

Department of Labour Submission to the Productivity Commission Inquiry into Housing Affordability

Introduction

This submission focuses primarily on Section Eleven of the Issues Paper, specifically on the impact of immigration on house price appreciation. The key points of the submission are as follows:

- Permanent and Long-Term migrants cannot be considered a homogenous group. Their demand for housing differs greatly and thus impacts on the housing market vary.
- Recent research is mixed on the impact immigration has on house prices. At the macro level, there is evidence of a correlation (but not causation) between immigration and house prices. At the local level, however, little evidence is found. This is puzzling given the uneven distribution of migrant settlement across the country. This raises questions about the macro-level relationship.

It is important when considering the impact of immigration on a single sector of the economy to recognise the impact that immigration has on the wider economy. Table 1 outlines some of the major contributions. Further, the house price appreciation was during a time of economic expansion where skills were in shortage across the spectrum. Immigrants, many on temporary work permits, were an essential source of labour, ensuring that firms' output was not constrained by labour shortages.

Table one: Summary of immigration's economic impacts

Immigration	Economic benefits
Net inflow of 20,000 migrants	\$1.9 billion annual addition to GDP ¹
74,000 international students	\$2.3 billion – export education earnings (2008) ²
2.5 million visitors	\$9.5 billion – tourism earnings (March 2010) ³
23% of NZ population	\$3.3 billion net fiscal contribution (2005/06) ⁴

¹ Poot, Sanderson and Hodgson (2009).

² Economic Impact of Export Education (2008).

³ Key Tourism Statistics, July 18 2011
[www.tourismresearch.govt.nz/Documents/Key%20Statistics/KeyTourismStatistics2011\(July\).pdf](http://www.tourismresearch.govt.nz/Documents/Key%20Statistics/KeyTourismStatistics2011(July).pdf)

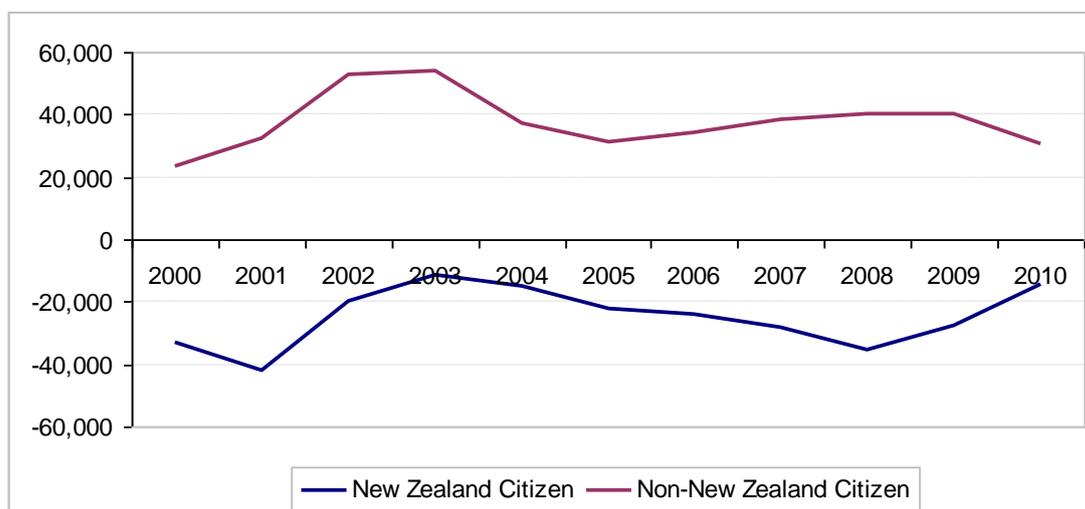
⁴ Slack, Wu, and Nana (2007).

This submission forms two main parts. First, disaggregating migration flows and considering the implications for housing. Second, a discussion of the findings of three recent studies on the impacts of immigration on house prices – omitted from the Issues Paper.

Migration flows

Figure 9 on page 37 of the Issues Paper highlights the large increase in net permanent and long-term migration (PLT) peaking in 2003 (June year) at an inflow of around 43,000. Disaggregating the PLT flows shows some interesting findings. Figure 1 shows that in 2003, net PLT of both New Zealand and non-New Zealand citizens peaked (-11,000 New Zealand Citizens and 54,000 non New Zealand Citizens).

