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Working Paper

Geography and the Inclusive Economy: A Regional Perspective

New Zealand Treasury Working Paper, No. 01/17

Provided in Cooperation with:

The Treasury, New Zealand Government

Suggested Citation: Claridge, Megan (2001) : Geography and the Inclusive Economy: A Regional Perspective, New Zealand Treasury Working Paper, No. 01/17, New Zealand Government, The Treasury, Wellington

This Version is available at:

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TREASURY WORKING PAPER

01/17

Geography and the Inclusive Economy: A Regional Perspective

The Treasury*

Abstract

The paper expands on the regional geographic dimensions of the inclusive economy outlined in Treasury Working Paper 01/15 *Towards an Inclusive Economy*. It discusses the extent to which differences in economic and social indicators across regions might constitute problems, illustrates the importance of understanding empirical patterns of deprivation in New Zealand and outlines some key policy directions.

In some instances, differences in indicators of well-being between regions indicate positive dynamics, for example cities generate higher productivity and wages as well as consumption benefits. In other instances, regional differences may be problematic, for example when spillovers perpetuate social problems or people become stuck in declining areas.

Auckland is important – it contains 36% of all deprived neighbourhoods in New Zealand, and the proportion is growing over time. Rural deprived regions, particularly Northland and Gisborne with 24% of their population living in deprived neighbourhoods, also warrant attention if people are stuck or community functioning is impaired. There is a high preponderance of Maori and Pacific peoples in both urban and rural deprived neighbourhoods.

Avenues for policy exploration include education, enhancing connectedness, and ensuring that people are free to move to job-rich areas. Intervention in local economies needs to be selective and evaluation of all policy intervention is important. Policies that are spatially neutral may have unintended spatial effects and this also requires further attention.

JEL classification: R10 – General Spatial Economics - General

Keywords: economic geography, spatial distribution, deprivation, regions, regional policy

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SUMMARY

There are spatial differences in well-being – some neighbourhoods and regions score notably worse on indicators such as income, unemployment and education. Many of these differences are not problems, but rather result from choices made by people and firms in response to varying regional characteristics. Often differences represent one point in a necessary process of regional adjustment.

Indeed, some regional differences are good for New Zealand. Cities provide benefits to both producers and consumers and are important for New Zealand's economic development. Cities are centres of economic growth – in general, productivity is higher and people earn more in cities. The costs of assisting struggling non-urban regions may be to offset the positive impacts of agglomeration in Auckland and other centres.

However, regional differences are of particular concern in two cases:

- When groups of low well-being people live together, there may be negative spillovers or 'neighbourhood effects' that perpetuate social problems and result in even poorer outcomes for these groups.
- In declining rural regions, there may be some people who become 'stuck' when they are unable to find work or move to areas where there are jobs.

When we look at deprivation in New Zealand we see that Auckland contains by far the largest number of deprived neighbourhoods (36.5%), followed by the Waikato. Furthermore, the proportion of Auckland's population living in deprived neighbourhoods has increased between 1986 and 1996. Thus Auckland has to be a prime focus of attention, given the importance of cities for wider economic performance, the likelihood that negative spillovers are a problem in South Auckland, and the evidence that, despite geographical proximity, deprived Aucklanders are not very well connected to the rest of the metropolitan region.

Despite having many fewer deprived neighbourhoods, rural regions warrant attention if many people have no local employment options and face real barriers to relocation. As job opportunities reduce in non-urban areas, and those who can relocate do so, the risks of negative neighbourhood effects in the communities that remain increase. Gisborne and Northland have the highest proportion of any regional population living in deprived neighbourhoods (around 24%). Whilst Gisborne has been persistently deprived, it is gradually improving its relative position, whereas Northland has declined significantly between 1986 and 1996.

Non-spatial policies can have spatial impacts (e.g. the level of cash benefits and the minimum wage); further work is required on the implications this has for policy. In terms of spatial policies to assist deprived areas, focusing on education is of key importance. Improving physical and social connectedness is also an important role for government. In addition, facilitating mobility in deprived regions is necessary to help people and regions adjust. In deciding which policies to pursue, the Government needs to be aware that the costs of assisting struggling non-urban regions are ultimately borne by those regions that are not assisted. In the end, the Government needs to decide to what degree it is prepared to bear the costs of intervening to sustain declining communities, particularly if, in so doing, it is discouraging adjustment. Careful evaluation of the consequences of different approaches should help in future policy selection.

1. INTRODUCTION¹

Treasury's companion working paper (01/15) *Towards an Inclusive Economy* stresses that the ultimate objective of policy is to improve the well-being of New Zealanders. Well-being comes from more than material consumption – it comes also from having a good job, good health, security, education, enjoying family and friends, and participating in a fair, tolerant and well-functioning community.

One of the key themes identified as important in *Towards an Inclusive Economy* is geography. Geography, both in terms of New Zealand's position in the world, and the location of people and activity within New Zealand, affects well-being. This paper expands on the link between internal geography and the inclusive economy, by looking more closely at differences between regions.

A regional perspective to the inclusive economy is important for a number of reasons. The inclusive economy work emphasises the importance of growth - regional performance has implications for growth in the economy as a whole. The inclusive economy work also argues that low levels of well-being are a particular concern – levels of well-being vary across regions and localities, with some experiencing high deprivation. Furthermore, many of the mechanisms identified as important from an inclusive economy perspective operate at a local level (education, jobs, many institutions, etc.) or involve interactions between people, which happen more readily with proximity. Geographic proximity is one important dimension of community.

The paper has three parts:

- Section 2 discusses the extent to which differences in economic and social indicators across regions might constitute problems.
- Section 3 illustrates the importance of understanding empirical patterns of deprivation in New Zealand.
- Section 4 outlines some key policy directions.

We summarise central ideas and findings in Section 5.

2. THINKING ABOUT REGIONAL DIFFERENCES

2.1 *There are differences in economic and social indicators across regions*

People and activity are not evenly distributed across space. Neither are indicators of well-being. This section discusses the extent to which differences in economic and social indicators across regions constitute problems. We find that some differences are neutral, some are positive, and some are cause for concern.

2.2 *Many of these differences are not problems*

There are many reasons we would expect to see differences across space. Regions have different characteristics. Land and natural resources are immobile and areas differ in their endowment of features such as soil fertility, topography, climate, proximity to harbours, surf, beaches, history, etc. Furthermore, at any point in time areas have certain population levels, demographics, industry structures, infrastructure, labour markets, housing markets etc.

¹ The author would like to thank Sarah Box, Hauraki Greenland, Lesley Haines, Benedikte Jensen, Geoff Lewis, Dave Mare, Peter Mawson, Murray Petrie, Roger Procter and Jason Timmins for their input into this paper.

