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**Changing numbers, changing
needs? A preliminary
assessment of indigenous
population growth 1991-96**

J. Taylor

No. 143/1997



DISCUSSION PAPER

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- 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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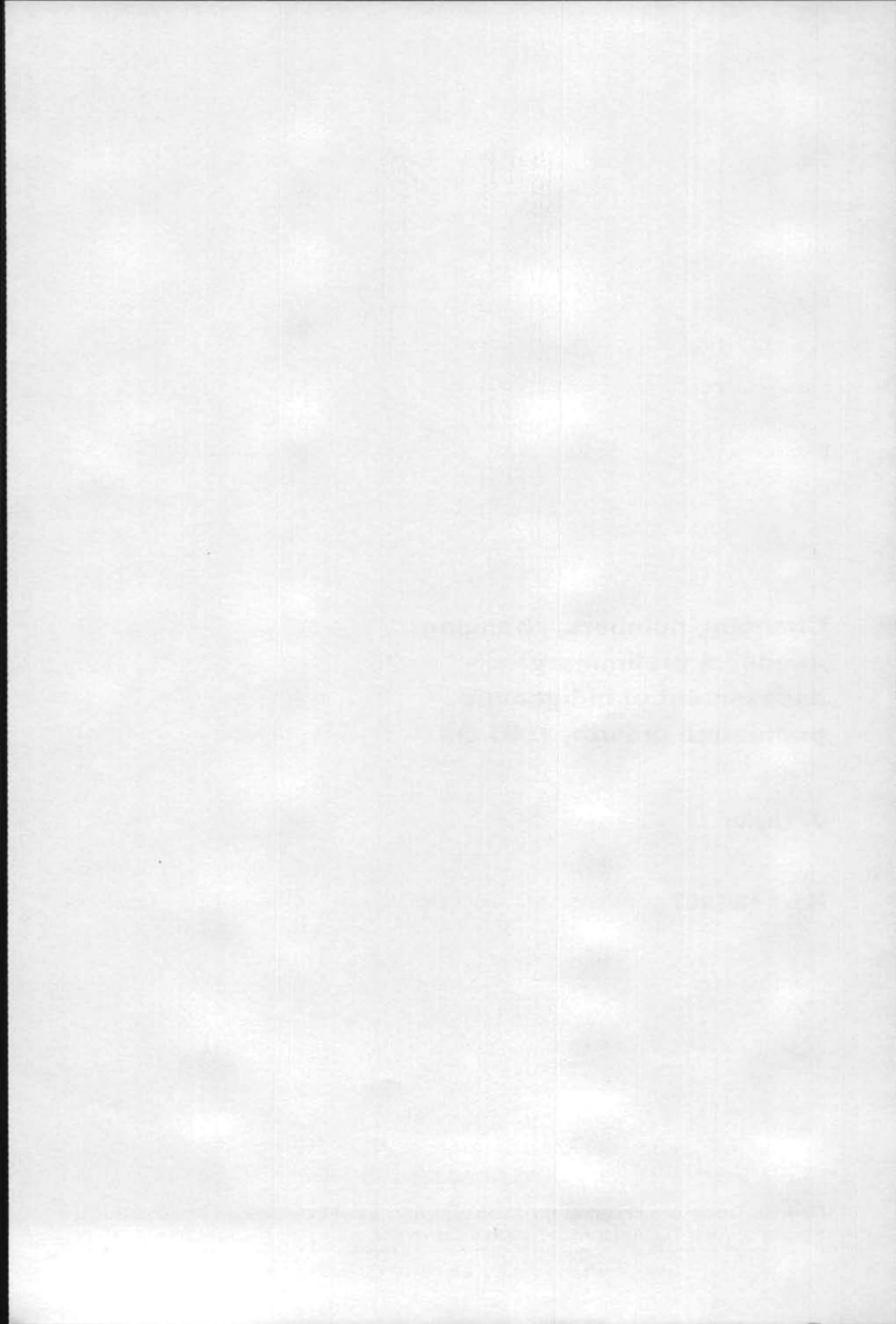


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RESEARCH REPORTS

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Summary

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, an increase which was way above expectation. As a consequence, demographic analysis has returned to the familiar condition of uncertainty about intercensal projections. This raises two questions of fundamental policy interest:

- does the considerable increase in numbers witnessed between 1991 and 1996 imply a concomitant increase in need?
- what are the implications of unpredictability for assessing change, and by implication policy and program performance, using social indicators?

Change in population distribution

The 1996 Census count underlines a long-standing shift in indigenous population distribution away from the north and west of the continent in favour of the east and south, and away from a predominantly rural residence to an urban existence.

- New South Wales, Tasmania, Queensland and the Australian Capital Territory all experienced population growth well above average;
- as much as 87 per cent of intercensal population growth occurred in major urban Statistical Divisions.
- many remote regions such as the Kimberley, the Jabiru region of the Northern Territory and Cape York experienced much lower growth than expected.

Social construction of indigenous identity

In canvassing reasons for the large rise in population and the geographic variation in growth rates, attention is focused on the manner in which the indigenous population is socially constructed.

