded by the census using the standard question about activities in the week prior to enumeration (ABS 1995b:8). Those in programs involving a form of wage subsidy or job placement are likely to regard themselves as having undertaken paid work, and hence employed. Those in training, but with no subsidy, are more problematic. However, if these people held a part-time job

along with their training then they were also likely to be regarded as employed. According to the Indigenous Employment Initiatives Branch of DEETYA, labour market programs that were likely to have contributed to employment numbers in this way in 1996 included various elements of the Training for Aboriginals Program (TAP), Apprenticeship Wage Subsidies, Job Clubs, National Training Wage Traineeships, the New Work Opportunities Program, Jobskills Projects, and the various Jobtrain and Jobstart programs.

A question remains as to which of these programs actually generated additional employment for indigenous people. For example, some individuals in wage subsidised employment may have secured their position regardless. However, it is more likely that wage subsidies offer an important competitive edge for indigenous people in the labour market given their multiple disadvantage in securing employment (ABS/CAEPR 1996). Equally, it seems that indigenous DEETYA clients in wage subsidy programs would, in all probability, substitute for non-indigenous employees given their small share of the population. This would serve to augment indigenous employment outcomes.

One pointer to this positive interpretation of the possible impact of program intervention is provided by the fact that nationally the indigenous employment/population ratio was relatively stable between 1991 and 1994 at around 35 per cent (ABS 1995a: 41), but in the space of two years to 1996 it increased to 39 per cent. Accordingly, over the same two-year period the unemployment rate fell dramatically from 30.8 to 22.7. Such a positive shift in labour force status is unlikely to have been produced by market forces alone, especially at a time of poor outcomes generally in the labour market. Given the coincidence in timing, the suggestion here is that this improvement was associated with the introduction of *Working Nation* initiatives launched by the Labor government in May 1994, as well as by the continued expansion of the CDEP scheme. A key feature of the *Working Nation* initiatives was the Job Compact which gave people in receipt of unemployment allowances for more than 18 months the guarantee of a job or training opportunity. Early interventions, case management and the National Training Wage were also major features of *Working Nation* programs.

The fact that indigenous people rely heavily on government program support for employment creation is well documented (Sanders 1993; Taylor and Hunter 1996; Altman 1997; Taylor and Altman 1997). Any meaningful assessment of intercensal employment change thus has to account for changes in such programs that may influence the number of individuals who could claim on the census form that they had a full-time or part-time job of any kind in the week prior to enumeration. The contribution of these to employment growth is estimated using administrative data.

As far as employment via the CDEP scheme is concerned, this cannot be fully established from census data. However, it was known from the 1993 Review of the scheme that not all scheme participants were involved in employment at a given time and an estimate of 60:40 working to non-working participants was

derived from case studies (Deloitte Touche Tohmatsu 1993: 51). With 3,996 scheme participants registered in Western Australia at the time of the 1991 Census this produces an estimate of CDEP scheme employment in 1991 of 2,398 (Table 3). Greater precision in establishing the numbers employed by the scheme was hoped for from the 1996 Census as the Special Indigenous Form (SIF) used by the ABS to enumerate the indigenous population resident in remote parts of the State (approximately 20 per cent of the Western Australian indigenous population), included a prompt to elicit CDEP scheme employment. From this source, a total of 3,044 individuals were recorded as employed by the scheme.

However, as noted earlier, many of the collection districts where special enumeration procedures were applied in Western Australia returned indigenous population counts below expectation, with the suspicion that the enumeration was incomplete. It is not clear what effect this may have had on CDEP scheme employment numbers identified by the census, but the figure recorded was only 54 per cent of the 5,670 scheme participants registered by ATSIIC at the time of the census in areas covered by the SIFs.

The ABS acknowledges problems with census figures on CDEP scheme employment and has advised that an employment/participants ratio of less than 60 per cent should be treated with caution (ABS 1998a). With the likelihood that the population in remote areas was underenumerated, one way of compensating for a lower than expected level of CDEP scheme employment is to increase the census figure of CDEP employment in line with the difference between the census count and the ERP. This difference can be established for remote areas using the ERPs for relevant ATSIIC regions as published by the ABS (ABS 1998c: 16-17). From this an estimated underenumeration of 11.7 per cent is derived. Applying this to the CDEP scheme employment data produces an estimate for the number of scheme employees in remote areas of 3,403. Away from remote areas, it is ATSIIC's estimation that 80 per cent of scheme participants would have conformed with the census-definition of employment in 1996. With 1,771 scheme participants registered in non-remote areas, this produces an estimate of 1,417 working participants resulting in an overall State-wide estimate of 4,820 CDEP scheme employees (Table 9).