People choose where they will live based on their preferences for these features along with other factors such as location of family and friends, historical or cultural attachment to specific places, and where they already happen to live. Not all apparently deprived individuals and families are in fact deprived, or see themselves as deprived – their preferences may be such that they enjoy low income/low cost lifestyles in remote areas. Firms also choose where they will locate their business activities; considerations include proximity to markets, the availability of inputs such as raw materials and supply of skilled workers, as well as other factors such as where the entrepreneur happens to live. Variation in regional characteristics along with variation in preferences of people and firms will inevitably make some places more popular than others.

Differences arising from these fundamental factors are just the aggregate of many individual decisions made by people and firms in a free society. They are positive rather than negative, since they reflect people doing what they want for economic and non-economic reasons.

Furthermore, the picture of location choice is a dynamic one – decisions by people and firms are being made continually in response to changing preferences and regional conditions. From time to time region-specific shocks, both positive and negative, occur which change the relative attractiveness of certain areas to people and/or firms. People and firms will move gradually in response to changes in economic and social opportunities. There are costs to moving location (for example; sunk costs invested in plant and equipment, moving costs, emotional costs associated with change and dislocation) so adjustment does not occur immediately. International research shows that most adjustment takes an average of five years to work through, although the nature of the adjustment varies across countries.² At any point in time differences in well-being between regions may be transitory, as a process of adjustment works itself through.

Adjustment is a necessary and desirable process; it is what allowed people and economic activity to move from former West Coast gold rush towns to areas with greater opportunities, for example, or from one gold field to another. Migration is an important way of overcoming regional unemployment. It is not desirable in general to interfere with this process of adjustment, although it may be desirable to ease the adjustment process.

2.3 Some differences are positive – cities are important for growth

Some regional differences provide positive benefits for New Zealand. Cities are centres of economic growth. People and firms are attracted to dense urban areas by such things as lower transport costs, economies of scale and scope, greater specialisation, better labour markets for both firms and workers, information networks and contacts which promote knowledge flows and learning, better human capital accumulation and consumption benefits.³ Cities are good places to be for both producers and consumers. Generally, productivity is higher and people earn more in cities. US evidence has shown that if the population density of an area doubles, labour productivity increases by 6% and total factor productivity by 4%.⁴ Furthermore, there is a wage premium of over 20% in US cities and there is evidence that this is related to higher human capital accumulation.⁵

At certain density levels cities can also become less attractive. Higher costs of living especially for housing, higher costs of labour, pressure on infrastructure, congestion, pollution, crime and other social problems can all encourage some people and firms to

² Maré and Choy (2001), pp 92-93.

³ For a summary of the literature on agglomeration benefits see Box (2000).

⁴ Ciccone and Hall (1996).

⁵ Glaeser and Maré (2001).

disperse and choose less populated locations. Some will choose adjacent suburbs – ability to commute can mitigate these dispersing forces. Others will locate further afield.

On balance we are seeing a global trend toward increasing agglomeration. Although there are forces encouraging some level of, and types of, activity to locate in rural areas and small towns and cities, there is a strong pull of people and firms to major centres. The international evidence suggests that increasing agglomeration has positive benefits up to a city size well in excess of Auckland's.

Increasing agglomeration could also be important for our smaller cities – if for example there are industry-specific factors associated with New Zealand's relatively high reliance on primary production. Some industries, such as agriculture and tourism, are by their nature tied to location. They are therefore unlikely to experience agglomeration in the same way as manufacturing industries with more mobile factors. Productivity improvements in agriculture will necessarily occur across dispersed locations, but even here agglomeration may be important. Concentration of agricultural research in particular centres for example, may deliver agglomeration benefits to a dispersed production base. Overall we conclude from the international literature that the larger cities, and Auckland in particular, are likely to be a critical force in New Zealand's long-term economic development⁶.

The force of agglomeration is felt even more keenly when we take an international perspective. The menu of location options for New Zealanders includes regions outside New Zealand. Agglomeration forces can operate across national boundaries: many New Zealand firms and people are drawn to Sydney, for example.⁷ As the world becomes more integrated it may not only be some New Zealand regions, but New Zealand as a whole, which faces the challenge of attracting skilled people and viable economic activity.

The message here is that, not only is agglomeration a powerful trend, it is not one we would want to tamper with. Growth is of key importance to well-being and cities are vital for growth. The costs of assisting struggling non-urban regions may be to limit the positive impacts of agglomeration in Auckland and other centres. Furthermore, policies that divert resources from our major cities to more rural regions may, in effect, be promoting Sydney. Whatever their other objectives, policy makers need to think carefully before putting sand in the wheels of agglomerating forces.

Regional differences, however, are of particular concern for two reasons: the existence of neighbourhood effects, and high costs of adjustment.

2.4 The presence of 'neighbourhood effects' gives cause for concern

We noted earlier that individuals choose where they will live. One reason there are spatial differences in well-being is that similar sorts of people tend to choose to live in similar sorts of places, whether because they can afford similar housing, need similar social services, identify personally or culturally with others in the area, or can provide each other with community support, etc. Such selection means that we see clustering of personal characteristics within areas.

The fact that there is selection is unsurprising, and does not imply any problem or dysfunction with the region or place, in itself. Low levels of well-being of a group of people may be simply an aggregate of low levels of well-being experienced by individual people.

⁶ Such things as the business cycle, changes in relative prices, etc, can mean that cities do not grow more rapidly than other parts of the country for extended periods of time

⁷ The New Zealand and Australian labour markets have historically been very closely linked, and trans-Tasman migration patterns reflect relative conditions in the two economies. See Bushnell and Choy (2001).

Location may not be relevant to why these people do badly – locating with other deprived people is not necessarily the *cause* of their low well-being.

However, when groups of low well-being people live together there may be negative spillovers or ‘neighbourhood effects’ that result in even poorer outcomes for these groups. Sorting of similar people into similar locations may set dynamic causal processes in motion. Positive spillovers in high well-being areas may mean that the area does increasingly well, while negative spillovers in low well-being areas can perpetuate social problems. For example, there are likely to be fewer educational opportunities, poorer quality of education, poor local infrastructure, difficulty in establishing businesses, and lack of access to information-rich networks in more deprived areas. These are the sorts of interactions that may lead to cycles of disadvantage, urban ghettos and dysfunction in isolated communities. Unlike selection, or sorting by individual characteristics, negative spillovers are a function of places – they are more than just the aggregate of individual outcomes.

Despite the intuitive appeal of the concept of ‘neighbourhood effects’, research has found it very difficult to document empirically, in large part because of the difficulty of working out whether disadvantaged communities appear because disadvantaged people choose to live together, or because living together also worsens their prospects. We observe similarity in behaviour and outcomes of groups of people living in the same place: is this similarity simply because of selection or because of spillovers? Furthermore, even if we were able to infer the existence of ‘neighbourhood effects’ from the data, we would still need to establish the mechanisms and processes by which these effects operated in order to develop appropriate policy interventions.