Indigenous population change is complicated by the dynamic of net change in ethnic identification. Among the factors considered as contributing to this are:

- increased awareness and acknowledgment of indigenous origins;
- inter-marriage between indigenous and non-indigenous persons which can add to the population of indigenous origin by increasing the number of indigenous births;
- changes in enumeration procedures.

Change in economic status

Among the key issues for policy arising from increased identification and the concentration of growth in urban areas, are whether the characteristics of the

new (1996) population differ from those of the original (1991) population and what the net impact has been in terms of socioeconomic status.

Analysis of aggregate change in income and labour force status as well as residential location in major cities, suggests that existing estimates of social policy deficits such as housing need and job requirements are likely to vary only in quantity but not in kind, except for a possible increased focus on need in urban areas. This finding is only preliminary and more detailed analysis of the full census data will be required before firm conclusions are drawn.

Policy implications

- As long as the census question on Aboriginal and Torres Strait Islander origins remains the sole means of comprehensively defining the indigenous population, then it is likely that the numbers identified in this way will continue to rise steadily;
- despite a substantial number of new entrants to the census-identified indigenous population, the overall demographic profile of the group appears unchanged and as a group indigenous Australians remain substantially disadvantaged in terms of socioeconomic status compared to all Australians;
- there is a pressing requirement for revised estimates and projections of the population;
- in the context of benchmarking outcomes in social and economic policy, consideration should be given to the appropriate denominator for use in measuring change in social indicators.

Acknowledgments

I borrowed the title 'Changing numbers, changing needs?' from an analysis of American Indian demography (see Sandefur, Rindfuss and Cohen 1996). The aim was to imply some comparability in the issues raised.

The first airing of this paper was at a CAEPR seminar in September 1997 and very useful feedback was provided by seminar participants, especially from John Paice of the Australian Bureau of Statistics Demography program in Canberra. Subsequent development benefited greatly from comments made by a number of individuals and special thanks are due to Jon Altman, Tim Rowse, David Martin, Will Sanders and Alan Gray. I am greatly indebted to Boyd Hunter for his analysis of population change by urban collection districts and for use of his index of socioeconomic status. Editorial assistance was provided by Hilary Bek and layout by Jennifer Braid.

Introduction

The release of the 1996 Census count of indigenous Australians has generated a good deal of interest among analysts and policy makers. In part, this no doubt reflects a heavy reliance on the five-yearly census for information regarding the relative social and economic status of indigenous people. In this context of census dependency, population projections based on the 1991 Census count have assumed considerable policy significance. For example, it has become clear that there is an increasing disparity between employment growth and growth in the working-age population (Tefaghiorghis and Gray 1992; Altman and Gaminiratne 1994; Taylor and Altman 1997). This gap imposes growing social and economic costs on indigenous people and on the Australian community as a whole (Taylor and Altman 1997). However, confidence in projections of the indigenous population has been undermined somewhat by the higher than expected population count from the 1996 Census. This necessitates entirely new projections from a higher base and much thought will also need to be devoted to the underlying dynamics of population change (Gray 1997).

Inconsistency between census counts has long been a feature of the demography of indigenous Australians. However, the intercensal change observed between 1986 and 1991 suggested that, for the first time, census counts were moving into line with expectation. Greater predictability in the estimation of population levels and composition seemed within grasp (Gray and Tefaghiorghis 1993). Against this background, the 1996 Census result returns demographic analysis to the more familiar condition of uncertainty about intercensal projections.

A key indication from the 1996 Census is that the growth of the indigenous population is both high and unpredictable in its rate. This raises two questions of fundamental policy interest: first of all, does the considerable increase in numbers witnessed between 1991 and 1996 imply a concomitant increase in need? secondly, what are the implications of a return to unpredictability for assessing change, and by implication policy and program performance, using social indicators? Before addressing these questions, the paper reviews some features of the indigenous population count in 1996.

The 1996 indigenous population count

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. The increase in the estimated resident population (ERP),¹ which adjusts the census count for underenumeration, was roughly of the same order rising from 283,560 to 372,052, an increase of 31 per cent. Any subsequent population projections will commence from this new base with obvious substantial upward revision of previous estimates. While growth rates of this magnitude are excessive in purely

demographic terms, viewed in the historical context of attempts by the Australian state to enumerate its indigenous peoples, perhaps the most surprising thing about this increase is the fact that it should come as a surprise.

Table 1 shows the change in indigenous population enumerated at each census over the past 25 years, this being the period within which indigenous people have had the opportunity to self-identify on census forms. Apart from the fact that the population has more than doubled over this period, three features stand out. First, the erratic nature of the count over time. Up to the 1976 Census relatively high rates of growth were recorded. They were followed by an actual decline in population between 1976 and 1981 and then a return to high growth between 1981 and 1986. Reasons for these fluctuations are not considered here as they are fully canvassed by Choi and Gray (1985). Whereas the 1986-91 intercensal period reported population growth more or less in line with expectation on the basis of estimated rates of natural increase (Gray and Tesfaghiorghis 1993), the 1996 count resumed a higher than anticipated rate of increase. It is worth noting that the annual growth rate of 6.6 per cent in the most recent intercensal period is not the highest to have been measured.

