



The Job Still Ahead:

**Economic costs of
continuing Indigenous
employment disparity**



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Contents

	Page
Executive Summary	4-8
The job still ahead:	
Economic costs of continuing Indigenous employment disparity	9
Future size of the working age population	10
Likely implications for future labour force status	12
Projecting labour force status	16
Future employment requirements	19
Cost to government of continued employment disparity	23
Income requirements	26
Policy implications	28
Notes	30
References	30

Monitoring change in Indigenous economic status

There is now a substantial literature detailing the relatively low economic status of Indigenous Australians and examining underlying causes over the past 30 years (Altman and Nieuwenhuysen 1979; Fisk 1985; Miller 1985; Altman 1991; Taylor 1993; Daly 1995; Taylor and Altman 1997). Viewed collectively, these analyses reveal the continuing economic plight of Indigenous peoples.

Also revealed, however, are labour market trends that run counter, at times, to the economic cycle. This is due, in part, to the emergence and substantial growth of the Community Development Employment Projects (CDEP) scheme which operates increasingly as an employment program. It also reflects the consolidation of a distinct Indigenous segment in the labour market which has emerged with the growth of activities aimed at servicing the Indigenous population.

Another common thread relates to the underlying determinants of poor employment outcomes. These have remained focused around the themes of locational disadvantage, poor human capital endowments and the historic legacy of exclusion from the mainstream provisions of the Australian state. Also related is the fact that the structural circumstances facing Indigenous communities, and policy makers, as they attempt to raise living standards have become increasingly diverse and locationally dispersed. This, in turn, leads to variable constraints and opportunities for economic development.

Above all, however, a fundamental problem has been the failure of job growth to keep up with growth in the population of working age. On a conceptual level, 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 steadily increase (Gray 1997; ABS 1998c). At a time of growing pressures for targeted service delivery that is cost-effective and based on demonstrated need, this prospect of an ever-expanding population requires careful consideration.

Future size of the working-age population

Projections based on the 1996 Census suggest that, at the very least, the Indigenous population is likely to increase from an estimated 386,000 in 1996 to 469,100 by 2006 at an annual rate of growth of 2 per cent. This is twice the rate of growth projected for the rest of the population. There are also anticipated changes in age structure into the new millennium. Unlike the general population, for whom the consequences of population ageing will be increasingly apposite, the ascendant issues for Indigenous social policy will derive more from needs in the school-to-work transition years and in the prime working age group. It is conservatively estimated that the number of Indigenous adults will be greater by 64,800, or 28 per cent, in 2006. This is substantially above the projected increase in the rest of the adult population, which is only 12 per cent.

Implications for future labour force status

In the first half of the 1990s, growth in Indigenous mainstream (non-CDEP) employment was equivalent to that recorded for the population as a whole at 1.3 per cent per annum. On the assumption that Indigenous mainstream employment growth will continue

to match employment growth generally, and that the labour force participation rate for Indigenous people will also remain constant (as it has during the 1990s), then the following labour market outcomes are anticipated:

- the mainstream employment/population ratio for Indigenous people will decline from its already low level of 30.8 per cent in 1996 to 27.4 per cent in 2006. This means that barely one quarter of Indigenous adults will be in mainstream employment. By comparison, the proportion of non-Indigenous adults in mainstream employment is assumed to remain static at around 55 per cent, and
- in the absence of CDEP scheme work, the unemployment rate for Indigenous people will rise from 41 per cent of the labour force to 48 per cent by 2006. For non-Indigenous Australians, the unemployment rate is assumed to remain around the 1996 level of 8.5 per cent.

Of course, the official recorded level of Indigenous employment has been increasingly augmented over the past 20 years by individuals participating in the CDEP scheme. In 1996, one-fifth of all Indigenous workers were engaged in such schemes and it is expected that this proportion will increase further. The official level of Indigenous employment thus grew during the 1990s at 3 per cent per annum, which was twice the rate recorded for all other Australians. If these relativities were to continue, then:

- the employment/population ratio for Indigenous people will still decline but from the higher official level of 39 per cent in 1996 to 38 per cent in 2006. This is because employment growth will still lag behind population growth. Thus, by counting CDEP scheme participants as employed, the proportion of Indigenous adults in work will remain at just over one-third, and

- the unemployment rate for Indigenous people will remain essentially unchanged rising only slightly from its lower official level of 26 per cent of the labour force in 1996 to 28 per cent by 2006.

The policy implications of these projections are two-fold. First, without the contribution from CDEP scheme employment, labour force statistics for Indigenous Australians would be in order of magnitude, far worse. Second, even with relatively high growth in employment, which allows for an expansion in CDEP scheme work, the employment rate will continue to fall and unemployment will not improve due to sustained growth in labour supply. Thus, simply to prevent Indigenous labour force status from slipping further behind it will be necessary to maintain a commitment to special employment programs as well as to generate additional outcomes in the mainstream labour market. However, to move beyond this, and attempt to close the gap between Indigenous and other Australians, will require an absolute and relative expansion in Indigenous employment that is without precedent. The job requirements to achieve these scenarios are outlined below.

Future employment requirements

The enormity of the policy challenge identified by previous analysis (Taylor and Altman 1997) in meeting the requirements of Indigenous people for gainful employment is undiminished by these new estimates of current and projected job deficits.

Just to maintain the status quo (an employment rate of 39 per cent and an unemployment rate of 26 per cent) would require 25,000 extra jobs by the year 2006, whereas on current trends only 21,000 are expected to be created. To achieve employment equality with the rest of the

Australian population, an additional 77,000 Indigenous people would have to be employed resulting in an overall deficit of some 55,000 jobs. If the focus is on mainstream job requirements, excluding opportunities provided by the CDEP scheme, then the backlog in the number of jobs needed is projected to be much larger and greater than the number presently employed.

Other scenarios explore the prospects for full-time employment. An on-going issue in the attempt to raise Indigenous living standards is the fact that relatively few Indigenous workers are employed full time (60 per cent compared to 72 per cent of non-Indigenous workers) with the consequent flow-on in terms of lower incomes. While the creation of new full-time employment opportunities is increasingly scarce in the Australian labour market, it is nonetheless the case that the number of Indigenous people in full-time work would have to more than double by 2006 in order to match the current national average. Simply to remain at the present lower level of engagement will also require an additional 1,500 full-time positions each year in the face of growing labour supply.

Income requirements

Poor employment outcomes generate poor economic outcomes which are most clearly summarised by data on income status. In 1996, the overall average income for Indigenous people was \$14,200 which was 30 per cent less than the average of \$21,100 for the total population. While this is partly due to the relatively low Indigenous employment/population ratio and the greater dependence of Indigenous people on government spending, it also reflects their overall lower occupational status. For example, the average income for Indigenous people in full-time non-CDEP scheme employment in NATSIS was \$27,300. This was 13 per cent below the average

income for all full-time employed people. If the income of all employed Indigenous people is considered, then average income falls to \$21,142 which is 24 per cent lower than the average income of all non-Indigenous employees.

These income gaps are even more stark given that Indigenous people have high levels of welfare dependence, rely heavily on the CDEP scheme for employment generation, experience low occupational status and are concentrated in part-time jobs. In aggregate terms it is estimated that Indigenous incomes would have to increase by \$1.6 billion (in 1996 dollars) to achieve income equality.

Costs to government of continued employment disparity

Policy options for addressing projected Indigenous employment disparities are not cost neutral. For example, because more than half of Indigenous adults are not in employment and one-quarter of those in the labour force are unemployed, there are two major costs to government:

- the direct cost of meeting the basic income support of those who want to work but cannot find jobs in mainstream employment, and
- the cost of tax revenue foregone.

With regard to the first of these, it is estimated that the current income support payments for the 'potential' Indigenous workforce (including the CDEP scheme) amount to \$0.8 billion per annum in 1996 dollars. By 2001 this is estimated to increase in real terms to \$1.0 billion and by 2006 to over \$1.1 billion per annum. The indirect costs of long-term economic marginalisation and associated social problems are difficult to estimate but will undoubtedly increase in proportion with the growing job deficit.

