

Jackson, N.O. (2002) The Doubly-Structural Nature of Indigenous Disadvantage. A Case of Disparate Impact? *New Zealand Population Review* 28(1), 55-68.

The structural nature of indigenous disadvantage is now broadly—although not universally—acknowledged. Demographic differences between indigenous and non-indigenous groups are also widely recognised. However, connections between the former (structural socio-economic differences) and latter (demographic differences), which this paper argues lead to a new form of structural disadvantage, remain relatively unexplored. The argument is that policies which appear to be 'ethnically neutral' on the surface are often highly discriminatory underneath, purely as a result of ethnic differences in age structure. Although the boundaries of ethnic groups are problematic to define, such policies are likely to contribute to the maintenance of inequality between affected groups. The paper outlines the argument for New Zealand, and is structured around the legal concept of 'disparate impact'.

Introduction

Differences in the timing and velocity of the demographic transition result, at least for a time, in sub-populations—particularly ethnic groups—having different age-sex structures. Typically, these somewhat invisible structures are of interest to social demographers (and sociologists and economists) because they explain some degree of the social, economic and political inequality that often exists between such groups. A youthful population—one with a median age of around 20 years—is likely to have proportionately more of its members still at school, unemployed, on low incomes, holding positions of lower seniority, and so on, than an older population, with the result that comparison of summary indices such as total unemployment rates, average income, proportion in each occupational status etc., are biased. Most social analysts employ statistical procedures such as standardisation or decomposition to control for, or statistically eliminate, these age-composition differences.

In the real world, however, the methodologically controlled differences remain, and are real in their implications when they interact with certain social and economic policies. On the surface, such policies may appear to be 'ethnically neutral'; underneath— purely as a result of sub-population differences in age structure—they may be highly discriminatory. As a result they may contribute to the maintenance of inequality, or even underdevelopment. This paper outlines the argument using data for the Maori and European/ non-Maori populations¹ of New Zealand, and is structured around the legal concept of 'disparate impact'.

Disparate Impact

In brief (since this is not a paper attempting to establish a legal case), the concept of *disparate impact* refers to the differential outcomes that people experience as a result of certain actions, decisions or policies, typically taken in the context of employment. The use of the concept as a basis for litigation comes from the United States and has its roots in the American Civil Rights Act of 1964. At first, lawyers acting on behalf of claimants had to prove that the impact had been intended (for example, that it was racially motivated); by the 1970s, a practice could be found to be in violation of the Civil Rights Act if it had the *effect* of discriminating. In the landmark case of Griggs v. Duke Power Co. (1971), the Court found that practices that were ostensibly racially-neutral could have an adverse impact on the opportunities of members of protected classes—in the United States meaning minority groups as specified under the Civil Rights Act (Myers 1993:176-7, 180-81). Since 1973, when the complementary concept of disparate treatment² was established (in McDonnell Douglas Corp. v. Green), lawyers involved in such cases have been guided by the two theories: disparate impact and disparate treatment.

The concepts and their uses have undergone a number of refinements over the ensuing years, making successful claims more difficult to bring about. Currently, a plaintiff making a claim of disparate impact has to prove that the discrimination occurred *directly* through the factor on which the claim is based, for example, age (Schmeltzer, Aptaker and Shepard 1999), whereas previously the pathway could be more indirect. As implied, the factors on which a claim may be based are similar to those outlined in the human rights statutes of most western countries: generally, sex, race, religion, ethnicity, disability, sexual orientation, and increasingly, age. As with conventional litigation pertaining to discrimination, disparate impact claims are generally concerned with discrimination at the level of the individual. However, once a successful claim has been made, the finding may be applied to any number of otherwise-identical individuals who have been similarly affected, essentially along the lines of a class action.

Although disparate impact theory has not been tested at the level of a sub-population, the idea of a sub-population experiencing disparate impact in the aggregate is not difficult to conceive of. This paper proposes that differing ethnic group age structures have the potential to result in disparate outcomes that are, essentially, of the unintended kind. While not proposing litigious action—not least because of the difficulties in determining the boundaries of New Zealand's ethnic groups (e.g. Pool 1964, 1977; Gould 1992, among many others), the paper argues for the imperative of taking such demographic differences into account in the

development of policy. Two examples are elaborated here: the 1989 introduction of 'user-pays' tertiary education and its associated Student Loan Scheme, and the 1991 decision by the New Zealand Government to raise the age of eligibility for the adult rate of Unemployment Benefit from 20 to 25 years. To assist the illustration of the argument, they are discussed in reverse order.

