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**The relative economic status of
indigenous people in Tasmania,
1986-91**

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SERIES NOTE

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- investigate the stimulation of Aboriginal and Torres Strait Islander economic development and issues relating to Aboriginal and Torres Strait Islander employment and unemployment;
- 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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ABSTRACT

A mid-term review of the Aboriginal Employment Development Policy (AEDP) has recently been completed. While much of the associated policy-rhetoric and assessment of policy outcomes has been aimed at the national level, the fiscal environment in which AEDP goals are to be achieved is invariably one of regional labour markets and administrative systems operating in the economic context of States and Territories. In view of this reality, this paper responds to a need for regional-level analyses of change in the economic status of indigenous people compared to that of non-indigenous people in each State and Territory. Using 1986 and 1991 Census-based social indicators for Tasmania, attention is focussed on relative shifts in population growth and intra-State distribution, labour force and income status, and levels of welfare dependency (measured as non-employment income). A major finding is that the gap in labour force status between indigenous and non-indigenous people remained the same, with the status of both groups deteriorating, while the relatively lower income status and higher level of welfare dependency of indigenous people also remained unaltered. This suggests that despite the introduction of the AEDP, indigenous people in Tasmania have shared in the negative effects of economic downturn. If the overall aims of the policy are to be accomplished, an increased focus on quantity and quality of outcomes will be necessary.

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Foreword

During the second half of 1993, CAEPR undertook Phase 2 of the evaluation of the AEDP on a consultancy basis for the Aboriginal and Torres Strait Islander Commission (ATSIC). The major outputs from this consultancy have been published as CAEPR Research Monograph No. 5 *The Relative Economic Status of Indigenous Australians 1986-91* and No. 6 *Regional Change in the Economic Status of Indigenous Australians 1986-91*, both authored by Dr John Taylor. These monographs were based on special tables summarising and cross-tabulating 1986 and 1991 Census data ordered from ABS.

The large amount of data generated from the censuses could not be fully summarised in the two research monographs and as part of its consultancy, CAEPR also provided ATSIC with 32-page statistical summaries for each State and Territory for the use of the AEDP Review Secretariat and Review Committee. These summaries form the basis of a series of CAEPR Discussion Papers that focus on intercensal changes between 1986 and 1991 in the comparative economic status of indigenous Australians at the State and Territory level. The first five discussion papers in this series, CAEPR Discussion Papers No. 55 to No. 59, co-authored by Dr John Taylor and Ms Linda Roach, take an intentionally standard approach to the analysis of these data. Subsequent discussion papers on the situation in Queensland, the Northern Territory and the Australian Capital Territory will vary somewhat from this standard approach: Queensland data will be presented for Aboriginal and Torres Strait Islander people separately; and the analysis of Northern Territory and Australian Capital Territory data will take into account the somewhat unusual population distribution in each jurisdiction.

This set of State-oriented discussion papers are a little different from most of CAEPR's research output, but are regarded as analytically valuable for two main reasons. First, CAEPR's research charter requires it to examine the economic situation of indigenous Australians at the State and Territory, as well as national and regional, levels of aggregation. Second, while ABS output on indigenous Australians is available in standard publications based on the 1986 and 1991 Census, there is little published that rigorously and systematically compares the economic status of indigenous Australians with non-indigenous Australians over time. It is hoped that each of these five discussion papers will be especially useful for policy development purposes at the State level.

Jon Altman
Series Editor
April 1994

A mid-term review of the Aboriginal Employment Development Policy (AEDP) has recently been completed (Bamblett 1994). The AEDP was originally developed as an immediate Commonwealth response to the *Report of the Committee of Review of Aboriginal Employment and Training Programs* (Miller 1985) and launched in association with the 1986-87 Commonwealth Budget. Subsequently, the AEDP was expanded and officially launched in November 1987. In late 1992, the Centre for Aboriginal Economic Policy Research (CAEPR) at the Australian National University negotiated with the Aboriginal and Torres Strait Islander Commission (ATSIC) and the Commonwealth Department of Employment, Education and Training (DEET) to provide an analysis of official census statistics to assist the review process. This resulted in the publication of two monographs on national and inter-regional changes in the economic status of indigenous Australians between 1986 and 1991 (Taylor 1993a, 1993b).

The *Aboriginal Employment Development Policy Statement* (Australian Government 1987) highlighted that the overall objective of the AEDP is to assist indigenous Australians to achieve broad equity with other Australians in terms of employment and economic status. This objective was incorporated in three specific goals that emphasise both equity and statistical equality. These are:

- the achievement of employment equality with other Australians, that is to increase the proportion of indigenous Australians of working age, in employment to equal that of the total population;
- the achievement of income equality with other Australians, that is to increase median individual incomes to the median of the total population; and
- to reduce the welfare dependency of indigenous Australians to a level commensurate with that of other Australians, with a particular emphasis on unemployment-related welfare.

It has been understood for some time that an assessment of AEDP outcomes, in broad policy and statistical terms, would be almost entirely dependent on labour force statistics collected in the five-yearly Census of Population and Housing (Altman 1991: 168-70, 1992). In this context, it was fortunate that a degree of correlation emerged between the 1986 Census, the official launch of the AEDP, the availability of 1991 Census data in 1993 and the timing of its current mid-term review. With this in mind, the terms of reference for Phase 2 of the evaluation of the AEDP agreed upon between the inter-agency AEDP Review Co-ordinating Committee and CAEPR stated specifically:

In order to assist in assessing the impact of the AEDP, conduct a detailed analysis of 1986 and 1991 Census data to ascertain the degree

to which the AEDP objectives have been achieved and in particular examine:

- the extent to which the income status of indigenous people has improved since 1986;
- the extent to which the employment status of indigenous people has improved since 1986;
- the extent to which the dependency of indigenous people on welfare (non-employment income) has declined since 1986.