Table 1. Indigenous population change, 1971-96

	Population at end of period	Net change	Per cent change	
			Intercensal	Annual
1971-76	160,915	44,962	38.8	7.7
1976-81	159,897	-1,018	-0.6	-0.1
1981-86	227,645	67,748	42.4	8.4
1986-91	265,459	37,814	16.6	3.3
1991-96	352,970	87,511	33.0	6.6

In the censuses from 1971 to 1991, three options were available to indigenous Australians in terms of answering the census question on racial/ethnic origin. They could identify either as Aboriginal, as Torres Strait Islander or as none of these. In 1996, however, the Australian Bureau of Statistics (ABS) introduced a fourth option—that of identifying as both Aboriginal and Torres Strait Islander and this now forms the formal ABS standard for capturing and recording people's indigenous status (Barnes 1996: 15). While the reasons for including this option remain unclear, it may have been in an effort to capture individuals who had previously failed to identify as indigenous because they did not belong solely in one category or another. In terms of determining the size of the Aboriginal and Torres Strait Islander populations, and in establishing their relative social and economic profiles, the effect is of interest especially with regard to Torres Strait Islanders.

A total of 10,016 individuals identified in the 1996 Census as 'both Aboriginal and Torres Strait Islander'. To establish the size of the respective ethnic populations, these should be added to those of sole Aboriginal identity and to those of sole Torres Strait Islander identity. The effect of double counting in

this way is shown in Table 2. Among the numerically larger Aboriginal population, the effect is to raise their growth rate from 31.7 per cent to 35.9 per cent. Among Torres Strait Islanders, however, the population can be said to have grown by either a low 7 per cent or by a very high 44 per cent. Difficulty with defining the Torres Strait Islander population has been a regular feature of census enumeration (Choi and Gray 1985; Evans, Kahles and Bate 1993) and this new category of identity seems to have added further complexity to the issue.

Table 2. Aboriginal and Torres Strait Islander population change, 1991-1996

	1996	Change since 1991	
		Number	Per cent
Aborigines	314,202	75,627	31.7
Torres Strait Islanders	28,769	1,885	7.0
'Both'	10,051	n/a	n/a
Aborigines and 'both'	324,253	85,678	35.9
Torres Strait Islanders and 'both'	38,820	11,936	44.4

Change in indigenous population distribution, 1991-96

The 1996 Census count underlines a long-standing trend of a shifting balance in indigenous population distribution away from the north and west of the continent in favour of the east and south, and away from a predominantly rural residence to an urban existence. This process is an effect of the European settlement of Australia. The original dispersed distribution of indigenous peoples broke down as people moved, or were moved, into government and mission settlements, reserves, towns and cities.

One indication of the recent force of this trend is provided by a comparison of 1991-based projections of the 1996 indigenous population of each State and Territory against their 1996-based ERPs (Table 3). Overall, the ERP was 16 per cent higher than expected and while all States and Territories recorded ERPs above those projected, this was particularly so in New South Wales, Queensland, Tasmania and the Australian Capital Territory. In South Australia, Western Australia, and especially the Northern Territory, 1996 ERPs were very close to expectation. Cumulative evidence from each census since 1971 suggests that interstate migration is unlikely to have effected this shift (Gray 1989; Taylor and Bell 1996a) and the spatial variation in the count thus raises questions about relative over-enumeration in New South Wales, Queensland, Tasmania and the Australian Capital Territory.

Table 3. Variation between 1996 indigenous population projections and 1996 ERP by State and Territory

	1996 population projection*	1996 ERP	Per cent difference
New South Wales	83,707	106,294	27.0
Victoria	20,470	22,574	10.3
Queensland	84,089	100,504	19.5
South Australia	19,581	21,271	8.6
Western Australia	50,423	54,055	7.2
Tasmania	10,682	14,651	37.1
Northern Territory	48,830	49,566	1.5
Australian Capital Territory	2,052	2,952	43.8
Total	320,046	372,052	16.2

Note: * High series

Source: ABS (1996a, 1997: 67)

Population change by section-of-State

The growing focus on States in eastern Australia coincides with an increased residence in urban areas. Table 4 shows the change in indigenous population numbers by section-of-State over the past two intercensal periods and Table 5 outlines the proportional shift in distribution between sections-of-State. Tracking change over time in distribution by section-of-State is complicated somewhat by the tendency for category jumping, which occurs as settlements shift from one classification to another as they grow (or decline). Notwithstanding this, it is clear that the bulk of population growth in recent years has occurred in urban areas. Numerically, this increase has been shared equally between major urban and other urban areas, although the rate of increase in major urban areas has been greater because of a lower base population.² In rural localities, on the other hand, the rate of growth has been less than could be expected due to natural increase and actually fell in the 1991-96 period. Other rural areas, which would include populations at outstations, showed a modest increase but far less so than in urban areas.

