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Centre for Indigenous Governance and Development



A Tale of Two Nations:

The Divergent Pathways for Indigenous Labour Force Outcomes in Australia and New Zealand Since 1991

Boyd Hunter



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A tale of two nations: The divergent pathways for indigenous labour force outcomes in Australia & New Zealand since 1991

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Abstract

This paper compares labour market experiences of indigenous Australians and Maori since 1971 with a particular focus on the early 1990s where employment outcomes appeared to diverge dramatically. One way to enhance the interpretability of international comparisons is to examine what happened in urban and other areas because the globalised economy means that the labour market in major cities tend to track one another reasonably closely. It is also important to condition on the level of urbanisation in the respective countries because geography provides a rudimentary control for differing levels of acculturation and the historical experiences of colonisation.

The analysis provides two main insights: first that Maori populations are more fully integrated into the New Zealand economy and business cycle than indigenous Australians are into the Australian economy. The second finding is that while Maori are performing very well in terms of employment growth, the prospect for future improvements may be constrained by unresolved cultural conflict embodied in the high ongoing rates of Maori arrest. While there is a similar level of cultural conflict between indigenous and other Australians, it is probable that the historical difference in the treatment of the respective indigenous populations is partially responsible for the different economic outcomes in the two nations.

Acknowledgements

This paper was conceived while I was on three-month period of outside studies leave to New Zealand. During this period I was based at the Waikato Management School and the New Zealand Treasury, where I held a Visiting Fellowship. I am particularly grateful to the Treasury whose Fellowship monies paid for the New Zealand census data used in this paper. The staff of both the Treasury and Waikato Management School provided considerable insights into the processes underlying policy addressing Maori development. An earlier version of this paper was presented in the CAEPR seminar series on 20th April 2005. I am indebted to Jon Altman, Manuhua Barcham, Kelly Dombroski, Matthew Gray, Dennis Foley and anonymous referees for comments on an earlier draft.

Biographical Note

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Introduction

International comparisons are often used to provide a broad canvas to portray how indigenous Australians fare relative to other indigenous peoples in English-speaking nations with colonial pasts (Gregory and Daly, 1997; Borland, 2000; Kauffman, 2003). The trouble with painting an analysis of the 'big picture' is that it can be interpreted any number of ways and is probably inherently subjective.

For example, existing international comparisons tend to provide limited insights because they usually confine themselves to national averages. Borland and Hunter (2000) show that for several indigenous populations—in Australia, Canada, New Zealand and the United States—arrest rates for indigenous persons are significantly greater than for non-indigenous persons. They also show that indigenous persons tend to have lower employment/population and labour force participation rates, as well as higher rates of unemployment, than non-indigenous persons (also see Appendix Table A1). Borland and Hunter used this broad description of indigenous outcomes in the respective countries to motivate the importance of the correlation between arrest and labour market outcomes rather than draw specific inferences about broad institutional factors and overall policy settings.

Australia's Minister For Employment and Workplace Relations, Kevin Andrews highlighted New Zealand's 'work-first welfare-second' reforms since 1999 as explaining the substantial recent drop in Maori unemployment rates (2005). While the reforms may well play a role in explaining the drop in Maori unemployment rate vis-à-vis those other groups, unemployment rates are crucially dependent on the provision of suitable jobs and the workforce participation decisions of people outside the labour force as well as the behaviour of the unemployed. Even if one does describe all the relevant labour force status in international comparisons, as this study attempts to do, the analysis will be consistent with several different explanations. For example, the relatively flexible labour market institutions in New Zealand may have allowed the wages for Maori to adjust to the structural adjustments that followed the microeconomic reforms of the 1980s. Alternatively, the plethora of different social, cultural and policy settings in the respective countries may account for the differences. The main point is that it is important to be suitably cautious and circumspect when commenting on big picture international comparisons. While the Minister's comments highlight the importance of trying to understand the differing labour market experience of Maori and indigenous Australians, it is advisable to acknowledge alternative explanations and, more importantly, not to over-interpret the data.

Another related reason to be cautious is the small number of national observations usually available for international comparisons over time.¹ Such data limitations are particularly pronounced for international comparisons of indigenous outcomes because they almost invariably rely on census data that are, at best, collected every five years.

As indicated above, one reason why these national averages rarely provide a satisfactory analysis in themselves is that they do not control for the different historical, cultural, economic circumstances, and policy settings. One way to enhance the interpretability of international comparisons is to examine what happened in urban and other areas, if nothing else because the global economy means that the labour market in major cities tend to track one another reasonably closely. It is also important to condition on the level of urbanisation in the respective countries because geography provides a rudimentary control for

differing levels of acculturation and the historical experiences of colonisation among indigenous peoples.

Urban indigenous populations have only received limited attention from policy makers in First World countries. It is often presumed, implicitly and otherwise, that the 'real' indigenous populations live in remote areas, and only have limited exposure to western economy as they are largely employed in the 'customary economy'. The invisibility of the urban population of American Indians is particularly pronounced with few studies explicitly focussing on their plight.² For example, while the 'Harvard Project on American Indian Economic Development' has, over an approximately 15 year period, systematically examined the conditions of successful self-determined economic development of American Indian reservations in 48 States in the United States (US) (Begay, Cornell and Kalt, 1997), little attention has been given to studying the large number of American Indian living in US cities. Even where US studies do control for geographic factors underlying socioeconomic outcomes, little is made of differences between indigenous and other residents in major cities (Gregory, Abello and Johnson, 1996). Much of the US literature focuses on the demographic and mobility of urban indigenous population rather than explicitly analysing their socioeconomic characteristics vis-à-vis other American Indian and non-indigenous populations (Snipp, 1989).³

The structure of the paper begins with a brief discussion of the relevant data issues. Census data are the only reasonably accurate data for which there are any reasonably accurate historical series, but most of the analysis is confined to the 1991 and 2001 censuses because of comparability issues between the Australia and New Zealand data series. The paper focuses on all aspects of labour force status, but follows Hunter's (2004) lead by also separately analysing full-time and private sector employment to attempt to control for an indigenous-specific institution in Australia, the Community Development Employment Projects (CDEP) scheme. The main contribution of the paper lies in the construction of a new geographic classification for New Zealand to enhance comparability between the two countries. The new classification is based on a broad 'section of state' classification used in Australia that controls for broad settlement patterns (e.g. major cities, other urban and non-urban areas) rather than more complex, and hence less replicable, classifications based on accessibility. This methodology could eventually be used to construct an analogous geography for other countries to enhance the comparability with these other countries. After presenting the trends of basic labour force indicators in urban and non-urban areas, a simulation of the role of arrest in explaining national employment disadvantage is constructed by combining econometric results in Borland and Hunter (2000) with census data for New Zealand. The concluding sections reflect on the implications of the analysis for indigenous geography and speculate about the possible explanations for the divergent experience of indigenous people in Australia and New Zealand since 1991.

Data Caveats

In comparing the labour market outcomes for indigenous Australians and Maori, there are sound theoretical reasons for emphasising the analysis of urban areas. For example, major urban areas in New Zealand and Australia are likely to have similar labour markets, especially given the broadly similar macroeconomic conditions in 1991 and 2001. While it is probable that there is some comparability between country town and other urban areas in the respective countries, it may not be possible to argue this in non-urban areas where the level of remoteness is

probably different. It is not that there are not remote areas in New Zealand (e.g., the eastern cape of the North Island or the extremities of the South Island), rather that the average Maori in non-urban areas do not live that far from urban areas and hence the labour market situations are likely to be fundamentally different.

Altman, Biddle and Hunter (2004) illustrate the difficulties that are likely to be encountered when using the census data to track changes in socio-economic status over time. It is necessary to briefly rehearse these arguments to ensure the reader is aware of the limitations of inter-temporal comparisons of socio-economic indicators using census data that was not designed for this purpose.

There are three broad difficulties inherent in using census information to track changes in indigenous socio-economic status: practical problems in defining who is indigenous and what is the size of the indigenous population; methodological problems; and conceptual difficulties in adopting normative criteria like social indicators from the census in cross-cultural situations.

The main practical problem with any inter-temporal comparison of indigenous economic status is the likely inconsistency in the populations one is comparing. The important point to note here is that population growth is not only naturally based, it has two additional components, changed identification and inter-marriage, with offspring of ethnically-mixed couples highly likely to identify as indigenous.

Given the documented significance of this non-demographic growth in the indigenous population (Ross, 1999), especially in urban areas, the possibility of compositional change arising from changing indigenous identification is affecting inter-temporal analysis must be addressed.⁴ Hunter (1998) explicitly assessed the validity of inter-censal comparisons for indigenous Australians between 1986 and 1996, and has presented formal statistical tests which allowed analysts to discount the possibility that compositional change arising from non-demographic growth in the population was important. While it is not possible to dismiss analytical challenges arising from non-demographic growth, inter-censal comparisons of Australian data should be reasonably robust. Unfortunately, no analogous analysis has been conducted in New Zealand because important changes to the census data (e.g., coding and prioritisation of ethnicity data) mean one should be mindful of the issue when making international comparisons between Australia and New Zealand. If compositional change in the Maori population is significant, then one might expect that there is an upward bias to the trends in Maori labour force status, albeit probably a small bias.⁵ However, while the magnitude of any bias to be dependent on the extent of non-demographic growth, one would expect such bias to be evident in all inter-censal periods.

