



## MOVING TO JOBS?

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# 1 INTRODUCTION

Migration is one of the ways that individuals can improve their chances of getting a job; it allows them to move to regions with better employment prospects. However, migration flows may also work against policies that aim to improve the employment prospects for people in low-growth regions. If the benefits of regional development policy accrue primarily to people who move into an area to take advantage of the assistance offered, the policy may fail to raise the living standards of the initial residents. In recent years, there has been a resurgence in interest in regional issues in New Zealand with the re-establishment of a Ministerial post with responsibility for Industry and Regional Development. The broad aim of the regional development programme is “to facilitate and promote sustainable regional development to help regions respond to local opportunities”.<sup>3</sup>

This paper examines whether New Zealand residents move from low-growth to high-growth regions, using New Zealand census data from the past three inter-censal periods (covering 1986-2001). If higher employment growth were the only factor affecting the relative attractiveness of regions, we would expect such a pattern. In practice, relative attractiveness depends also on other differences across regions, and on the characteristics of individuals living in different regions. Furthermore, the impact of labour demand may be offset by other responses in labour or housing markets (higher growth in housing costs).

We focus on the relationship between employment growth and migration flows to gauge the strength of the relationship and the stability of the relationship over the business cycle. We find that people move to areas of high employment growth, but that the probability of leaving a region is less strongly related to that region's fortunes. We also find that migration flows to the metropolitan regions of Auckland, Canterbury and Wellington include a higher proportion of international immigrants compared with the rest of New Zealand.

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<sup>3</sup> Cabinet paper “Implementing the Regional Development Programme”, available as [http://www.med.govt.nz/irdev/asst\\_prog/impregdev03.html](http://www.med.govt.nz/irdev/asst_prog/impregdev03.html).

## 2 PATTERNS OF REGIONAL MIGRATION AND REGIONAL EMPLOYMENT GROWTH

We first describe the patterns of New Zealand's migration flows and regional employment growth patterns over the three inter-censal periods 1986-1991, 1991-1996 and 1996-2001. Employment information from the New Zealand Census of Population and Dwellings was used to calculate five- year (inter-censal) changes in employment numbers for each region. Employment here is defined as the number of part-time and full-time workers aged 15 to 64. Table 1 shows that between 1986 and 1991 New Zealand experienced a 6.8% reduction in the number of people employed. This was followed by a strong recovery between 1991 and 1996 with employment numbers growing nationally by 15.8%. Employment growth continued, albeit at a much lower rate of 5.4% between 1996 and the 2001 census. However, the fortunes of regions were mixed with some regions experiencing a decline in employment numbers.<sup>4</sup>

**Table 1 New Zealand employment growth and migration rates**

Year	Employment growth	Inter-regional migration rate	International inflow rate*
1986-1991	-6.8%	9.7%	4.9%
1991-1996	15.8%	8.3%	6.6%
1996-2001	5.4%	8.3%	6.9%

Source: 1991, 1996 and 2001 Census of Population and Dwellings, Statistics New Zealand

\* The New Zealand Census records international inflows, but not international outflows.

The mobility data has been drawn from the 1991, 1996 and 2001 New Zealand Censuses of Population and Dwellings. Each census asked for current and previous census (five years ago) addresses. From these two questions we identify a change of address, and therefore a move. These data provide a comprehensive picture of movements of people within New Zealand, and of people who have arrived between two censuses, but do not allow us to distinguish between deaths and external emigration.

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<sup>4</sup> For a detailed description of labour market indicators over the period of 1986-2000, including regional breakdowns, see Choy et. al. (2002).

Table 1 shows mean migration rates for the three census periods. Migration rates are calculated by dividing the number of migrants by the population in the initial period. For example, 9.7% of people living in New Zealand in 1986 had moved to a different region by the 1991 census. Inter-regional migration rates were at their highest during 1986-1991. The two subsequent periods saw a reduction in the proportion of New Zealanders moving between regions, but there was little change between the two periods 1991-1996 and 1996-2001. The proportion of international immigrants increased over the three census periods.