Table 4. Indigenous population change by section-of-State, 1986-96

	1986-91		1991-96	
	Population increase	Per cent increase	Population increase	Per cent increase
Major urban	15,344	27.6	35,951	50.7
Other urban	12,734	13.3	40,713	37.4
Rural localities	2,231	6.5	1,814	5.0
Other rural	7,470	17.7	9,120	18.4
Total	37,779	16.6	87,598	33.0

Another way to express these changes is to say that the proportion of the indigenous population resident in urban areas rose from just over two-thirds in 1991 (67 per cent) to almost three-quarters in 1996 (73 per cent) (Table 5). Consequently, almost one-third of indigenous Australians are now resident in major urban areas and while this is still less than the total population (63 per cent), it nonetheless represents a substantial increase from the 15 per cent of the indigenous population counted in 1971. As this process of ever greater population counts in urban areas has unfolded, *ipso facto* the rural share of the population has continued to decline—down from 33 per cent in 1991 to almost one-quarter (27 per cent) in 1996.

If anything, these figures understate both the extent and rise of urban living, especially in terms of proximity to metropolitan centres and large cities. ABS criteria for classifying Collection Districts (CDs) as urban or rural are based on measures of population density, land use and spatial contiguity (ABS 1993). This means that many people who may reasonably be regarded as forming part of the city region are not classified as urban dwellers. One way of incorporating such populations is to examine distribution according to major urban Statistical Divisions (SDs) (that is, SDs with total populations over 100,000 persons). In 1991, a total of 70,872 indigenous Australians (27 per cent of the population) lived in major urban SDs.³ By 1996, this figure had risen to 128,452 (36 per cent of the indigenous population).

Table 5. Distribution of indigenous population by section-of-State, 1991-96

	1991		1996	
	Population	Per cent distribution	Population	Per cent distribution
Major urban	70,881	26.7	106,832	30.3
Other urban	108,613	40.9	149,326	42.3
Rural localities	36,285	13.7	38,099	10.8
Other rural	49,645	18.7	58,765	16.6
Total	265,424	100.0	353,022	100.0

Initial research on the causes of this redistribution focused on the role played by migration, especially to metropolitan centres (Taylor and Bell 1996b: 157-8). Subsequent analysis, however, points to the likelihood that post-war migration to major cities contributed less to indigenous urban population growth than previously claimed (Smith 1980a; Gray 1989), and that much of the apparent shift in population distribution from the 1950s onwards could have been due simply to increased enumeration of city-based residents. Certainly, the low overall effectiveness of migration flows between metropolitan and non-metropolitan areas since 1976 suggest that if migration were ever a major factor leading to an increased indigenous presence in major cities then since the 1970s it has been far less so (Gray 1989; Taylor and Bell 1996a: 400-2).

Elsewhere, growth was lower than expected and three areas in particular stand out as having growth rates that were particularly lower than expected—ATSIC regions in the Kimberley and Pilbara districts of Western Australia, the Jabiru Region across the Top End of the Northern Territory and the Peninsula Region in Cape York Peninsula as well as the region covered by the Torres Strait Regional Authority. All of these regions had annual growth rates of less than 2 per cent, many had less than 1 per cent, while the Peninsula Region actually declined in enumerated population.

Inter-regional migration is one demographic factor that may have contributed to producing this pattern in regional population growth rates. Full analysis of the contribution of migration is not yet possible using 1996 Census data. However, what we know of migration from previous census analysis suggests that inter-regional population movements are likely to be far less significant than intra-regional moves and of insufficient magnitude to account for observed variations in rates of population change (Taylor and Bell 1996b: 400–2). As found from analysis of natural increase in the indigenous population (Gray 1997), a sizeable unexplained component of growth will no doubt remain after accounting for changes in residential location. In canvassing reasons for this, attention is focused on the manner in which the indigenous population is socially constructed.

Social construction of indigenous identity

Unlike the standard demographic equation which calculates population change as a net function of births, deaths and migration, indigenous population change is complicated by the added dynamic of net change in ethnic identification. Because of this there is no sense in which the indigenous population can be described as clearly defined. Rather, political and cultural processes, including the highly variable way in which States, Territories and the Commonwealth have attempted to enumerate and categorise indigenous people and the choices made by respondents to the census and other statistical collections, construct the entity we call 'the indigenous population' (Smith 1980b; Dodson 1994; Anderson 1997). In the more distant past, these sociological and political processes have effectively excluded or devalued indigenous representation in official statistics. The more recent politics of data collection has seen moves to encourage identification (Altman 1992).

The most complete exploration of these issues from a demographic perspective remains the work of Smith (1980b) who distinguished between a theoretical total population of any Aboriginal or Torres Strait Islander ancestry and official figures which he referred to as the 'revealed' population. This paper is concerned with the 'revealed' census population, but part of the unpredictability of this population is the latent potential that exists for growth to occur due to the increased identification of individuals as indigenous Australian in official statistics. Similar observations about the growth potential of populations derived

from census questions on racial origin/ethnic affiliation have been made in the United States (Snipp 1986).

An important point to note about 'revealed' populations is that they may vary between statistical collections because of different methodologies used and because of the manner in which individuals respond to questions on racial/ethnic identification in differing circumstances. One important example of this, from the point of view of interpreting the increased census count, is the difference between responses to the census question on Aboriginal and Torres Strait Islander origin and the responses to the same question in the Post-Enumeration Survey (PES). The PES is an interviewer-based follow-up survey to the census. It is conducted three weeks after the census and in 1996 involved 82,210 persons of whom 1,360 (1.65 per cent) stated that they were of indigenous origin. In the 1996 Census, 1,482 (1.8 per cent) of the PES respondents stated that they were of indigenous origin. The actual shifts in identification between the census and the PES are shown in Table 6.