Where possible, the analysis should also seek to identify:

- comparative changes in income status, employment and welfare dependence over the period since 1986 for the general Australian population;
- changes in overall macroeconomic conditions and employment opportunities in the mainstream labour market;
- other relevant factors like demographic, gender and locational issues impacting on the achievement of AEDP targets.

In recognition of renewed policy interest in regional issues, both within ATSIC and the Federal Government (Kelty 1993), and to allow information on the contemporary economic status of indigenous Australians to be disseminated as widely as possible, these issues have now been analysed for each State and Territory and the findings are presented in a series of CAEPR Discussion Papers. This paper is concerned with Tasmania. Unlike Australian Bureau of Statistics' (ABS) State publications on indigenous people (ABS 1993a), the focus of attention here is on intercensal change in labour force and income status with direct comparison drawn between indigenous and non-indigenous populations.

Population size and distribution, 1986-91

To analyse change in the economic status of indigenous people in Tasmania compared to that of the rest of the State's 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 working-age population while the economy itself varies in its capacity to create employment in different places.

Previous analyses at the national level have identified an urban/rural gradient in regard to broad levels of economic status among indigenous Australians (Gray and Tesfaghiorghis 1991; Tesfaghiorghis 1991a; Taylor

1993a, 1993b). It has also been noted that the delivery of economic policy initiatives under the AEDP has a rationale based on the size of localities where clients live. In most States and Territories, the tendency has been to develop community-based programs in small, mostly rural places where labour markets are poorly developed, while mainstream initiatives are more evident in urban places (Taylor 1993a: 5-6). Given the policy significance of these structural distinctions, the subsequent analysis is organised according to the ABS section-of-State classification, although for analytical convenience the standard four-way taxonomy has been reduced to three components by amalgamating data for bounded localities and the rural balance to create a single 'rural' category (0-999 persons).¹

The indigenous population

In contrast with earlier intercensal periods, the change in the census count of indigenous people in Australia between 1986 and 1991 accords more closely with demographic expectations, giving some cause for confidence, for the first time, in its interpretation (Gray and Tesfaghiorghis 1993). At the same time, according to Gaminiratne (1993: 5) the growth in Tasmania's indigenous population was notably higher than expected based on projections from the 1986 Census (5.5 per cent per annum as opposed to an expected rate of 3.3 per cent per annum). A number of observations are relevant to an understanding of this demographic discrepancy. First, the suggestion that higher growth partly reflects real increases in fertility at a time when life expectancy among indigenous people in Tasmania has risen at a faster rate than in most other States (Gray and Tesfaghiorghis 1993). Second, the continued prospect of misidentification on the part of census respondents who classified themselves as Torres Strait Islanders. Concerns regarding the veracity of counts of the Torres Strait Islander population in Tasmania have been expressed at successive census rounds (Choi and Gray 1985; ABS 1993b) and the large proportional increase in Torres Strait Islanders in Tasmania between 1986 and 1991 (42.6 per cent) only serves to heighten such doubts. Finally, Gaminiratne (1993: 8) raises the possibility of improved coverage in the 1991 Census and/or an increase in the tendency for individuals in Tasmania to self-identify as indigenous Australians.

Between 1981 and 1986 the proportion of the States indigenous population enumerated in Hobart decreased from 22 per cent to 20 per cent while the proportion recorded in rural areas declined from 30 per cent to 28 per cent. As a consequence, those resident in other urban centres, such as Launceston, Devonport, Burnie and Ulverstone, increased from 48 per cent in 1981 to 52 per cent in 1986. Analysis of indigenous population change by section-of-State for the most recent intercensal period between 1986 and 1991, indicates that this trend towards increased residence in urban centres outside of Hobart has been reversed with rural areas accounting for a growing share of the indigenous population and experiencing the highest

rate of intercensal increase (Table 1). Whether such trends reflect real demographic shifts, primarily through migration, or whether they derive from discrepancies in enumeration is difficult to establish. Notwithstanding these uncertainties, one of the enduring features of indigenous population distribution in Tasmania appears to be a degree of consistency in location by section-of-State. Although, some variation in distribution is apparent over time, the pattern of settlement in 1991 is little altered from that of 1981 with just over two-thirds of indigenous Tasmanians resident in urban centres, particularly those away from the capital in the north and west of the State.

Table 1. Change in indigenous population by section-of-State: Tasmania, 1986-91.

	1986		1991		1986-1991	
	No.	Per cent	No.	Per cent	Net change	Per cent change
Major urban	1,351	20.1	1,829	20.6	478	35.4
Other urban	3,460	51.5	4,276	48.1	816	23.6
Rural	1,905	28.4	2,776	31.3	871	45.7
Total	6,716	100.0	8,881	100.0	2,165	32.2

The non-indigenous population

The majority of the Tasmanian population also displayed little tendency to vary its overall distribution between 1986 and 1991 (Table 2). To the extent that any change is evident according to section-of-State, the trends in distribution are not dissimilar to those apparent among indigenous people.

Table 2. Change in non-indigenous population by section-of-State: Tasmania, 1986-91.

	1986		1991		1986-1991	
	No. (million)	Per cent	No. (million)	Per cent	Net change	Per cent change
Major urban	125,755	29.3	125,303	28.2	-452	-0.4
Other urban	194,291	45.3	197,244	44.4	2,953	1.5
Rural	109,032	25.4	121,421	27.4	12,389	11.4
Total	429,078	100.0	433,968	100.0	14,890	3.5

As with the indigenous population, the majority of the State's residents are now slightly less prevalent in urban areas and slightly more likely to be in rural areas. A possible factor underlying this trend may be a process of 'counterurbanisation' involving net migration flows in favour of non-metropolitan places within commuting zones and places of high amenity value away from urban centres (Hugo and Smailes 1985). Although a greater proportion of the State's non-indigenous population is resident in Hobart, the overall distribution by section-of-State is broadly equivalent to that of the indigenous population.