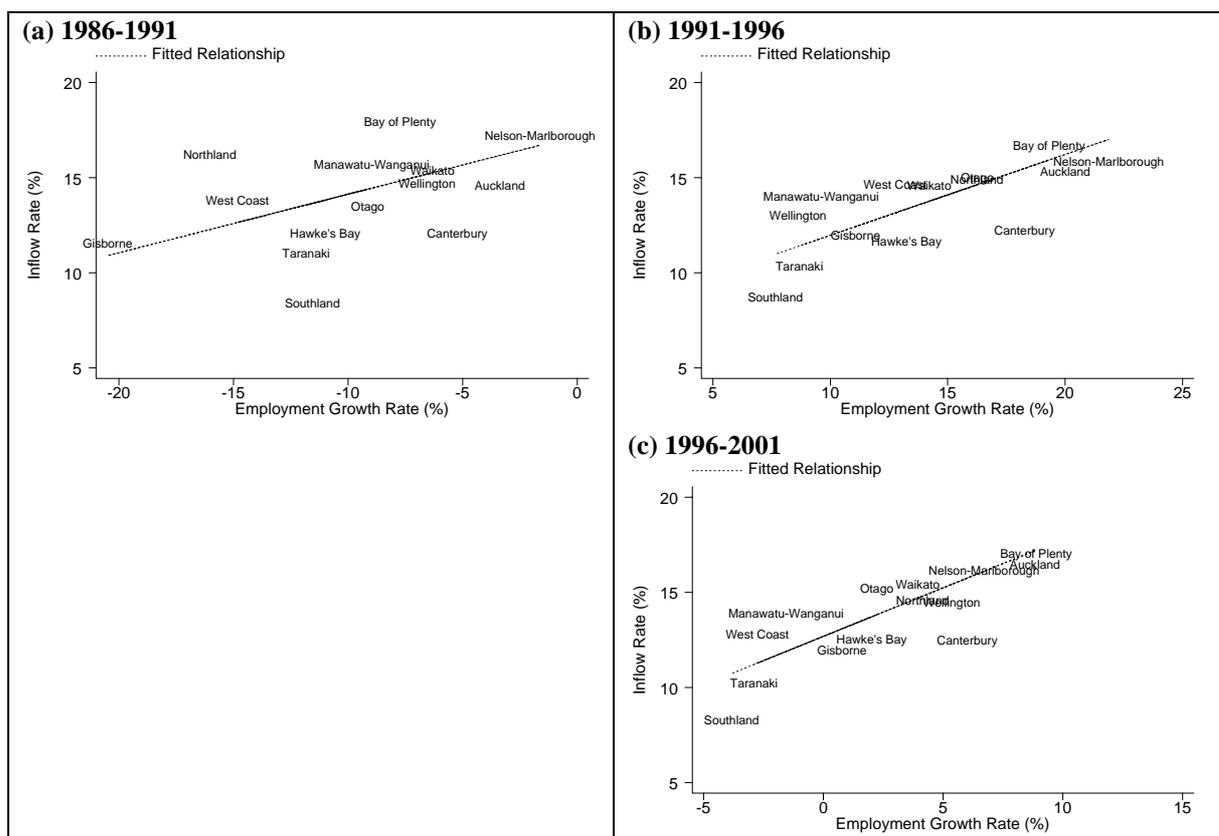
### 3 LINKS BETWEEN MIGRATION AND REGIONAL EMPLOYMENT GROWTH

For a region's employment to grow it requires a supply of available workers. Workers can be supplied from within the region through increased labour force participation (from the unemployed and those not in the labour force), or from surrounding regions (as well as from overseas) through migration.

When the demand for labour in a region rises we would expect some of this to be met by supply of workers from other regions within New Zealand. When demand for labour decreases within a region we would expect workers to move out of the region with the aim of improving their job prospects elsewhere.

Figure 1 shows the relationship between total (internal and international) inflow rates, on the vertical axis, and regional employment growth on the horizontal axis. The straight line represents a population weighted fitted relationship between the two variables. Between 1986 and 1991, despite high inter-regional mobility rates New Zealanders were not necessarily moving to regions with better employment prospects. No significant relationship was found between inflows and regional employment growth (Figure 1a).