Another factor affecting how we think about ‘neighbourhood effects’ is their nature: is the impact of group characteristics on individual outcomes of the same magnitude regardless of a person’s position in the distribution of characteristics? Or are the effects of spillovers greater for those at the bottom of the distribution? This issue is important because it influences how we balance the effects of policy on those at the bottom with the effects on those at the top⁸. Given that there will always be a spectrum of well-being and deprivation, is it better that different sorts of households and people are interspersed across locations, or clustered together? Unfortunately, the nature and magnitude of ‘neighbourhood effects’ is another area where we lack sufficient evidence.

While the lack of compelling evidence for ‘neighbourhood effects’ makes it difficult to prove that spillovers exist, it also does not disprove them. Policy makers need to make a judgement about their likely importance. If we think negative spillovers are important, then we have strong reasons to target places as well as people. As a result, policy for the disadvantaged should focus at least partly on deprived neighbourhoods. Even better, it would be desirable to implement policies which benefit deprived people regardless of whether ‘neighbourhood effects’ are operating or not. Improved education, for example, is likely to help deprived individuals and deprived communities, although specific initiatives might be focused a little differently depending on whether individuals or communities had higher priority.

2.5 High costs of adjustment for those in deprived areas are also a problem

The second reason government may be concerned about regional differences is when adjustment costs are so high that people who are unable to find work locally face difficulty relocating to areas where there are jobs. Costs of moving location can function as barriers to adjustment. In some cases the financial costs of adjustment for individual families and firms are so high that they are effectively prohibitive. Differences in house purchase prices and rentals between regions, for example, mean that some families may be unable to move to

⁸ These issues are similar to those involved in school streaming.

where jobs are. Firms may be unable to relocate their businesses to other areas, and close down instead. As a result, adjustment fails to occur and people become 'stuck' in declining areas, experiencing low levels of well-being. In cases like these the government may be willing to bear some of these adjustment costs in order to assist people to move, if there are dynamic long-term benefits.

There are, of course, some who are not stuck, but choose to remain in deprived regions for non-economic reasons. In some ways this issue is similar to those facing financial costs – here the emotional and lifestyle costs of moving are particularly high. These people face a difficult trade-off between the well-being gained from moving (the benefits of income and a job) and the well-being gained from staying (existing social, family and cultural ties and connections to place). The government can help ease adjustment and improve people's choices as far as possible, but it will not be able to resolve the trade-off. In the end the government needs to decide to what degree it is prepared to bear the costs of intervening to sustain declining communities, particularly if, in doing so, it is discouraging adjustment.

The inclusive economy perspective emphasises the importance of connectedness – both within groups and with wider New Zealand society. In terms of adjustment, the physical, social and intellectual connectedness of an area or region to outside will mean people have choices and resources, reducing that region's vulnerability. Difference in connectedness may be one factor explaining variation in regional vulnerability and ability to adjust to negative shocks. This has obvious relevance to regions such as Gisborne, although anecdotal evidence suggests that isolation is possible even within cities. For example, deprived South Aucklanders are not able to take up jobs on the North Shore for reasons such as transport difficulties and lack of networks.

In summary, many regional differences are not problems, but rather result from choices made by people and firms in response to varying regional characteristics. Often differences represent one point in a necessary process of regional adjustment. Some differences are good for New Zealand; cities provide benefits to both producers and consumers and are important for New Zealand's economic development. Regional differences are of most concern if negative spillovers lead to cycles of deprivation, or if people become stuck in declining areas. In these cases policy may be directed at low well-being neighbourhoods and regions themselves, as well as low well-being individuals and families.

3. REGIONAL DIFFERENCES IN NEW ZEALAND

This section looks at regional differences in New Zealand in order to determine the magnitude of differences and where efforts might be targeted.

3.1 What should we measure?

An inclusive economy perspective on regional distribution highlights the desirability of considering many indicators of well-being, including indicators of social capability that may have been less commonly considered in the past. Indexes of deprivation, such as *NZDep96*⁹, are broad measures that include a number of things we think are important. Our measure is a deprivation proxy, drawn from census data, which correlates closely with the *NZDep96* but, unlike *NZDep96*, gives us a picture across three census years.¹⁰ Our proxy uses indicators of income, unemployment and education. These measures correlate with many other aspects of well-being, such as health and choice. However it is important to note that our picture of deprivation may alter slightly when factors such as housing costs and

⁹ Salmond, Crampton and Sutton (1998) *NZDep96 Index of Deprivation*.

¹⁰ Maré, Mawson and Timmins (2001). Note that neither deprivation index differentiates between selection and causal effects – both will be picked up.

the natural environment are included. For example, areas that appear deprived under our proxy may not be deprived to the same extent if housing is cheap; in other areas where housing prices are high deprivation may be accentuated. It will be important to measure a wider range of indicators in the future.

The patterns we are presenting in this report are at the level of Regional Council. This gives us a good picture of New Zealand as a whole and is simple to present. If we zoom in further, similar patterns of disparity and persistence can be observed at lower levels of disaggregation.¹¹ No matter what level we look at, it is important to remember that there is generally greater variation within areas than between areas. The Christchurch region, for example, does not on average appear deprived, but there are neighbourhoods within the city of Christchurch with very high rates of deprivation. The lowest level of disaggregation our data allows is meshblock level¹². Even within meshblocks there is significant variation in levels of deprivation between individuals.

Finally, since meshblocks are the smallest level of disaggregation that our data allow, the results presented in this report are meshblock averages, not data on individuals. Our findings refer to the 10% of the population who live in the most deprived meshblocks, not to individuals in the most deprived decile.

3.2 What patterns are we interested in?

Which regions in New Zealand we identify as being of most concern depends on whether we think it is absolute numbers of deprived people that is most important, or regional rates of deprivation. The Auckland and Waikato regions contain the greatest numbers of deprived people, while Northland and Gisborne have the highest proportions of deprivation (see Annex 1).

How concerned we are about this deprivation may also depend on whether these regions always do badly. Do the fortunes of areas change or are there persistently deprived regions? Here there are also divergent patterns (see Annex 2). Northland and Auckland have increased their share of people living in deprived neighbourhoods. Gisborne has been persistently deprived, but is improving. It is again not obvious which trends are the ones that should concern us. Are we most worried about regions, such as Gisborne, that are persistently deprived (but improving), or regions, such as Northland and Auckland, that are declining?

Similar issues and questions arise when examining subgroups of the population. Are we interested in areas with the greatest number of deprived Maori or Pacific people for example, or areas with the highest proportions?

3.3 Key patterns in New Zealand: static, dynamic and ethnic

Auckland is a priority for regional policy. When we look at deprivation in New Zealand we see that Auckland contains by far the largest number of deprived neighbourhoods (36.5%).¹³ Furthermore, the proportion of Auckland's population living in deprived neighbourhoods has increased from 7.3% in 1986 to 12.4% in 1996.¹⁴ As discussed above, cities are important for economic performance. Given the concentration of deprived neighbourhoods in South

¹¹ Kerr and Timmins (2000) have undertaken analysis at the level of Territorial Local Authority – their findings are consistent with the Regional Council analysis but pin down smaller pockets of disadvantage.