The imperative, therefore, is to shift the burden for meeting the basic needs of Indigenous people in the longer term from government to the people themselves. Rather than find jobs for all Indigenous people who want to work, a more reasonable goal is to establish parity in labour force status with other Australians. If Indigenous unemployment was reduced to the same level as that commensurate with the rest of the population, and assuming that this latter rate remained constant, then the savings to government in payments to the unemployed, in 1996 dollars, would be around \$193 million by the year 2001 and \$274 million by 2006 with unemployment bills of \$112 and \$126 million respectively.

On the credit side, the tax return of achieving parity in labour force status would approximate \$177 million by 2006. However, by shifting all Indigenous people who want to work from welfare dependence to unsubsidised employment would increase tax revenue by \$250 million (in 1996 dollars). Furthermore, this would enhance national production and provide large social policy returns in areas such as health and housing.

Policy Implications

A key finding from this update of the *The Job Ahead*, is that the conclusions from the previous analysis regarding the size of policy target groups, the magnitude of employment deficits, both present and projected, and the need for sustained improvement in employment outcomes simply to prevent an already poor situation becoming worse, are all essentially unchanged. Also unaltered is an estimation that the opportunity cost of business as usual would be huge with both social and economic consequences for Indigenous people, governments and the community at large. Against key indicators of economic status, it is clear that the time

available for decisive action is decreasing rapidly. In terms of employment status, for example, the vital issue for Indigenous policy into the new millennium is the distinct prospect that the overall situation will deteriorate. This is primarily because of population growth, but also because of the enormous difficulties of economic catch-up in a rapidly changing and skills-based labour market.

It is important to recognise that policy options for addressing projected Indigenous employment disparities are not easy to prescribe, nor are they cost neutral. To withdraw expenditure is simply to hasten deterioration with a rise in associated social and economic burden. To continue business as usual is clearly insufficient in the face of population growth. To enhance spending and program effort would clearly buck the fiscal trend but with the possibility, ultimately, of social and economic return. At the very least, in benchmarking spending on Indigenous economic policy there is a need to take into account the fact of relatively high population growth.

In terms of target groups within the Indigenous population, just over one-third of adults can be said to currently depend on some form of government support to prop up their presence in the labour force or to sustain those discouraged from participation. NATSIS data show that Indigenous people want to work as much as other Australians. If all the people who want to work are included in the workforce, then the Indigenous participation rate would be 67 per cent, about 15 per cent more than are currently looking for work. This means that almost one-sixth of the Indigenous population are discouraged from seeking employment. It is imperative that policy attempts to address all the employment needs of the current, potential and future Indigenous labour force.

As for labour market assistance, it seems safe to assume that those participating in the CDEP scheme are there for sound structural reasons, such as lack of local labour markets and adequate skills. With regard to other forms of labour market assistance, recent policy developments are likely to have substantial bearing on future employment outcomes for Indigenous people, but this is difficult to gauge at present.

The main issue here arises from the dismantling and restructuring of government employment assistance with the introduction of market-driven employment services under the Commonwealth's new 'Job Network'. Within this arrangement, intensive assistance is available to job seekers who encounter the greatest employment placement difficulty. A Job Seeker Classification Instrument (JSCI) forms the basis of assessing client assistance needs and within this Aboriginal and Torres Strait Islander status assumes considerable weighting, as do many other characteristics that are likely to be associated with Indigenous people, such as duration of unemployment and low educational status. Given the importance of program support in generating Indigenous employment in the past, there is clearly a need to closely monitor progress. Accordingly, the creation of the Job Network raises a number of pressing questions for Indigenous clients regarding access to the Network, the role of specialised and mainstream services and eventual employment outcomes.

In terms of measuring outcomes, the main drawback here seems to be over-reliance on the census as the main source of vital information regarding the economic circumstances of Indigenous people as this is increasingly unable to provide a longitudinal perspective for a population that is self-identified. With governments committed to benchmarking and the achievement of enhanced outcomes for Indigenous people the question of how outcomes will be measured is looming as a key issue (Council for Aboriginal Reconciliation/Centre for Aboriginal Economic Policy Research 1998). Apart from the census, there has rarely been an adequate vehicle for answering some of the most basic questions of public policy concern such as, how many Indigenous people are employed? where? in what occupations? what qualifications do they have? how much do they earn? More importantly, the longitudinal question of how individuals are faring over time has been largely left to drift.

Leaving aside these complexities of data collection, a key policy question, that can still be addressed from cross-sectional examination of census data, is whether the relative economic status of Indigenous people is likely to appear any better when the next census results are available in 2002 and 2007. All other things being equal, results from the present analysis of likely future employment and income status suggest that it will not.

The Job Still Ahead: Economic Costs of Continuing Indigenous Employment Disparity

In 1997, ATSIAC commissioned a report, *The Job Ahead*, by the Centre for Aboriginal Economic Policy Research (CAEPR) on the escalating costs of Indigenous employment disparity (Taylor and Altman 1997). This comprised a series of estimates of employment and unemployment rates to the year 2006 together with estimates of the number of additional jobs required in order to achieve particular targets in labour force status. The projections of the working-age population in that report were based on 1991 Census data while employment trends covered the period from the 1986 Census to the 1994 National Aboriginal and Torres Strait Islander Survey (NATSIS) (Australian Bureau of Statistics [ABS]/CAEPR 1996). Following the release of 1996 Census data and the subsequent upward revision of population projections, these estimates of future employment numbers and job needs can now be updated.

Indigenous economic status: the need for benchmarking

The need for such analysis of economic policy impacts derives from the inadequacy of data and a mismatch between political and statistical cycles. As far as data inadequacy is concerned, this is underlined by an almost total reliance on the five-yearly census for basic information on labour force status and other economic indicators. As for lack of timeliness, this is epitomised by the fact that 1996 Census results are unlikely to reflect the current labour force status of Indigenous people as these data refer to the period prior to fiscal tightening announced in the 1996–97

Commonwealth budget as well as to recent reforms in workplace relations and employment services. Furthermore, in the absence of regular and statistically reliable data on Indigenous people from the ABS Household Survey Program, and with the decision not to proceed with a follow-up to the 1994 NATSIS, the August 2001 Census will provide the first opportunity to collect comprehensive information on the socioeconomic status of Indigenous Australians, and published outputs from that census will not be available until 2002. In short, there is a danger that the community at large will not be informed about the positive or negative impacts of new policy directions until their effects are endemic.

This inability to adequately benchmark change in Indigenous socioeconomic status under the present constraints of data inadequacy has been acknowledged in regard to all aspects of government services to Indigenous Australians (Council for Aboriginal Reconciliation/CAEPR 1998). One consequence has been a tendency for policy development to be reactive to change with responses to social and economic needs established *ex-post-facto* as they become known. Rather than waiting in this way for the effects of policy and free-market forces to show up as changes in social indicators, a more proactive approach in the face of information gaps is to attempt to forecast outcomes in socioeconomic status, at least in terms of establishing the likely future parameters that decision makers will have to consider.

A key dynamic in such an exercise is the fact of rapid Indigenous population growth. The Indigenous population is currently expanding at a rate more than twice that of the total population, with an average annual rate of growth of around 2 per cent compared to 1 per cent for the rest of the population (ABS 1998a, 1998b). At the same time, the

Indigenous age structure is shifting with an increasing emphasis on persons of working age.

One policy issue directly affected by this population growth and change in age structure relates to employment prospects for Indigenous people. This is dealt with in the first part of the paper. In labour market terms, one consequence is an ever-increasing number of young Indigenous adults who are entering the transition phase from school to work, a process that will continue well into the new millennium.

In the past, the Community Development Employment Projects (CDEP) scheme has helped to absorb much of this expanded labour supply, while a buoyant Indigenous community sector and the Commonwealth and State public sectors have also provided employment opportunities. As a consequence of fiscal tightening in the community sector, and because of public sector downsizing and restrictions on growth in the CDEP scheme, the medium-term capacity for public subvention of additional employment growth appears diminished. In the current and foreseeable economic climate, the emphasis in the search for expanding Indigenous employment opportunities has, by default, shifted firmly onto the private sector as well as various options for developing Indigenous businesses and entrepreneurship.