The most important methodological issue explored in Altman, Biddle and Hunter (2004) arose from variations in ABS's indigenous Enumeration Strategy. We concluded that the understandable teething problems with the nascent strategy in 1971, a mere four years after the 1967 referendum, meant that one had to be cautious about the interpretation of the changes between the 1971 and 1981 censuses. However, by 1981 the indigenous Enumeration Strategy was reasonably well developed and was unlikely to be responsible for substantial distortions in inter-censal comparisons. Another issue is the potential difference in census data quality from relying on self-completed questionnaires in some areas and relying on interview-based questionnaires in remote and discrete indigenous communities.

There is now clear policy recognition of the cultural heterogeneity of the indigenous population Australia-wide. In some situations, standard social indicators have meaning, in others they are close to meaningless (Morphy, 2002) —social indicators reflect the values of the dominant society (Altman, 2001). Cultural heterogeneity provides one of the strongest rationales for conducting a separate analysis for the remote and other areas.

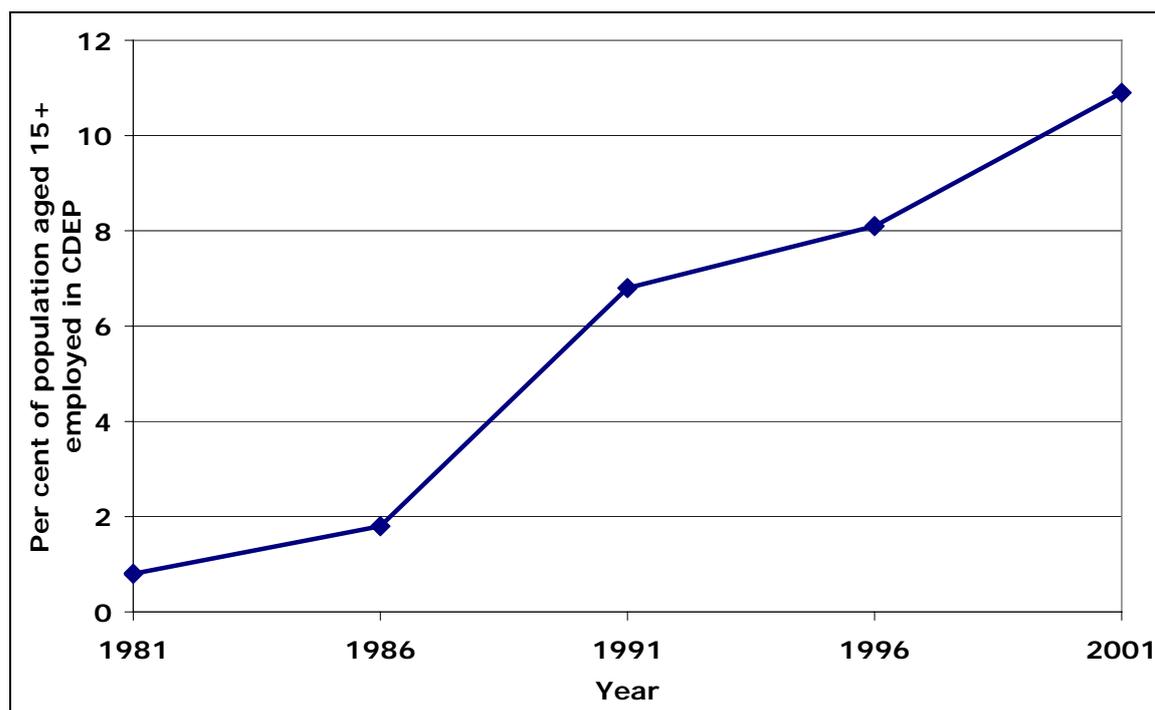
For New Zealand there are two extra problems. The first New Zealand-specific issue was that the question on ethnicity changed between recent censuses. The main issue is that prioritisation of ethnicity is difficult when a person indicates that they identify with two or more ethnicities. However, broad Maori versus non-Maori comparisons are valid for the two censuses examined because Maori identity was given priority status in both censuses.

The second issue is that there is no analogous section-of-state classification for New Zealand, not least of which because it does not have states. I constructed the analogous geography for New Zealand from scratch: major urban areas (cities with 100,000 or more people), other urban areas, and non-urban areas. Apart from an implicit endorsement of the New Zealand Statistics' urban classification, the only judgement required in my geographic classification for New Zealand was the classification of Napier/Hastings urban areas as one major urban area. Even though there are less than 100,000 residents in each town, there is only 10 or so kilometres between the two towns, and they can effectively be treated as one metropolitan area. The New Zealand data was then aggregated to this three-way classification that was compared to the broad section-of-state classification used in Australia.

Trends in Labour Force Status in Australia and New Zealand

The CDEP scheme is a substantial and growing element in indigenous employment in Australia that cannot be ignored when analysing trends in indigenous labour force status (Hunter, 2003; Hunter, 2004). The CDEP scheme was introduced on a small pilot scale in 1977 in response to the spread of Unemployment Benefit payments into remote indigenous communities (Sanders, 1997). Initially CDEP was set up so that remote communities could forgo unemployment benefits for community projects. In the early 1980s, the 'teething' problems with the scheme were, to some extent, addressed and the scheme began expanding quite rapidly.⁶ Administrative data from around the time of the 2001 census indicated that there were 30,474 indigenous participants in the CDEP scheme.⁷

Figure 1 charts the proportion of the indigenous working age population employed in the CDEP scheme. From its inception in 1977 (as a pilot program), the scheme grew slowly at first, before expanding rapidly in the late 1980s when it expanded away from the original focus in remote Australia. Indeed, the scheme more than quadrupled in size between 1986 and 1991. Clearly, CDEP has to be accurately modelled in any analysis of indigenous labour force status.

Figure 1: The rise and rise of the CDEP scheme in Australia

Source Hunter: (2004)

Hunter (2004) argues that it is possible to partially control for the influence of CDEP scheme on labour force statistics by focussing on full-time jobs and private sector employment. While the ABS definition of private sector effectively excludes the CDEP scheme, the majority of CDEP jobs involve part-time work.⁸ The advantage of using full-time employment as a proxy for the non-CDEP scheme or 'mainstream' jobs is that it does not exclude a major source of indigenous employment, the public sector.

In the context of this paper it is important to note that it is not really possible to estimate the number of CDEP workers in the various sections-of-state using administration data. While administration data does include information on the postcode of residence, the correspondence between postcodes and section-of-state classification is not adequate, especially in central Australia. However, one can directly control for the CDEP scheme in national data.

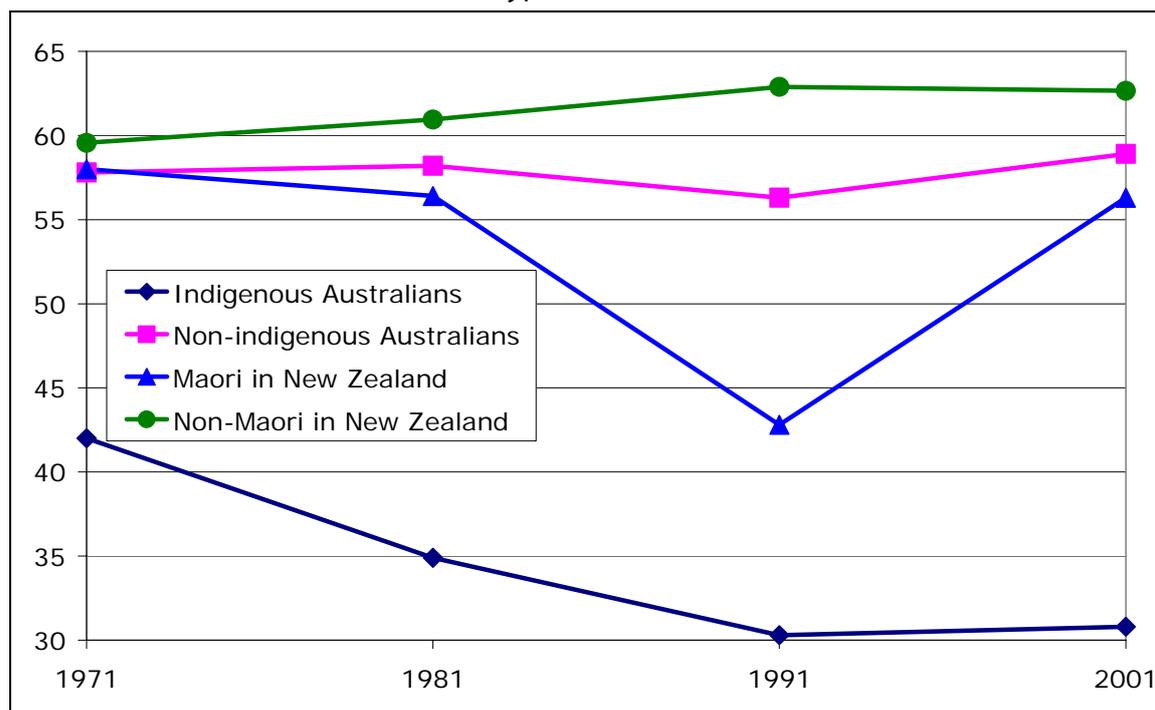
Trends in non-CDEP scheme jobs

There has been a long debate over the status of CDEP scheme employment in relation to other work and whether a person who is a participant of the scheme should be classed as employed or unemployed (see Biddle, 2004). On the one hand, participants are often undertaking meaningful work and receiving a wage for doing so, sometimes picking up valuable skills in the process. On the other hand, the work they are doing is almost wholly outside the private sector, in many cases will not lead to more active involvement in the labour market and treating them as employed distorts analysis of local labour market conditions. Given that economic theory has limited implications for interpreting indigenous-specific institutions such as the CDEP scheme, the remainder of this paper attempts to control for the effect of the scheme in Australian data. Of course, this decision is made easier by the fact there is no analogous institution in New Zealand potentially distorting the statistics, and hence it is necessary to control for the

CDEP scheme in order to enhance the comparability of trends in the two countries.