By subtracting these 1991 and 1996 estimates of CDEP scheme employment from total employment in each year, an estimate of non-CDEP scheme employment is derived (Table 9). This is shown to have risen by 27 per cent from 6,399 to 8,155. Further adjustment to this employment growth is achieved by accounting for those employed via placement in a labour market program. The number of indigenous placements in programs that were likely to have produced an employment outcome at the time of the census are available from the DEETYA program database. At the time of the 1991 Census, a total of 403 indigenous people were in such programs and by 1996 this number had risen to 1,096.

Subtraction of these figures from the non-CDEP employed produces a final residual estimate of non-program dependent mainstream employment. As shown

in Table 9, this reveals an estimated net intercensal increase in mainstream employment of just over 1,000 positions representing a rate of increase of 3.5 per cent per annum. With growth in the estimated working-age population at 2.1 per cent per annum, this was sufficient to raise the mainstream employment/population ratio slightly from 19.6 to 20.9.

**Table 9. Estimates of mainstream indigenous employment change in Western Australia, 1991-96**

	1991	1996
Total employed	8,797 <sup>a</sup>	12,975 <sup>b</sup>
Employed in CDEP	2,398 <sup>c</sup>	4,820 <sup>d</sup>
Non-CDEP employed	6,399	8,155
Employed in labour market programs	403 <sup>e</sup>	1,096 <sup>f</sup>
Employed in mainstream	5,996	7,059
Mainstream employment/population ratio	19.6	20.9
Net change in mainstream employment	1,063 (3.5 per cent per annum)	

Note: a. Estimated by applying 1991 age-specific employment rates to the 1991 ERP derived from reverse survival.

b. Estimated by applying 1996 age-specific employment rates to the 1996 ERP.

c. Based on a ratio of 60:40 working to non-working participants.

d. Based on a ratio of 60:40 working to non-working CDEP scheme participants in remote areas and a ratio of 80:20 working to non-working participants in all other areas.

e. Includes placements in DEETYA programs A20, A30, A31, A42, H15, U13, W11, W12, W13, W15, W16, W20, W33.

f. Includes placements in DEETYA programs A20, A30, A31, F12, F13, G20, H15, H42, H43, N20, N21, N42, N43, O11, S11, U13, W40, W41, W42, W43.

Labour Market program codes: A20—Major Employment Strategies; A30—Job Skills Development (TAP Private Sector); A31—Work Experience/WIP; A42—Enterprise Employment Assistance; F12 and F13—New Enterprise Incentive Scheme Formal Training; G20—Group Employment Program; H15—Disabled Apprenticeships; H42 and H43—Apprenticeship Wage Subsidy; N20, N21, N42, N43—National Training Wage Program; O11—New Work Opportunities Program; S11—Job Skills Umbrella Projects; U13—SAP; W11, W12, W13, W15, W16, W20, W33, W40, W41, W42, W43—Jobstart.

Of course, as already demonstrated, much of the relative improvement in indigenous employment status has been due to special program intervention. If the mainstream employment rates shown in Table 9 are compared with equivalent non-indigenous rates, by excluding non-indigenous labour market program participants as well, then the ratio of indigenous to non-indigenous employment rates is estimated to have been stable over the intercensal period at around 0.31.<sup>4</sup> The policy message from this is clear. Without the prop of program intervention in the labour market, the indigenous employment rate in the Western Australia would have been half the level recorded by the 1996 Census with no effective change evident since 1991.

## Income status, 1991 and 1996

A key goal of government policy is to achieve an improvement in income levels for indigenous Australians to a point where they are equal to those of the general population. In this endeavour, much depends not just on accelerating the rate of employment growth among indigenous people above that of the rest of the workforce, but also on ensuring that the types of jobs created generate incomes that are commensurate with those of the general population. Given a relative improvement in the labour force status of indigenous people in the Western Australia there would appear to be statistical grounds for expecting that the income gap between them and the rest of the population may have narrowed.