Also related to the current and future labour force status of Indigenous Australians is the social and economic cost to government, and society, of supporting individuals who are unemployed, participants in the CDEP scheme, or not in the labour force. This may be set against the social and economic returns from gainful employment. While sophisticated and theoretically-grounded social rates of return to public expenditure can be calculated (Daly and Liu 1995; Junankar and Liu 1996), a more straightforward approach is to

establish a simple balance sheet of financial costs to government drawn from data on fiscal flows. Thus, in the second part of the paper, a trade-off is conceptualised between the cost to the Department of Social Security (DSS) of supporting unemployed people and those discouraged from seeking work, as well as the cost to the Aboriginal and Torres Strait Islander Commission (ATSIC) of supporting CDEP scheme participants, set against the net benefit of shifting from non-employment to employment income with associated savings in welfare expenditure and an increase in the tax base.

Future size of the working-age population

Apart from the need to reassess labour force status using the most recently available information, one reason to update these estimates of future employment deficits is the fact of much higher than expected Indigenous population growth during the 1990s. At the 1996 Census, a total of 352,970 individuals self-identified as Indigenous Australian. This represented an increase of 87,599 or 33 per cent since 1991. Subsequent release by the ABS of population estimates, which adjust the census count for error, produced an estimated resident population (ERP) in 1996 of 386,049 (ABS 1998c: 10). The population projections used in this report commence from this new base with substantial upward revision of previous estimates. Obviously, in light of this adjustment, there is an urgent requirement to establish the implications for employment benchmarks.

The data used here to estimate the future size of the Indigenous working-age population are derived from 'low-series' experimental projections produced by the ABS for the period 1996 to 2006 (ABS 1998a). These low series projections are based on the following assumptions:

- an annual decline of 1 per cent in the fertility rates of Indigenous mothers combined with constant Indigenous male paternity rates representing births of Indigenous children to non-Indigenous mothers;
- constant mortality levels as per life tables generated for the 1991-96 period;
- nil overseas migration with zero arrivals and departures; and
- no change in the propensity of individuals to identify as Indigenous Australian in official statistics. In other words, the Indigenous population is assumed to be closed and affected only by natural increase.

It should be noted that this last assumption produces population estimates at the lower end of expectation given the recent experience of a large non-biological intercensal increase in the Indigenous population (Gray 1997).

Accordingly, the low series projections assume an average annual growth rate of 2 per cent compared to alternative high series projections which are based on a 5.3 per cent annual growth rate (ABS 1998a). To this extent, the low series projections are conservative, but more reliable. Nonetheless, only the first part of the projection period (to 2001) should be considered a forecast with the second half representing no more than a scenario drawn from possible trends. The results of the projection are summarised in Table 1.

Table 1
Projected distribution of the Indigenous population by broad age group, 1991-2006

Age group	1991	1996	2001	2006
Numerical distribution				
<15	137,282	154,389	164,895	172,714
15+	208,099	231,660	262,199	296,421
Total	345,381	386,049	427,094	469,135
Index of growth (1991=100)				
<15	100	112	120	126
15+	100	111	126	142
Total	100	112	124	136
Per cent distribution				
<15	39.7	39.9	38.6	36.8
15+	60.3	60.1	61.4	63.2
Total	100.0	100.0	100.0	100.0

Source: ABS (1998a, 1998c).

Table 1. reveals a rise in the Indigenous population from 386,049 in 1996 to 469,135 by the year 2006 - a total increase of 83,086 (21.5 per cent). From a policy perspective, the most important demographic shift derives from expected changes in the age distribution. The most striking feature is the significant increase in the population of working age. Between 1996 and the middle of the next decade, it is estimated that around 64,760 persons will be added to the working-age population representing an increase of 28 per cent for this group. This is much higher than the projected increase of 11.6 per cent for the total adult population (ABS 1998b). As a consequence, the proportion of the Indigenous population over the age of 15 years is expected to rise from 60.1 per cent to 63.1 per cent of the total population.

Likely implications for future labour force status

Against this backdrop of projected increases in the working-age population, it is possible to estimate likely future outcomes in labour force status by extrapolating from recent trends in Indigenous employment levels and labour force participation. The first step in this estimation process, then, is to establish these recent trends.

Recent change in Indigenous labour force status

The overall employment rate recorded for Indigenous people by the Census (including those in the CDEP scheme) was distinctly higher in 1996 (41 per cent) compared to 1991 (37 per cent). While the employment rate for the non-Indigenous population was also higher, the gap between Indigenous and non-Indigenous rates recorded by the census narrowed as indicated by a rise in the ratio of rates for the two populations from 0.66 in 1991 to 0.72 in 1996 (Table 1).

Despite this, the key feature of Indigenous employment status is the fact that it remains substantially below the national average and is still below three-quarters 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 a substantially higher employment rate, the census-derived Indigenous unemployment rate was much lower in 1996, at 23 per cent, compared to 31 per cent in 1991 (Table 2). However, the non-Indigenous unemployment rate was also lower in 1996 (9 per cent compared to 11 per cent). As a consequence, the unemployment rate among Indigenous people showed relative improvement but remains at two and a half times the level recorded for non-Indigenous adults.

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 national average. The 1996 Census indicates that this is still the case (Table 2). In effect, around half of all Indigenous people of working age were neither working nor actively seeking work, compared to roughly one-third of all other adults.

Interpreting Indigenous employment change, 1991-96

On the face of it, results from the 1996 Census regarding Indigenous employment suggest a good news story—an increase of 25,419 people in work, constituting an apparent growth of 44 per cent since 1991 (around 9 per cent per annum). This rate of growth occurred at a time when the overall number of

Table 2
Labour force status of Indigenous and non-Indigenous Australians, 1991 and 1996

	Indigenous		Non-Indigenous	
	1991 (1)	1996 (1)	1991 (2)	1996 (2)
Employment rate	37.0	40.7	55.8	56.4
Unemployment rate	30.8	22.7	11.4	9.0
Participation rate	53.5	52.7	63.2	62.0
Ratios (1/2)				
Employment rate	0.66	0.72		
Unemployment rate	2.70	2.50		
Participation rate	0.84	0.85		

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

Australians in employment increased by only 1.2 per cent per annum. However, the ABS has advised a degree of caution when interpreting apparent change to Indigenous census characteristics. This is because of the substantial increase in population numbers that occurred between 1991 and 1996 beyond that accounted for by natural causes. Put simply, half of the intercensal growth in population was due to individuals who were recorded in the 1996 Census count as Indigenous Australian but not in the 1991 Census count (Gray 1997: 13). What is not clear, as a consequence, is whether any aggregate change observed in population characteristics over this period involves an alteration in the circumstances of the original (1991) population.

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 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' (Hunter 1998), for characteristics that are variable over time, such as employment status, this is simply not possible.

However, one correction to employment change data that can and should be made, is to establish a more realistic employment trend. This is done, first by aligning Indigenous employment numbers at each census with revised estimates of the working-age population, and then by establishing the contribution made to employment growth by participation in the CDEP scheme. This latter step 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.

Reconstructing the 1991 population

The first step in establishing an appropriate intercensal employment growth rate is to adjust the 1991 population level so that it aligns with that recorded in 1996.

This is based on an assumption that the 1996 Census-derived Indigenous population is 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 economic indicators, 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 is through reverse survival and this is applied by the ABS to generate new estimates of the 1991 population (ABS 1998c).

As indicated in Table 3, this procedure raises the 1991 working-age population from the 159,712 revealed in the census count to an estimate of 208,099. Thus, the estimated increase in the Indigenous working-age

population over the intercensal period was only 23,561, or 11.3 per cent, though this was still substantially above the estimated growth of 6.5 per cent recorded for the non-Indigenous adult population.

From a policy perspective, the key implication of this relatively higher Indigenous population growth is that the rate of 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 Indigenous employment growth could be relatively high, but still have little appreciable impact on labour force status.