Unemployment Benefits and Age of Eligibility

Since its inception in 1938, New Zealand's welfare state and its goods and services have been open to all New Zealanders. Although entitlement for certain benefits was always subject to various forms of means-testing, over the years the welfare state became increasingly benevolent and universal, with, among other things, child allowance, unemployment benefits, free education and health care, and age pension set at levels (in real terms) somewhat above the highly targeted 'safety net' that obtains today.

Until the mid-1970s, New Zealand had experienced relatively low levels of unemployment—seldom above 3 per cent of the labour force. The only exception to this now-enviable situation occurred during the Great Depression of the 1930s, when somewhere between 8.5 and 33.0 per cent of the labour force was unemployed (Royal Commission on Social Policy 1988:172-3; Rankin 1990:2).³ From the mid-1970s, both the numbers and proportions unemployed increased dramatically, with the official unemployment rate peaking at 11.8 per cent in March 1992.

From the beginning of the 1980s, the unemployment rate and the goods and services of the welfare state moved inversely to each other; as unemployment rose, one after another benefit of the welfare state was either withdrawn, reduced in real dollar terms, or had access to it substantially restricted (Boston and Dalziel 1992). In December 1990, the newly elected National Government responded to the growing demands on the welfare state with the announcement of a series of far reaching economic and social initiatives (Bolger, Richardson and Birch 1990) that were considered radical even for a country often described as a 'social laboratory' (Shirley 1993). In 1991, with unemployment having risen by nearly 300 per cent over the previous decade, the corner-stone of these initiatives, the inter-related Employment Contracts Act, and *Welfare That Works*, an annex to the 1991 Budget, came into being (see Shipley, Upton, Smith and Luxton 1991:12 for a clear statement of this relationship). In a monumental move for a supposed democratic constitution, the unicameral parliamentary system took 'urgency' on the annex and passed it into legislation overnight.

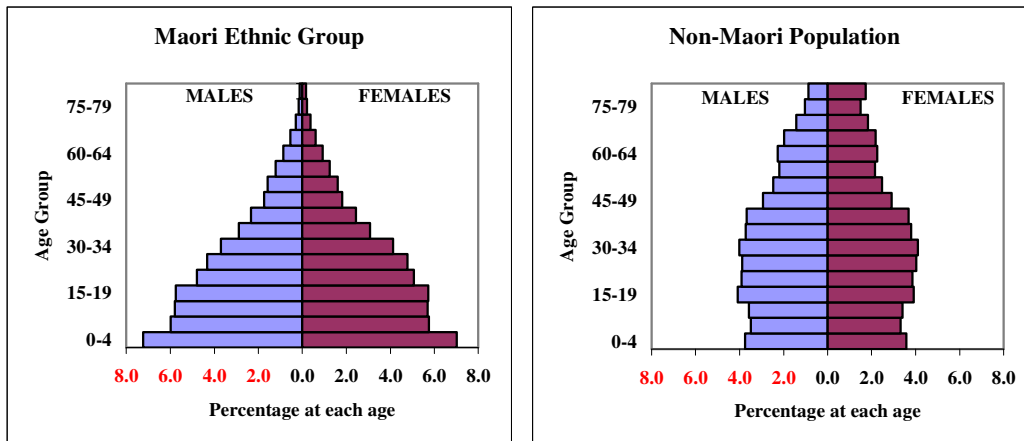
The following day, New Zealanders awoke to learn that their welfare state had supposedly become riddled with a 'culture of dependency' (Shiple et al. 1991), and that an amazing array of new rules and regulations designed to nip this dependency in the bud had been passed into law. Uppermost amongst these regulations—for a population reeling from historically high unemployment (and structural unemployment at that)—were substantial changes to the age of eligibility for the adult rate of unemployment benefit, from 20 to 25 years. The youth rate, which had previously pertained to 15-19 year olds, had been simultaneously extended upwards to cover 20-24 year olds, and lowered in dollar terms by 5 per cent for those in the 15-19 year age group, and by 25 per cent for those in the 20-24 year age group. These changes would impact differently on the Maori and European/non-Maori populations.