Accurate data on overall levels of income, as well as on income derived from employment and non-employment sources, are notoriously difficult to obtain due to a variety of conceptual problems. For one thing, the census collects and reports information on income received 'each week', whereas the flow of income for many individuals, especially indigenous people, is often intermittent. Thus, the census approach refers to income received from all sources in respect of a 'usual week' and this is then rounded up to annual income. However, what might constitute 'usual weekly' income in many households is difficult to determine. Aside from regular income flows from employment or welfare payments, there is the likelihood of intermittent employment income as well as windfall gains from investments or loans. Among some indigenous people this may extend to royalty and rental payments. On the debit side, there may be sporadic reductions of income due to loss of employment or cash transfers to others. Taken together, these flows can create a highly complex picture, even over a short space of time, and one that census methods of data gathering are likely to misrepresent.

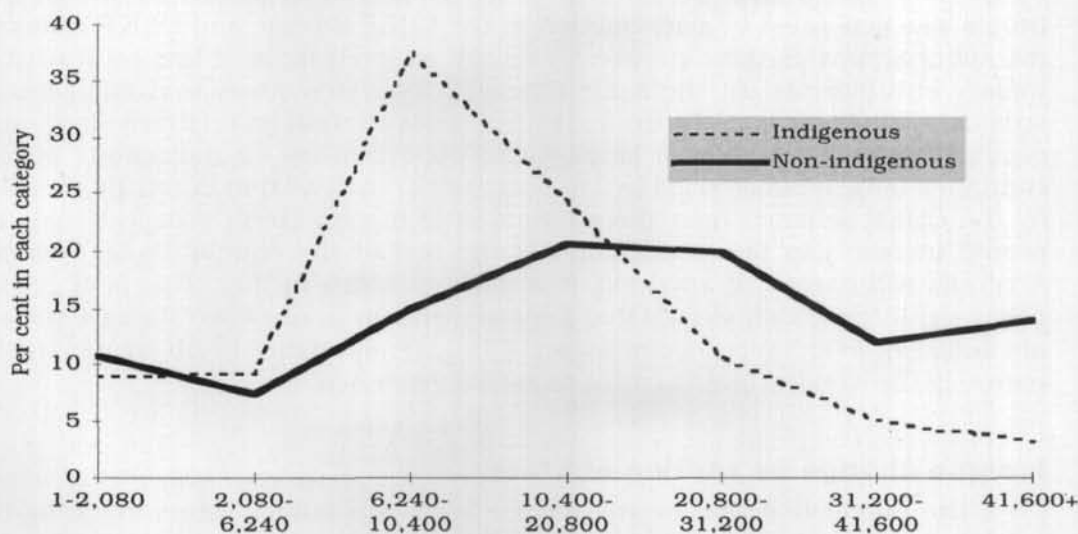
A further point to note is that census data report income as a range within an income category with the highest category left open-ended. Consequently, actual incomes have to be derived. In estimating total and mean incomes, the mid-point for each income category is used on the assumption that individuals are evenly distributed around this mid-point. The open-ended highest category is problematic, but it is arbitrarily assumed that the average income received by individuals in this category was one-and-a-half times the lower limit of the category (Treadgold 1988).<sup>5</sup> Clearly, estimates of mean incomes will vary according to the upper level adopted.

Despite these caveats, the census remains the most comprehensive source of income data derived from a consistent methodology. The gross income reported is intended to include family allowances, pensions, unemployment benefits, student allowances, maintenance, superannuation, wages, salary, dividends, rents received, interest received, business or farm income and worker's compensation received. Apart from enabling comparison between population groups, individual and household income can be established. Also, by cross-tabulating census data on labour force status and income a basis for

distinguishing employment income from non-employment income is provided, the latter being a proxy measure of welfare dependence.

Figure 1 describes the relative income distribution for indigenous adults in Western Australia in 1996. Clearly, the bulk of indigenous incomes are clustered at the lower end of the distribution with a very sharp decline beyond the \$12,000-\$20,000 range and a very small share of individuals (19 per cent) in receipt of incomes over \$40,000. This contrasts markedly with the income distribution pattern for all other adults. This displays a steadily rising curve which peaks in the \$20,000-\$40,000 range but leaves 46 per cent of individual incomes in excess of \$40,000.

**Figure 1. Annual income distribution of indigenous and non-indigenous adults: Western Australia, 1996**



Overall, the census indicates little change since 1991 in income relativities between indigenous and non-indigenous adults. Mean income for the indigenous adult population was \$14,200 in 1996 up from \$11,100 in 1991. This produces a ratio of mean indigenous income to that for the rest of the population of 0.60 in 1996, which is only slightly higher than the ratio calculated for 1991 (Table 10). Median income figures appear somewhat lower because of the different bases for calculation, although the income ratios reveal the same outcome that income relativities have barely changed and indigenous incomes remain substantially below those of the majority population.