¹² The equivalent of a neighbourhood – meshblocks contain an average of 100 people.

¹³ Annex 1.

¹⁴ Annex 2.

Auckland, negative spillovers are likely to be a particular problem here. Anecdotal evidence also suggests that, despite geographical proximity, deprived Aucklanders are not very well connected to the rest of the metropolitan region. Auckland, therefore, is a crucial focus.

Relative to heavily populated areas such as Auckland, rural regions are less of a policy concern because they have far fewer deprived neighbourhoods. Nevertheless, they warrant attention if many people have no local options and face real barriers to relocation. As job opportunities reduce in non-urban areas, and those who can relocate do so, the risks of negative neighbourhood effects in the communities that remain increase. When community functioning is impaired the region concerned suffers and, in serious cases, there may be spillovers affecting the social cohesion of New Zealand as a whole. Gisborne and Northland have the highest proportion of their population living in deprived neighbourhoods (around 24%).¹⁵ Whilst Gisborne has been persistently deprived, it is in fact improving, whereas Northland has declined significantly. In 1986 only 10% of Northlanders lived in the most deprived neighbourhoods – by 1996 that figure had risen to almost 24%.¹⁶

In looking at ethnicity by region, we are interested in whether national patterns are simply reflected at a regional level, or whether there is a distinct regional dimension to the distribution of people from different ethnic groups. Maori are particularly affected by deprivation, both relatively and absolutely. First, they are over-represented in the most deprived neighbourhoods in every region in New Zealand. Second, at almost 38% of those residing in the most deprived neighbourhoods, they are also the largest ethnic group in absolute terms¹⁷. Further analysis of the degree of that overrepresentation reveals that Maori are between 1.5 and 7 times more likely to live in deprived neighbourhoods than European New Zealanders, depending on the region. For instance, in Taranaki, 5.2 percent of Europeans live in deprived neighbourhoods, whereas 17.8 percent of Maori do. The risk faced by Maori in Taranaki is thus 3.4 times the risk for Europeans. More comprehensive understanding of the patterns for Maori in particular regions may require further region-specific consideration¹⁸.

However, it is important to note that the statistical analysis on which this section of the paper is based makes no allowance for differences between ethnic groups in the prevalence of causal factors which may lead to deprivation. For example, it may be that Maori are disproportionately deprived because they are on average more poorly educated than Europeans. The current analysis of regional differences presents simple comparisons of the level of deprivation between the principal ethnic groups within regions.

With this methodological caveat in mind, it is still important to observe that in many regions, Pacific peoples experience poorer outcomes than Maori. In Auckland, where 65% of Pacific peoples live, their risk of living in a deprived neighbourhood is 11.2 times that of European New Zealanders, and in Wellington, where a further 15% of Pacific peoples live, the risk is 12 times. With 80% of the Pacific peoples' population in two urban centres any attempts to address deprivation amongst the Pacific peoples' population as a whole would appear to require programme delivery focused on these centres. Furthermore, the policy levers required are likely to be of quite a different nature than for deprived Maori or European people, in order to focus on the particular needs and situation of the Pacific peoples' community. The same focus for programme delivery would apply to Maori populations, but to a lesser extent, given their greater dispersion across population centres.

15 Annex 1.

16 Annex 2.

17 Annex 3

18 See for example the box in Annex 3

The greater deprivation experienced by Maori and Pacific peoples *within* each region implies that the deprivation of these ethnic groups nationally is not simply a reflection of which region they live in. Reducing the differences between regions will not reduce the difference between ethnic groups to the same degree.

Similarly, reducing the differences between ethnic groups will not necessarily reduce regional differences to the same degree. In some regions, the risk of deprivation is relatively high for every ethnic group, (but still higher for Maori and Pacific peoples than for Europeans). In others, the risk is relatively low for all groups. Having said that, the ranking of regions from lowest to highest risk of deprivation is not exactly the same for all ethnic groups. For instance, in Auckland, Pacific peoples face their highest risk of deprivation, whereas, for Europeans, it is one of the lower regions in terms of their risk of deprivation.

In summary, observed differences in deprivation between regions reflect both underlying regional fortunes, and differences in the mix of people living within each region. Maori and Pacific peoples fare less well than Europeans, so regions with a high proportion of Maori or Pacific peoples will have greater relative levels of deprivation. However, even when we control for differences in ethnic composition, some regions are more deprived than others, implying that regional fortunes do not simply reflect ethnicity. There is both an ethnic and a regional dimension to deprivation in New Zealand – neither completely subsumes the other. Even if there were no regional disparities, Maori and Pacific peoples would still fare worse. Even if there were no ethnic disparities in deprivation, regional differences would remain.

4. DIRECTIONS FOR POLICY

Government can affect regions through policies directly aimed at particular locations. It can also inadvertently affect regions by national policies that are non-spatial, but have spatial impacts. This section identifies some issues and avenues for further investigation.

4.1 Non-spatial policies

Many national policies that seem spatially neutral may impact across space in different ways. For example, there is a danger that minimum wage and benefit policies that seem fair at a national level may have dysfunctional effects when considered regionally. For example, since the unemployment benefit is fixed nationally, it may encourage people to live where the cost of living is low rather than where the jobs are. This may not be in their long-term best interests.¹⁹

Regulations can also have spatial impacts. The Resource Management Act, for example, requires those making land use decisions to provide for 'significant natural areas' (SNAs). As of 1998, 38% of the Far North had been identified as kiwi habitat SNA by the Far North District Plan – 21% of this land is privately owned. Here a national policy has had a huge spatial effect: the cost of preserving kiwi fell disproportionately heavily on Northland landowners and ratepayers, with no provision for compensation.

Another example is public housing. People may want to move to Auckland for the work opportunities it offers. However, if there are waiting lists for state houses, this is likely to inhibit people moving from a deprived region to the city.

Any policies applied to address Maori deprivation nationally will also vary in their impact. For example the under-utilisation of Maori land is a significant driver of poorer economic

¹⁹ Of course the best tools to address this problem may *not* be to adjust the national minimum wage or benefit levels in relation to regional differences in the cost of living, but rather to find other, more specific, ways of encouraging movement to job rich areas.

outcomes for Maori throughout the country but particularly critical in the East Cape because of the smaller average size of land blocks and the impact of multiple ownership land tenure here.²⁰ Policies to facilitate the exercise of ownership interests in Maori land generally are therefore likely to have a bigger impact in this region, other things being equal.

These examples indicate that government needs to ensure that it has taken the spatial impact of its non-spatial policies into account. Further work needs to be undertaken to ascertain the extent to which non-spatial policies impact differentially across regions and whether any adjustments to these policies is desirable.

4.2 Spatially targeted policies

Central government can contribute to regional development by facilitating local interests working together and by ensuring national policy is being implemented effectively at the local level. Better co-ordination, facilitation and provision of information are sensible, low-cost ways of helping regions to identify their potential areas of economic development and do something positive to develop them.