Change in the working-age population, 1986-91

As foreshadowed by Gray and Tesfaghiorghis (1991), the rate of growth in the indigenous population of working age continued to outstrip that of the rest of the working-age population during the 1986-91 intercensal period. This was, in part, the inevitable outcome of demographic processes set in train during the early 1970s, culminating in distinct shifts in the age structure of the indigenous population across Australia. In Tasmania, which has an ageing population overall, this difference in growth rates is readily apparent with the working-age indigenous population growing at a rate 11.5 times higher than that of other Tasmanians (Table 3).

Table 3. Change in population aged 15-64 years, indigenous and non-indigenous Australians: Tasmania, 1986-91.

	1986	1991	1986-1991	
			Net change	Per cent change
Indigenous	3,702	4,936	1,234	33.3
Non-indigenous	274,386	282,268	7,882	2.9

Despite higher rates of natural increase, some doubt must remain concerning the level of growth in the indigenous working-age population and whether it derives from demographic processes alone. This is underlined by the lower rate of net interstate migration loss among the indigenous working-age population. Between 1986 and 1991, the balance of migration flows in and out of the State among indigenous people of working age led to a net loss of only 33 persons representing a rate of loss of around 7 per thousand of the average intercensal population. However, the corresponding net loss of non-indigenous Tasmanians amounted to 1,163 persons which represented only 4 persons per thousand. In commenting on their upward revision of indigenous population projections, Gray and Gaminiratne (1993) draw particular attention to the

tendency for census-based indigenous identification to increase with age. Despite the additional observation that young indigenous males, in particular, appear to be underenumerated, this age-graduated self-identification may account for at least some of the observed increase in the working-age population. However, it is also worth bearing in mind that Gray and Tesfaghiorghis (1993) find it hard to substantiate the increases in the Torres Strait Islander population in States such as Tasmania on demographic grounds alone.

Labour force status, 1986-91

Three standard social indicators are used here to show the extent and direction of relative change in indigenous labour force status: the employment rate, representing the percentage of those 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 those in the labour force as a percentage of those of working age.

Table 4. Change in labour force status of indigenous and non-indigenous Australians: Tasmania, 1986-91.

	Indigenous		Non-indigenous	
	1986 (1)	1991 (1)	1986 (2)	1991 (2)
Employment rate	50.2	49.0	62.1	61.5
Unemployment rate	21.2	25.4	9.9	13.3
Participation rate	63.7	65.6	69.0	70.9
Ratios (1/2)				
Employment rate	0.81	0.80		
Unemployment rate	2.1	1.9		
Participation rate	0.92	0.92		

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

Between 1986 and 1991, the overall employment rate of indigenous people in Tasmania declined slightly from 50.2 per cent in 1986 to 49.0 per cent in 1991 (Table 4). This negative trend was also evident in the wider labour market context as corresponding figures for the rest of the State's working-age population showed a marginal reduction from 62.1 per cent to 61.5 per

cent. Thus, the relative gap in employment rates between the two groups has remained more or less constant in recent years. As a consequence the employment rate for indigenous people remains substantially below the State average. At the same time, it is worth noting that the gap in employment status has not increased despite continued higher growth in the indigenous population of working age.

A similar maintenance of the gap in labour force status between indigenous people and the rest of the population is apparent from intercensal shifts in unemployment rates (Table 4). The results show a significant increase in the indigenous unemployment rate, from 21.2 per cent in 1986 to 25.4 per cent in 1991, while the rate among the non-indigenous population has also risen by a similar margin from 9.9 per cent to 13.3 per cent. Using the data in Table 4, it can be calculated that the indigenous unemployment rate as a ratio of the non-indigenous unemployment rate fell only slightly, from being 2.1 times higher in 1986 to 1.9 times higher in 1991.

It is important to qualify discussions of relative employment and unemployment rates with data on relative rates of labour force participation. This is because the proportion of the indigenous population that is formally attached to the labour market has historically been well below the national average. Evidence from the 1991 Census indicates that this remains the case with indigenous labour force participation rates recorded at only three-quarters the level found for the population generally (Taylor 1993b: 19). In Tasmania, the situation is markedly different with the labour force participation rate among indigenous people remaining constant at around 92 per cent of the general State level. Despite the fact that the rate among indigenous people in Tasmania increased slightly from 63.7 per cent in 1986 to 65.6 per cent in 1991, a similar rise occurred among the rest of the population, from 69.0 per cent to 70.9 per cent, thus maintaining its slightly higher level.

A number of points are relevant in interpreting these data. First, the much higher intercensal growth rate of the indigenous working-age population means that an increase in the indigenous participation rate equivalent to the rest of the population has required a proportionally greater increase in numbers joining the labour force. Likewise, with regard to the employment rate, greater success in gaining employment has been required among indigenous people simply to maintain the rate at a constant level, to say nothing of actually improving it. Another factor, which may have served to dampen the rate of growth in labour force participation, is the move to encourage higher levels of Aboriginal attendance and retention in educational institutions under the Federal Aboriginal and Torres Strait Islander Education Policy. In this context, it is worth noting that the proportion of indigenous people aged 15 years and over who were reported

by the census as attending an educational institution in Tasmania, either full-time or part-time, rose from 477 in 1986 to 793 in 1991 which is an increase of 66.2 per cent and considerably higher than the national rate of 14.5 per cent (Taylor 1993a: 16). While this growth in attendance at educational institutions may result in employment dividends at some later stage, its most likely immediate impact would have been to dampen growth in the labour force participation rate.