Figure 1 Net PLT New Zealand and Non-New Zealand Citizens 2000 to 2010 (June years)



Source: Statistics New Zealand International Travel and Migration

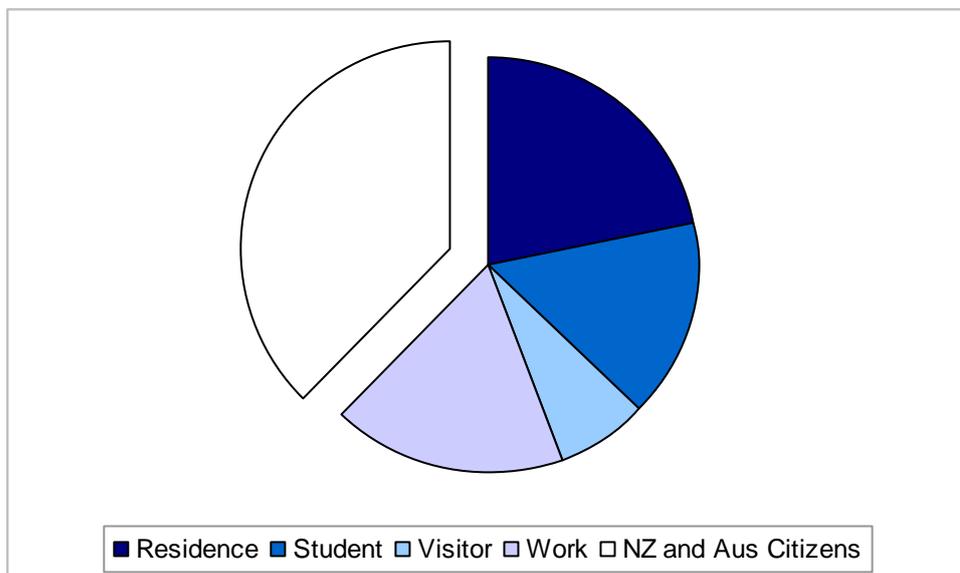
The peaks for New Zealand and non-New Zealand citizens were in part driven by the lowest number of departures by New Zealand Citizens since 1995 and the highest inflow of non-New Zealand Citizens since citizenship began to be recorded in 1979. The peak in PLT arrivals coincided with the highest number of international student approvals in the 2002/2003 year of 87,000⁵ and over

⁵ This analysis is of individuals who at any time in the 2002/03 financial year were issued a permit, not of the total number of permits issued per se. If a person was issued more than one permit in the current period, only the most recently held permit is used.

68,000 temporary workers.⁶ Many of these would have been recorded as PLT arrivals.

The visa category of PLT arrivals has been recorded in PLT statistics since June 2003. Figure 2 shows the composition of the arrivals in the year to June 2004. It shows that of the total 84,000 arrivals, 38 percent were either New Zealand or Australian Citizens, 22 percent arrived with permanent residence, 15 percent were international students, 18 percent had work permits, and 7 percent were visitors or other. In other words, a total of 40 percent of the arrivals, or almost two-thirds of all non-New Zealand citizens, arriving on a PLT basis in the June 2004 year were on a temporary visa.

Figure 2 PLT Arrivals by Visa Type (June 2004 Year)

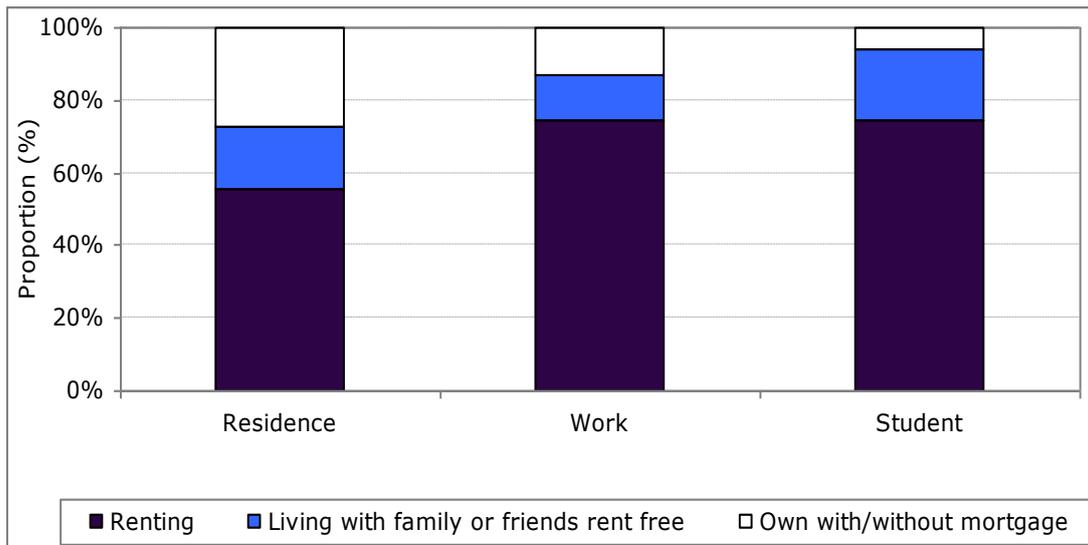


Source: Statistics New Zealand International Travel and Migration

A 2009 survey of immigrants to New Zealand, six to twelve months after approval, showed that only 13 percent of those in New Zealand on a work permit and six percent of students owned their own home. Twenty seven percent of permanent residents owned their own home (see Figure 3).