Table 6. Responses to the census question on ATSIC origin: 1996 Census and Post- Enumeration Survey

PES response	Census response					Total
	1	2	3	4	5	
1	4	135	0	0	0	139
2	1,176	79,298	185	47	5	80,711
3	24	80	1,129	5	26	1,264
4	0	10	8	70	7	95
5	0	1	0	0	0	1
Total	1,204	79,524	1,322	122	38	82,210

Notes: 1—Not stated; 2—Non-indigenous; 3—Aboriginal; 4—Torres Strait Islander; 5—Both Aboriginal and Torres Strait Islander

Source: Unpublished data, ABS, Canberra

This reveals that PES respondents were slightly more likely to identify as Aboriginal, Torres Strait Islander or both of these in the census than in the PES (1,482 compared to 1,360, i.e. horizontal categories 3+4+5 compared to vertical categories 3+4+5 in Table 6). Of the 1,322 who identified as Aboriginal in the census, 193 (14.6 per cent) were recorded in a different category of identification in the PES. Among the 122 who identified as Torres Strait Islanders in the census, only 70 (57 per cent) were recorded in the same category in the PES. While the PES sample is admittedly small, it nonetheless reveals the potential for variation in responses to identification between the self-administered census form and an interview-based PES. At the same time, precisely how such variation might be interpreted in the context of a greatly increased census count remains a matter for speculation.

Judging by the overall level of population change in the 1986-91 intercensal period it had seemed that growth due to increased identification was receding

compared to previous years. Clearly, this was a premature conclusion, although the reasons for a resurgence of indigenous identification in the recent intercensal period remain to be established. It is certainly true that a number of events have occurred during the 1990s that may have contributed substantially to increased awareness and acknowledgment of indigenous origins. Among these one might include land rights in New South Wales and Queensland, the Royal Commission into Aboriginal Deaths in Custody, the creation of the Aboriginal and Torres Strait Islander Commission (ATSIC) and the conduct of ATSIC elections, increased government spending on indigenous programs, the rise of indigenous political and service delivery organisations, the Mabo decision and subsequent passing of the Native Title Act, the High Court Wik decision and the Stolen Generation Inquiry.

The last example is instructive. While the numbers of children and families separated by welfare authorities are difficult to establish with precision, it is estimated that from around 1910 until 1970 between one in three and one in ten indigenous children were forcibly removed from their families and communities (Link-Up [NSW] and Wilson 1997; Commonwealth of Australia 1997: 29-7). As for those still living, in the 1994 National Aboriginal and Torres Strait Islander Survey some 6 per cent of survey respondents (17,000 persons) reported being taken away by authorities from their natural family (ABS 1995: 7). The impact of these sizeable removals on the unfolding structure and distribution of the self-identified indigenous population remains unknown.

Inter-marriage

Inter-marriage is defined as formal or de facto marriage between indigenous and non-indigenous persons. Together with potentially high rates of indigenous identification among the children of such marriages, this can add to the population of indigenous origin by increasing the number of indigenous births.⁴ It is now clear from analysis of census and vital registration data that this is indeed the case (Gray 1997).

The first indications of high rates of inter-marriage were reported from the 1986 Census which revealed that 46 per cent of indigenous couple families were unions between indigenous and non-indigenous partners (Dugbaza 1995: 42). Further analysis based on the 1991 Census indicated that this proportion had increased to 51 per cent and that rates of inter-marriage were greatest in major urban areas and in the south-east of the country (Dugbaza 1994: 6; O'Reilly 1994).⁵ This leads to regional growth rates that can seem counter-intuitive. For example, places such as the Northern Territory, with the highest fertility (but low rates of inter-marriage), grow as a proportion of the total population less rapidly than expected while those, as in the south-east, with lower fertility (but high inter-marriage rates), grow faster than expected (Dugbaza 1994, 1995; Gray 1990, 1997).

These divergent rates are reflected in changes to regional population distribution. In the 1971 Census, the Northern Territory and New South Wales accounted for 20 and 21 per cent of the total indigenous population respectively.

By 1996, these proportions had changed to 15 and 29 per cent despite low levels of interstate migration (Gray 1989; Taylor and Bell 1996a). It may also go some way to explaining why some south-eastern jurisdictions had the largest gaps between 1991 census-based projections and 1996 ERPs as shown in Table 3.

Changes in enumeration procedures

Since 1971, the methods used by the ABS to count the indigenous population have been gradually extended and improved. In particular, progress has been made in terms of achieving greater physical coverage of the population. Included in these measures are special procedures for locating and counting indigenous people in remote areas while a feature of the 1996 Census enumeration was the appointment of Special Indigenous Managers in each State and Territory to coordinate efforts generally, including in urban areas. Specially recruited 'Indigenous Assistants' in urban neighbourhoods helped to deliver and collect forms, to explain the census and even to fill out forms if requested (ABS 1996b: 79). As Gray (1997) has pointed out, such arrangements might help explain some of the increased identification. Changes in the processing of completed forms also contributed to increased numbers though only slightly. For example, in 1991, individuals who identified as Aboriginal or Torres Strait Islander on the census form but who also indicated that they were born overseas were not counted as indigenous. In 1996, such responses were included in the indigenous count.