Section-of-State and gender variations

An alternative picture of intercensal change in labour force status emerges from a disaggregation of the data by section-of-State and gender. The magnitude and net direction of such shifts are shown in Tables 5 and 6 while the actual rates from which these are calculated are shown in Tables 7 and 8.

Table 5. Net change in labour force status of indigenous Australians by section-of-State and gender: Tasmania, 1986-91.

	Major urban Net change	Other urban Net change	Rural Net change	Total Net change
Males				
Employment rate	-0.3	-5.1	-3.9	-3.3
Unemployment rate	2.8	5.9	4.9	4.6
Participation rate	2.5	-0.6	0.1	0.5
Females				
Employment rate	0.2	1.7	-0.7	0.8
Unemployment rate	4.5	2.6	4.6	3.6
Participation rate	3.3	3.9	2.0	3.3

Table 6. Net change in labour force status of non-indigenous Australians by section-of-State and gender: Tasmania, 1986-91.

	Major urban Net change	Other urban Net change	Rural Net change	Total Net change
Males				
Employment rate	-3.6	-6.3	-4.5	-5.0
Unemployment rate	4.3	5.4	4.0	4.7
Participation rate	-0.2	-1.9	-1.3	-1.2
Females				
Employment rate	3.9	3.7	4.1	3.8
Unemployment rate	1.5	1.8	1.0	1.5
Participation rate	5.2	5.3	5.2	5.2

In line with trends nationally, both indigenous and non-indigenous females fared better in the labour market than their male counterparts. The main source of this difference among the indigenous population was worsening labour force status among males in urban centres outside of Hobart. Employment levels for indigenous males in such other urban centres declined by just over 5 percentage points while their unemployment rate rose by almost 6 percentage points. This contrasts with an increase in employment rate of nearly 2 percentage points among indigenous females and a much lower increase in unemployment. In rural areas the contrast is not as marked although a drop in the male employment rate by almost 4 percentage points was substantially greater than the decline observed among females (Table 5).

Notwithstanding these relative shifts, the employment level among indigenous females remains much lower than that recorded for indigenous males, as well as that of other females of working age (Tables 7 and 8). Similarly, the somewhat better performance of indigenous males in the labour market compared to other males, particularly in Hobart, was insufficient to reduce the gap in economic status between them.

Table 7. Change in labour force status of indigenous Australians by section-of-State and gender: Tasmania, 1986-91.

	Major urban		Other urban		Rural		Total	
	1986	1991	1986	1991	1986	1991	1986	1991
Males								
Employment rate	57.2	56.9	60.4	55.3	68.4	64.5	62.1	58.8
Unemployment rate	23.6	26.5	23.9	29.9	17.1	22.0	21.8	26.4
Participation rate	74.9	77.4	79.5	78.9	82.6	82.7	79.4	79.9
Females								
Employment rate	41.5	41.7	35.1	36.9	40.7	40.0	38.1	38.9
Unemployment rate	19.5	24.0	22.0	24.6	17.4	22.0	20.1	23.7
Participation rate	51.6	54.9	45.0	48.9	49.3	51.3	47.7	51.0

It is interesting to note that in the absence of participation in the Community Development Employment Projects (CDEP) scheme, indigenous people in Tasmania have not displayed the same shifts in labour force status that are apparent in the rural areas of other States where, regardless of gender, increases in indigenous employment rates have been substantial and unemployment rates have shown a remarkable decline (Taylor 1993b).² In spite of this, the labour force status of rural-based indigenous males is higher than among those in urban areas with higher employment rates and lower levels of unemployment (Table 7).

Thus, improvements in labour force status, particularly among males, that may have been expected to occur in urban areas due to the application of private and public sector employment programs administered by DEET do not emerge from the data.

Table 8. Change in labour force status of non-indigenous Australians by section-of-State and gender: Tasmania, 1986-91.

	Major urban		Other urban		Rural		Total	
	1986	1991	1986	1991	1986	1991	1986	1991
Males								
Employment rate	74.5	70.8	76.3	70.0	76.6	72.0	75.8	70.8
Unemployment rate	8.8	13.1	10.2	15.6	10.5	14.5	9.9	14.6
Participation rate	81.7	81.5	85.0	83.0	85.5	84.2	84.1	82.9
Females								
Employment rate	52.7	56.5	45.7	49.4	47.3	51.4	48.2	52.0
Unemployment rate	8.3	9.8	11.2	13.0	10.3	11.3	10.0	11.5
Participation rate	57.5	62.6	51.4	56.8	52.7	57.9	53.6	58.8

Precise information on the number of placements in the Training for Aboriginals Program (TAP) and other DEET labour market programs in Tasmania over the course of the intercensal period are difficult to obtain. However, figures made available by DEET for the year 1989-90 indicate that a total of 375 indigenous people commenced placements in all labour market programs in the State. Even though this level of placement was not sustained throughout the intercensal period, and assuming that program placements were distributed proportionally according to section-of-State, the lack of positive impact on labour force status, particularly outside Hobart, is striking. One explanation may be that many TAP placements do not represent 'new' entrants to 'new' jobs, but simply reflect the recycling of individuals several times through a constant, or even declining, pool of positions (Johnston 1991: 73). Another may be found in the short duration of subsidies and program support combined with the failure of some participants to remain in programs. Finally, any positive employment outcomes from program placements may simply have been relinquished by census time (Daly 1993).

Whatever the case, it is apparent that in Tasmania the AEDP has fallen behind in its task of achieving employment equality or even improving employment status, particularly for indigenous males. To be fair, it should be pointed out that non-indigenous males also performed no better in the intercensal period. Thus, in the deteriorating labour market conditions of the early 1990s one important impact of the AEDP may simply have been

to ameliorate potentially worse employment outcomes for many indigenous males seeking opportunities in mainstream labour markets. The possibility that AEDP initiatives may have achieved some positive impact on the relative standing of indigenous people in the labour market is suggested by their much higher rates of intercensal employment growth compared to other residents of Tasmania (Table 9). Between 1986 and 1991, the number of indigenous people in employment grew by 599 representing an increase of 30 per cent, almost 17 times higher than the rate of increase recorded for the rest of the population albeit from a lower numeric base.