Revising employment change

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. This assumes that the age-specific employment rate for the revised 1991 population is the same as that for the observed population. Thus, as shown in Table 4, employment in 1991 rises from the census count figure of 56,895 to an estimated 78,218. Likewise, the 1996 Census employment figure of 82,314 is adjusted to align with the 1996 ERP. This produces an

Table 3
Estimated population aged 15 years and over: Indigenous and non-Indigenous people, 1991 and 1996

	1991		1996
	Census count	Estimate from reverse survival	Estimated Population
Population aged 15+	159,712	208,099	231,660

Source: ABS 1998c: 9-10.

Table 4
Estimated Indigenous employment in 1991 and 1996

	1991		1996
	Census count	Estimate from reverse survival	ERP
Population aged 15+	159,712	208,099	231,660
Employed	56,895	78,218	90,212

estimate of employment in 1996 of 90,212. Using the adjusted estimate of 1991 employment as the new base, the intercensal increase in Indigenous employment is revised to 11,994, representing an increase of 15 per cent. This is a much lower (and more realistic) rate of growth than the 44 per cent increase obtained from a direct comparison of 1991 and 1996 Census employment figures. It is also twice the rate of growth recorded for the non-Indigenous population. However, a proportion of this job growth for Indigenous people can be accounted for by program intervention and this contribution has also to be estimated to achieve a more meaningful comparison.

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 of their labour force status in the census. For the purposes of this analysis, the main program influence considered is that derived from participation in the CDEP scheme.

The fact that Indigenous people have relied heavily on government program support for employment creation is well documented

(Commonwealth of Australia 1994; Sanders 1993; Taylor and Hunter 1996; 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 job of any kind in the week prior to enumeration.

As far as employment via the CDEP scheme is concerned, this cannot be fully established from census data as information on employment in the scheme was only sought in remote areas where Special Indigenous Census Forms (SIFs) were utilised. At the same time, some CDEP scheme employment in non-remote areas was recorded by the census using the standard census form.

Because census-recorded employment in the scheme was incomplete, the overall level has to be estimated. This is done by combining census-based data reported for remote areas of the Northern Territory, Western Australia and Queensland with estimates of the proportion of CDEP scheme participants in all other areas who were likely to have been employed at census-time. This is derived from administrative data. One formula for this estimation is available from the 1993 Review of the scheme which indicated that only 60 per cent of scheme participants were involved in employment at any given time (Deloitte Touche Tohmatsu 1993: 51). This ratio is

applied to participant numbers in remote northern parts of South Australia where the 1996 Census enumeration was incomplete. In the remainder of South Australia, and in New South Wales and Victoria, a ratio of 80 per cent of scheme participants is assumed on advice from ATSIC that non-working participants are less prevalent in urban-based schemes.

In total, then, out of 28,326 scheme participants reported nationally at the time of the 1996 Census, 18,656 (65 per cent) are estimated to have been employed using a combination of census and administrative data. This compares to an estimate drawn solely from administrative data of 11,083 in 1991 (Table 5). By subtracting these 1991 and 1996 estimates of CDEP scheme employment from total employment in each year, an estimate of non-CDEP scheme, or mainstream, employment is derived (Table 5). This is shown to have risen by 6.6 per cent (1.3 per cent per annum) from 67,135 to 71,556. With growth in the estimated working-age population at 2.3 per cent per annum, this meant that mainstream employment growth lagged behind population growth with the result that the mainstream

employment/population ratio fell slightly from 32.3 to 30.9. These results underline the steadily growing importance of the CDEP scheme in terms of artificially holding up employment levels. At the time of the 1991 Census, a total of 18,473 participants were recorded in 165 CDEP schemes. By 1996, these figures had risen to 28,326 participants in 274 schemes.

Projecting labour force status, 1996-2006

The key to projecting labour force status is to first establish estimates of the future size of the Indigenous labour force. This is done by assuming that the labour force participation rate remains at the level recorded by the 1996 Census which is the most recent indicator of Indigenous labour supply. Some empirical basis for this assumption exists in the fact that the Indigenous participation was unchanged at 53 per cent in 1991 and 1996. Using ABS projections of the Indigenous working-age population to 2006, age-specific participation rates from the 1996 Census may then be applied to derive estimates of labour force numbers. The results of these calculations are shown in Table 6.

Table 5
Estimate of mainstream Indigenous employment change, 1991-1996

	1991 Census	1996 Census	Net change	Per cent change
Employed	78,218	90,212	11,994	15.3
Population aged 15+	208,099	231,660	23,561	11.3
Employment/population ratio	37.6	38.9	1.3	0.3
CDEP employment	11,083	18,656	7,573	68.3
Non-CDEP employment	67,135	71,556	4,421	6.6
Mainstream employment/population ratio	32.3	30.8	-2.4	-4.6

Table 6
Projected estimates of Indigenous employment, labour force and working age population, 1996-2006

	Mainstream employment ^a	CDEP employment ^b	Total employment	Labour force ^c	Pop 15+
1996	71,556	18,656	90,212	122,084	231,660
1997	72,486	19,974	92,460	125,101	237,385
1998	73,429	21,228	94,657	128,380	243,606
1999	74,383	27,028	101,411	131,638	249,789
2000	75,350	27,486	102,836	134,738	255,670
2001	76,330	27,944	104,274	138,178	262,199
2002	77,322	28,402	105,724	141,462	268,429
2003	78,327	28,860	107,187	144,892	274,939
2004	79,345	29,318	108,663	148,477	281,741
2005	80,377	29,776	110,153	152,274	288,946
2006	81,422	30,234	111,656	156,213	296,421

- a. Mainstream based on continuation of 1991-96 non-CDEP employment growth of 1.3 per cent per annum.
b. Based on an assumption that CDEP participants increase by natural growth of 550 per annum after 1997. Also, that the ratio of scheme participants who are working increases to 80 per cent in remote areas and 90 per cent elsewhere after 1998.
c. Labour force based on maintaining Labour Force Participation Rate at the 1996 level (52.7 per cent).

As for estimating the numbers in employment, separate calculations are made for mainstream employment and CDEP scheme employment using different assumptions. For mainstream employment, it is assumed that this will continue to expand at the rate observed between 1991 and 1996 of 1.3 per cent per annum. While current prognoses for growth in the labour market do not suggest any likely change in this situation in the medium term (Commonwealth of Australia 1998a: 2-5), this assumption is inevitably derived against a background of uncertainty.

Since the 1996 Census, there have been considerable shifts in various aspects of

Indigenous affairs policy that are likely to have impacted on employment outcomes, but the effect of these remains largely unknown. Following years of fiscal expansion in the Indigenous affairs portfolio with an associated rise in employment attached to program spending, there is now a shift in orientation towards the private sector as the primary source of future employment growth. This trend appears inevitable given the downsizing of public sector opportunities generally together with 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. However, just what effect these new arrangements will have on employment outcomes for Indigenous people remains to be seen.

In projecting CDEP scheme employment, greater precision is enabled by the fact that policy and financial constraints provide the parameters for growth. On the basis of current planning for the scheme, it is assumed that the number of participants will continue to expand beyond 1996 by 550 participants per annum, as per the provisions in the 1996–97 Commonwealth budget for natural (administrative) increase in existing schemes.

However, as non-working scheme participants exit the scheme over financial year 1998–99, it is assumed that they will be replaced by working participants at the ratio of 80/20 in remote areas and 90/10 in urban areas.