Despite such efforts, problems in enumerating the indigenous population remain. This is suggested by the lower than expected population growth observed in many remote areas where special enumeration procedures were employed. Research has demonstrated that methodological and conceptual problems in the enumeration of remote area populations lead to under-enumeration, particularly of the young, the more mobile and the more socially marginal (Martin and Taylor 1996). The relative exclusion of such cohorts emerged again in the 1996 Census (Gray 1997) and the phenomenon is well recognised by the ABS (Evans, Kahles and Bate 1993). Also apparent in the 1996 and previous census counts are substantially divergent regional trends in population change which may result from census error. To examine one possible source of such error, reference is made to the indigenous count in Kakadu National Park.

The 1996 Census counted substantially fewer indigenous people in the Kakadu region than in 1991, whether as their place of enumeration or their usual residence. The place of enumeration count fell by 30 per cent, from 443 to 310, representing a shift back towards the population levels of the early 1980s in a region that is known to have experienced rapid indigenous population growth since that time due to mining and tourism developments. Of course, one reason for the lower place of enumeration count could be that usual residents of the region were absent and counted in another census area on census night. However, usual resident numbers also fell by around 20 per cent from 407 to 327.

Leaving aside the almost complete loss of population from the Jabiru town camp, it may be significant that a total of 221 usual residents of Kakadu National Park did not answer the census question on Aboriginal origin (compared to only three in 1991). Since Aboriginal people comprised around half of the Park's usual residents in 1991 it seems likely that this census error may have contributed to the apparent decline in indigenous numbers. In administering the remote area census forms in 1991, the question on Aboriginal origin was pre-ticked in the affirmative. In 1996, however, this was not the case and interviewers were instructed to elicit an answer and complete the form. Whether this change in census methodology had any bearing on the increase in 'not stated's is unknown. If, for the sake of argument, however, all of those forms for usual residents which had no answer to the question on Aboriginal origin were on behalf of Aboriginal people, which in Kakadu is not an unreasonable assumption, then the Aboriginal usual resident population would have increased by 35 per cent instead of declining by 20 per cent.

In this context, it is worth noting that there was a notable increase in 'not stated's in virtually all of the remote ATSI regions where intercensal growth was lower than expected, the only exceptions being Derby and Port Augusta. At the same time, most regions of above average growth displayed a decrease in the number of people who did not answer the question on indigenous origin. In Broome, for example, the number of 'not stated's increased from 558 in 1991 to 1,047 in 1996; in South Hedland from 1,206 to 2,565; in Warburton from 300 to 1,078; and in Kununurra from 859 to 1,474. ATSI regions whose populations were counted by remote area procedures experienced a combined total increase in 'not stated's of 6,305. Adjustment for such census error is made by the ABS when estimating ERPs at the ATSI region level. However, as the Kakadu example illustrates, census error on this scale can make a substantial difference to growth rates at sub-regional levels for which ERPs are not available. It is also the case that any loss of population characteristics, due to this or any other census error, can not be compensated for as these are not capable of adjustment.

Population change in urban neighbourhoods

The role of increased identification as a component of population change and the concentration of growth in urban areas raises a number of important questions regarding the impact of new entrants to the population. Among the key issues for policy are whether the new (1996) population differs from the original (1991) population and what the net impact of augmenting the population has been in terms of socioeconomic status? Demographically, in terms of survival rates, fertility and age distribution, little net effect has been observed (Gray 1997).

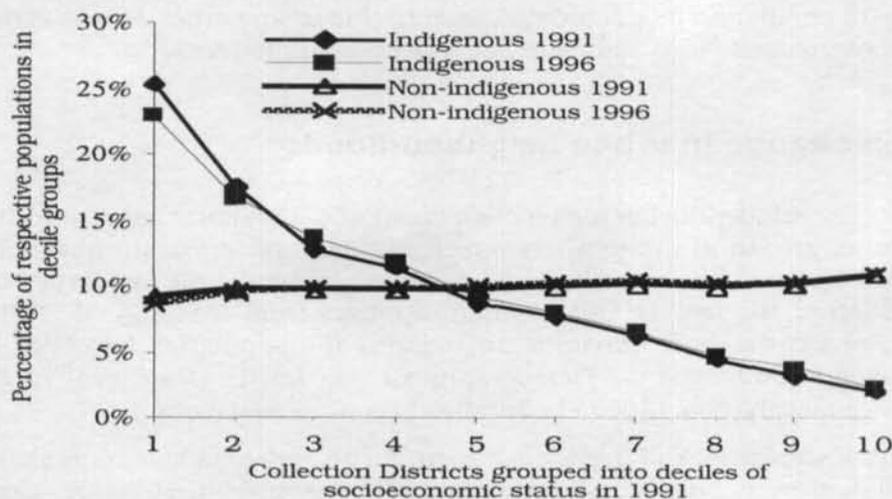
Whether a similar lack of impact is evident for economic indicators remains to be established by detailed analysis of the full census data. However, early indications using 1996 data on labour force status suggest some positive shift in employment levels (36 per cent in 1991 and 41 per cent in 1996), and that the

unemployment rate had declined markedly (from 31 per cent in 1991 to 23 per cent in 1996), although a rigorous appraisal of these figures has yet to include an examination of employment in the Community Development Employment Projects (CDEP) scheme and its effect on changes in the census labour force data. As far as income is concerned, while average indigenous annual income has risen from \$11,800 to \$14,300 the income of non-indigenous Australians has also risen and the ratio between the two has improved only slightly from 0.61 in 1991 to 0.64 in 1996.