Table 9. Employment growth among indigenous and non-indigenous Australians: Tasmania, 1986-91.

	Number employed		Change	
	1986	1991	Net	Per cent
Indigenous	1,858	2,417	559	30.1
Non-indigenous	170,444	173,494	3,050	1.8
Total	172,302	175,911	3,609	2.1

Employment growth by section-of-State

Substantial variation in the distribution of intercensal job growth is apparent according to section-of-State (Table 10). Among indigenous people, the striking feature is the relatively low rate of job growth in urban areas, particularly in country towns.

Table 10. Employment growth among indigenous and non-indigenous Australians by section-of-State: Tasmania, 1986-91.

	Per cent employed		Change	
	1986	1991	Net	Per cent
Indigenous				
Major urban	21.3	20.8	108	27.3
Other urban	47.4	44.7	175	19.8
Rural	31.3	34.5	276	47.5
Total	100.0	100.0	559	30.1
Non-indigenous				
Major urban	30.8	29.8	-824	-1.6
Other urban	43.5	42.4	-360	-0.5
Rural	25.7	27.9	4,234	9.7
Total	100.0	100.0	3,050	1.8

Although rural areas accounted for only 31 per cent of the State's indigenous population in 1991, 49 per cent of all new jobs for indigenous people were created in such places. It is interesting to note, however, that rural areas were also the only parts of Tasmania to record job growth among non-indigenous residents, although the reasons for this are likely to be quite different having more to do with industry restructuring, lifestyle choices and the decentralisation of jobs and people away from large cities (Hugo and Smailes 1985). Of greater interest is the fact that the rate of employment growth among indigenous people was considerably higher than among the rest of the population in all settlement size categories. Most noteworthy here, is their relatively better performance in Hobart, given that the rate of job growth among other Australians was notably low in such places.

Employment growth by gender

Less than half of all new jobs for indigenous people (45 per cent) went to females. However, because of their far fewer numbers in the labour force, the rate of female employment growth was conspicuously higher than that of males (Table 11). This follows the overall gender pattern of job growth in the State as the number of non-indigenous males in employment actually declined at a time when female employment rose substantially. Thus, the ratio of male to female workers among both indigenous and non-indigenous populations has fallen and remains at an almost equivalent level.

Table 11. Employment growth among indigenous and non-indigenous Australians by gender: Tasmania, 1986-91.

	Per cent employed		Change	
	1986	1991	Net	Per cent
Indigenous				
Males	62.3	60.6	307	26.5
Females	37.7	39.4	252	36.1
Total	100.0	100.0	559	30.1
Non-indigenous				
Males	61.5	57.8	-4,413	-4.2
Females	38.5	42.2	7,463	11.4
Total	100.0	100.0	3,050	1.8

Income status, 1986-91

A key goal of the AEDP 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 the lack of relative improvement in the labour force status of indigenous people in Tasmania there would appear to be no statistical grounds for expecting that the income gap between indigenous and non-indigenous Tasmanians may have narrowed. This is precisely what the census data indicate.

Table 12. Change in income status of indigenous and non-indigenous Australians: Tasmania, 1986-91.

	Income (\$000s)			
	Indigenous 1986	Indigenous 1991	Non-indigenous 1986	Non-indigenous 1991
Mean	9.5	13.4	12.2	17.2
Median	7.7	11.2	10.2	14.4
Ratio of indigenous/non-indigenous				
Mean	0.78	0.78		
Median	0.76	0.78		

Mean income for the indigenous adult population expressed as a ratio of that for the rest of the population remained at the same level (0.78) as in 1986 (Table 12).³ Median income was somewhat lower as a ratio of the non-indigenous median but displayed a slight improvement. This divergent trend is only minor and no doubt reflects the different bases for calculation. The essential conclusion to be drawn from both measures is simply that income relativities have not changed during the intercensal period. This lack of improvement in relative incomes is not surprising given the overall fall in the employment rate and rise in unemployment but some relative improvement might have been expected from the much higher rate of new job growth among the indigenous population. The indication here is that the additional employment acquired by indigenous workers has been in low income jobs. If such low wage work continues to provide the bulk of new employment for indigenous people, there seems little prospect that the overall income gap between them and the rest of the population in Tasmania will narrow. If anything, it is likely to widen further. This is of crucial policy significance as it signals that the creation of job opportunities alone is not sufficient to enhance income status. Of equal importance 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 13). Despite the fact that intercensal improvement in the labour force status of indigenous people has been most noticeable in rural areas, little variation in income levels is apparent between different tiers of the settlement hierarchy. This contrasts with the situation in larger States and Territories which have sizeable indigenous populations in remote rural areas and where rural incomes are increasingly lower than those in urban areas (Taylor 1993b: 55-6). In Tasmania, the ratio of mean income for rural-based indigenous people compared to that in major urban areas, for example, fell from 102.1 in 1986 to 0.96 in 1991. Comparing rural incomes with other urban income, the ratio of mean incomes increased from 102.1 in 1986 to 103 in 1991. This points to a more even distribution of incomes than recorded for the non-indigenous population who display a greater gap in income between rural and major urban areas with the ratio essentially steady at 0.89 in 1986 and 0.90 in 1991.

Table 13. Change in income status of indigenous and non-indigenous Australians by section-of-State: Tasmania, 1986-91.