Beyond this, the Government should be cautious in promoting regional or place-based policies. The strongest case for place-based policies is when they are targeted to those situations where neighbourhood effects and spillovers are greatest. In the absence of neighbourhood effects, targeting people is likely to be more effective than targeting places. Place based policies need to be selective.

The following provides some touchstones for thinking about spatially targeted regional policy from an inclusive economy perspective. They are intended as general principles– further work is required if more specific policy guidelines are to be developed.

4.2.1 Education is key

In terms of policies that target deprived areas, focusing on education is of key importance. Firstly, it has the direct effect of raising earnings prospects for those in the area. Secondly, improving the quality of schooling is probably the best way to address neighbourhood effects²¹ – better local schools promote positive spillovers, attract or retain higher well-being families to the area, and improve social capability. A promising current initiative is a partnership project between schools, families and local communities in two South Auckland neighbourhoods. The “Strengthening Education in Mangere and Otara” (SEMO) initiative focuses on effective strategies to assist children to reach national standards of achievement²².

Education is also important for isolated deprived regions; by providing people with skills, it can raise the capability of an area and also facilitate people moving to jobs in high growth areas. As in deprived city neighbourhoods, investment in the quality of governance and leadership of local schools, and particularly the school-parent partnership, is likely to be important. Possible types of initiatives include parenting classes, rotating high-quality teachers in for short periods, and additional support and training for board members in low well-being neighbourhoods. Other potentially important policy areas include skill-training, job-search assistance, and making the teaching and research of tertiary institutions located in the regions more responsive to the needs of their local economies.

²⁰ See the box in Annex 3

²¹ Glaeser E. (2000) “People or Place Based Strategies”, Presentation to the Treasury and other Government Agencies, 1 June 2000.

²² Robinson, Timperley and Bullard (2000).

4.2.2 *Connectedness matters*

The inclusive economy perspective has emphasised the importance of social and informational networks for building social capability and enhancing productive capacity. Building connections between deprived areas and wider New Zealand society may help address neighbourhood effects, by exposing deprived individuals to more positive interactions and encouraging beneficial spillovers. After education, helping people in deprived areas to connect is likely to be the next most sensible role for government.

Central government's role in infrastructure decisions and investments has a clear impact on the connectedness of regions. Maintaining or further developing the road, rail and port infrastructure in isolated regions has received particular attention of late with respect to the East Cape and Gisborne areas – such infrastructure may help to attract mobile industries to these areas. Conversely, infrastructure pressures in Auckland also have a high profile – improvements in road and rail networks may help generate greater benefits of agglomeration and ease dispersion pressures. Decisions on infrastructure investment are complex and involve major fiscal commitments. Policy makers need to assess particularly carefully the cost-benefit rationale for allocating resources and consider whether those who gain, and who are in a position to pay, should do so.

Promoting social connectedness through enabling access to the internet has been a priority for the East Cape. In all regions, access by individuals in isolated rural communities to telephone services has also been identified as an issue. Furthermore, a common complaint that has emerged from regional fora is the lack of face-to-face (Maori use the term 'kanohi ki te kanohi') communication between local interests and government.²³ The Heartland Services Initiative may go some way to addressing this.

4.2.3 *People need to be able to move*

High adjustment costs were identified earlier in the paper as a potential rationale for government action. For this reason enhancing choices by facilitating mobility in deprived regions is important – policy should focus on initiatives such as job-search assistance, and relocation assistance for those who would like to move but face barriers to doing so. These policies have the double benefit of helping people in deprived regions get jobs, and helping employers in growing regions fill vacancies.

The downside is that outcomes may be even worse for those left behind as a result of the loss of social capability. Here, it is important to think about policies that might improve the prospects for those left behind. High quality local schools, for example, will raise the capability of the remaining community and may also attract skilled people to the region. Trying to restrict or distort mobility in any way, however, is inadvisable, given the importance of growth in an inclusive economy.

4.2.4 *Intervention in local economies needs to be selective*

Finding ways to improve community functioning through interventions at a local level is key. Local government in particular has an important role here, although central government, as a broker of relationships, may also be able to make a significant contribution in rebuilding local social capability. Better co-ordination, facilitation and provision of information are sensible, low cost ways of helping regions to identify their potential areas of economic development and do something positive to develop them. Strategic partnerships and joint ventures can help to develop networks for transmitting important tacit knowledge. The Regional Taskforce initiative involves activities to stimulate regional partnerships between local government,

²³ Gaspar and Glaeser (1998) suggest that technological developments in communications accentuate the need for more face to face interaction.

business, community and Maori groups. For the Tairāwhiti/East Cape region the involvement of senior political representation has proved significant in brokering relationships between interests that historically have not worked together. In other regions such as Northland, such links have been active for many years and the role that the government has taken is one of support to build upon existing relationships.

Coordinating the direction of effort of local interests is likely to be an effective, low-cost intervention. However, other interventions in local communities and economies involve significant costs. Large scale expenditure by central government to selected recipient regions is likely to involve significant costs to contributing regions and is unlikely to have benefits outweighing their costs to the wider economy. Place-based policies need to be selective and focus on areas where there are large and significant spillovers. As discussed earlier, Auckland is an important source of growth for New Zealand, a source that competes with other urban agglomerations, notably Sydney, in providing residence for workers and firms. One of the costs of assisting struggling non-urban regions may be that it promotes overseas cities at the expense of Auckland.

4.2.5 Evaluation is important.

The best mix of policy levers to achieve spatial policy goals will only become clear as a result of careful evaluation of current policies. Such evaluation ought to be a key component of any people or place-based interventions. Where knowledge of what works is lacking, the prudent approach before committing large sums is to conduct small-scale pilots and evaluate their value for money. Our broader inclusive economy work identifies the need across a range of areas to improve understanding of the effects of government policies. Improving the evidence base for spatial policy is no exception.

5. CONCLUSION

In summary, the key ideas arising from the paper are:

- We need to be clear when considering regional differences whether we are interested in numbers, proportions, persistence or relative decline.
- Auckland is important: it contains the largest number of deprived neighbourhoods, its proportion of deprived neighbourhoods is growing, cities are fundamental for growth, and there are likely negative 'neighbourhood effects' in South Auckland.
- Rural deprived regions, particularly Northland and Gisborne, may be important if people are stuck and/or community functioning is impaired.
- Maori are particularly affected by deprivation, both relatively and absolutely, though the analysis in this paper does not take account of differences between ethnic groups in other factors likely to lead to deprivation differences between them.
- Pacific peoples fare worse than Maori in many regions, and are particularly deprived in Auckland and Wellington.
- There is a regional dimension to ethnic outcomes and an ethnic dimension to regional outcomes but solving one problem will not completely solve the other.

Looking at regional differences from an inclusive economy perspective generates avenues for policy exploration. Education appears to be a key policy lever in addressing both 'neighbourhood effects' and ability to move to areas of opportunity. Connectedness, physical, social and intellectual, is also important for building social capability. Facilitating mobility in deprived regions is crucial in helping people and regions adjust. Place-based policies need to be selective – the costs of assisting struggling non-urban regions are borne

by those regions that are not assisted. Finally evaluation is critical for better regional policy design.