Figure 2 charts the proportion of the indigenous working-age population employed outside the CDEP scheme since 1971. The CDEP-population ratios in the previous chart are subtracted from the total employment statistics for indigenous Australians in Altman, Biddle and Hunter (2004) to get a number which is comparable with both other Australian and New Zealand statistics.

Figure 2: Long run trends in indigenous employment (controlling for CDEP), 1971-2001



Source: Derived from Altman, Biddle and Hunter (2004) and the respective New Zealand censuses.

The long run trend in non-CDEP employment for indigenous Australians is clearly negative with the change being greater than that experienced by any other group, except for the change in Maori employment between 1981 and 1991. During this period Maori employment was adversely effected by the structural adjustment that resulted from microeconomic reform that started with David Lange and 'Rogernomics'. However, in contrast to indigenous Australians, many Maori have re-found jobs after the 1991 recession. Put another way Maori appear to be highly sensitive to the economic cycle (like many marginally attached groups, see Gray, Heath and Hunter, 2005 for detailed description of labour market dynamics), but are obviously integrated into the New Zealand economy. While indigenous Australians also disproportionately concentrated among the ranks of the marginally attached and discouraged workers (Hunter, 2001), there appears to be no analogous trend for them to re-enter the workforce during a prolonged period of macroeconomic growth. These observations consolidate earlier analysis of Fisk (1985) and Altman and Daly (1993).

This is one of the main findings of this paper: namely that the pathways in indigenous Australians and Maori tracked each other in broad terms until 1991, when the labour force outcomes for the two groups diverged dramatically. While

both indigenous groups were adversely affected by the structural adjustment that followed the recession of the early 1980s and the first wave of microeconomic reform (associated in Australia with Bob Hawke and his Treasurer, Paul Keating), only Maori managed to adjust to requirements of the new labour market environment. The rest of this paper seeks to test whether this divergence still holds after controlling for geographic conditions.

Full-time employment

Figure 2 provides national estimates designed to describe the long-run trends in employment and contextualise the geographic breakdowns in the remaining slides. Obviously it is important to control for the CDEP scheme. Following the strategy adopted in Hunter (2004), Figure 4 controls for the effect of CDEP by analysing the ratio of indigenous to non-indigenous outcomes for full-time employment. The Australia data is almost identical throughout the reconciliation decade in all sections-of-state, with perhaps a small decline in the ratio. This result is consistent with Altman and Hunter's (2003) analysis of the reconciliation decade, and illustrates that the Australasia Economics (2004: Appendix 2) critique of the Altman and Hunter paper is largely without merit (for the full debate on this issue, see Altman, 2005).

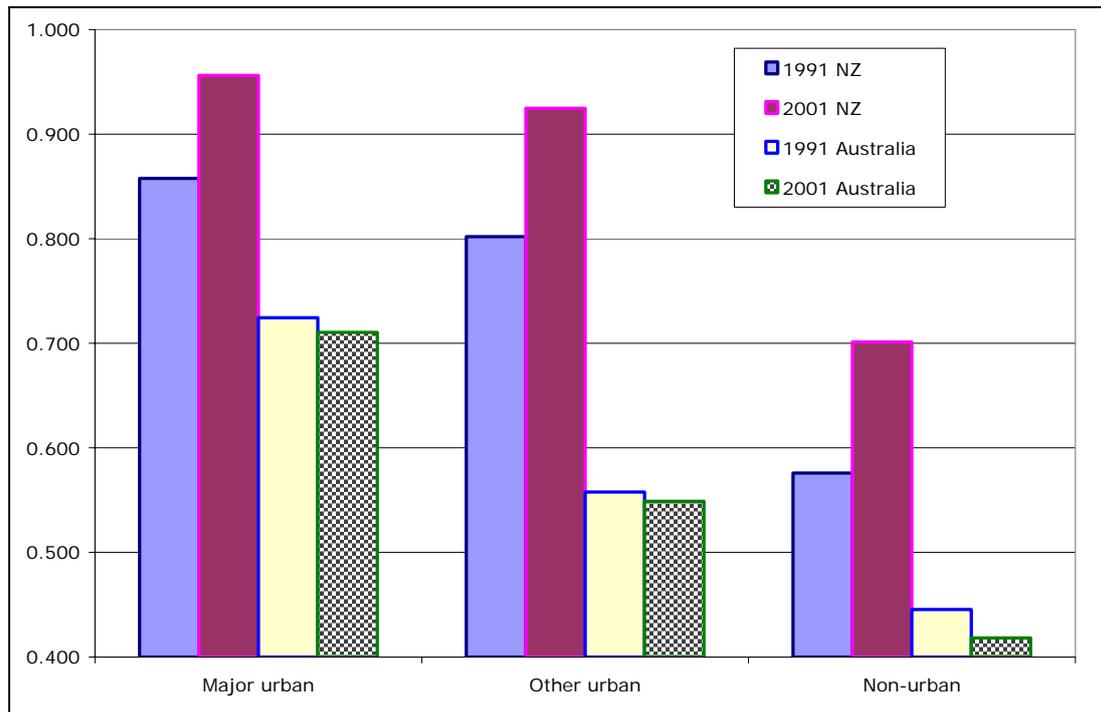
In contrast to the Australian result, New Zealand experienced a greater than 10 percentage point increase in the ratio in all the areas examined. Outcomes in full-time employment for Maori improved in both absolute and relative terms vis-à-vis other New Zealanders. Note that the ratio of outcomes declines with the level of urbanisation in both countries with the ratio in non-urban areas being more than 20 percent lower than that in major urban areas.

Figure 3 again highlights the divergent paths for the labour force outcomes of indigenous Australians and Maori. While Maori employment in full-time jobs grew in both absolute and relative terms in all 'sections-of-state', the analogous results for indigenous Australians fell. Figure 4 plots the changes in the rates of indigenous and other Australian adults in full-time employment by section-of-state between 1981 and 2001 to provide a long-run perspective, and to illustrate the absolute rates that are being referred to implicitly. Issues of data comparability and cost mean that New Zealand data are not available before 1991.

The benefit of using full-time employment as an indicator for mainstream (non-CDEP) employment is that it includes one of the major sources of indigenous employment, the public sector. On balance, indigenous employment in full-time jobs has been quite stable with no dramatic changes apparent. Indeed, if anything, full-time indigenous employment has fallen slowly in major Australian cities since 1986. In the long-run there are also similar small declines in full-time employment in other urban and non-urban areas, but the trends are less consistent.

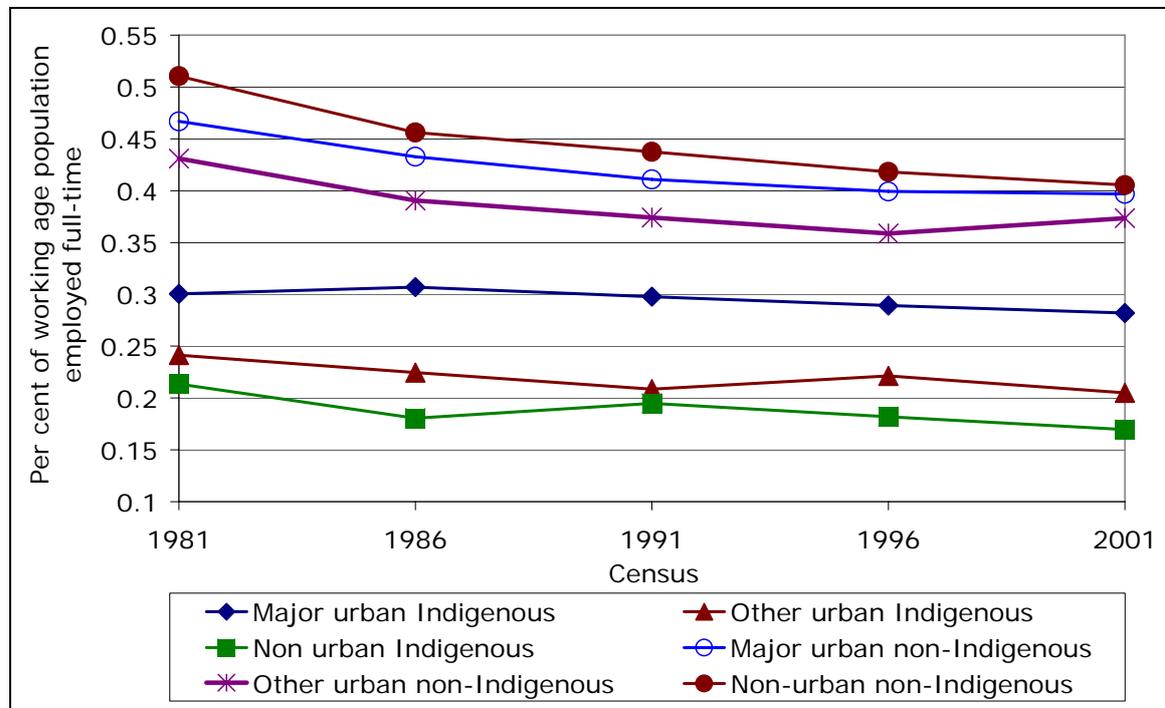
In general, the changes in indigenous full-time employment in major urban areas track the overall trends in non-indigenous employment in such jobs. One possible exception is the 1981–86 inter-censal period where the aggregate number of full-time jobs fell substantially after the 1981 recession. While the long-run trends in indigenous full-time employment in other urban and non-urban areas are also generally negative, they are more variable than the analogous data for the non-indigenous population—this fact could be characterised as either being a 'dead cat bounce' or rationalised as reflecting unreliable estimates caused by the relatively small number of indigenous persons employed in such areas.