	Income (\$000s)							
	Major urban		Other urban		Rural		Total	
	1986	1991	1986	1991	1986	1991	1986	1991
Indigenous								
Mean	9.5	14.0	9.5	13.1	9.7	13.5	9.5	13.4
Median	7.6	11.5	7.8	11.0	7.7	11.3	7.7	11.2
Non-indigenous								
Mean	13.1	18.4	12.0	16.8	11.7	16.6	12.2	17.2
Median	11.2	15.6	10.1	14.2	9.2	13.6	10.2	14.4
Ratio of indigenous/non-indigenous								
Mean	0.73	0.76	0.79	0.78	0.83	0.82	0.78	0.78
Median	0.68	0.74	0.77	0.78	0.83	0.83	0.76	0.78

Income change by gender

Although incomes for indigenous females remain substantially below those of indigenous males some convergence in income levels between the two groups is apparent (Table 14). One way of assessing relative gender-based movement in income levels is to calibrate changes against a common denominator, in this case the total income for the rest of the population. Using the figures for nominal mean income in 1986, indigenous male income was slightly higher (101.6 per cent) than the total mean for the non-indigenous population. By 1991, this ratio had fallen to just below

parity (96 per cent). In contrast, mean income for indigenous females rose as a proportion of the total non-indigenous mean income from 53.3 per cent in 1986 to 58.7 per cent in 1991. If these figures are expressed in terms of 1989-90 prices (using a Consumer Price Index of 73.5 in 1985-86 and 105.3 in 1990-91), the real gender-based shift in incomes is apparent with indigenous male incomes falling slightly from a real mean of \$16,870 in 1986 to \$15,669 in 1991 and the female equivalent showing a clear counter-tendency by rising from \$8,843 to \$9,592. This convergence in male and female incomes, though slight, is consistent with the trend revealed by Treadgold (1988) for the intercensal periods 1976-86 and is linked to the relatively better performance of females in sectors of the labour market less affected by the vagaries of the economy. Also, it probably reflects growing gender differentials noted generally in the nature of work with indigenous females employed for relatively longer hours and in more skilled employment (Taylor 1993a).

Table 14. Change in income status of indigenous and non-indigenous Australians by gender: Tasmania, 1986-91.

	Males		Income (\$000s) Females		Total	
	1986	1991	1986	1991	1986	1991
Indigenous						
Mean	12.4	16.5	6.5	10.1	9.5	13.4
Median	11.8	15.4	5.4	8.2	7.7	11.2
Non-indigenous						
Mean	16.5	21.8	7.8	12.4	12.2	17.2
Median	15.7	19.9	5.6	9.6	10.2	14.4
Ratio of indigenous/non-indigenous						
Mean	0.75	0.76	0.83	0.82	0.78	0.78
Median	0.75	0.77	0.97	0.86	0.76	0.78

Despite the income gain experienced by indigenous females, they failed to keep up with the rate of growth in income experienced by their non-indigenous counterparts. For example, nominal mean income for indigenous females increased by 55 per cent during the intercensal period whereas non-indigenous females increased their mean income by 59 per cent starting from a higher base (Table 14). Thus, ratios of indigenous to non-indigenous incomes, particularly for the median, reveal that the gap between female incomes has widened, while that between males has remained relatively unchanged. At the same time, in monetary terms, indigenous females remain substantially behind indigenous males with the average income for indigenous females rising by a lesser amount from a lower base.

Welfare dependency

In the AEDP, welfare dependency is equated with dependency on unemployment benefit. Altman and Smith (1993: 21) take the view that this definition is somewhat narrow, reflecting the labour market focus of the AEDP. They take a broader definition of welfare to include all transfer payments from the Federal Government to indigenous citizens. Such a wider definition is also necessitated by the limited availability of official sources of income data for indigenous Australians. At an aggregate level, the most comprehensive indication of the reliance of indigenous people on welfare income is available from census data. This is derived from a cross-tabulation of individual incomes by labour force status. Using this source, Table 15 shows the proportion of total income accruing to each category of the labour force, and to those not in the labour force, in 1986 and 1991.

Table 15. Change in total income of indigenous and non-indigenous Australians by labour force status: Tasmania, 1986-91.

	1986		1991	
	Income (\$ million)	Per cent	Income (\$ million)	Per cent
Indigenous				
Employed	26.0	77.7	44.1	73.0
Unemployed	2.7	8.1	6.5	10.9
Not in the labour force	4.7	14.2	9.7	16.1
Total	33.5	100.0	60.4	100.0
Non-indigenous				
Employed	2,816.1	87.1	3,839.9	84.7
Unemployed	99.0	3.1	213.7	4.7
Not in the labour force	317.3	9.8	481.1	10.6
Total	3,232.6	100.0	4,534.8	100.0

Overall, there has been a decline in the contribution of employment income to total income although the proportion of total income for indigenous people derived from non-welfare sources remains fixed at a much lower level than among the rest of the population. In 1986, 22 per cent of total indigenous income was from non-employment sources and this increased to 27 per cent in 1991. While a similar trend was apparent for the rest of the population, both the level and rate of increase of welfare dependence was lower compared to the indigenous population with an increase from only 13 per cent to 15 per cent. This seems to suggest that the longer-term trend of a decline in employment income among indigenous Australians relative to total income, noted by Daly and Hawke (1993) for the period 1976-91, has been sustained in Tasmania. Thus,

despite a relatively better outcome in terms of labour force status, the policy objective of a reduction in welfare dependency among indigenous people to a level commensurate with that of other Australians is no closer to being achieved in Tasmania than before the introduction of the AEDP.

Table 16. Change in mean employment/non-employment income of indigenous and non-indigenous Australians: Tasmania, 1986-91.