Table 6 indicates that the number of employed CDEP scheme participants is expected to rise from almost 19,000 in 1996 to over 30,000 by 2006 based on the assumption of continued natural growth and displacement of non-working participants. Assuming that mainstream employment continues to grow at the rate observed in the first half of the 1990s, this increases from 71,500 in 1996 to 81,400 in 2006. Accordingly, total employment is

Table 7
Estimated Indigenous employment/population ratios and unemployment rates, 1996-2006^a

	Employment/population ratios		Unemployment rates	
	Total employment ^b	Non-CDEP employment	CDEP counted as employed	CDEP counted as unemployed
1996	38.9	30.8	26.1	41.4
1997	38.9	30.5	26.1	42.0
1998	38.8	30.1	26.2	42.8
1999	40.6	29.7	22.9	43.4
2000	40.2	29.4	23.6	44.1
2001	39.8	29.1	24.5	44.7
2002	39.4	28.8	25.2	45.3
2003	39.0	28.4	26.0	46.0
2004	38.6	28.1	26.8	46.6
2005	38.1	27.8	27.7	47.2
2006	37.7	27.4	28.5	47.9

a. Estimates based on post-1996 Census population estimates and projections as shown in Table 6.

b. Includes those employed in the CDEP scheme. All of the estimates are based on the data in Table 6. Unemployment rates express the unemployed as a percentage of the labour force.

estimated to rise from 90,200 to around 111,660.

In Table 7, projected changes in employment numbers are converted to employment/population ratios and unemployment rates. Because the rate of employment growth is anticipated to be slower than population growth, the overall employment rate is expected to fall from 39 to 37 per cent over the projection period. Assuming no change in the labour force participation rate, the reverse side of this equation will see unemployment numbers rise from an estimated 31,870 in 1996 to 44,558 by 2006 with a consequent increase in the unemployment rate from 26 per cent of those in the labour force to over 28 per cent.

These projections point to a lack of progress, if not a worsening, in the labour force status of Indigenous adults. However, it should be noted that they are based on the inclusion of working CDEP scheme participants in the estimates of persons employed. If these CDEP scheme workers were excluded, and instead counted as unemployed (on account of the notional link between CDEP wages and Newstart/Job Search Allowance), then predicted labour market outcomes for Indigenous people would become far worse with an employment rate of 31 per cent expected to fall to 27 per cent, and an unemployment rate of 41 per cent rising to 48 per cent.

It is worth recalling that the equivalent rates for the rest of the Australian population are presently around 55 per cent for employment and 8 per cent for unemployment and on past experience, and present Budget forecasts, these are likely to remain relatively unchanged (Commonwealth of Australia 1998a: 2-5). The medium-term prognosis, then, all other things being equal, is for a substantial worsening of the overall labour force status of Indigenous people both relatively and absolutely.

Future employment requirements

Set against the background of an expanding working-age population, several attempts have been made in the past to estimate the number of additional jobs required to meet various employment/population ratio targets (Australian Government 1987; Gray and Tesfaghiorghis 1991; Altman and Gaminiratne 1993; Taylor and Altman 1997). The present exercise is essentially no different from these, except that it revises previous employment rates and numbers in light of the latest data from the 1996 Census. Using these projections to the year 2006, it is possible to re-calculate the number of jobs required for Indigenous people to maintain the status quo in employment status or achieve an equivalent rate of employment to the non-Indigenous population.

As indicated in Table 5, the 1996 employment/population ratio for Indigenous people is estimated at 38.9. This was substantially below the ratio of 56.4 recorded by the Census for all other Australians. Assuming that the estimated base Indigenous employment of 90,212 persons is not eroded in future, and that the non-Indigenous employment/population ratio also remains constant, two sets of estimated employment requirements are provided for in Table 8:

- a minimalist scenario which indicates the numbers required simply to maintain the Indigenous employment/population ratio at its 1996 level, and
- the numbers required to achieve an employment rate equivalent to that of the rest of the population.

Because of growth in the population of working age, an additional 25,000 jobs will be required by the year 2006 just to maintain the rate of Indigenous employment at the 1996 level. This means that by the middle of the

Table 8
**Required Indigenous employment growth to maintain the status quo
or to achieve employment equality, 1996-2006**

Employment/ population ratio	Base employment 1996 ^a	Total jobs required by 2006	New jobs required	New jobs projected ^b	Projected jobs deficit by 2006
38.9 ^c	90,212	115,307	25,095	21,444	3,651
56.4 ^d	90,212	167,181	76,969	21,444	55,525

- a. *The estimated number of Indigenous Australians in employment in 1996.*
b. *From Table 6.*
c. *The estimated employment/population ratio for Indigenous Australians based on 1996 population estimates.*
d. *The employment/population ratio for non-Indigenous Australians from the 1996 Census.*

next decade, the Indigenous workforce will need to have increased by more than one-quarter of its estimated present size to avoid any decline in the already low employment level.

However, to achieve employment equality between Indigenous and non-Indigenous Australians by the middle of the next decade will require many more new jobs. By the year 2006, a total of 77,000 additional jobs will be required, an increase almost equivalent to the current size of the workforce. In annual terms, this translates into more than 7,000 new jobs per annum which is substantially greater than the 2,400 new jobs estimated to have been created each year in the first half of the 1990s. Given current trends in employment growth, the projected shortfall in jobs for Indigenous people, using non-Indigenous employment levels as a benchmark, is around 55,000. Given the scale of this jobs deficit, it should be noted that these employment outcomes represent a best case scenario as they include CDEP scheme participants.

Mainstream employment requirements

To the extent that employment generated by the CDEP scheme is dependent upon

continued government financial and administrative support, it is of policy interest to estimate non-program driven mainstream employment requirements. This is done by removing those in CDEP scheme jobs from the estimate of those employed. Given data constraints, this provides the best estimate available of mainstream employment. For example, at the 1996 Census, some 6,000 Indigenous people are estimated to have been recorded as employed because they were participants in wage subsidy labour market programs established by the former Labor Government as part of the *Working Nation* initiatives (Taylor and Bell 1998). However, since the dismantling of these initiatives and the related privatisation of employment services under the new Job Network, it has not been possible to re-calibrate the effect of such participation on Indigenous employment statistics. For this reason mainstream employment is defined here as inclusive of any such impact.

By excluding CDEP scheme employees from total employment in 1996, the number of Indigenous people in mainstream employment is estimated at 71,556. This produces a mainstream employment/population ratio of 30.8 (Table 9) which compares to an

Table 9
Required Indigenous mainstream employment growth to maintain the status quo or to achieve employment equality, 1996-2006

Employment/ population ratio	Base employment 1996 ^a	Total jobs required by 2006	New jobs required	New jobs projected ^b	Projected jobs deficit by 2006
38.9 ^c	71,556	91,297	19,741	9,866	9,875
56.4 ^d	71,556	167,181	76,969	9,866	67,103

- a. The estimated number of Indigenous Australians in mainstream employment in 1996.
b. From Table 6.
c. The estimated mainstream employment/population ratio for Indigenous Australians based on 1996 population estimates.
d. The employment/population ratio for non-Indigenous Australians from the 1996 Census.

employment/population ratio for non-Indigenous people of 56.4. According to Table 7, almost 20,000 extra jobs would be required by the year 2006 simply to maintain this substantially lower rate of mainstream employment at its 1996 level. However, if the rate of growth in mainstream employment observed over the 1991-96 period continues, then only half this number of additional jobs will be created leading to a shortfall in meeting this target of almost 10,000 jobs. Movement towards employment equality by 2006 presents an even greater challenge with the number of extra jobs required almost eight

times higher than the number expected and a substantially higher jobs deficit of 67,100 anticipated.

Full-time employment requirements

An on-going issue in the attempt to raise Indigenous living standards is the fact that relatively few Indigenous workers are employed full time. Estimates based on the 1996 Census indicate a total of 55,000 full-time employees representing just over 60 per cent of total Indigenous employment. This produces a full-time employment/population

Table 10
Required Indigenous full-time employment growth to maintain the status quo or to achieve full-time employment equality, 1996-2006

Employment/ population ratio	Base employment 1996 ^a	Jobs required 2006	New jobs required	New jobs required per annum ^b
24.0 ^c	55,598	71,141	15,543	1,553
40.5 ^d	55,598	120,050	64,452	6,445

- a. The estimated number of Indigenous Australians in full-time employment in 1996.
b. Over a ten-year period.
c. The full-time employment/population ratio for Indigenous Australians from the 1996 Census.
d. The full-time employment/population ratio for non-Indigenous Australians from the 1996 Census.

ratio of only 24 per cent compared to 40 per cent for non-Indigenous adults (Table 10).