In the meantime, one proxy measure of change in economic status is provided by examining shifts in the distribution of population in major urban areas at the CD level and assessing these in terms of 1991 indexes of Socio Economic Status (SES) for each CD. The basic hypothesis here is that a lack of change in distribution would imply a probable lack of change in socioeconomic composition.

To test this hypothesis, CDs in major urban areas were selected on the basis of their observed relative stability in socioeconomic status over time (Hunter 1996: 6). Conceptually, the index assigned to each CD is similar to the ABS SEIFA urban index of relative advantage and provides a summary measure of income, housing, education and occupational status with high indexes indicating relatively high status across these indicators (Hunter 1997). The results of plotting 1991 and 1996 indigenous population distributions in major urban CDs by deciles of SES indexes is shown in Figure 2.⁶ For comparative purposes, the distribution of non-indigenous populations are also shown.

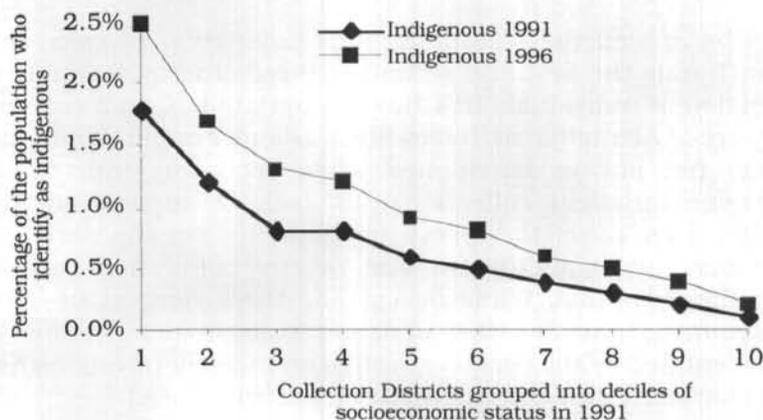
Figure 2. Distribution of indigenous and non-indigenous populations in major urban CDs ranked by SES index, 1991 and 1996



The first point to note is the quite different distribution of indigenous and non-indigenous populations across major urban neighbourhoods. Among non-indigenous city-dwellers, the proportion of the population in each decile of socioeconomic status is more or less consistent at around 10 per cent. For indigenous people, however, the proportion of the population in CDs of low socioeconomic status is high and declines steadily with increasing neighbourhood status. More importantly, in the context of the present discussion, is the fact that little change in this pattern is evident between 1991 and 1996.

This lack of change is further emphasised in Figure 3 which compares the distribution of the population identifying as indigenous in major urban areas in 1991 and 1996 according to the SES of the CD of residence. Once again, while the overall growth in the indigenous share of population is evident, this occurred in neighbourhoods equivalent to those inhabited by the 1991 population. It should be noted that these findings are consistent across all major urban areas, varying slightly only in degree but not in kind.

Figure 3. Percentage of the population identifying as indigenous in major urban CDs by decile of socioeconomic status, 1991 and 1996



It would appear, then, that the increase in indigenous population in major urban areas has involved little alteration to the pattern of residential location by neighbourhood type. Given the continued concentration of the indigenous population in CDs with low socioeconomic status, this lack of residential change points to a distinct possibility that existing estimates of social policy deficits such as housing need (Jones 1994) and job requirements (Taylor and Altman 1997) are likely to vary only in quantity but not in kind, except for a possible increased focus on need in urban areas.

Policy implications

From a policy perspective, demography contributes an ability to measure and monitor change in population numbers and composition with a view to estimating and projecting the client base. The key source of data for this purpose is the five-yearly census and yet this continues to yield counts of the indigenous population that are unpredictable. As long as the census question on Aboriginal and Torres Strait Islander origins remains the sole means of comprehensively defining the indigenous population, then it is likely that the numbers identified in this way will continue to rise steadily due to improved enumeration, changes in identification and the flow-on effects of inter-marriage (Gray 1997).

At a time of growing pressure for targeted service delivery that is cost-effective and based on demonstrated need, the prospect of an ever-expanding population requires careful consideration. In this context, it is worth recalling the Commonwealth's three-part definition of an indigenous Australian:

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

It can be argued that the indigenous population revealed by the census conforms with only the first and second of these criteria, but only to the extent that a collection of individuals tick the appropriate box on a census form which asks if they are of Aboriginal or Torres Strait Islander origin. While the third of the criteria may not always be applied when recording indigenous status in administrative statistical collections, its lack of application in the census methodology does open the prospect that the census-derived indigenous population may be of a different size to any population based on the full Commonwealth definition. While recognising these complexities, the key policy question stemming from the 1996 Census result remains whether the growth of population identified by the census question on indigenous origins has in any way altered the characteristics and extent of demonstrated need.