Labour force status	Mean income (\$000s)		Change	
	1986	1991	Net	Per cent
Indigenous				
Employed	14.34	18.88	4.54	31.7
Unemployed	5.68	8.63	2.95	52.0
Not in the labour force	3.99	7.08	3.08	77.2
Total	9.62	13.51	3.89	40.4
Non-indigenous				
Employed	16.89	22.83	5.94	35.2
Unemployed	5.52	8.61	3.10	56.1
Not in the labour force	4.11	6.95	2.84	69.2
Total	12.34	17.29	4.95	40.1
Ratio of indigenous/non-indigenous				
Employed	0.85	0.83	-0.02	-2.6
Unemployed	1.03	1.00	-0.03	-2.7
Not in the labour force	0.97	1.02	0.05	4.8
Total	0.78	0.78	0.00	0.2

Actual shifts in mean employment and non-employment incomes are shown in Table 16. Not only has the mean income of indigenous people in employment remained lower than for others in the workforce, the gap between employment incomes has widened. This is indicated by the decline in ratios of indigenous/non-indigenous employment income from 0.85 in 1986 to 0.83 in 1991. Given the much higher rate of intercensal job growth among indigenous people, this suggests that the procurement of quality employment, in terms of occupational status, remains an obstacle to the achievement of AEDP goals. As for welfare income, the mean individual income of unemployed indigenous people in 1986 was \$5,680, which was substantially less than half (39.6 per cent) of the mean income recorded for those people in employment. By 1991, this gap had closed somewhat but unemployed indigenous people still had incomes that were less than half of that due to those in employment (45.7 per cent). Due to the higher level of employment income among the non-indigenous population, the equivalent gap in income status between those in employment and those dependent on welfare was much greater. This is to be expected given that non-employment incomes for indigenous people and others were more or less the same.

Policy implications

Evidence from the 1986 Census indicated that, after the Australian Capital Territory, indigenous people resident in Tasmania had substantially higher economic status than those living elsewhere in Australia (Tesfaghiorghis 1991a; Tesfaghiorghis 1991b). Furthermore, the gap in economic status relative to that of other Tasmanians was much less evident than in other States and Territories. Although this was partly due to the lower than average economic status of non-indigenous Tasmanians, it suggests that the potential for achieving the AEDP goals of statistical equality in labour force and income status was greatest in Tasmania.

This analysis of change in the relative economic status of indigenous people in Tasmania during the intercensal period 1986 to 1991 provides the first comprehensive indication of the impacts of the AEDP in the State since it was implemented in 1987. The results, in terms of stated policy objectives, are ambiguous. On the one hand, there has been no change in the relative labour force status of indigenous Tasmanians compared to others in the State. The gaps in employment and unemployment rates that existed in 1986 are as much in evidence in 1991 while the rate of labour force participation persists at a similar level for both groups. At the same time, the rate of new job growth among indigenous people has been much higher than for the rest of the population. The lack of impact on labour force status in the face of this proportionally greater increase in employment is explained by very high growth rates among the indigenous working-age population. Although this intercensal expansion of the base population for social indicators complicates the assessment of change in economic status, certain conclusions can still be drawn.

In the context of a depressed labour market, indigenous people performed at least as well, if not better in some cases, than other Tasmanian job-seekers during the intercensal period. This suggests that focused labour market programs left some mark, most noticeably among indigenous males who at least gained some new employment at a time when other males experienced a substantial net loss of jobs. Likewise, indigenous people secured new jobs in Hobart and other centres in the context of an overall decline in urban employment. At the same time, urban-based public and private sector jobs for indigenous people appear to have expanded at a much slower rate than might have been expected given the strength of program efforts to encourage such employment. More vigorous growth in employment occurred in rural areas, although whether this resulted from AEDP community-based initiatives is not certain, nor can it be validated from census data alone. This would require close scrutiny of DEET's program placement and post-program monitoring data in order to examine the precise nature and spatial application of labour market programs, as well as their links with employment outcomes. In this context, however, it

is interesting to note that rural employment also increased for the general population which may indicate that the pattern of job growth observed among indigenous people is simply part of a wider trend.

The relative lack of improvement in the income status of indigenous people in Tasmania in the context of proportionally higher employment growth emphasises the need for quality, as well as quantity, in job creation schemes if the overall aims of the AEDP are to be achieved. This is given added weight when account is taken of growing income inequalities for the population as a whole. Indigenous people in Tasmania appear to lag behind in an economy which is increasingly divided between the 'haves' and 'have-nots' (Saunders 1992), although the extent to which this is the case appears to be far less in Tasmania than elsewhere in Australia (Taylor 1993b). Also, unlike other States and Territories, the continuance of relatively high welfare dependency in Tasmania has less to do with low levels of labour force participation and is more directly a consequence of employment in low wage occupations.

Aggregate State-level data showing economic change clearly have the capacity to conceal important intra-State and gender variations. In brief, marginal shifts in labour force status evident at the State level are more exaggerated when analysed by section-of-State. Overall, falls in employment rates and increases in unemployment were greatest outside of Hobart, even though rural areas experienced the highest rate of job growth. Likewise, the economic status of indigenous women showed marginal improvement compared to that of men which, in income terms at least, has regressed. Despite this, they fell further behind in economic status compared to non-indigenous females in the workforce. These variations clearly underline the importance of assessing policy impacts on the economic status of indigenous people at varying scales of analysis and for different sub-groups in the population.

Given a continuation of intercensal trends a number of outcomes seem likely in the medium term. First, with signs of recovery in the economy, the economic position of indigenous Tasmanians is unlikely to fall any further behind that of the rest of the population. This is based on their slightly better than average performance in more difficult economic times, although much depends on the ability of labour market programs to ensure full participation in a more buoyant job market. Second, depending on the rate of growth in employment, overall reliance on welfare (non-employment) income may show a tendency to decline but levels of such support will remain notably higher among indigenous people not least because of their greater reliance on lower paid employment. One unknown factor is whether increased enrolments in educational institutions will start to translate into increased employment in higher status private and public sector jobs. Finally, whatever ensues, it is clear that the enhancement of

occupational status, and not just labour force status, should be the key target of policy. To date, while indigenous people may be no worse off than before implementation of the AEDP in terms of labour force status, this holding capacity has not impacted on the more important 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.