Maori and Non-Maori New Zealand

For most of its post-colonial history, the New Zealand population has comprised of two ethnic 'groups': the indigenous Maori, and the predominantly European, non-Maori.⁴ As late as the 1980s, the Maori and European origin sub-populations together comprised 96 per cent of the total population (Maori 9%, European 87%). Only in the early-1990s, with an influx of Pacific Island Polynesian-born that had begun in the late-1970s, and of Asian-born that had begun in the 1980s, did the combined share held by Maori and European begin a noticeable decline. By that time, however, the Maori population had increased its share of the total to around 12 per cent, having gained in size both absolutely, and relatively, to its until-recently lower fertility European counterparts.

By 1991, the Maori Ethnic Group (defined now by cultural affiliation, and hereafter referred to as the Maori population) comprised 13 per cent of the total population, and had a median age of 21 years. By contrast, the non-Maori population—the combination of the European (80%), Pacific Island Polynesian (4%), and Asian/Other (3%) populations—comprised the balance and had a median age of 33 years.⁵ Their relative age structures are shown in Figure 1.

Figure 1: Age-sex structures of the Maori and Non-Maori populations, 1991

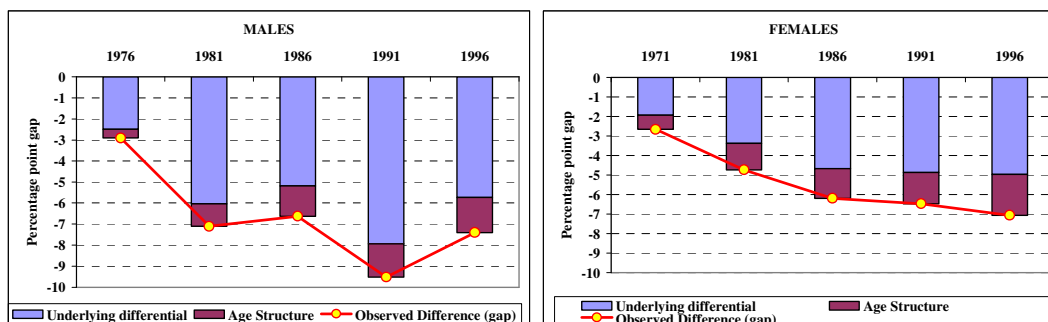


In 1991, reflecting these age structural disparities, 21 per cent of the Maori population was aged 15-24 years, compared with less than 16 per cent of the non-Maori population. However, in relation to unemployment, these indices tell only part of the story. The disparity was substantially greater when only the working age population (15-64 years) was considered, and this, after all, was the population exposed to the risk of unemployment. As a proportion of their respective working age populations, Maori aged 15-24 comprised 36 per cent, European, 24 per cent—a proportionate ratio of 1.5 young Maori for each young European. These differences meant that the Maori population in 1991 was disproportionately exposed to the risk of unemployment. Even if the unemployment *rates* of Maori and European youth had been identical, the policy changes outlined above would have had a disproportionate impact on the Maori population by virtue of its age structure alone (Jackson 1994, 1995, 1998). As it was, the labour force unemployment rate of Maori youth (37 per cent) was almost double that of their European counterparts (19 per cent). Incorporating the multiplicative effects of age structure, the relative impact of the above policy on the Maori population would therefore have been three times greater (1.5 x 2) than that experienced by the European population, not twice as great as the youth employment rates implied.

These effects were substantiated by Jackson (1998:129), whose decomposition analysis found that in 1991, 17 per cent of the gap⁶ between the total (population-based) unemployment rates of the European and Maori male populations, and 25 per cent of the gap for their female counterparts, was due to differences in age structure.⁷ As Figure 2 shows, both the gap in unemployment rates and the proportions of the gap accounted for by the differences in age structure have since decreased (the latter to 13 and 18 per cent respectively). Nevertheless, the patterns confirm the continuing contributory role of the Maori

age structure to their higher unemployment, and thus to differential exposure to any policies developed to address unemployment, in particular, policies directed at reducing income support.