Good policy must be based on good information. Particular areas for further work include adding housing costs to our regional database to allow us to better investigate the links between income and well-being and looking further at internal mobility to improve our understanding about the patterns of movement in New Zealand and the ways regions adjust. Non-spatial policies can have a spatial impact – further analysis is also required to better understand the effects of particular policies.

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ANNEX 1: LEVEL DIFFERENCES BETWEEN REGIONS

Figure 1, below, gives a snapshot of regional differences in our deprivation proxy²⁴. It looks at the distribution of deprivation among New Zealand regions in 1996, as measured by the 10% of New Zealanders living in the most deprived neighbourhoods by income, unemployment and education levels. The maps have been distorted to illustrate the significance of different regions.

Figure 1a maps the location of the most deprived *people* in New Zealand. It gives a regional breakdown of those in the bottom 10% on our measure of deprivation. The largest concentration of New Zealanders living in deprived neighbourhoods (36.5%) live in the Auckland region, followed by 12% in the Waikato.

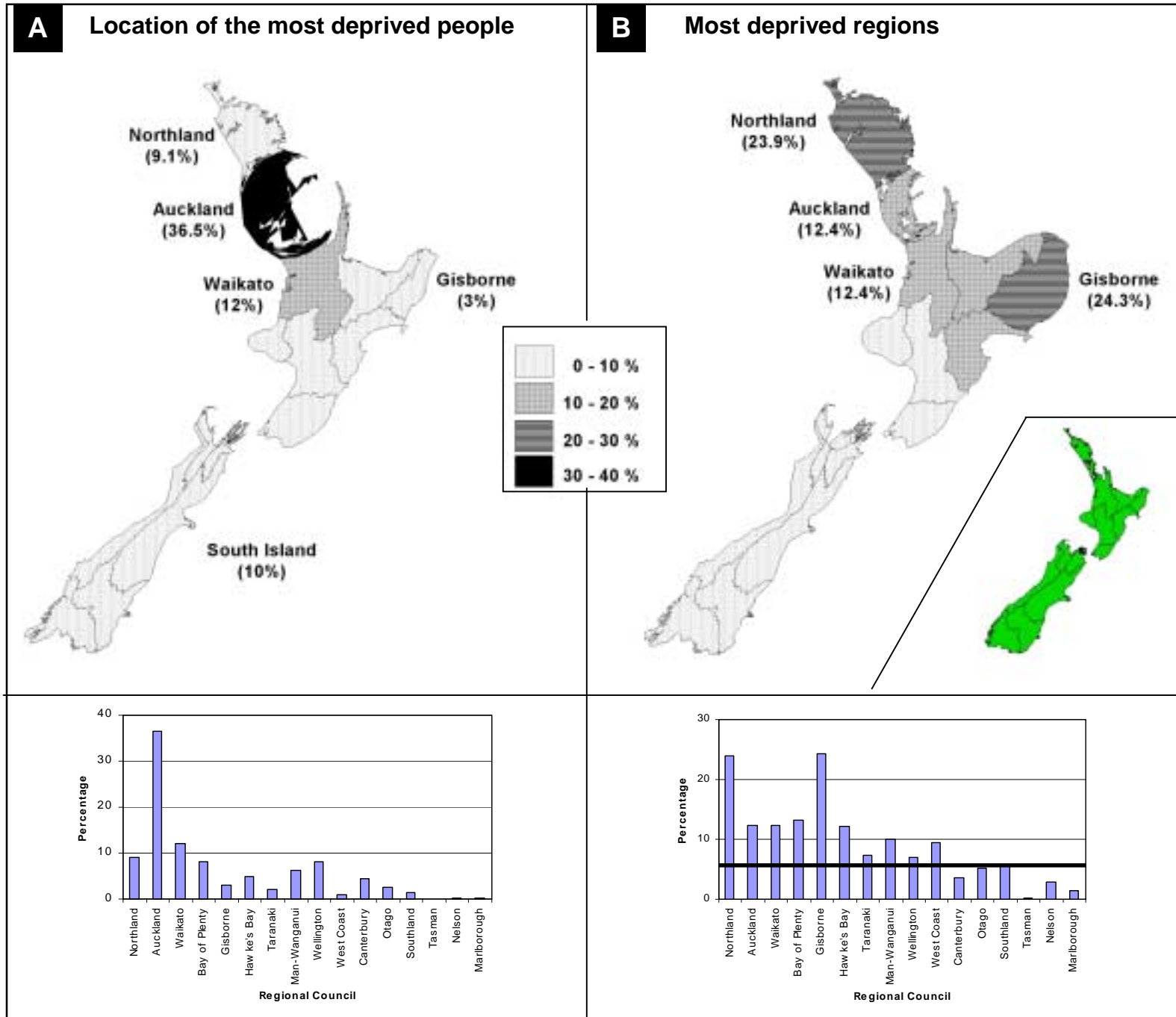
Such a high concentration of deprivation in the Auckland region is not unexpected, as Auckland also has the greatest share of total population in New Zealand. An interesting question, then, is how the distribution of the 10% of New Zealanders living in the most deprived neighbourhoods compares with the distribution of total population across regions.

Figure 1b maps the most deprived *regions* of New Zealand, as indicated by the proportion of that region's population in the bottom 10% of New Zealanders on our deprivation proxy. If deprivation were evenly spread across space, we would expect 10% of every region to be in the most deprived decile nationally. We observe that Auckland and Waikato, while containing by far the bulk of deprived people, have only a slightly disproportionately high share once regional population levels are accounted for. The proportion of Auckland and Waikato's population in the bottom decile is 12.4%. Northland and Gisborne, however, stand out dramatically. In both cases almost 25% of the region's population is in the bottom decile – over double their expected level if distribution of deprivation were proportionate. Interestingly, all South Island regions fall below the 10% mark, indicating that they contain a disproportionately low share of New Zealanders living in deprived neighbourhoods. Deprivation, whether by location of most deprived people, or most deprived regions, appears to be a North Island problem.²⁵

²⁴ An indicator of income, unemployment and education, which coheres closely with NZDep96. See Maré, Mawson and Timmins (2001).

²⁵ Analysis at the TLA level indicates a concentration of deprivation in the Buller area but this is averaged out at the Regional level.