Figure 3: Ratio of indigenous to non-indigenous outcomes in full-time employment by 'section-of-state', 1991 and 2001



Source: Calculations based on data in Appendix A.

Figure 4: Full-time employed by section-of-state, indigenous and other Australian 1981–2001



Source: Customised cross-tabulations from all censuses between 1981 and 2001.

Notwithstanding any small variations in the trends of full-time employment among indigenous and other Australians, the structure of employment across the various sections-of-state is very stable over time. Non-indigenous people in non-urban areas have the highest employment rates, with indigenous people in the same areas having the lowest employment rates. This probably reflects the fact that the non-indigenous people in such areas are more likely to have moved there to secure employment, whereas the indigenous residents of non-urban areas have, for the most part, always lived in the same or similar areas. Employment in major urban areas is always greater than other urban areas for both the indigenous and non-indigenous populations.

Public Sector

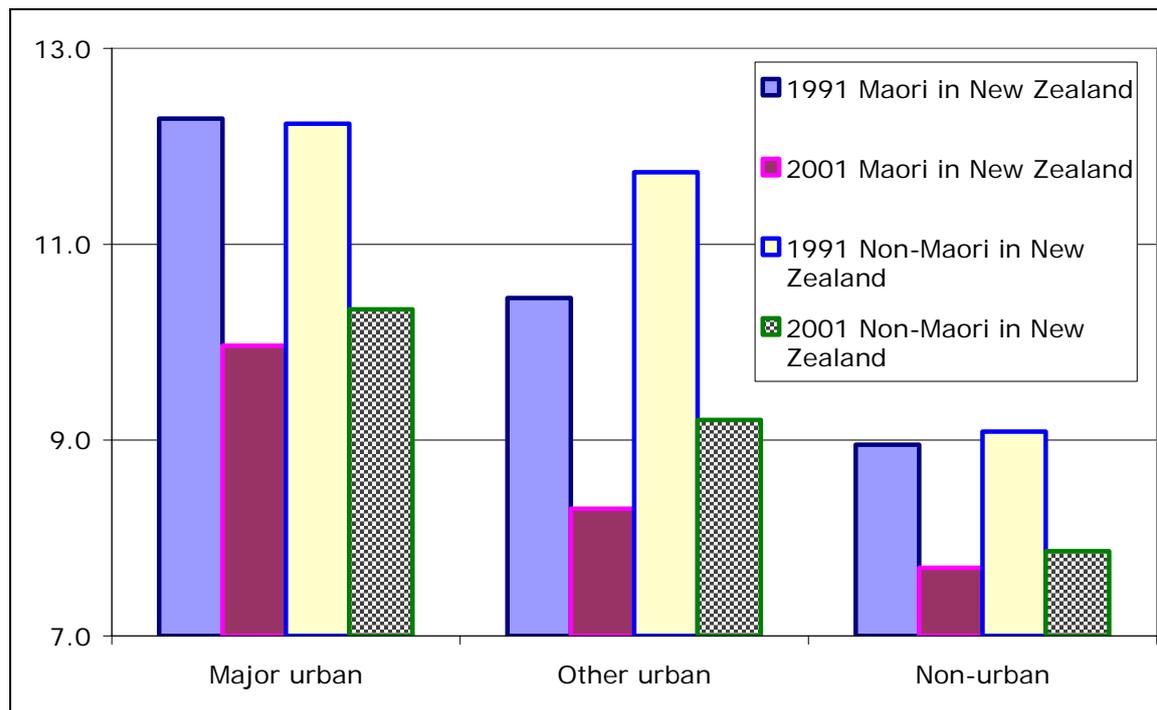
As indicated above, public sector jobs are included in the trends in full-time employment. While the CDEP scheme probably distorts the Australian public sector data for indigenous people, is it important to understand the broad trends in the public sector? The overall number of government workers has been declining across the OECD since the 1980s when neoclassical economics reasserted its muscle through the unlikely conduits of the policies of Margaret Thatcher, Ronald Regan, Paul Keating, and Roger Douglas. Privatisation of formerly state-owned enterprise became commonplace.

Figure 5 charts public sector employment in New Zealand since 1991. The proportion of adults in the public sector fell by almost the same amount in all sections-of-state for both Maori and non-Maori between 1991 and 2001. It declined by a bit less than 3 percentage points. Obviously, the privatisation of the 1980s continued throughout the 1990s.

Figure 6 charts the analogous results for Australia. For non-indigenous Australians there were also declines in public sector employment throughout the 1990s and, if anything, these declines were larger than those evident in New Zealand. This may reflect the fact that New Zealand reforms were more extreme in the early phase, with Australian privatisations gathering pace and intensities in the 1990s. While microeconomic reform received its first substantial boost with the deregulation of the Australian dollar in 1983, traditional labour party views on public ownership were still a dominant influence on the government until the late 1980s when public enterprises first started to be corporatised, and then privatised (Quiggin, 1996: 3).

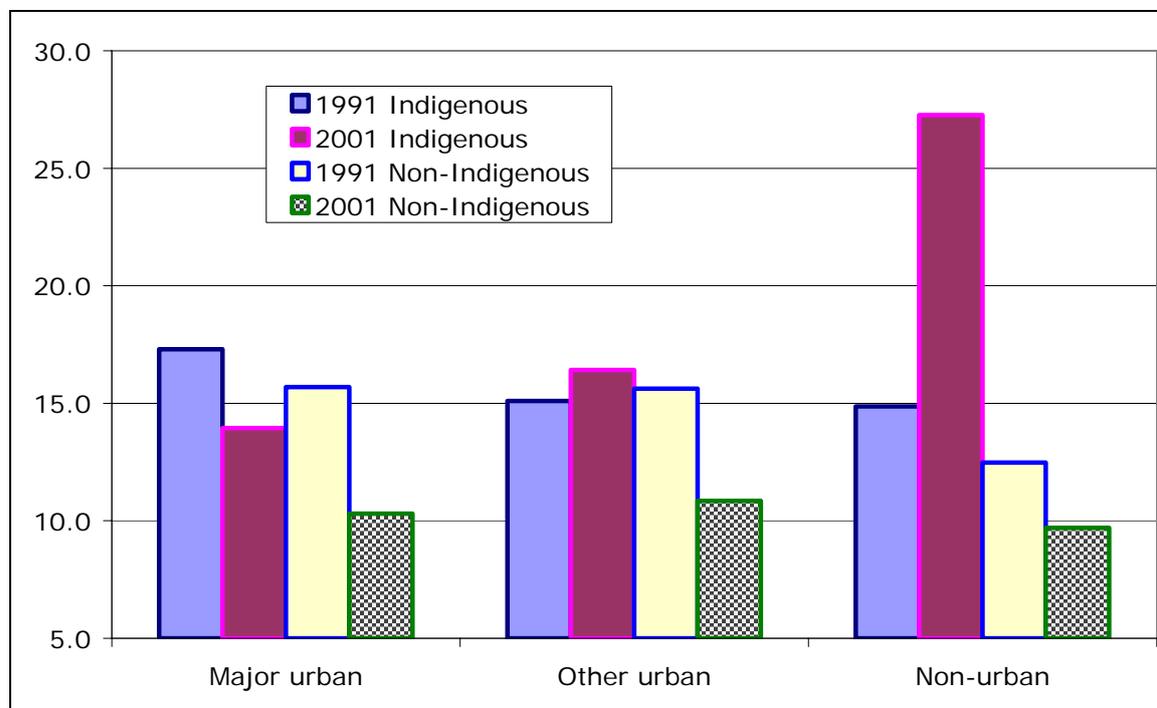
For indigenous Australians, there was little change in the proportion of adults employed in the public sector in urban areas, but there was actually an increase of around 15 percentage points in non-urban areas. The growth in the CDEP scheme appears to have counterbalanced the overall decline in the size of the public sector, although this may have been partially explained by indigenous people getting a greater proportion of government jobs. A relevant factor may be the establishment of the Aboriginal and Torres Strait Islander Commission's regional offices in the early 1990s.