Figure 2: Decomposition analysis of gap* in unemployment rates, by sex, 1976-1996



Source: 1976-91: Jackson 1998:129; 1996 data: Table 17: Labour Force Status by Age and Sex - Population Resident in New Zealand, National Summary

Table 33: Labour Force Status by Age and Sex, Maori Population

Notes: *Gap = European - Maori Ethnic Group (1976-1991); Non-Maori - Maori Ethnic Group (1996)

-Unemployment rates calculated as a percentage of population aged 15-64 years

There is little doubt that the negative disparate impact resulting from the policy outlined above was unintended. If this were an isolated case it would therefore be, to a certain extent, forgivable. Unfortunately, the incident came on top of a long history of such incidents (often attributed to institutional racism), many of which will have involved similar age-effects, and many of which could have been prevented or ameliorated by incorporating demographic considerations into the policy development process. Demographic differentials between the Maori and non-Maori populations have been long documented, and many of their implications well elaborated (among many: Pool 1961, 1964, 1977, 1985; 1991; Sorrenson 1963; Douglas 1985; Pool and Pole 1987; Royal Commission on Social Policy 1998; Butterworth and Mako 1989).

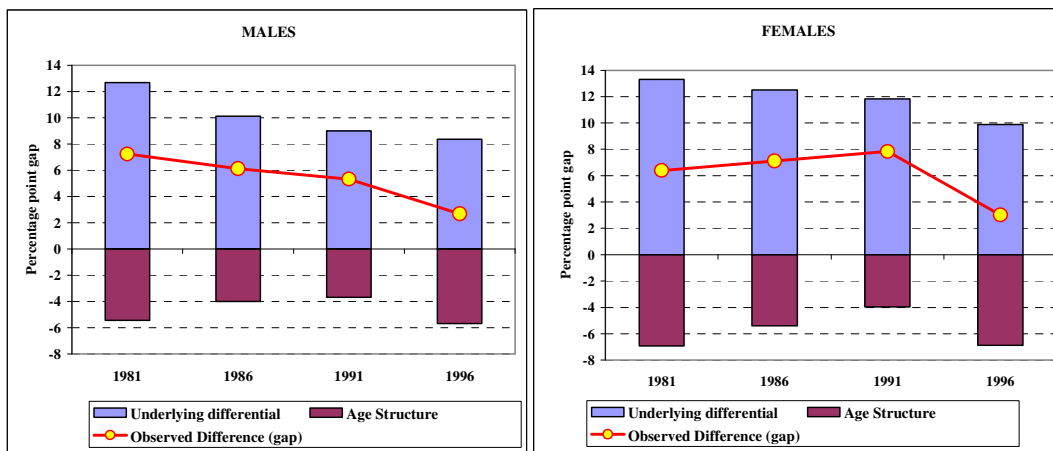
Importantly—and herein lies information of substantial value for preventing such incidents occurring in the future—age-effects are not always *a priori* negative. Currently, the Maori population is gaining a relative advantage from its age structure in relation to education. That is to say, as a younger population it has a greater proportion of its members at and approaching secondary school and university age.

In 1981, 26 per cent of European males (15+ years) and 19 per cent of their Maori male counterparts held a secondary school qualification as their highest educational qualification (a gap of seven percentage points). For females the percentages were 28 and 21, also a gap of seven percentage points.⁸ Decomposition analysis (see Figure 3) shows that if

the Maori and European populations in 1981 had had the same age structure, the gap in the percentage of both sexes holding a secondary school qualification would have been around 13 percentage points, rather than the seven observed; that is, nearly twice as great as the observed gap. Between 1981 and 1996 the observed gaps decreased (although first increasing for females), to around 3 percentage points for both sexes; at each observation the more youthful age structure of the Maori population contributed substantially to closing this (apparent) gap, reducing the underlying (or 'true') differential by between 40 and 68 per cent for males, and 34 and 69 per cent for females. Certainly by 1996, the Maori age structure was *the* major factor contributing to the closing of the gap, reducing the underlying differentials of both sexes by more than two-thirds.

A much smaller but generally increasing age-effect can also be demonstrated over the 1981-1996 period for females with higher tertiary qualifications, indicating that the effect may further increase over the coming decades for both males and females, as the 'force' of Maori youth shift into the prime university-age population.⁹ In 1996, the ratio of young (15-24 year old) Maori to European (as a proportion of their respective populations) was around 1.7, with higher ratios following at younger ages.¹⁰ Even if the Maori population makes no 'real' gains in the holding of qualifications over the next few decades, it will appear that they have. It is imperative that this positive age effect does not become confused with perceived improvements in the proportion of Maori with a secondary school or tertiary qualification *per se*.