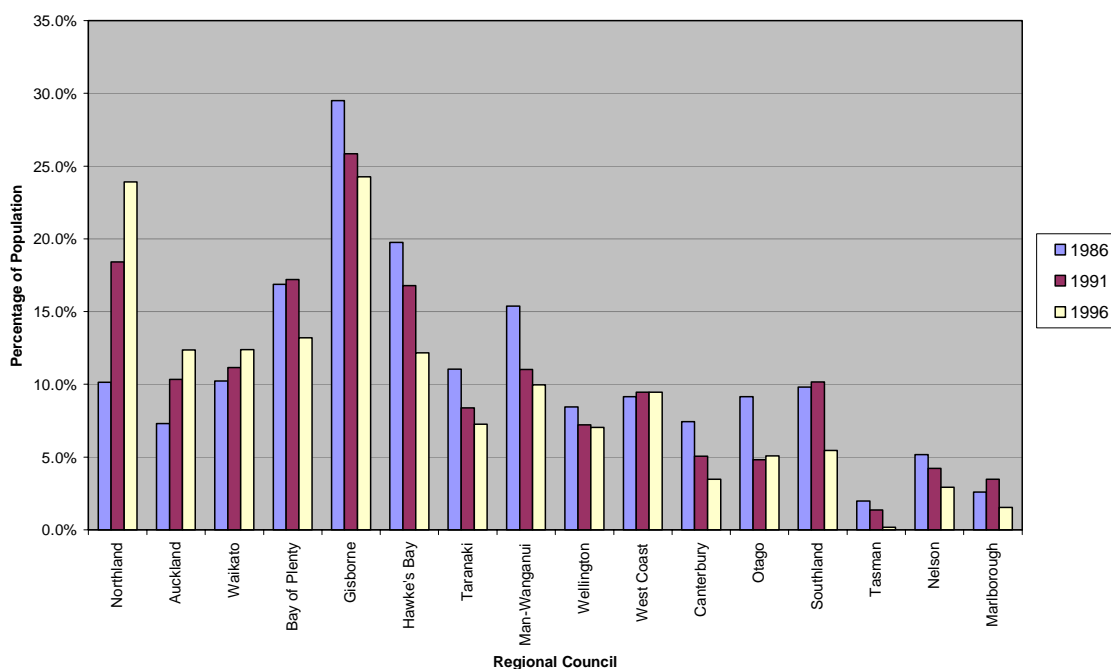
Figure 1. The Bottom 10% of New Zealanders Ranked by Deprivation (1996)



ANNEX 2: REGIONAL FORTUNES OVER TIME

Figure 2 gives a picture of regional fortunes over time. It graphs the proportion of regional populations in the bottom deprivation decile nationally in 1986, 1991 and 1996. In 1996 Northland and Gisborne shared much higher levels of deprivation than other New Zealand regions, however over time we see very different things going on. While Gisborne has been consistently disproportionately deprived it has, in fact improved its position between 1986 and 1996. Northland, however, has deteriorated significantly: in 1986 its share of the bottom decile was a proportionate 10%; by 1996 the share had shot up to 24%. The Auckland and Waikato regions have also increased their share of people living in deprived neighbourhoods. The West Coast has worsened marginally and most other New Zealand regions have improved.

Figure 2: Percentage of each region's population in the bottom decile meshblocks for 1986, 1991 and 1996



What the above graph doesn't tell us is the degree to which it is the same *people* who dwell in the persistently deprived neighbourhoods. Certain suburbs, for example, may function as stepping stones where new immigrants locate initially and then move once established. From an inclusive economy perspective we may be less concerned if there are high levels of churning, than if there is persistence of deprivation among individuals.

At an individual level, we know that some families and individuals experience persistent low income, while many others move rapidly between income groups.²⁶ However to fully understand fortunes of people, as well as regions, over time we need individual level data on location and migration patterns.

²⁶ See O'Dea D. (2000).

ANNEX 3: REGIONAL AND ETHNIC DIFFERENCES

Certain groups in the population are disproportionately affected by deprivation – there is a strong correlation between ethnicity and deprivation across New Zealand. Maori comprise 14.4% of the total New Zealand population and 37.9% of the most deprived neighbourhoods. Pacific peoples comprise 4.8% of the population of New Zealand and 18.7% of the most deprived neighbourhoods. By contrast, people of European descent make up 71.7% of New Zealand’s population but only 32.5% of the most deprived neighbourhoods. Not only are Maori and Pacific peoples over represented among the most deprived neighbourhoods; in absolute terms, there are more Maori in bottom decile neighbourhoods than Europeans.

We know that at the national level Maori and Pacific peoples are over represented in deprived neighbourhoods. Is it the case that regional patterns of deprivation for Maori and Pacific peoples simply reflect this national pattern, or is there something different going on at a regional level? How do the ethnic and regional patterns relate to each other?

Figure 3 illustrates, in *absolute numbers*, the location and ethnicity of those in the most deprived neighbourhoods. The largest concentration of Maori in deprived neighbourhoods is in Auckland, followed by Northland, Waikato and the Bay of Plenty. Pacific peoples in deprived neighbourhoods are overwhelmingly concentrated in Auckland, with a smaller concentration also in Wellington. This reflects the fact that 65% of the total Pacific Island population live in Auckland and a further 15% in Wellington. Europeans in deprived neighbourhoods are dispersed throughout New Zealand, but again Auckland hosts the greatest number.

Figure 3: People living in the most deprived decile meshblocks in 1996 by ethnic group.