**Table 10. Income status of indigenous and non-indigenous people: Western Australia, 1991 and 1996**

	Income (\$000s)			
	Indigenous		Non-indigenous	
	1991	1996	1991	1996
Mean	11.1	14.2	19.3	23.4
Median	8.1	9.7	16.1	18.7
Ratio of indigenous/ non-indigenous				
Mean	0.58	0.60		
Median	0.51	0.52		

This lack of improvement in relative income levels may partly be explained by the fact that a large component of net employment growth for indigenous people was generated by participation in the CDEP scheme and DEETYA labour market programs as these provide for income at levels more or less equivalent to welfare entitlements. At the same time, it may also suggest that employment outside of the scheme continues to be concentrated in relatively low-wage occupations. If expansion of employment opportunities for indigenous people continues to be characterised by low-wage work, such as that currently provided by the CDEP scheme, then there seems little medium-term prospect that the overall income gap between them and the rest of the population in Western Australia will narrow. If anything, it is likely to widen further. This is of crucial policy significance as it signals that improvements in labour force status alone are not sufficient to enhance income status. Of equal importance to job creation is the nature of the work involved and the income it generates.

### **Income change by section-of-State**

The proposition that overall income levels are influenced as much by the nature of work as by the rate of employment growth is supported by data showing change in the income status of indigenous people by section-of-State (Table 11). Despite the fact that the labour force status of indigenous people in rural areas continued to improve, their incomes as a ratio of those recorded for indigenous people in Perth remained static at 0.71 while in relation to those in other urban areas it fell from 0.75 to 0.71.

In contrast, the pattern of income among the rest of the State's population continues to display very little variation according to section-of-State. This continuance of an urban/rural income gap among indigenous people is not surprising given the composition of much rural employment growth as part-time work with remuneration based on approximate welfare equivalents via the CDEP scheme. This is even more starkly illustrated by comparing indigenous/non-indigenous income relativities in urban and rural areas. In urban areas indigenous incomes remain at around two-thirds the level of non-indigenous

incomes. In rural areas, however, not only are indigenous incomes much lower as a ratio of non-indigenous incomes, they appear to have fallen further behind (from 0.48 in 1991 to 0.46 in 1996). Thus, notwithstanding apparent improvement in labour force status, it is clear that indigenous people in rural areas remain structurally disadvantaged compared to those in urban areas where a much greater proportion of available jobs are likely to be full-time and at higher levels of remuneration.

**Table 11. Income status of indigenous and non-indigenous people by section-of-State: Western Australia, 1991 and 1996**

	Income (\$000s)							
	Major urban		Other urban		Rural		Total	
	1991	1996	1991	1996	1991	1996	1991	1996
Indigenous								
Mean	12.7	15.7	11.9	15.6	9.0	11.1	11.1	14.1
Median	9.9	11.2	9.2	10.6	7.0	8.8	8.1	9.7
Non-indigenous								
Mean	19.2	23.2	19.8	23.7	18.8	24.3	19.3	23.4
Median	16.2	18.8	16.3	18.4	15.1	19.1	16.1	18.7
Ratio of indigenous/ non-indigenous								
Mean	0.66	0.68	0.60	0.66	0.48	0.46	0.58	0.60
Median	0.61	0.60	0.56	0.58	0.47	0.46	0.51	0.52

**Table 12. Income status of indigenous and non-indigenous people by sex: Western Australia, 1991 and 1996**

	\$ (\$000s)					
	Males		Females		Total	
	1991	1996	1991	1996	1991	1996
Indigenous						
Mean	12.1	15.4	10.1	13.0	11.1	14.1
Median	8.0	9.5	8.2	9.8	8.1	9.7
Non-indigenous						
Mean	24.7	30.4	13.5	16.3	19.3	23.4
Median	21.9	25.7	10.5	12.9	16.1	18.7
Ratio of indigenous/ non-indigenous						
Mean	0.49	0.51	0.75	0.80	0.58	0.60
Median	0.37	0.37	0.79	0.76	0.51	0.52

### Income change by sex

As in 1991, the 1996 Census reveals an income differential between indigenous males and females in Western Australia (Table 12), though the gap in average incomes (\$15,400 for males and \$13,000 for females) is far less than among their non-indigenous counterparts (\$30,400 for males compared to \$16,300 for females). One implication is that the ratio of average income for

indigenous males compared to that of non-indigenous males (0.51) is far lower than the equivalent ratio between indigenous females and other females (0.80).