Figure 5: Public sector employment by 'section-of-state', New Zealand 1991 and 2001



Source: Calculations based on data in Appendix A.

Figure 6: Proportion of population in public sector by section-of-state, Australia 1991 and 2001

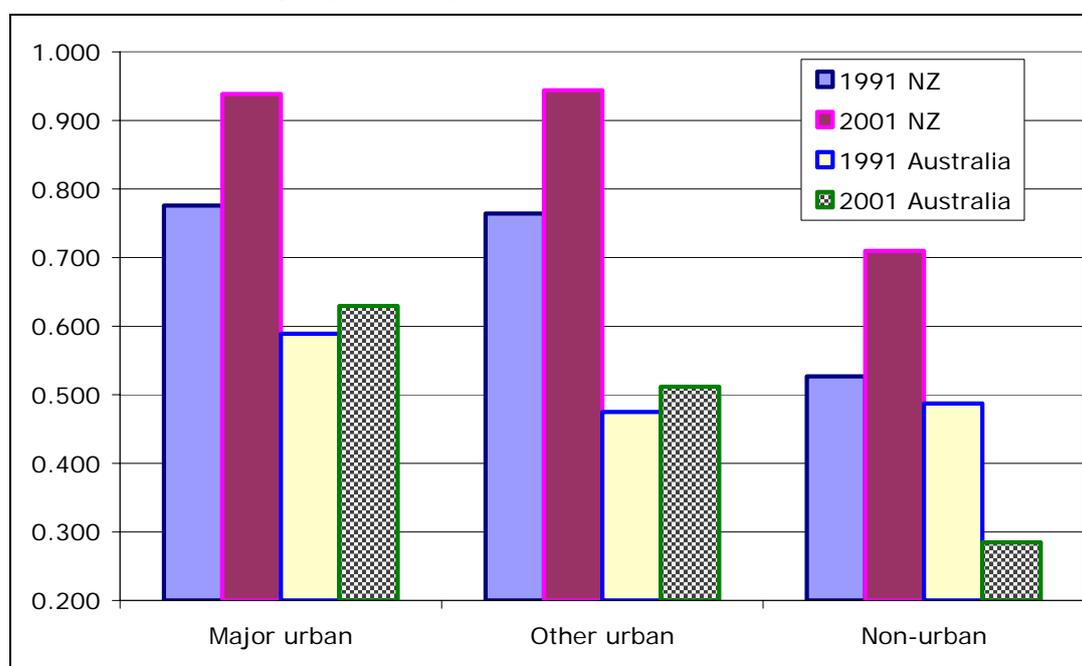


Source: Calculations based on data in Appendix A. Note: CDEP scheme employment is classified as public sector employment.

Private sector

Another strategy for controlling for the CDEP scheme is to focus on the private sector (Hunter, 2004). Figure 7 charts the ratio of indigenous to non-indigenous outcomes in private sector employment in both countries in 1991 and 2001. In New Zealand, there is consistently a more than 10 percentage points increase in this ratio in all sections-of-state between 1991 and 2001. In Australia, there is a small increase in private sector outcomes in urban areas consistent with Altman and Hunter (2003), but a substantial fall in non-urban areas. This observation could be argued as providing some evidence that there is some heterogeneity within regional estimates, hence national estimates are misleading. However, it is worth contrasting this result with that for full-time employment, which is stable across all sections-of-state. indigenous private sector employment in non-urban areas is particularly poor and the situation got worse in the 10 years leading up to the 2001 Census.⁹ It is interesting to note that the relative differential between urban and non-urban areas in indigenous Australians is similar to that for Maori in 2001 (and 1991).

Figure 7: Ratio of indigenous to non-indigenous outcomes in private sector employment by 'section-of-state', 1991 and 2001



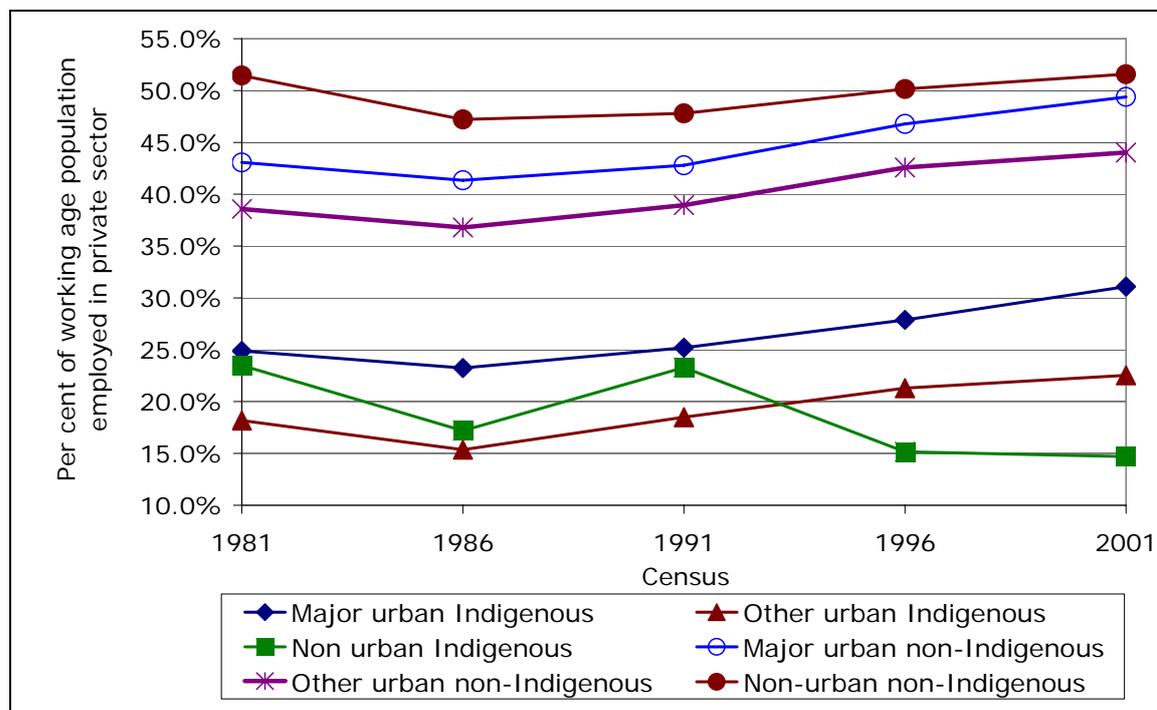
Source: Calculations based on data in Appendix A.

Figure 8 plots the medium-term trends in private sector employment for indigenous Australian by section-of-state since 1981. In contrast to the analysis of trends in full-time employment in Australia, there is a small positive trend in private sector employment for non-indigenous Australians in all sections-of-state since 1986—a fact that probably reflects the increasing incidence of privatisations and the prolonged period of favourable business conditions throughout the economy.

Major urban areas appear to have a greater proportion of indigenous workers in the private sector relative to other areas—probably because such areas are closer to larger labour markets that generate a wider variety of jobs, including low-skilled jobs that indigenous job seekers with limited education will have a realistic chance of securing. Private sector employment has improved consistently in

urban areas since 1986 with outcomes in 2001 exceeding those of earlier censuses. However, indigenous outcomes in non-urban areas have been more variable, and indeed declined substantially since 1991; although the decline was relatively small for the last inter-censal period. The variability of indigenous private sector employment may again result from the small numbers participating in that sector, especially in non-urban areas.

Figure 8: Private sector employment by section-of-state, indigenous and other Australians 1981–2001



Source: Customised cross-tabulations from all censuses between 1981 and 2001.

The difference between full-time and private sector may be partially a result of privatisation. It is quite plausible that there has been some 'shuffling of the deck' in urban areas with public sector losses in full-time employment being offset by indigenous gains in the private sector in such areas.

As with the analysis of full-time non-indigenous employment private sector employment is highest in non-urban areas. This again probably reflects the selective nature of the non-indigenous population in such areas. However, in contrast to the above analysis, indigenous people living in non-urban areas actually had higher rates of employment in the private sector than indigenous people in other urban areas before 1991. The relative situation between sections-of-states for indigenous Australians became the same as is evident for full-time employment after 1996.

The decline in private sector employment among indigenous residents of non-urban areas is consistent with the economic decline in remote areas as postulated in Hughes and Warin (2005). But the only change in indigenous employment in such areas that runs against the macroeconomic trend, or even counter to the changes experienced by other indigenous people, is largely confined to the period between 1991 and 1996.¹⁰ Consequently, it would be drawing a long bow to claim, as Hughes and Warin (2005) do, that the era of self-determination is

driving poor indigenous outcome in non-urban areas since the 1970s. Notwithstanding, it should be recognised that the non-urban geography used in this analysis is not particularly refined.

Unemployment Rates and Labour Force Participation Rates

Unemployment rates are a conventional measure of excess supply of labour. In spite of the fact that the CDEP scheme work cannot be classified as being employment or unemployment in any unambiguous manner, it is useful to briefly describe the trends in unemployment in Australia and New Zealand (see Appendix Tables 2 to 4).