To sustain full-time employment at its 1996 level would require Indigenous people to occupy a total of 71,100 full-time positions by 2006, an increase of 15,500. This is an increasingly difficult target to meet given the rapid erosion of full-time work in the Australian labour market (Dawkins 1996). Once again, the task of approaching equality with the rest of the workforce in terms of full-time employment is much greater with the number of extra full-time positions required (64,400) greater than the current number employed.

Self employment requirements

Small business development and associated self-employment are regarded as important components of private sector economic activity and a range of government policies are aimed at promoting such activity among Indigenous people. Previous studies based on census data have shown the level of self-employment among Indigenous people to be low compared to the rest of the population but with signs that the gap has narrowed slightly over time (Daly 1995: 85–98). In 1991, almost 6 per cent of the Indigenous workforce, or

3,250 individuals, were classified as self-employed. The validity of this figure was supported by the 1994 NATSIS which estimated that some 3,500 individuals were in self-employment representing about 5 per cent of the Indigenous workforce.

The 1996 Census count of self-employed persons produced a markedly different result because of a change to the census question which sought to classify individuals according to their company status (ABS 1998d). Thus, for Australia as a whole in 1991, a total of 1,239,216 individuals were counted as employers or own account workers. In 1996, this number was halved to 637,008. A similar, though less dramatic, impact was observed on the count of Indigenous self-employed persons, which fell from 3,316 to 2,665. As a consequence the Indigenous self-employment/population ratio fell from 1.7 to 1.3 while the ratio for the non-Indigenous self-employed fell from 8.4 to 4.8. These impacts of change in census methodology need to be taken into account when considering the estimates of self-employment shown in Table 11.

Basically, because there are so few Indigenous people classified as employers or own account workers, it should not be difficult to sustain the rate of Indigenous self-employment at the

Table 11
Required Indigenous self-employment growth to maintain the status quo or to achieve self-employment equality, 1996-2006

Employment/ population ratio	Base employment 1996 ^a	Jobs required 2006	New jobs required	New jobs required per annum ^b
1.3 ^c	2,919	3,735	816	82
4.8 ^d	2,919	14,228	11,309	1,130

a. The estimated number of Indigenous Australians in self-employment in 1996.

b. Over a ten-year period.

c. The self-employment/population ratio for Indigenous Australians from the 1996 Census.

d. The self-employment/population ratio for non-Indigenous Australians from the 1996 Census.

level established by the 1996 Census with only 80 additional jobs required each year. However, to approach equality with the rest of the workforce in the level of self-employment will require the creation of ten times more jobs and a five-fold increase in the overall number of self-employed Indigenous people.

Cost to government of continued employment disparity

If social and economic conditions for Indigenous people remain the same as presently experienced then the cost to government of providing income support, welfare payments and program support to those seeking work, or who are not in the labour force but want to work, will escalate in line with the growth in working-age population. On the other hand, if Indigenous people had more and better jobs then they would be able to meet many of the basic needs that governments now provide for, from their own incomes. Furthermore, current government expenditures redistribute income between all Australians including Indigenous people with the effect of shifting part of the cost of foregone production from Indigenous people to government. Improved employment outcomes would contribute to reducing this cost.

To assess what the opportunity cost of achieving various labour market outcomes might be, a trade-off is conceptualised between the cost to DSS of supporting unemployed people set against the additional cost to ATSIIC of supporting CDEP scheme participants. Also incorporated in this assessment is the net benefit of shifting from non-employment to employment income with an associated increase in the tax base. All estimated costs and revenue are expressed in 1996 dollars and are adjusted using published Consumer Price Index (CPI) statistics and

Treasury projections of inflation (Commonwealth of Australia 1998b).

For this accounting exercise, CDEP scheme participants are considered separately from the unemployed and those not in the labour force. In 1996, a total of 28,326 CDEP scheme participants were registered with ATSIIC. This was 9,670 higher than the estimated number of CDEP scheme employees. Given that participation in the scheme is largely financed by welfare entitlement equivalents, those participants counted as not employed by the 1996 Census are assumed to have been coded as unemployed. Thus, the 1996 estimate of the unemployed is reduced by shifting 9,670 CDEP participants from unemployed status to CDEP employed.

The Indigenous participation rate of 52.7 per cent indicated by the 1996 Census is assumed to remain constant throughout the projection period. Multiplied by the population aged 15 years and over, this provides an estimate of the labour force in each year. Those not in the labour force represent the difference between the labour force and those in mainstream employment, CDEP scheme participation and unemployment. Therefore for the purposes of the following calculations, in 1996 there were 71,556 Indigenous adults in mainstream employment, 28,326 in the CDEP scheme, 22,202 unemployed and 109,576 not in the labour force (Table 6 and ATSIIC administrative data).

Assuming the same rate of growth in mainstream employment and sustained administrative growth in CDEP scheme participation at current levels, by 2001 there will be an estimated 76,330 in mainstream employment, 33,562 in the CDEP scheme, 28,286 unemployed and 124,021 not in the labour force. By 2006 there will be an estimated 81,422 in mainstream employment, 36,312 in the CDEP scheme, 38,479 unemployed and 140,208 not in the labour force.

Indicative costings

In order to estimate the future cost to government of supporting these social policy target groups, a mix of data sources are used. For the CDEP scheme, expenditure on the scheme reported by ATSIIC (1996) for the 1995–96 financial year is divided by the number of scheme participants to produce an average cost per participant of \$11,605. This number corresponds closely to the estimated annual employment income for CDEP scheme workers in NATSIS (\$11,467 in 1994–95 dollars).

A similar calculation using administrative data from the Department of Social Security is more problematic because it is difficult to allocate administration costs, accrued as a result of payments to all recipients, to the Indigenous sub-population. For example, the substantial differences in the geographic distribution of the Indigenous and non-Indigenous populations mean that the analogous calculation for social security would underestimate the average cost of supporting Indigenous recipients in remote and rural regions. In addition, the differing family structures, and therefore social security entitlements, of Indigenous and non-Indigenous households render calculations based on administrative data even more misleading.

The alternative to using administrative data in estimating the cost of changing labour force status is to use NATSIS income data. For example, unemployed NATSIS respondents who indicated that they received Newstart Allowance or Jobsearch Allowance had an income from government payments of \$8,368 in 1994. This estimate corresponds closely to the average amount of income support for all recipients of JobStart Allowance, NewStart Allowance and the Youth Training Wage, estimated using DSS data (Commonwealth of

Australia 1996a: 151-3) by dividing total outlays in 1995–96 (\$6.6 billion) by the average monthly number of recipients (812,000). This produced an amount of \$8,128 per recipient. It should be noted that this NATSIS estimate is a conservative estimate of the actual situation given that Indigenous families and households are generally larger than the Australian average.

Independent confirmation of this estimated cost to government of Indigenous unemployment is provided by Hunter and Daly's (1998) estimates of the Social Security entitlement of the unemployed given the family circumstances of NATSIS respondents. They found that the basic entitlement, before family payments was \$8,876, the average remote allowance payable was \$65 and rent assistance entitlements were \$518.¹ The small difference between the actual government payments and the estimated entitlements is likely to be driven by recipients breaching social security conditions or failing to apply for social security. However, since the following calculations focus on the costs to government, the actual amount paid by Centrelink forms the appropriate basis for the estimates of costs.

Researchers in this area have pointed to the level of take-up of unemployment benefit entitlement as an important factor determining labour force behaviour. The NATSIS data show that 94 per cent of the Indigenous unemployed aged 18-64 years were receiving a government benefit (Hunter and Daly 1998). This high take-up rate suggests that the assumption about increases in employment reducing the cost to government by approximately \$8,368 (in 1994 dollars) per job found is not too far off the mark.