### Employment income and welfare dependence

An important issue with regard to the economic impact of employment change concerns the contribution of employment income to total income relative to the contribution made from other sources. This provides some indication of the ability of regional populations to provide for their own welfare as opposed to depending on State support (Altman and Smith 1993). By cross-tabulating employment status against income, a direct measure of the income return from employment can be derived. Likewise, the income of those who are unemployed or not in the labour force can be used as a proxy measure of welfare dependence. Average incomes calculated on this basis are shown in Table 13.

Overall, there has been notable increase in the contribution of employment income to total income. In 1991, 52.7 per cent of income for indigenous people was derived from employment. By 1996, this proportion had risen to 63.1 per cent. However, compared to the equivalent figure of 89.4 per cent for the non-indigenous population this means that a far higher proportion of indigenous people (37 per cent compared to 11 per cent) remain dependant on non-employment sources of income.

**Table 13. Total income of indigenous and non-indigenous people by labour force status: Western Australia, 1991 and 1996**

	1991		1996	
	Income (\$million)	Per cent	Income (\$million)	Per cent
Indigenous				
Employed	119.8	52.7	230.3	63.1
Unemployed	33.1	14.6	23.2	6.3
Not in labour force	74.1	32.7	111.4	30.5
Total	227.1	100.0	364.9	100.0
Non-indigenous				
Employed	15,907.9	87.2	22,077.6	89.4
Unemployed	743.0	4.1	557.4	2.3
Not in labour force	1,601.3	8.8	2,048.7	8.3
Total	18,252.3	100.0	24,683.7	100.0

This increase in the share of income from employment runs counter to a long-term trend of a decline in employment income relative to total income, noted in respect of indigenous Australians generally by Daly and Hawke (1993) for the period 1976-91. Apart from the growing share of working-age people employed, this may reflect an increase in the number of indigenous people in higher paid occupations combined with additional income derived from CDEP scheme

employment in line with observations in the 1994 NATSIS that income from the CDEP scheme was substantially above welfare levels (ABS 1995a: 55). At the same time, it could be argued that the proportion of total income derived from employment should be lower by an amount equivalent to the notional citizen entitlements attached to CDEP as this represents income that is properly welfare-related rather than employment-based (Smith 1994).

Actual shifts in mean employment and non-employment incomes are shown in Table 14. The most striking feature is that mean employment income for indigenous people has increased at more or less the same rate as for others in employment. This is indicated by the lack of change in the ratio of indigenous/non-indigenous employment incomes which remains at around 0.67. As for non-employment income, the mean individual income of unemployed indigenous people in 1996 was \$8,900 and \$9,500 for those not in the labour force. Compared to income from employment, these figures have remained essentially unaltered with the result that the income gap between those indigenous people in work and those more directly dependant on income transfers from the State has widened.

**Table 14. Mean employment/non-employment income of indigenous and non-indigenous people: Western Australia, 1991 and 1996**

Labour force status	Mean income (\$000s)		Change	
	1991	1996	Net	Per cent
Indigenous				
Employed	16.81	20.37	3.6	21.2
Unemployed	8.78	8.92	0.1	1.5
Not in labour force	7.87	9.46	1.6	20.2
Total	11.18	14.21	3.0	27.1
Non-indigenous				
Employed	25.09	30.36	5.3	21.0
Unemployed	8.96	9.10	0.1	1.5
Not in labour force	7.05	7.77	0.7	10.2
Total	19.33	23.46	4.1	21.4
Ratio of indigenous/ non-indigenous				
Employed	0.67	0.67	0.00	0.14
Unemployed	0.98	0.98	0.00	0.02
Not in labour force	1.12	1.22	0.10	9.08
Total	0.58	0.61	0.03	4.70

## Policy implications

Although census data remain the primary source of information on the economic status of indigenous Australians, and certainly the most comprehensive, some care is required in their interpretation for public policy purposes. At a

methodological level, it should be noted that any change in characteristics observed between censuses does not necessarily apply to the population identified at the start of the intercensal period. In fact, because of the identification of a greater indigenous population in 1996, change to the original 1991 population cannot be adequately established. What can, and should be done in this event is to estimate characteristics for the original population (where appropriate) using ABS experimental population estimates derived from reverse survival procedures as a basis. This has the effect of properly aligning time series data. This problem affects any analysis of aggregate data for Western Australia, though it especially relates to the population counted in Perth. Elsewhere in the State, intercensal change is affected less by this census error.