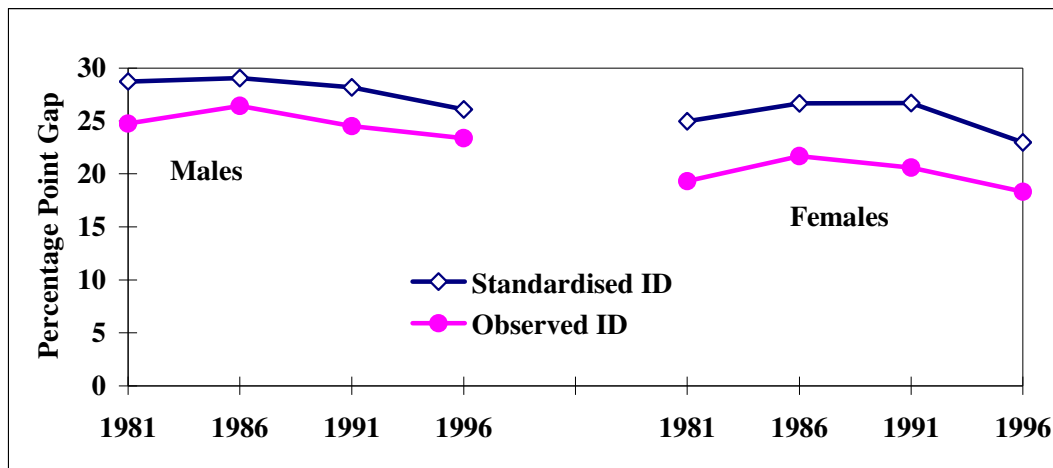
Figure 3: Decomposition of gap in percentage of Maori and European aged 15+ years holding Secondary School Qualifications as their highest qualification, by sex



Source: 1981-1991: Jackson 1998:184; 1996: Customised database
 Notes: 1981-1996: Maori Ethnic Group and European aged 15+ years

Indeed, as Figure 4 shows, the relatively minor improvements in the Index of Dissimilarity (ID)¹¹ for educational qualifications between 1981 and 1996 contain substantial age effects (Jackson 1998:187). If the Maori age structure had been the same as the European age structure at each of these observations (as indicated by the age-standardised ID), the ID would have been considerably greater. In 1981, the age effects reduced the underlying or 'true' IDs by 16 and 29 per cent for males and females respectively. Reflecting the above discussion, by 1996 the reduction was 15 per cent for males and 33 per cent for females. Clearly, the Maori population age structure is currently optimal for the gaining of educational qualifications.

Figure 4: Index of dissimilarity for Highest Educational Qualifications (crude and age-standardised), by sex, 1981-1996



Source: 1981-1991: Jackson 1998:187; 1996: Customised database
 Notes: 1981-1996: Maori Ethnic Group and European populations aged 15+ years
 Index of dissimilarity = sum of percentage point difference in each qualification category (European minus Maori)
 Age-standardised = Data for Maori standardised to European age structure

It is thus of considerable concern that in 1989 the New Zealand Government—abruptly, allowing no time for saving or forward planning—introduced the present 'user-pays' system of tertiary education, under which students contribute substantially to the cost of their education, and pay additional taxation as a result of the market rate, interest-bearing, Student Loans Scheme that facilitates it (Easton 1997; Jackson 2001). The Maori population has spent the past 160 years being socially, economically, and politically disadvantaged. That it should now have to pay to educate at higher levels its disproportion of youth—when such education was free for the European population when it was equally youthful (around the 1950-1970s)

seems especially unjust. Failure to respond to the challenge is likely to see past inequities continue, and in all likelihood reinforce the current (relative) underdevelopment of the Maori population (e.g. Pearson and Thorns 1983).

The 'user pays for tertiary education' policy must thus be viewed as yet another case of disparate impact. Indeed, it is impossible to conclude this paper without acknowledging the long-term structural disadvantage that the Maori population has experienced since colonisation in 1840. In New Zealand today there is little controversy over the fact that the processes of colonisation and colonialism systematically dispossessed Maori of their economic base and relegated them, *en masse*, to the subordinate socio-economic, demographic and political position they experience today. In 1992, the situation was officially acknowledged by the National Government (on behalf of The Crown) and a substantial sum of money set aside for compensation (*raupatu*). Unfortunately, there has been little acknowledgment of the deeper policy implications of the demographic differentials that have been outlined in this paper, and which are likely to eat heavily into that compensation.