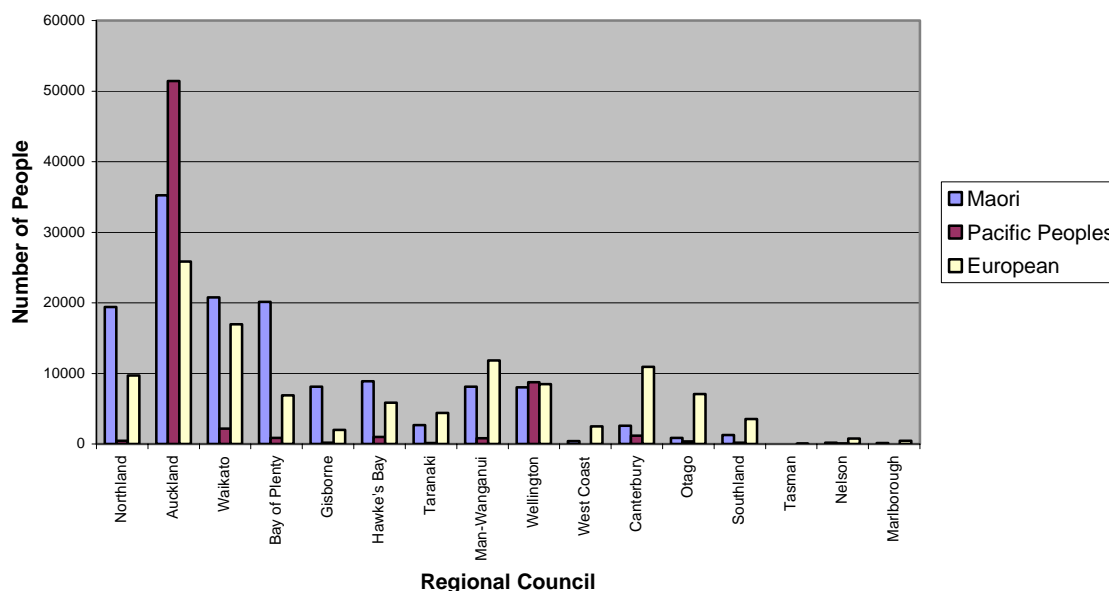
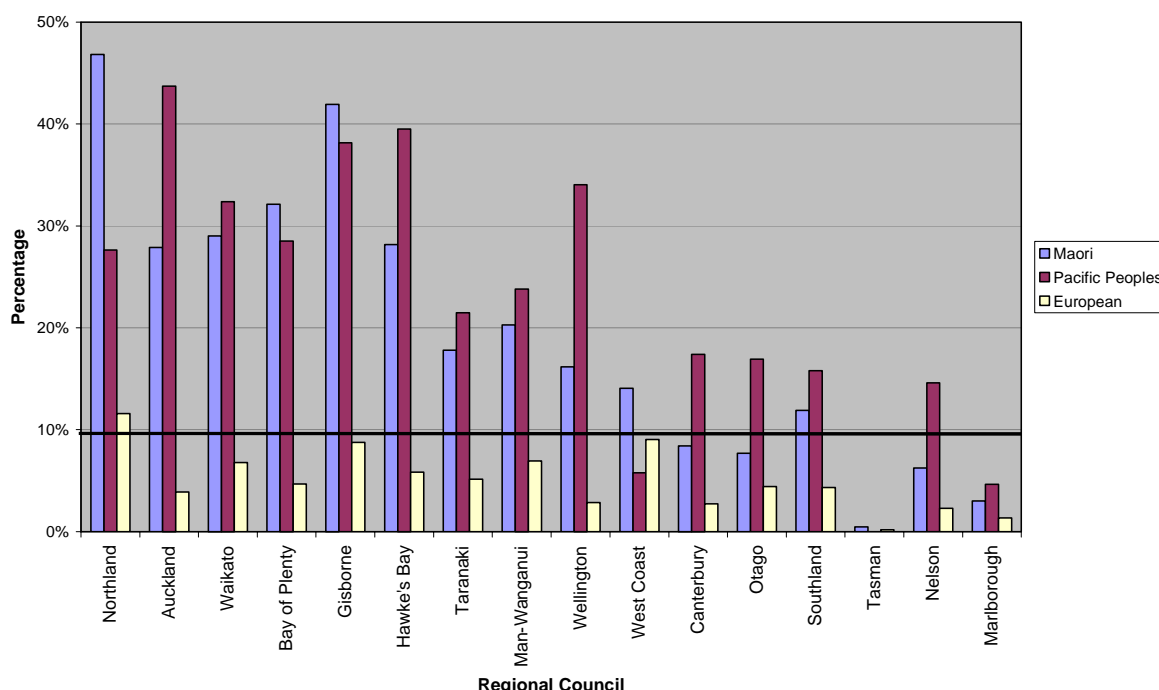


Figure 4 gives us the *proportion* of a region’s ethnic group that are in the most deprived neighbourhoods nationally. For instance, the first bar indicates that 47% of Maori in

Northland live in deprived neighbourhoods. If deprivation were distributed evenly across regions *and* ethnic groups we would see all bars line up at the 10% mark, representing the 10% of the population in the bottom 10%. What we see is disparity between regions, as well as between ethnic groups within regions. Maori and Pacific peoples fare worse than Europeans in almost every region in New Zealand. In all North Island regions there are a disproportionately high share of Maori and Pacific peoples in bottom decile neighbourhoods. In all regions but Northland there is a disproportionately low share of European New Zealanders in bottom decile neighbourhoods.

Figure 4: Proportion of Regional Ethnic Groups in the most deprived decile meshblocks in 1996



Let us look more closely at how Maori deprivation and regional deprivation interact. 26% of the total Maori population of New Zealand are in the most deprived 10% of New Zealand neighbourhoods. In some regions this figure is a lot higher: 47% of the Maori population of Northland and 42% in Gisborne are in the bottom decile. In Auckland, Waikato, Bay of Plenty and Hawkes Bay, Maori deprivation is also above the 26% average for Maori.

In Annex 1, however, we saw that the upper North Island regions are those that contain the highest proportions of deprivation in general. Non-Maori also fare badly in Northland and Gisborne, for instance. Is it simply the case that Maori deprivation follows the same sort of regional patterns as those of the overall population? Or is there a Maori-specific regional story?

Further analysis looking at the relative risks for Maori and European across the country indicates that the likelihood of Maori being in the lowest decile ranges between 1.5 and 7 times the likelihood that their European neighbours are in the worst decile

neighbourhoods, for any region. Even if there were no regional disparities, Maori would still fare worse.

Figure 4 also indicates that in many regions Pacific peoples experience poorer outcomes than Maori. Analysing the relative risk for Pacific peoples, in the same way as we did for Maori, shows similar patterns of 1.5–7 times the European risk.²⁷ In Auckland however, where 65% of Pacific peoples live, the risk of living in deprived neighbourhoods is 11.2 times that of the European risk, and in Wellington, where a further 15% of Pacific peoples live, the risk is 12 times. This emphasises the importance of also focusing on the particular needs and situation of the Pacific peoples' community, if we do choose to focus on ethnicity.

Maori, regional deprivation and land ownership

Several factors are relevant to the interaction between ethnicity and location in understanding, and addressing, Maori deprivation in rural areas. The first is that the areas of relatively high deprivation coincide with ancestral communities (or *turangawaewae*) and their environs. Thus 44% of the population in the East Cape region are Maori, and 30% in Northland. Secondly the age structure of Maori in rural communities in these regions is strongly skewed toward the young and the elderly (e.g. 66% of people in Wairoa under 24 are Maori). Urban drift for working age Maori appears to be continuing.

Another part of the regional picture is the simple association of relatively high levels of Maori deprivation with the appropriation of productive Maori land in the 19th century, which forced Maori onto marginal land and deprived them of an economic base. "The resulting pattern of deprivation, rooted firmly in the nineteenth century, is clearly marked on the social landscape at the beginning of the twenty-first century"²⁸

Similarly the on-going levels of deprivation in rural communities may be linked to the non-performance of Maori land as an asset. The relatively small area of Maori land, its poor quality and the multiple ownership institutional framework for Maori land tenure are factors that contribute to continually low levels of economic performance. Within this bleak picture there are regional variations (over 70% of Maori freehold land in the East Cape, and Northland is in the three poorest land use capability classes). The diffusion of ownership rights constrains the ability of owners to act concertedly (there are estimated to be 1.9 million individual ownership interests for the 1.5 million hectares of Maori land, and the number of ownership interests is estimated to increase by 185,000 per annum). Over 64% of all Maori land blocks (comprising about 20% of total area of Maori land) have no formalised administrative structures.

Among Maori land practitioners there is a growing view that the tenure system, despite a major overhaul resulting in the Maori Land Act 1993, has not yet achieved a balance between protecting land from further alienation and enabling it to be used as a productive commodity.

²⁷ With the exception of the West Coast and Tasman where there are very few Pacific peoples.

²⁸ Crampton et al (2000).