On a more conceptual level, it should be noted that as long as the census question on Aboriginal and Torres Strait Islander origins remains the sole means of comprehensively defining the indigenous population, then it is likely that the numbers identified in this way will continue to rise steadily due to improved enumeration, changes in identification and the flow-on effects of inter-marriage (Gray 1997; ABS 1998c). At a time of growing pressure for targeted service delivery that is cost-effective and based on demonstrated need, this prospect of an ever-expanding population requires careful consideration. In this context, it is worth recalling the Commonwealth's three-part definition of an indigenous Australian:

- that an individual has Aboriginal or Torres Strait Islander descent;
- identifies as an Aboriginal or Torres Strait Islander; and
- is accepted as an Aboriginal or a Torres Strait Islander by the community in which he or she lives.

The fact is, of course, that the indigenous population revealed by the census conforms with only the first and/or second of these criteria, and even then only to the extent that a collection of individuals tick the appropriate box on a census form which asks if they are of Aboriginal or Torres Strait Islander origin.<sup>6</sup> While the third of these criteria may not always be applied when recording indigenous status in administrative statistical collections, its lack of application in the census methodology means that the census-derived indigenous population would almost certainly be of a different size to any population based on the full Commonwealth definition. This effectively raises the prospect of different indigenous populations eventuating in different statistical contexts, with that derived from the census being just one of these, though probably the most inclusive.

While recognising this complexity, the key question for policy analysts arising from an examination of census data is whether growth of the population identified by the census question on indigenous origins has resulted in an alteration to the absolute and relative level of indigenous economic status in Western Australia. Results from the above analysis suggest that it has not.

In assessing this, the first point to note is that change in social indicators for the period 1986 91 (Taylor and Roach 1994), and now for the 1991 96 period,

provides a ten-year window on the economic status of indigenous people in Western Australia. This essentially covers a period of substantial efforts by the former federal Labor Government to enhance employment outcomes and income levels, and of sustained economic growth in the Western Australian economy.

The results indicate a consistent pattern of outcomes over this period. On the one hand, the number of indigenous people recorded as employed has risen, employment rates have been consistently higher and unemployment rates have been lower leading to a closing of the gap in these indicators (albeit slowly) with the rest of the population. On the other hand, when the data are disaggregated by section-of-State and the nature of employment growth is investigated, these achievements, especially in rural areas, are shown to be largely related to sustained expansion of the CDEP scheme. Also of relevance for census analysis is the fact of enhanced indigenous participation in employment-related labour market programs under the now defunct *Working Nation* initiatives. The indication is that growth in mainstream, or non-program linked employment, was only just sufficient to keep ahead of population growth and that the true level of indigenous employment has been static for some time at barely one-third of that recorded for other Western Australians.

The other consistent feature of the past decade is that the relatively low income status of indigenous people has remained effectively unaltered. In the context of apparently enhanced labour force status, this underlines the need for quality, as well as quantity, in job acquisition if the overall aim of government policy to raise economic status is to be achieved. From a labour market perspective, one difficulty continues to be the substantial proportion of indigenous adults of working age who are not in the labour force. This is especially so among females and accounts, in large part, for the persistence of relatively high levels of welfare dependence. Given that much new employment growth has involved a shift into CDEP scheme employment of individuals formerly on unemployment benefit or outside the labour force, it is realistic to suggest that the level of welfare dependence is actually higher than revealed by the census. This is because income derived from such employment merely represents the transfer of social security entitlements under a different guise.

This sustained dependence over the decade to 1996 on programs for economic advancement raises further pressing issues in the context of new directions for indigenous economic policy that have emerged subsequently. Of particular interest here is the recent recommendation to government that the objective of the CDEP scheme be revised to focus solely on providing employment and skills development with non-working participants becoming clients of the social security system (Spicer 1997). Also of note is a current freeze on further expansion of the CDEP scheme with allowance only for a natural increase of 55 places per annum in existing schemes. While movement off the scheme of non-working participants will create some space for working participants, the effect of such changes on indigenous employment and unemployment statistics in Western Australia is difficult to predict.