References

- Bolger, J., Richardson, R., and Birch, W.F. (1990) Economic and Social Initiatives. Statements to the House of Representatives, Wellington, December.
- Boston, J. and Dalziel, P. (eds.) (1992) *The Decent Society? Essays in Response to National's Economic and Social Policies*, Auckland, Oxford University Press.
- Butterworth, G. and Mako, C. (1989) *Te Hurihanga O Te Ao Maori*, Wellington, Department of Maori Affairs.
- Chapple, S. (2000) Maori socio-economic disparity, *Political Science*, 52(2), 101-15.
- Douglas, E.M.K. (1985) *Maori Under-Development*, Submissions to the Employment Promotion Conference and the Maori Employment Conference, Wellington, Maori Economic Development Commission.
- Easton, B.H. (1997) *The Commercialisation of New Zealand*, Auckland, Auckland University Press.
- Gould, J. (1992) 'Maori' in the Population Census, 1971-1991, *New Zealand Population Review*, 18(1&2).
- Gould, J. (2000) Closing the gaps? *Political Science*, 52(2), 116-24.
- Jackson, N.O. (1994) *Youth Unemployment and the 'Core Family'*. *Population, Policy and Political Economy*, Unpublished Masters Thesis, Hamilton, University of Waikato.
- Jackson, N.O. (1995) Youth Unemployment and the Invisible Hand. A Case for a Social Measure of Unemployment, in P.S. Morrison (ed.) *Labour, Employment and Work in New Zealand*, Proceedings of the Sixth Conference, Victoria University of Wellington, 177-188.
- Jackson, N.O. (1998) Ethnic Stratification in New Zealand. A Total Social Production Perspective, Unpublished Ph.D. Thesis, Canberra, Australian National University.
- Jackson, N.O. (2002) The Higher Education Contribution Scheme. A HECS on 'the family'? in G. Carmichael and Dharmalingham, *Australia and New Zealand at the Millennium*, Proceedings of the Millennium Meeting of the Australian and New Zealand Population Associations.
- Myers, S.L. Jnr. (1993) Measuring and Detecting Discrimination in the Post-Civil Rights Era, in J.H. Stanfield and R.M. Dennis (eds.) *Race and Ethnicity in Research Methods*, Sage Publications, Newbury Park, California, 172-197.
- Pearson, D.G. and Thorns, D.C. (1983) *Eclipse of Equality. Social Stratification in New Zealand*, Sydney, George Allen & Unwin.
- Pool, I. (1961) Maoris in Auckland, *Journal of Polynesian Society*, 70 (1), 43-66.
- Pool, I. (1964) *The Maori Population of New Zealand*, Ph.D. Thesis, Australian National University, Canberra.
- Pool, I. (1977) *The Maori Population of New Zealand*, Auckland, Oxford University Press.
- Pool, I. (1985) Mortality Trends and Differentials, in *Population of New Zealand, ESCAP Country Monograph Series No.12*, Vol. 1. New York, United Nations, 209-242.
- Pool, I. (1991) *Te Iwi Maori. A New Zealand Population. Past, Present, and Projected*, Auckland, Auckland University Press.
- Pool, I. and Pole, N. (1987) *The Maori Population Until 2011: Demographic Structure and Change*, Wellington, New Zealand Demographic Society.
- Rankin, K. (1990) New Zealand's Labour Supply in a Long-term Perspective, A paper presented to the New Zealand Association of Economists Sesquicentennial Conference, University of Auckland, August 22nd.
- Royal Commission on Social Policy (1988) *The April Report. New Zealand Today*, Vol. 1, Wellington, Government Printer.
- Schmeltzer, Aptaker and Shepard (1999) Disparate Impact Theory not cognizable under ADEA, http://www.saspc.com/art_adea.htm (accessed 05-04-01).
- Shirley, I. (1993) 'Experiments in the New Zealand Laboratory', Paper presented to the Conference on Comparative Research on Welfare States in Transition, Oxford University, 9-12 September.
- Shipley, J., Upton, S., Smith, L., and Luxton, J. (1991) *Social Assistance: Welfare that Works. A Statement on Government Policy on Social Assistance*, Government Printer, Wellington.
- Sorrenson, M.P.K. (1963) The Maori King Movement, 1858-1885, in R.M. Chapman and K. Sinclair (eds.) *Studies of a Small Democracy: Essays in Honour of Willis Airey*, Auckland, Paul for University of Auckland.