**Figure 1 Immigration rate (internal and international) and regional employment growth**



Source: 1991, 1996 and 2001 Census of Population and Dwellings, Statistics New Zealand

Between 1986 and 1991, New Zealand's economy was in recession. Falling employment levels across most regions meant that the net growth in jobs was small. Mobility tends to be pro-cyclical, with people more likely to move during periods of growth. The high rate of mobility between 1986 and 1991 is therefore somewhat surprising. It should be remembered, however, that migration decisions reflect peoples' views about the long-term relative attractiveness of different locations. The significant changes in the New Zealand economy during the period would have changed the relative attractiveness of different locations. The weakness of the relationship between labour market conditions and migration flows may indicate that the link between observed (current) and future labour market conditions was weaker during this period. The widespread nature of poor employment opportunities across New Zealand's regions might also have encouraged workers to travel overseas in search of work.

From 1991 onward New Zealand's regions experienced positive employment growth. Total inflow rates between 1991 and 1996 had a positive and significant relationship with regional employment growth (Figure 1b). This relationship remained positive and significant during 1996 and 2001 (Figure 1c) despite a slowing in employment growth from 15.8% to 5.4%.

These results suggest that higher employment growth rates within New Zealand regions are linked to larger migrant inflows. For the metropolitan regions of Auckland, Canterbury and Wellington a high proportion of immigrants arrive from outside of New Zealand. For example, between 1996 and 2001 70% of Auckland's immigrants arrived from outside of New Zealand. For the non-metropolitan regions in-migration is predominantly from within New Zealand.

The above finding suggests that migrants are attracted to regions with better employment opportunities, but only when at least some regions have growing employment opportunities. In contrast when we examine regional outflows we find that a migrant's decision to leave a region is not closely related to poor or declining employment prospects. No significant negative relationship was found between employment growth rates and outflows over the three study periods.

Unlike inflows we cannot test the impact of international emigration on this relationship. Excluding international flows is a potential weakness in the analysis if flows across New Zealand's border are a significant means for New Zealanders to improve their employment prospects. The open border between Australia and New Zealand makes Trans-Tasman migration a feasible option for people seeking better labour market prospects in the neighbouring country.<sup>5</sup>

#### 4 SUMMARY AND FUTURE WORK

In this paper we have used data from the 1991, 1996 and 2001 censuses to examine the relationship between regional employment growth and the supply of workers through inter-regional inflows within New Zealand.

We found evidence to suggest that people choose destinations where employment growth is stronger and that mobility is more labour-market related during periods of growth. The decision to move out of an area is not strongly linked to relative employment growth. A substitution effect seems to occur between internal in-migration and international in-migration (including returning New Zealand citizens). This was most evident within the metropolitan (Auckland, Canterbury and Wellington) regions and in particular Auckland, where international in-migration out-weighs internal in-migration.

The work reported here clearly shows that internal migration flows are related to relative local labour market conditions. This is consistent with the Choy et al (2002) finding that most of the adjustment to a local labour demand shock occurs through migration, and relatively quickly. It is worth noting, however, that this link between migration and local conditions does not mean that regional differences in labour market outcomes are eliminated. There is a good deal of persistence in relative labour market outcomes (Maré & Timmins (2000); Choy et al (2002)). It would appear that migration provides a means of smoothing short-term fluctuations in local demand, but not in removing longer-term differences in relative labour market outcomes.

One question that inevitably arises in any examination of changes in New Zealand over the 1980s and 1990s is about the role of policy change. We interpret the changes in internal migration patterns over time as related to the overall level of activity, and the dispersion of the relative attractiveness of different locations. While policy changes over the period have undoubtedly had an influence on the general level and dispersion of activity, our study is unable to link the migration changes to any particular policy or set of policies. Some policy changes have had an identifiably uneven spatial impact. For instance, Gibson (1993) examines the regional impact of industry assistance policies. Future work could examine the strength of such uneven spatial impacts of policies in explaining migration patterns.

The current paper has abstracted from housing market developments, which also affect the relative attractiveness of different areas and the ease of moving. Incorporating these

<sup>5</sup> The national border does, however, still appear to be an impediment to movement - see Poot (1995).

effects, and examining in more detail the role of international emigration, remain as priorities for future work.

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