Accompanying these changes to CDEP, and more generally in the thrust of indigenous economic policy, is a re-orientation towards private sector activities as the primary source of future employment growth. This trend appears inevitable given the downsizing of public sector opportunities and the fiscal squeeze on many indigenous organisations and areas of the mainstream public sector where indigenous people have, to date, found an employment niche. A parallel development of substantial significance is the replacement of the Commonwealth Employment Service by contracted employment provision agencies and the dismantling and restructuring of government employment assistance. Under the new Job Network system, intensive assistance is available to job seekers who encounter the greatest employment placement difficulty. In this assessment Aboriginal and Torres Strait Islander status assumes considerable weighting as do many other characteristics, such as duration of unemployment and low educational status, which will favour indigenous people (Commonwealth of Australia 1998a). However, just what effect these new arrangements will have on employment outcomes for indigenous people remains to be seen. As it stands, there are 27 Job Network member agencies registered in Perth, 12 in Southern Western Australia and 15 in the balance of the State. Of these, only two (one in Perth and one in Derby) are indigenous organisations leaving the whole question of dedicated services for indigenous job-seekers open for scrutiny and analysis.

It seems inevitable, however, that this privatisation of employment services will produce greater fluidity in the labour market circumstances of indigenous people. As far as engaging the private sector is concerned, some of the issues likely to be encountered include a possible lowering of average incomes and the likelihood of less job security, more casual/part-time work and fewer opportunities for women and older people (Taylor and Hunter 1997).

In terms of anticipating where opportunities in the private sector will be generated, an important consideration in Western Australia is the remote rural location of much of the indigenous population. While it is true that some remote communities benefit from export-oriented activities such as mining, pastoral and tourism ventures, these are typically very localised, capital intensive rather than labour intensive, highly resource dependant and subject to market fluctuation. For most places, then, the most likely avenues for stimulating jobs growth follow from an import substitution model embracing activities such as construction and maintenance, retailing, transport, media, land restoration and management, recreation and horticulture. While continued program funding to support such activities has been announced in the 1998/99 federal Budget with an enhanced role for the Commonwealth Development Corporation (Commonwealth of Australia 1998b), there are real limits to the number of private sector jobs that could be generated in this way given the limited market size and lack of economies of scale in many of the places where indigenous people reside.

Short of any sustained migration for employment away from such localities, which has not been evident to date, this suggests a continued need for public subvention along with flexibility and realism in the drive for increased private sector involvement. In particular, it is important to ask how the broad strategy of

raising employment levels might be targeted to suit particular regional and local circumstances. In this context, an initial requirement is for detailed regionally-based quantitative assessments of the supply of, and demand for, indigenous labour for different economic activities that either exist already or that may be created at the local level. Only then, can the appropriate mix of resources for enterprise development and training be appropriately channelled. There is a possible role here for the Area Consultative Committees as well as for indigenous organisations acting as employment providers within the new Job Network, engaging in the development of employment and training strategies. Other models for employment creation arise from the leverage in negotiations over resource use generated by the Native Title Act, as typified by the Land Use Agreement between the Gumala Aboriginal Corporation and Hamersley Iron in respect of the Yandicoogina project.

Finally, even if sufficient new work in excess of growing demand were to be generated, it is important to note that the enhancement of occupational status, and not just labour force status, will be necessary to meet policy goals. To date, improvements in labour force status while keeping just ahead of population growth have not impacted on the gap in average incomes. For this to change, indigenous people will need to acquire employment at a much faster rate and in positions that provide an income at least commensurate with those obtained by the rest of the workforce. This places the policy focus firmly back on to skills development.