¹ The boundaries of these populations are highly problematic and the focus of much discussion and dissent in New Zealand. The approach taken here is that of Jackson (1998:75) who holds that, irrespective of whether or not an individual is, *technically* speaking, a 'Maori', when the socio-economic data for all of those persons who *claim* to be Maori are aggregated, the results cluster disproportionately around the lower bounds of a broad range of social indicators. If the data for those persons who some observers might 'objectively' consider not to be Maori were reassigned to the non-Maori/European statistics, the effect would be to *increase* the socio-economic differentials between the two groups. That is to say, currently, such individuals are likely to be diluting, rather than adding to, the apparent level of Maori disadvantage (see also Gould 1992).

² Disparate *treatment* (discriminatory action) may range from *ad hoc* decisions that are not based on clearly defined premises, through discriminatory application of rules and policies that are not in and of themselves meant to be discriminatory but result in disparate treatment of otherwise-similar individuals, to situations where the rule (or policy) was formulated with the explicit intention of discriminating according to certain criteria (Myers 1993). Each would also be likely to result in disparate impact.

³ Due to major discrepancies in the collection of data at the time, it is difficult to be definitive about the actual level of unemployment during the Depression.

⁴ Historically, two different criteria have been used to classify Maori and other New Zealanders into racial and ethnic groups: the concept of biological descent, that is, the proportion of racial blood believed to be contained within an individual (blood fraction); and, since 1986, the notion of cultural affiliation, whereby people who self-identify with a distinctive historical, cultural and linguistic experience contrast themselves against other such groups. The issues are by no means resolved, but two-part ethnic identity questions in recent Censuses have provided three Maori classification groups which go some distance towards assisting social analysis. The Maori Ethnic Group referred to throughout the remainder of this paper pertains to the 'middle-sized' group, bounded by a smaller group of 'Sole Maori' and a larger (and overlapping) group of 'Maori Ancestry'.

⁵ Although the non-Maori grouping is by no means ideal in a paper discussing *ethnic* group differences, the age structure of the European-origin population, for which data were not available, will be almost identical.

⁶ Despite the methodological maneuverings of Chapple (2000) and Gould (2000), the representing of such differences as percentage point 'gaps' is as *equally* as valid as representing them as ratios of their underlying percentages. Any *single* category (e.g. unemployment) *within a set* of other categories (as in employment status), is subject to shift-share effects occurring simultaneously in those other categories (Pool and Jackson forthcoming). In the case of unemployment, a relative reduction in *either* the gap *or* the ratio of proportions unemployed may reflect, for one population, an increase in employment, but for the other, a decline in labour force participation. However, by contrast with relative measures, which may be based on minute levels of unemployment, say 1 per cent for European and 2 per cent for Maori, percentage point gaps at least permit a quantifiable interpretation of impact in terms of factors like income support.

⁷ The decomposition was carried out on the percentage of each *population aged 15-64 years* that was unemployed at each census, instead of the more conventional labour force denominator. The reason for using a population-based unemployment rate was to avoid the problem of each population having a different proportion actually in the labour force (the labour force participation rate).

⁸ With reference to Footnote 6, it is *especially* appropriate to discuss educational differences in terms of percentage point gaps, rather than as ratios of their underlying percentages. In the case of secondary school qualifications in particular, the European percentage has remained almost static since the 1980s, because as fast as European youth have been entering the category, increasing proportions have been moving out and on to higher qualifications, implying that the current percentage in this category may now be near its maximum. If this is indeed the case, the percentage point *gap* between the two populations should now begin to decrease.

⁹ The data for 1996 show that the Maori age structure is currently reducing the gap in higher tertiary qualifications for females (by a little over 6 per cent), but adding to it for males (6 per cent). The former effect has increased slightly over the period, while the latter has reduced (although in neither case has the trend been monotonous). Because the Maori female population is structurally older than the Maori male population, these patterns and trends indicate that the age effect will soon begin reducing the gap for males also.

¹⁰ Although the Total Fertility Rates of the Maori and non-Maori/European populations have been more or less converged since the late 1980s, the youth ratio has increased. While category jumping and changes in ethnic self-classification are likely to be involved, the trend will also reflect the 'momentum effect' for Maori (the growth potential contained within the age structure, despite fertility around replacement level) *vis-a-vis* the increased structural ageing of the non-Maori/European population.

¹¹ The Index of Dissimilarity provides an indication of the proportion of each population that would have to shift between categories for the two (educational) distributions to be the same. The index has a number of limitations, but it is one of the few that can accommodate the sub-categories of distributions.