The ratio of unemployment rates is not dissimilar in urban areas in both countries, but large differences are apparent in non-urban areas. In New Zealand, unemployment rates increase as the extent of urbanization decreases and this relationship became slightly more pronounced between 1991 and 2001. In Australia, the CDEP clearly depressed the ratios of unemployment rates, which declined in all areas between 1991 and 2001. Obviously, indigenous unemployment rates would be much higher in both absolute and relative terms if the CDEP scheme did not exist.

In an accounting sense, combining the number of unemployed and employed gives you the number of people participating in the labour force. Consequently, the above analysis should be reflected in Figure 9, which illustrates the ratio of indigenous to non-indigenous labour force participation rates by 'section-of-state'. The buoyant employment situation and relatively high (in relative but not absolute terms) Maori unemployment rates lead to the ratio of participation rates increasing substantially between 1991 and 2001. Indeed, now Maori participation rates are even higher than non-Maori participation in urban areas. The ratio of participation rates is lower in non-urban areas in both countries, but Maori participation rates increased substantially vis-à-vis other New Zealanders in the period examined. In contrast to New Zealand, the ratio of participation rates in Australia did not change much in the 10 years after 1991 and actually fell in major urban areas.

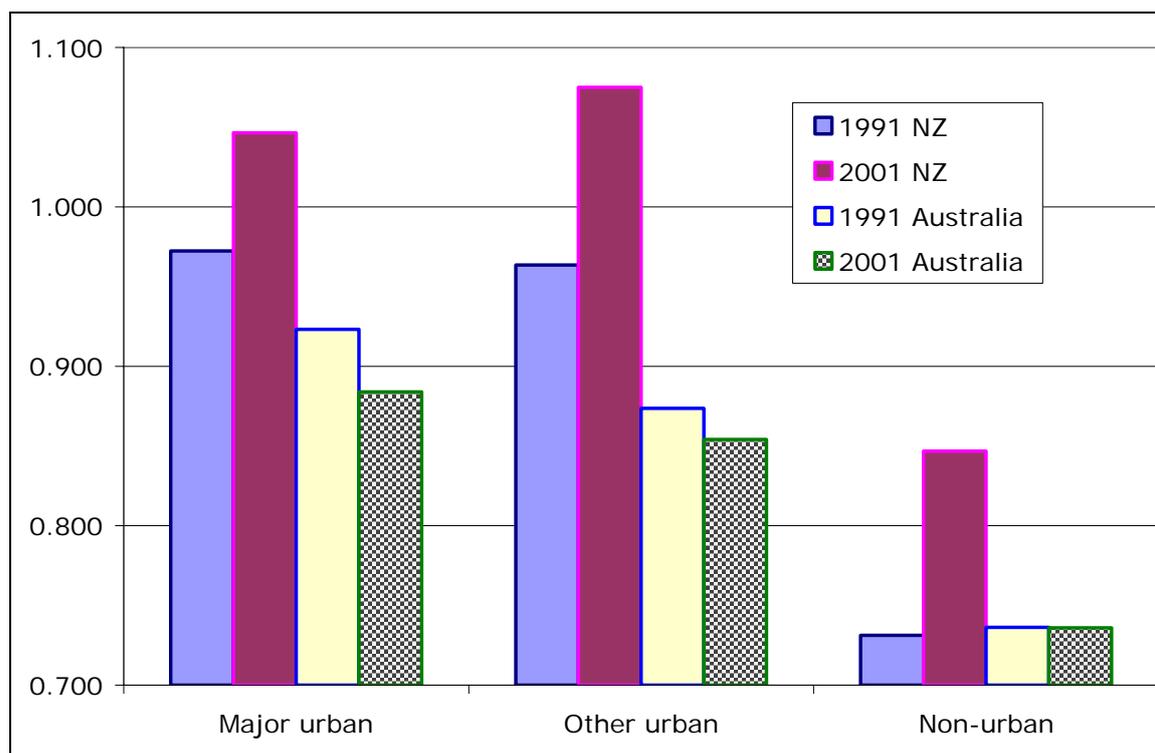
Figure 9 reinforces the above analysis that suggests there is a strong divergence between labour force outcomes for indigenous Australians and Maori during the 1990s. Relative participation rates fell for indigenous Australians and increased for Maori in almost all sections-of-state. The one exception to this stylised fact were that there was no significant change in relative labour force participation among non-urban areas. This does not contradict the hypothesis of divergence as it is well-documented how higher participation in the CDEP scheme tends to be associated with higher levels of participation in the labour market (Hunter, 2002).

The divergence in situations of indigenous Australians and Maori is not sensitive to geography. If anything the divergence is even more pronounced in major urban areas where the fall in labour force participation of indigenous Australians is highest. The next section attempts to explain part of the differential between indigenous and non-indigenous people in Australia and New Zealand.

Before moving on to a simulation, it is worth reflecting on Kevin Andrews emphasis on 'work-first welfare-second' reforms that was referred to in the introduction. While there was a substantial drop in Maori unemployment during the 1990s, there was not much improvement relative to non-Maori New Zealanders. The most substantial changes for Maori were in employment and participation rates. Even though it would be inadvisable to discount the impact of

unemployment-related reforms in New Zealand, more emphasis should be given to employment and related increases in labour force participation. For example, generation of jobs for Maori has occurred at a higher rate than for non-Maori leading to increases in participation rates. One explanation might be the flexible labour market institutions in New Zealand, but is it not entirely obvious why this would advantage Maori rather than other New Zealanders. This unanswered question will be revisited in the concluding section of the paper.

Figure 9: Ratio of indigenous to non-indigenous labour force participation rates by 'section-of-state', 1991 and 2001



Source: Calculations based on data in Appendix A.

Hypothetical: Proportion of Maori employment disadvantage explained by high arrest rates, 1991–2001

Borland and Hunter's (2000) *Economica* article documents biases induced by the failure to take into account the high rates of indigenous arrest when trying to explain indigenous employment disadvantage. This section uses the results from that paper to illustrate the potential role of arrest, and the factors that explain arrest, in explaining the indigenous employment disadvantage in Australia and New Zealand. The *Economica* article estimated a system of equations to model the effect of arrest on employment using a rich source of social and economic data, the 1994 National Aboriginal and Torres Strait Islander Survey (NATSIS).

The main finding of Borland and Hunter (2000) is presented in the first row of Table 1, which indicates that being arrested reduces the probability of being employed by 18.3 and 13.1 percentage points for males and females respectively. The point of estimating a system of equations is to show that arrest affects employment rather than vice versa. The other statistics presented in this table

demonstrate that arrest is separately identified (in a statistical sense) from employment, and furthermore the use of alternative statistical models, such as maximum likelihood techniques, does not affect the basic results.

In order to calculate the ability of arrest to explain the indigenous employment disadvantage, we estimated that the size of this effect by multiplying the difference in arrest rates between indigenous and non-indigenous Australians by the effect of arrest on the probability of employment. In the absence of any better information, it was assumed that arrest has an equivalent effect on the probability of employment of indigenous and non-indigenous persons.¹¹ Given the difference in the employment/population ratio between these indigenous and other Australians in 1994 was 19.5 per cent we estimated that arrest would account for between 12 to 17 per cent of the difference in employment/population rates between indigenous and non-indigenous Australians in 1994.¹² Borland and Hunter conclude that it will be necessary to address the social environment in which individuals make decisions about labour supply and labour demand - and in particular, to address the problem of high arrest rates of indigenous persons.

This section tries to draw some inferences from Borland and Hunter's (2000) analysis for Maori. One obvious question is how do the relatively high rates of Maori arrest effects Maori employment rates (see Table A1). A secondary question is: has arrest become a more powerful explanation of Maori employment disadvantage in 2001 than it was 10 years earlier?

Table 1: Marginal effect of arrest record on probability of non-CDEP employment, indigenous Australians, 1994

	Males		Females	
	Change in Prob (Emp)	Standard error	Change in Prob (Emp)	Standard error
a. Single equation				
Arrest	-0.183*	0.019	-0.131*	0.025
b. Two-stage estimates				
Arrest	-0.186*	0.086	-0.142	0.098
Generalised residual	0.002	0.062	0.008	0.073
c. Maximum likelihood				
Arrest	-0.185*	0.08	-0.141	0.091
Correlation coefficient	0.004	0.144	0.022	0.197

Source: Borland and Hunter (2000)

Notes:

a) The probability of being in non-CDEP employment for the base case is 0.410 and 0.291 for males and females respectively. Base case = age 25-44; Aboriginal; living in urban region outside capital city; did not complete training course in previous 12 months; no difficulty in speaking English; left school years 6 to 9; no post-school qualification; not married; voted in recent federal, State or ATSI election; not living in mixed family; does not have long-term health condition;

b) Marginal effects for arrest and generalised residual variables are defined for a change from 0 to 1;

c) Asterisk denotes significant at the 5 per cent level. Wald tests of the valid identification of the arrest equation in the two-stage estimates were significant at the conventional levels.