Notes

1. The ABS sections-of-State within each State and Territory are as follows: major urban - all urban centres with a population of 100,000 and over; other urban - 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 or Territory.
2. The Community Development Employment Projects (CDEP) scheme operates on a workfare program for indigenous people in most other States and Territories and has had the effect of statistically transferring large numbers of unemployed persons and those not in the labour force into the census category, 'employed'.
3. In estimating mean incomes, the mid-point for each income category has been taken on the assumption that individuals are evenly distributed around this mid-point. The open-ended highest category is problematic, but following Treadgold (1988) 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 highest category. Clearly, estimates of mean incomes will vary according to the upper level adopted. In this analysis the full range of income categories has been utilised with \$50,000+ as the highest category in 1986 and \$70,000+ in 1991.

References

- Altman, J.C. 1991. 'Conclusion', in J.C. Altman (ed.) *Aboriginal Employment Equity by the Year 2000*, Centre for Aboriginal Economic Policy Research, Australian National University, Canberra.
- Altman, J.C. 1992. 'Statistics about indigenous Australians: needs, problems, options and implications', in J.C. Altman (ed.) *A National Survey of Indigenous Australians: Options and Implications*, Centre for Aboriginal Economic Policy Research, Australian National University, Canberra.
- Altman, J.C. and Smith, D.E. 1993. 'The welfare dependence of Aboriginal Australians: policy implications', *Social Security Journal*, March 1993: 19-43.
- Australian Bureau of Statistics (ABS) 1993a. *Western Australia's Aboriginal People*, cat no. 4107.5, ABS, Perth.
- Australian Bureau of Statistics (ABS) 1993b. *1991 Census Data Quality: Aboriginal and Torres Strait Islander Counts*, Census Working Paper No. 6, ABS, Canberra.
- Australian Government 1987. *Aboriginal Employment Development Policy Statement: Policy Paper No. 1*, Australian Government Publishing Service, Canberra.

- Bamblett, A. (Chair) 1994. *Review of the AEDP*, Aboriginal and Torres Strait Islander Commission, Canberra.
- Choi, C. and Gray, A. 1985. *An Evaluation of Census Counts of the Aboriginal Population, 1971, 1976 and 1981*, Occasional Paper No. 1985/2, Australian Bureau of Statistics, Canberra.
- Daly, A.E. 1993. 'The evaluation of labour market programs: some issues for Aboriginal policy formulation from experience in the United States', *Labour Economics and Productivity* 5 (1): 45-61.
- Daly, A.E. and Hawke, A.E. 1993. 'Work and welfare for indigenous Australians', *CAEPR Discussion Paper No. 48*, Centre for Aboriginal Economic Policy Research, Australian National University, Canberra.
- Gaminiratne, K.H.W. 1993. 'Change in Aboriginal and Torres Strait Islander population distribution, 1986-91', *CAEPR Discussion Paper No. 49*, Centre for Aboriginal Economic Policy Research, Australian National University, Canberra.
- Gray, A. and Gaminiratne, K.H.W. 1993. 'Indicative projections of the Aboriginal and Torres Strait Islander population to 2011', *CAEPR Discussion Paper No. 52*, Centre for Aboriginal Economic Policy Research, Australian National University, Canberra.
- Gray, A. and Tesfaghiorghis, H. 1991. 'Social indicators of the Aboriginal population of Australia', *CAEPR Discussion Paper No. 18*, Centre for Aboriginal Economic Policy Research, Australian National University, Canberra.
- Gray, A. and Tesfaghiorghis, H. 1993. 'Aboriginal population prospects', *Journal of the Australian Population Association*, 10 (2): 81-101.
- Hugo, G.J. and Smailes, P.J. 1985. 'Urban-rural migration in Australia: a process view of the turnaround', *Journal of Rural Studies*, 1 (1): 11-31.
- Johnston, E. 1991. *Review of the Training for Aboriginals Program*, Report to the Ministers for Employment, Education and Training, and Aboriginal Affairs, Department of Employment, Education and Training, Canberra.
- Kelty, B. (Chair) 1993. *Developing Australia: A Regional Perspective*, Report to the Federal Government by the Taskforce on Regional Development, Canberra.
- Miller, M. (Chair) 1985. *Report of the Committee of Review of Aboriginal Employment and Training Programs*, Australian Government Publishing Service, Canberra.
- Saunders, P. 1992. 'Poverty, inequality and recession', *Economic Papers*, 11 (3): 1-23.
- Taylor, J. 1993a. *The Relative Economic Status of Indigenous Australians, 1986-1991*, CAEPR Monograph No. 5, Centre for Aboriginal Economic Policy Research, Australian National University, Canberra.
- Taylor, J. 1993b. *Regional Change in the Economic Status of Indigenous Australians, 1986-1991*, CAEPR Monograph No. 6, Centre for Aboriginal Economic Policy Research, Australian National University, Canberra.
- Tesfaghiorghis, H. 1991a. 'Geographic variations in the economic status of Aboriginal people: a preliminary investigation', *CAEPR Discussion Paper No. 2*, Centre for Aboriginal Economic Policy Research, Australian National University, Canberra.

Tesfaghiorghis, H. 1991b. 'Aboriginal economic status by ATSIC regions: analyses of 1986 Census data', *CAEPR Discussion Paper No. 11*, Centre for Aboriginal Economic Policy Research, Australian National University, Canberra.

Treadgold, M.L. 1988. 'Intercensal change in Aboriginal incomes, 1976-1986', *Australian Bulletin of Labour*, 14 (4): 592-609.

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