One possible measure of government spending on those not in the labour force is the average income from government payments reported by NATSIS respondents outside the workforce

who wanted a job (\$9,774 in 1994 dollars). The validity of this estimate can be confirmed using the methodology set out in Hunter and Daly (1998). If these NATSIS respondents were to enter the workforce, then the average entitlement to Jobsearch Allowance, remote area allowance and rent assistance, before family payments, would be \$10,010 in total. However, the actual amount paid by Centrelink and other official agencies is used in the calculations as a more accurate reflection of costs to government of non-employment.

In 1994, 23.1 per cent of those not in the labour force were recorded as both wanting a job and receiving government payments. If this ratio is applied to the not in the labour force estimates, then it is possible to derive the number of recipients each year (25,348 in 1996, 28,689 in 2001 and 32,434 in 2006). These statistics provide a conservative estimate of the number of discouraged Indigenous workers. For example, when these potential workers are included in the 1996 labour force, the Indigenous participation rate is almost identical to that of the non-Indigenous population (63.6 per cent). Inclusion of those who want a job but do not receive a government payment further

increases the estimated participation rate of the Indigenous population to 67.2 per cent.

Cost estimates

Using these mean income data, the estimated total cost to government of Indigenous labour force status is shown in Table 12. This assumes a continuation of recent low growth in mainstream employment of 1.3 per cent per annum. Figures are shown in real dollar terms estimated using the projected CPI for each year from 1996–97 to 2001–2 (Commonwealth of Australia 1997: 10; Commonwealth of Australia 1998b: 2). Beyond this, the CPI for 2001–2002 is assumed to persist through to 2006.

In 1996, the total cost, from a labour market perspective, of supporting individuals who were not in mainstream employment was estimated to be \$0.8 billion. By 2001, this cost is estimated to rise to around \$1.0 billion and to almost \$1.1 billion by 2006, assuming current low rates of employment growth (1.3 per cent per annum) prevail.

Using these same data, if Indigenous unemployment was reduced to a level commensurate with the rest of the population, and assuming that this latter rate remained

Table 12
Estimated cost to government of Indigenous labour force status, 1996-2006^{a b}

1996 Labour force status	2001 (million \$)	2006 (million \$)	(million \$)
CDEP scheme	343	405	439
Unemployed	200	254	346
Not in the labour force	266	301	341
Total	808	961	1,126

a. Assuming mainstream employment growth at 1.3 per cent per annum.

b. The CPI is used to adjust the costs of particular labour force states to 1996 dollars.

constant, then the savings to government in payments to the unemployed, in real terms, would be around \$193 million by the year 2001 and \$274 million by 2006 with unemployment costs of \$112 and \$126 million respectively. On the credit side, if all those formerly unemployed were to gain mainstream employment (excluding CDEP scheme employees) with an annual income equivalent (in 1996 prices) of \$27,600 (based on reported income by non-CDEP employees in 1994), then the estimated tax return to government (using 1996–97 tax rates) would approximate \$125 million and \$177 million, respectively.

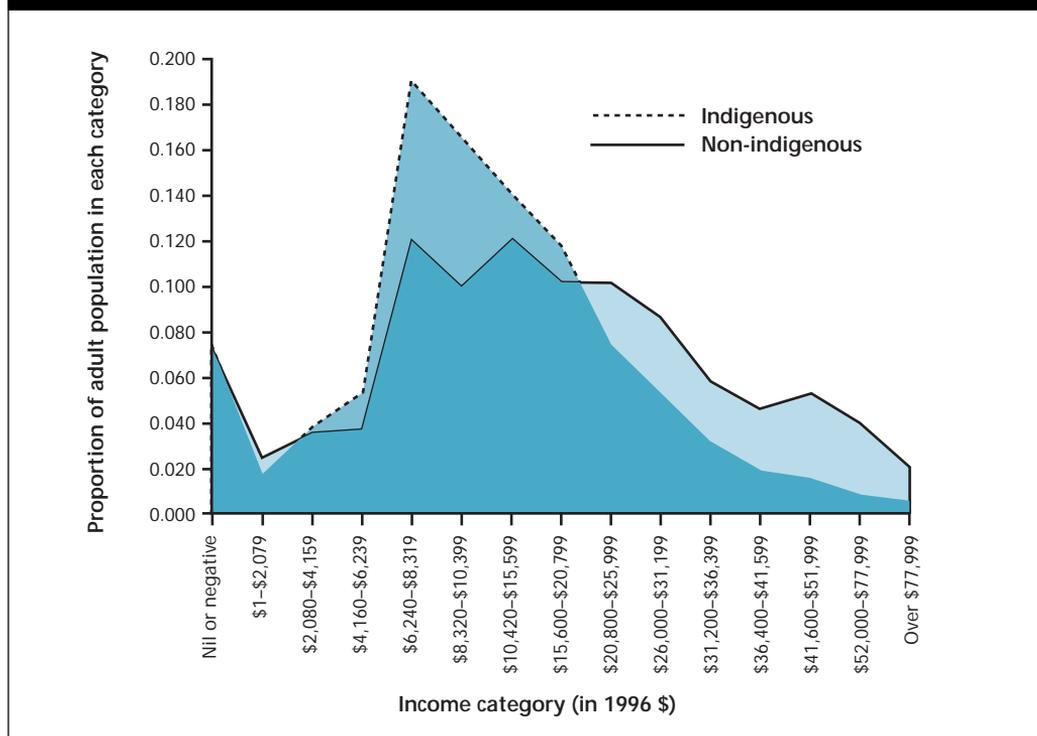
These estimates are conservative because they hold the Indigenous participation rates at their 1996 levels. If all the Indigenous people outside the labour force who wanted jobs found them, then the Indigenous participation

rate would increase to 67.2 per cent of the adult Indigenous population. This would mean that the government would save an additional \$301 and \$341 million on government payments in 2000–1 and 2005–6. The gains in tax revenue in these circumstances would be proportionately greater with an extra \$221 million and \$250 million added to government coffers.²

Income requirements

In 1996, the overall average income for Indigenous adults was \$14,200 which was 30 per cent less than the average of \$21,100 for the total population. While this is partly due to the relatively low Indigenous employment/population ratio and the greater dependence of Indigenous people on government spending, it also reflects their overall lower occupational

Figure 1
Income distribution of the Indigenous and non-Indigenous populations, 1996



Source: ABS 1996 Census, unpublished crosstabulations.

status. For example, the average income for Indigenous people in full-time non-CDEP scheme employment in NATSIS was \$27,300. This was 13 per cent below the average income for all full-time employed people. If the income of all employed Indigenous people is considered, then average income falls to \$21,142 which is 24 per cent lower than the average income of all non-Indigenous employees. This reflects the much greater reliance on low status and part-time work by Indigenous workers. As an indicator of the economic cost of foregone earnings, Indigenous workers would have had to earn \$440 million more in 1994 in order to have had the same average income as all other workers.

A more recent comparison of Indigenous and non-Indigenous income distribution is shown in Figure 1. This reveals that Indigenous people are over-represented in almost all income categories below \$20,800 and under-represented in all categories above this number. The index of dissimilarity of 19.7 between these distributions indicates that around one-fifth of Indigenous people would have to shift their income bracket in order to achieve an equivalent income distribution to that of non-Indigenous people.³ If the distribution of Indigenous incomes was the same as for non-Indigenous incomes then the resultant estimated total income of Indigenous people would rise from \$3.3 billion to \$4.9 billion, an increase (or relative shortfall compared to non-Indigenous Australians) of \$1.6 billion.

The level of income support

To gain some idea of the number of Indigenous adults who depend directly on government support for their income, the value of unemployment benefit can be used as a proxy measure of the income level deemed by government as the minimum necessary for living. In 1996, the minimum benefit amount

an unemployed person could receive was \$1,635 per year for the income-tested, at home, single, under 18 year old rate for the Youth Training Allowance. At the same time the single independent unemployment allowance with full rent assistance was about \$10,000 per year. Almost half (46.4 per cent or 107,490 persons) of Indigenous people over 15 years of age were in the income range that corresponded with this (\$1-10,400) compared to 31.3 per cent of non-Indigenous people. At the other extreme, only 7.9 per cent of the Indigenous adults (18,301 persons) had incomes above average annual earnings of \$31,200 in the 1996 Census. This compared to 21.1 per cent of all other Australians.