Unfortunately, it is difficult to convert the New Zealand data into the same metric used in the 1994 NATSIS—this is especially true for arrest rates which are measured as the proportion of adults arrested in the previous 5 years. The arrest rate in the NATSIS is re-scaled using the relative arrest rates in the international comparisons data presented in Table A1. Note that the employment disadvantage for our original analysis was expressed in terms of non-CDEP scheme employment. Since the CDEP scheme is not an issue in New Zealand, the total differential in raw employment population ratios is relevant. Again we are forced to use Borland and Hunter's (2000) estimates of the impact of arrest on employment because there is no analogous estimates for other populations. If you make these assumptions you can explain about 3.8 percentage points of the employment differential between Maori and non-Maori. This means that around 29 per cent of Maori employment disadvantage, vis-à-vis other New Zealanders, can be explained by the relatively high rates of arrest among Maori in 1991. This result is slightly higher than that for indigenous Australians, but is not totally out of proportion with the upper band of estimates in Borland and Hunter. It is higher than the Australian estimate because Maori arrest rates are substantially higher than the incidence of arrest among indigenous Australians.

It is difficult to establish an accurate time series for arrest data in either New Zealand or Australia. However, there is some evidence in New Zealand that Maori arrest rates have not fallen since 1991 (Te Puni Kōkiri, 2000: 35-8, this report is sometimes known as the 'Closing the Gaps' Report). Indeed, Figure 30 in the 'Closing the Gaps' report actually showing an increase in Maori apprehension rates during the 1990s, both in absolute terms and relative to non-Maori rates. Given that employment disadvantage of Maori fell significantly between 1991 and 2001, and if we hold the difference in arrest rates of Maori and non-Maori at their 1991 level, a conservative estimate of the proportion of employment disadvantage explained by high Maori arrest rates in 2001 would be around 60 per cent of prevailing employment disadvantage. That is, the proportion of Maori employment disadvantage that was explained by their relatively high arrest rates more than doubled in the 10 years to 2001.

This result, of course, is driven by the relatively good performance of Maori in securing employment during the 1990s. The importance of the finding lies in the fact that it points to the fact that future improvement in Maori employment will be constrained by the factors that perpetuate their high rates of arrest. For indigenous Australians, such factors include a complex set of economic and social factors, including access to legal services, and the phenomenon called "the stolen generations" (Hunter, 2001). It is not possible to analyse these factors in any detail here, but it has been argued that patterns of indigenous arrest do not fit easily within standard economic models and are more likely to be embodied within a theory that incorporates some element of cultural conflict between an outside group and the dominant societal norms (Hunter, 1998).

It must be emphasised that even though the econometrics points to the direction of causality being from arrest to employment, a reduction of indigenous arrest by diversionary policies (e.g. police using alternative strategies) will not necessarily improve employment outcomes. Unless the underlying factors driving arrest are addressed, the employment disadvantage attributable to arrest is unlikely to abate significantly. That is, while the effect of arrest may be direct in some cases, it could be considered a proxy for a cluster of factors that could be broadly said to reflect cultural conflict between indigenous and non-indigenous communities.

Revisiting the Importance of Geography: Some Reflections on Hughes and Warin (2005)

In March 2005, the Centre for Independent Studies (CIS) published a paper by Helen Hughes and Jenness Warin advocating urgent reform in remote indigenous communities including the establishment of individual property rights, voluntary 'literary corps' and internet cafes, as well a revamping of clinical health care provision and ending the use of 'payback' in cases involving the justice system. This section comments on the interpretation of economic history underlying that paper. Hughes and Warin focus on a crisis in remote indigenous communities, which they ascribe to the 'socialist' 'Coombs model' (even though they assert it is derived from a book by Coombs, Brandl and Snowdon, 1983). Given the importance of geography to their thesis, the absence of any historical data on which to mount their case is notable.

Hughes and Warin (2005) complain that Altman, Biddle and Hunter's (2004) analysis of long-run trends after 1971 ignore remote areas. But adequate geography has only recently become available after the development of the remoteness classification of the ABS (2003) remoteness calculations.¹³ The disaggregated section-of-state variable allows some form of geographic comparisons and this only goes back to 1976, but it falls well short of describing changes in remote areas.¹⁴ The long-run analysis of indigenous socio-economic outcomes is simply not possible on the basis suggested by Hughes and Warin.

One of the main findings of this paper is that the inter-temporal story is not sensitive to focussing on disaggregated geography. In contrast to Hughes and Warin (2005), indigenous Australian labour market outcomes are relatively poor in all sections-of-state with the trends being more or less consistent in the years leading up to 2001. That is, there was a widening divergence between indigenous Australians and Maori in the various types of geography for which we have some information. Accordingly, if one argues that there is a crisis in remote Australia, then the same must be said for urban Australia.

Policy prescriptions of Hughes and Warin appear to be partially predicated on the assumption that if remote indigenous populations move into settled Australia, then indigenous economic status will improve. The evidence presented in this paper contradicts this position.

Concluding remarks

The above analysis provides two main insights: first that the Maori population is more fully integrated into the New Zealand economy and business cycle than indigenous Australians are into the Australian economy. The second finding is that while Maori have performed very well in terms of recent employment growth, the prospect for future improvements may be constrained by unresolved cultural conflict embodied in the high ongoing rates of Maori arrest. While there is a similar level of cultural conflict between indigenous and other Australians, it is probable that the historical difference in the treatment of the respective indigenous populations is partially responsible for the different economic outcomes in the two nations.

There are many things that differ between two countries at various points of time, and consequently international comparisons cannot be used to provide a refined analysis on the precise causes of any divergence or convergence for indigenous

Australians and Maori. While it is important not to over-interpret the data, the extent of divergence between indigenous labour market outcomes in Australia and New Zealand are so marked that some speculation is warranted.

Why has this divergence emerged between Australia and New Zealand statistics? The ABS monograph, 'indigenous Australians in the Contemporary Australian Labour Market' showed, amongst other things, that labour market discrimination cannot be discounted as a major factor underlying indigenous employment disadvantage in metropolitan, provincial and remote Australia (Hunter, 2004). Furthermore, such discrimination is probably manifest in the inability to find jobs rather than in low wages. While racial discrimination also probably exists in the New Zealand labour market the small size of the indigenous employment differential means that it must be less significant issue in that country in absolute terms.¹⁵

Why are Maori better integrated into the New Zealand economy than the Aboriginal and Torres Strait Islanders are into the Australian economy? One probable explanation is that Maori have a longer entrepreneurial history and appreciation of the value of education dating back to the early colonial period (King, 2003).¹⁶ In some areas, Maori even had higher rates of literacy than Pakeha in the immediate post-colonial era with the first New Zealand bible being printed in the newly transcribed Maori language (King, 2003). Maori, who constitute just under 20 per cent of the New Zealand population, are obviously important to the macroeconomic growth and hence cannot be ignored in national policy debates. Maori are particularly integral to the New Zealand tourism industry, which differentiates its product using Maori culture, history and language.

One factor that is not driving the divergence between indigenous Australians and Maori outcomes is any emphasis on traditional languages in the respective countries. Hughes and Warin (2005) write emotively about the deliberate subjugation of English in favour of local language, and even compare the situation in remote Australia to Apartheid.¹⁷ In the context of this paper, it is difficult to ignore the rise in New Zealand of the Kohanga Reo movement and total immersion schools since the 1970s where young Maori students are taught solely in the Maori language (King, 2003). Obviously, this has not hindered Maori participation in the New Zealand economy in any way. Indeed, it may be argued to have enhanced Maori participation in the education system which has grown substantially at all levels.¹⁸

Another factor that can be discounted as explaining the divergence is self-employment and indigenous business formation. The incidence of Maori self-employment was essentially the same in 1991 and 2001 in all 'sections-of-state'. While there may have been some change in indigenous self-employment in Australia, the trends are not very clear because of important changes in census questionnaires and coding (Hunter, 2004). In any case, indigenous businesses are still a relatively minor employer of indigenous Australians with no realistic prospect for any change in the near future. Notwithstanding these reservations, some part of the on-going differential between indigenous Australians and Maori may be due to the greater access to resources for Maori under the Treaty of Waitangi (although many of these resources are concentrated in iwi and community-based trusts).

The greater pro-cyclical response of Maori to sustained macroeconomic growth compared to that for indigenous Australians is a genuine conundrum. Hunter and Gray (2001) show that indigenous Australians have high rates of marginal

attachment to the labour market with many being classified as discouraged workers. In aggregate, just as many indigenous Australians want to work as other Australians. Consequently, policies that focus solely on the supply-side are unlikely to be effective. The failure to secure employment in a period of historically high jobs growth is an indication that the skills of indigenous job seekers are not matched with the needs or preferences of employers. Therefore poor educational attainment among indigenous Australians, and other impediments to the demand for labour, needs to be addressed urgently.