## Notes

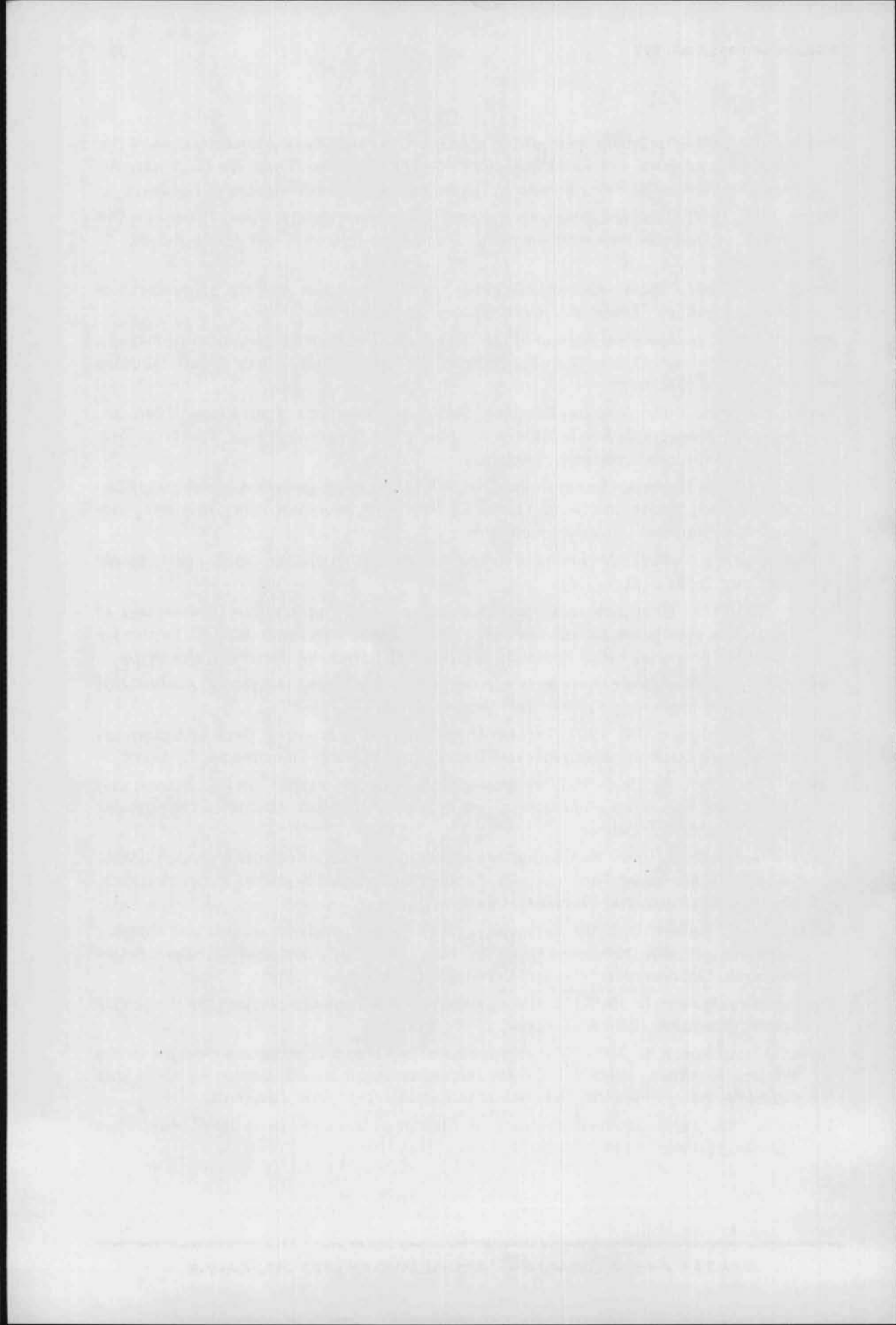
1. The ABS sections-of-State within Western Australia are as follows: 'major urban' (Perth); 'other urban' (referred to as simply 'urban' in the text)—all urban centres with a population of 1,000 to 99,999; 'bounded locality'—all population clusters of 200 to 999 persons; 'rural balance'—the rural remainder of the State.
2. A slight net migration gain to the total indigenous population of Western Australia of 155 persons was recorded over the 1991-96 intercensal period and this has no significant effect on the estimates (ABS 1998b: 24).
3. The term, error of closure, derives from the basic demographic balancing equation and refers to the amount needed to make intercensal change in numbers balance after accounting for births, deaths and migration. Error of closure is usually small, but in populations defined by self-identification it is often large due to shifts in the propensity to so identify. For further discussion see Passel (1997).
4. This is based on recalculating the non-indigenous employment rates in 1991 and 1996 using data supplied by DEETYA on non-indigenous participation in job-related labour market programs. This indicates that 1,448 non-indigenous persons were in such programs in 1991 and 6,640 in 1996.
5. In this analysis the full range of income categories has been utilised with \$70,000+ as the highest category in 1991 and \$78,000+ in 1996.
6. It is worth noting that the census question refers to 'origins' while the official Commonwealth definition refers to 'descent'. These terms may well be construed differently by respondents to official statistical collections. I am grateful to Dr Len Smith of the The Australian National University for pointing this out.

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