The indications from this preliminary analysis, and from that of Gray (1997), suggest that despite a substantial number of new entrants to the census-identified indigenous population, the overall demographic, social and economic profile of the group remains largely the same as in 1991. Consequently, the prognosis for any findings from detailed analysis of change in social indicators using the full census output is that overall need relative to the total population will be very similar as previously reported, but in absolute terms there will be more of it.

Apart from initiating a detailed examination of changes to social indicators to confirm this expectation, the pressing requirement from a policy perspective is for revised estimates and projections of the population. In recent years, the ABS

has produced experimental projections of the indigenous population (ABS 1996a), but the methodology used in constructing these has not included any adjustment for change in census identification, nor has it attempted to model the effects of inter-marriage. Demographically, there are sound reasons for avoiding assumptions about change in identification. But in view of the substantial gap between 1991 Census-based projections and the 1996 ERP an argument might be advanced in favour of developing projections based on a range of assessments about the contribution of inter-marriage to population growth (Gray 1997: 10).

The issue at stake here is highlighted in the context of benchmarking outcomes in social and economic policy. Basically, what is the appropriate denominator to use for measuring change in social indicators when the base population can vary so much between census counts? For example, in estimating future job requirements based on 1996 population levels and labour force data, should an assumption about possible increased identification form part of the projected population of working age? If so, how is the same to be done for labour force data? Likewise, intercensal indicators that use administrative data for the numerator and census-based population estimates as the denominator, may be revised downwards because of an expanded denominator, as has already happened with estimates of indigenous fertility for South Australia and the Northern Territory (ABS 1996b).

Other policy issues arising from the census count are less conceptual in nature and concern the practical implications of emerging trends. It should be clear by now that the census count of Torres Strait Islanders is problematic and that the task of interpreting such data is not aided by the inclusion of a third category of ethnicity. If those who identified solely as Torres Strait Islander in the census are considered, then the population barely increased. If, however, those claiming dual Aboriginal and Torres Strait Islander origins are added then the population increased substantially. The palpable shift in Torres Strait Islander identity in the Post-Enumeration Survey also adds to the complexity. Certainly, outside of the Torres Strait and the rest of Queensland, ABS guidance on the use of Torres Strait Islander statistics would be advisable.

On a broader level, the significance of a clear consolidation of population distribution in urban areas and in eastern Australia needs to be contemplated. Current policy emphasises the relative needs of remote rural populations (Herron 1996), but one question raised by the substantial geographic bias in population growth rates in favour of the south and east and urban areas is whether this also implies a necessary diversion of resources. Ultimately, this is likely to be a political decision but more than just census data will be required to adequately establish demonstrated need. It should be pointed out in this context that actual underenumeration of some remote populations remains a problem. Consequently, advice on appropriate interpretation of small area statistics should be provided to communities when bidding for resources with officially depleted numbers, as in the Kakadu example. It is not enough to simply publish census results without at least some accompanying estimation of confidence limits. As the ABS has already

suggested (ABS 1996c), one option for assisting planning in this way would be to estimate service populations.

Notes

1. The ERP is the official ABS estimate of the population. In the compilation of the ERP the census count by place of usual residence is adjusted for underenumeration by prorating the distribution of non-responses to the census question on Aboriginal or Torres Strait Islander origin, correcting for errors in age reporting to smooth the age distribution and reconstituting the population according to expected sex ratios (Benham and Howe 1994). Projections are based on ERPs.
2. It should also be noted that the relatively high growth of the population in major urban areas is partly illusory owing to the reclassification of Townsville-Thuringowa urban centre from 'other urban' to 'major urban' due to an increase in population from 96,230 in 1986 to 101,398 in 1991. In 1991, the population of Townsville-Thuringowa included 4,716 Aborigines and 1,219 Torres Strait Islanders. If these numbers are re-cast for 1991 according to their 1986 section-of-State classification, this results in a slight decline in the proportion resident in major urban areas and an increase in those in other urban areas.
3. This included the cities of Sydney, Brisbane, Melbourne, Adelaide, Hobart, Perth, Canberra, Townsville, Gold Coast, Geelong, Newcastle and Wollongong.
4. Gray (1997: 17) provides a simple example of this effect: if an Aboriginal man and an Aboriginal woman each have two children, and the man and woman are married to each other, then the next generation has exactly the same size as the parents' generation; but if each is married to a non-Aboriginal person, the number of children is four and the next generation is twice as large.
5. This is in line with expectation given that indigenous people form a much smaller component of the total population in such regions compared to places such as the Northern Territory.
6. The 1996 CD populations were aggregated to their 1991 boundary equivalents for comparative purposes. If there were major boundary changes between 1991 and 1996 or two or more CDs were amalgamated, then the CDs were not used in the calculations. The reported results were not sensitive to changing this assumption.

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