At the simplest level, one measure of economic independence from government is provided by the number of adults in receipt of non-CDEP employment income. In 1994, this applied to only 24.1 per cent of the Indigenous adult population and their average income of \$24,802 was below average annual earnings. Alternatively, 63.4 per cent of Indigenous adults in the NATSIS reported government payments as their main source of income and on average their income was \$9,576 (ABS 1995: 55).

One further guide to low income status is provided by the distinction between basic and additional family allowance payments. The latter are designed to provide extra support to families on the lowest incomes and may be used as an indicator of the minimum family income required for adequate living. The income levels set to establish eligibility for these payments vary somewhat according to family size and composition but in 1996 ranged from an annual income of less than \$26,593, for those receiving part payments, and \$21,700 for those receiving full payments. As a rough guide, 37 per cent of all Indigenous families in the 1996 Census had incomes below \$20,800 and 60 per cent below \$31,200.

The interaction of low Indigenous wages and the social security system

The low expected employment income of many Indigenous people is itself an impediment to improving labour market outcomes (Hunter and Daly 1998). Clearly there is little incentive to seek work when the alternative income from welfare is higher than one's expected wage.

Income replacement rates provide one summary measure of the incentive to work in the presence of the social security system. In simple terms, it can be considered to capture the immediate financial gains from employment for potential members of the labour force. The closer a replacement rate is to one, the less incentive an individual has to work. Replacement rates greater than one mean that an individual has no immediate monetary incentive to work as they can receive more income from remaining on welfare. Among single males and females, about 20 per cent of individuals could expect a higher income from welfare than from employment in non-CDEP work (that is their replacement rate was greater than one). Among those in a partnered relationship, the share was higher, 30 per cent for males looking for work with a dependant partner and almost 80 per cent for females looking for work with a dependant partner.

There are two viable strategies for addressing low employment income. The first strategy involves a concerted effort to raise expected wages by improving the productivity of Indigenous workers. The best means of achieving this would be to improve Indigenous education outcomes relative to the rest of the population. The advantage of this strategy is that education has a substantial direct impact on the employability of Indigenous Australians (Hunter 1997). Unfortunately, recent trends in Indigenous

education outcomes show that educational attainment actually declined relative to other Australians in the last decade (Gray, Hunter and Schwab 1998).

In order to operationalise this strategy it may be necessary to revisit the role of targeted educational assistance. For example, if the policy of incorporating ABSTUDY into the Youth Allowance scheme reduces the program and administrative flexibility necessary to meet the special cultural needs of Indigenous students, then Indigenous participation in education may be further impeded. Whatever policy is adopted it is clear that attention needs to be focused on specific Indigenous educational needs.

The second strategy involves addressing the poverty traps through the tax system. A negative income tax system, combined with labour-market deregulation, has been suggested as one possible way of increasing employment without creating a substantial 'working poor' (Dawkins 1996). Globalisation and the general downward pressure on wages of low income workers highlight the need for some form of tax relief for the potential Indigenous workforce.

Policy Implications

A key finding from this update of the *The Job Ahead*, is that the conclusions from the previous analysis regarding the size of policy target groups, the magnitude of employment deficits, both present and projected, and the need for sustained improvement in employment outcomes simply to prevent an already poor situation becoming worse, are all essentially unchanged. Also unaltered is an estimation that the opportunity cost of business as usual would be huge with both social and economic consequences for Indigenous people, governments and the community at large. Against key indicators of economic status, it is clear that the time

available for decisive action is decreasing rapidly. In terms of employment status, for example, the vital issue for Indigenous policy into the new millennium is the distinct prospect that the overall situation will deteriorate. This is primarily because of population growth, but also because of the enormous difficulties of economic catch-up in a rapidly changing and skills-based labour market.

It is important to recognise that policy options for addressing projected Indigenous employment disparities are not easy to prescribe, nor are they cost neutral. To withdraw expenditure is simply to hasten deterioration with a rise in associated social and economic burden. To continue business as usual is clearly insufficient in the face of population growth. To enhance spending and program effort would clearly buck the fiscal trend but with the possibility, ultimately, of social and economic return. At the very least, in benchmarking spending on Indigenous economic policy there is a need to take into account the fact of relatively high population growth.

In terms of target groups within the Indigenous population, just over one-third of adults can be said to currently depend on some form of government support to prop up their presence in the labour force or to sustain those discouraged from participation. NATSIS data show that Indigenous people want to work as much as other Australians. If all the people who want to work are included in the workforce, then the Indigenous participation rate would be 67 per cent, about 15 per cent more than are currently looking for work. This means that almost one-sixth of the Indigenous population are discouraged from seeking employment. It is imperative that policy attempts to address all the employment needs of the current, potential and future Indigenous labour force.

As for labour market assistance, it seems safe to assume that those participating in the CDEP scheme are there for sound structural reasons, such as lack of local labour markets and adequate skills. With regard to other forms of labour market assistance, recent policy developments are likely to have substantial bearing on future employment outcomes for Indigenous people, but this is difficult to gauge at present.

The main issue here arises from the dismantling and restructuring of government employment assistance with the introduction of market-driven employment services under the Commonwealth's new 'Job Network'. Within this arrangement, intensive assistance is available to job seekers who encounter the greatest employment placement difficulty. A Job Seeker Classification Instrument (JSCI) forms the basis of assessing client assistance needs and within this Aboriginal and Torres Strait Islander status assumes considerable weighting, as do many other characteristics that are likely to be associated with Indigenous people, such as duration of unemployment and low educational status. Given the importance of program support in generating Indigenous employment in the past, there is clearly a need to closely monitor progress. Accordingly, the creation of the Job Network raises a number of pressing questions for Indigenous clients regarding access to the Network, the role of specialised and mainstream services and, most importantly, eventual employment outcomes.

In terms of measuring outcomes, the main drawback here seems to be over-reliance on the census as the main source of vital information regarding the economic circumstances of Indigenous people as this is increasingly unable to provide a longitudinal perspective for a population that is self-identified. With governments committed to benchmarking and the achievement of

enhanced outcomes for Indigenous people the question of how outcomes will be measured is looming as a key issue (Council for Aboriginal Reconciliation/CAEPR 1998). Apart from the census, there has rarely been an adequate vehicle for answering some of the most basic questions of public policy concern such as, how many Indigenous people are employed? where? in what occupations? what qualifications do they have? how much do they earn? More importantly, the longitudinal question of how individuals are faring over time has been largely left to drift.

Leaving aside these complexities of data collection, a key policy question that can still be addressed from cross-sectional examination of census data is whether the relative economic status of Indigenous people is likely to appear any better when the next census results are available in 2002 and 2007. All other things being equal, results from the above analysis regarding likely future employment and income status suggest that it will not.

Notes

1. The low level of wages among most indigenous workers mean that the family payment entitlements are largely unaffected by family members securing employment (Hunter and Daly 1998). Accordingly, all the estimated costs to government should ideally exclude family payments and related entitlements.
2. The reason why the increase in tax revenue is proportionately greater is that the cost of not finding jobs for these discouraged workers is only based on those who both want a job and are receiving a government payment. Obviously, the tax revenue is proportionately greater when one finds a job for all people who want one.
3. A relative measure of difference in the pattern of proportional distribution between two otherwise similar data sets is provided by the index of dissimilarity. This is calculated by summing the absolute differences between the percentages of indigenous and non-indigenous people in each income category and dividing the answer by two. For example, by using hypothetical data showing

the percentages of indigenous and non-indigenous people in three income categories.

Income category (\$)	Indigenous (per cent)	Non-indigenous (per cent)	Absolute difference
0-3,000	65	20	45
3,000-6,000	10	50	40
6,000-9,000	20	30	10
Total	100	100	95

In this case, the index of dissimilarity would equal $95/2 = 47.5$ per cent. In other words, almost half of indigenous (or non-indigenous) workers would have to change their income category in order to eliminate the difference in the statistical distributions. The index thus ranges from zero (no difference) to 100 (complete difference).

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