One common factor in both Australia and New Zealand is the relatively youthful nature of the respective indigenous populations (see Chapple, 1999). The demographic trend towards a large increase in the youthful portion of the indigenous population underscored the importance of investing in education and improving indigenous employment outcomes (Hunter, 2004). While it is undeniable that land had an important role in indigenous culture (both among indigenous Australians and Maori), the value of land is relatively stable over time as it is largely a fixed asset, and consequently, the value of land cannot increase at the same rate as the current indigenous population growth. Only investment in education, and possibly other assets, can possibly keep up with the projected indigenous population growth.¹⁹

Trends in socio-economic status do not necessarily provide clear policy recommendations. The long-run analysis in Altman, Biddle and Hunter (2004) was used to argue that slow improvements over time are more indicative of broad policy settings for indigenous Australians being basically correct than of policy failure. They argue that any radical change in policy approach at the national level might jeopardise a slow process of improvement that history suggests is under way. The short-term and medium international comparisons are less sanguine and point to the need for greater urgency. It is possible that the different historical circumstances mean that it may inevitably take time for institutional and cultural factors to adapt. Not only does New Zealand have a longer history of coming to terms with 'land rights' under the Treaty of Waitangi, but New Zealand educational and other institutions have evolved to take into account in varying degrees the needs of Maori. The debate in New Zealand has moved on from the rather patronising policy prescriptions being put forward in Australia (Hughes and Warin 2005), apparently without adverse effects for the economic circumstances of Maori; indeed, it is arguable that a greater national acceptance of Maori culture and language may have played a part in the high levels of Maori integration into the New Zealand economy.

One potentially important historical difference is the extension of full welfare entitlements to Maori in 1935, more than a generation before a similar extension of welfare rights occurred in Australia (King, 2003). Individuals will eventually adapt to 'new' institutional structures, but this may take many years to change as the New Zealand experience appears to indicate. The more optimistic analysts believe a change in an individual's mindset may be assisted by public debate and community support (Pearson, 2000). Let us hope that this is the case!

Appendix: Descriptive statistics

Table A 1: International Comparisons of indigenous Arrest and Labour Market Outcomes, 1990-1991

	Number of arrests per 1,000 adults ^(a)	Unemployment rate	Employment/ population ratio	Participation rate
Ratio of indigenous to non-indigenous in brackets				
Australian indigenous ^(b)	168.5 (8.1)	30.84 (2.7)	37.1 (0.7)	53.5 (0.9)
Canadian Aboriginal ^(c)	34.2 (7.4)	19.4 (1.9)	51.83 (0.9)	64.3 (0.9)
New Zealand Maori	216.5 (4.8)	24.7 (2.8)	45.7 (0.8)	60.7 (1.0)
US Indian ^(d)	138.2 (1.5)	7.9 (2.3)	47.2 (0.9)	55.1 (1.0)

Notes:

(a) Adult population refers to the population over 15 except in New Zealand where the adult population used is all people over 14 years;

(b) Australian arrest statistics are based on Ferrante and Lohs' (1996) estimates for Western Australia;

(c) Canadian estimates based on sentenced admissions in the federal jurisdiction only;

(d) This may not be a reliable estimate since US Indians fall under the jurisdiction of a complex combination of native and non-native legal entities (Hawkins, 1995: 174).

Source: Borland and Hunter (2000).

Table A 2: Main indicators of labour force status in Australia and New Zealand in 'major urban areas' by indigenous status, 1991 and 2001

	Total Employed full- time	Private sector	Unemployment rate	Labour force participation rate
1991				
indigenous Australian	42.5	29.8	25.2	30.0
Non-indigenous Australian	58.5	41.1	42.8	11.1
Maori	46.4	39.9	34.1	23.0
Non-Maori	56.2	46.5	44.0	9.3
2001				
indigenous Australian	45.0	28.2	31.1	11.7
Non-indigenous Australian	59.7	39.7	49.4	4.5
Maori	59.0	46.5	49.0	16.0
Non-Maori	62.6	48.7	52.2	6.8

Note: Total employment can be calculated by adding up full-time and part-time employment rates.

Source: Customised cross-tabulations from 1991 and 2001 censuses for Australia and New Zealand.

Table A 3: Main indicators of labour force status in Australia and New Zealand in 'other urban areas' by indigenous status, 1991 and 2001

	Total Employment	Employed full-time	Private sector	Unemployment rate	Labour force participation rate
			1991		
indigenous Australian	33.6	20.9	18.5	38.0	54.2
Non-indigenous Australian	54.6	37.4	38.9	12.0	62.0
Maori	40.6	32.9	30.1	25.7	54.6
Non-Maori	51.1	41.1	39.4	9.8	56.7
			2001		
indigenous Australian	38.9	20.5	22.5	12.2	51.1
Non-indigenous Australian	54.9	37.4	44.0	5.0	59.8
Maori	54.2	39.9	45.9	18.2	66.3
Non-Maori	57.9	43.2	48.7	6.2	61.7

Note: See note for Table A2.

Source: Customised cross-tabulations from 1991 and 2001 censuses for Australia and New Zealand.

Table A 4: Main indicators of labour force status in Australia and New Zealand in non-urban areas by indigenous status, 1991 and 2001

	Total Employment	Employed full-time	Private sector	Unemployment rate	Labour force participation rate
			1991		
indigenous Australian	38.2	19.5	23.3	22.9	49.5
Non-indigenous Australian	60.3	43.8	47.8	10.4	67.3
Maori	38.0	30.5	29.1	24.3	50.2
Non-Maori	64.3	53.0	55.2	6.5	68.7
			2001		
indigenous Australian	42.0	17.0	14.7	6.1	48.1
Non-indigenous Australian	61.3	40.5	51.6	4.1	65.3
Maori	53.5	39.4	45.8	15.9	63.6
Non-Maori	72.4	56.2	64.5	3.6	75.1

Note: See note for Table A2.

Source: Customised cross-tabulations from 1991 and 2001 censuses for Australia and New Zealand.

Notes

1. In technical terms there is not sufficient degrees of freedom in the analysis. Another way of characterising the issue is to say there is not enough data to provide valid instruments that are separately identified in the distinct dimensions that are being examined.
2. The term American Indian is the preferred term by around 50 per cent of Mainland Americans of indigenous origins (see <http://www.infoplease.com/ipa/A0762158.html>).
3. In the US, if urban indigenous people are not under the jurisdiction of a tribal authority they are often assumed to be just another minority group who can avail themselves of the relatively buoyant metropolitan labour markets and urban services (public or otherwise). However, recent evidence from Australia illustrates that social exclusion may be a complex, and persistent phenomenon whereby indigenous-specific policies are justified in both urban and other areas (Hunter, 1999; Hunter, 2002). Consequently, the invisibility of urban American Indian peoples is an analytical and policy gap that needs to be filled.
4. Also see Hunter and Dungey (2003) for other related references.
5. The debate in New Zealand tends to emphasis that a substantial number of Maori share a common ancestry with the Pakeha population and that the observed inequality is largely a result of disadvantage in the sole Maori group (Chapple, 1999). However, this position is not without dissent (see a series of articles in the *New Zealand Population Review* in 2002 and 2003).
6. The CDEP scheme proved immediately popular, but was initially beset by a number of budgetary and administrative problems, which inhibited its expansion.
7. There were around 2,000 non-indigenous participants in the scheme, many of whom were partners of indigenous people.
8. About 80 per cent of CDEP scheme employees work less than 35 hours per week (ABS, 2004).
9. Diamond (2005) speculates about the disappearance of mid-sized mining towns in Australia which may impact on employment prospect in the private sector (see Chapter 13).
10. Indeed, the 1991 estimate for non-urban areas may be the outlier as it is unusually high, both relative to previous non-urban estimates and vis-à-vis other areas.
11. To my knowledge there is no equivalent estimate of the effect of arrest on employment for the non-indigenous population.
12. The range of numbers was generated by difficulty in getting accurate arrest data calculated on the same basis for both the indigenous and non-indigenous populations. Indeed, we had to rely on Western Australian data published in Ferrante and Loh (1996).
13. The remoteness classification was first available for the 2001 census only, but the ABS has constructed a concordance back to the 1996 Census (Australasia Economics, 2004).
14. There is a section of state variable available for 1976 but it appears to only have information on urban and rural areas. The classification of major urban area with more than 100,000 residents living in an area was first used in 1976. Unfortunately, only a fraction of records were kept in that census so effectively the section of state breakdowns can only be calculated back to 1981.
15. Also, the hypothetical in the penultimate section of this paper shows that arrest rates are now probably the major factor underlying the employment disadvantage experienced by Maori. Note that the high rates of Maori arrest could themselves reflect a particular form of discrimination.
16. Another difference between Australia and New Zealand is the Treaty of Waitangi, which has facilitated access to capital for some iwi and Maori business.
17. In some areas, indigenous communities have the right to issue permits to enter their land. This has more in common with the ability to prevent people from entering one's home than Apartheid, which systematically governed all aspects of certain people's life. Hughes and Warin analogy is transparent hyperbole given that the people who are excluded from entering communities are not constrained in any other way.
18. See Whitehead and Annersley (2005) for details of growth in Maori education, especially in the tertiary sector. While Maori participation in tertiary education has increased dramatically, much of the growth is in Wananga. There is an ongoing public debate in New Zealand about the quality of Wananga qualifications (Education and Science Committee 2004: 3, 5), which is probably even more diverse than conventional tertiary qualifications. Notwithstanding, it is undeniable that Maori employment has improved in both absolute and relative terms.
19. Daly (1995) and Maani (2003) show that the returns to various educational qualifications are actually higher than for the non-indigenous populations.

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