⁶ Where students intended to stay in New Zealand for 12 months or longer they would be counted in the PLT numbers.

Figure 3 New migrants living arrangements in New Zealand 2009



Source: Immigration Survey Monitoring Programme pilot Migrants Survey

If immigrants had a major immediate impact on the housing market over the period discussed, it would be expected that the bulk of the impacts would be on the rental market rather than the sale of houses. Between 2000 and 2006 the rent index of the CPI increased by an average 2.4 percent per annum, much lower than the appreciation in house prices. The rental stock in New Zealand increased by 1.7 percent or 5,600 rentals per annum (including apartments) between 2001 and 2006, much slower than the 4.8 percent between 1996 and 2001.⁷

Recent research in New Zealand

The following sections discuss recent research that has been conducted for New Zealand and is based on a report by Hodgson and Poot (2011).

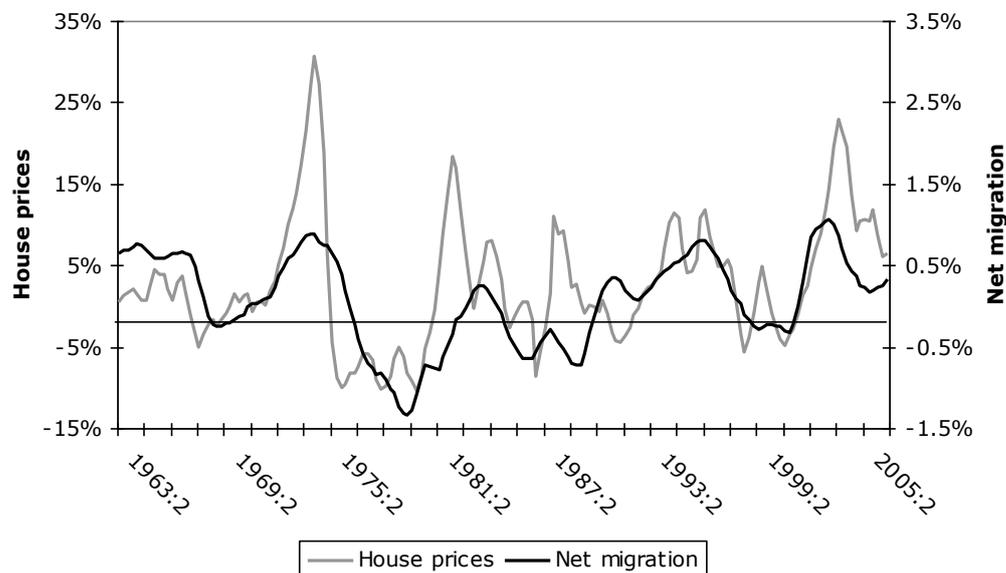
Migration and house prices at the national level

Coleman and Langdon-Lane (2007) conducted a time series macro-level study of the relationship between immigration and house prices. Figure 4 shows the change in annual average house prices and net migration from 1962 to 2006. Net migration rates and real house prices are strongly correlated over the period (the simple correlation coefficient is 0.55 over the 1962–2006 period). If this was interpreted as causation, it suggests a net inward migration rate of one percent of the population would be associated with a 7.8 percent increase in real house prices. However, the model does not establish a causal relationship between the two. The international evidence, such as Saiz (2003), generally find that immigration at a rate of one percent of a city’s population would increase rents

⁷ Statistics New Zealand 2011.

(and house values) by about one percent, considerably less than the simple time series correlation in the New Zealand case suggested.

Figure 4 Four-quarter change in house prices and net migration, 1962–2006



Source: Adapted from Coleman and Landon-Lane (2007)

To get a better estimate of the effect of an immigration shock on house prices in the New Zealand case, Coleman and Landon-Lane (2007) used a structural vector autoregressive (VAR) model at the national level. This kind of model explains quarterly values of a set of macroeconomic variables in terms of the lagged values of all the variables.⁸ The authors found with their model that an inflow of migrants that is equivalent to one percent of the overall population was associated with house prices increasing eight to twelve percent. Again, this is a much larger effect than the overseas evidence suggests.

Although Coleman and Langdon-Lane (2007) found a strong relationship between net migration and house prices, they were not able to identify the reason for this. The authors suggested three possible reasons:

- First, it takes time to build new homes so a rapid inflow of migrants combined with supply constraints (including materials, services, and so on) can cause construction prices to increase sharply until enough houses are built for the migrants. The impact could be particularly large if the new migrants had housing preferences dissimilar to the preferences of those who vacated existing properties (see Sanderson et al 2008)
- Second, migration flows are likely to be correlated with other factors that cause house prices to increase but that were not adequately controlled for in

⁸ The five variables in the model are net migration per 1,000 members of the population, the number of housing starts per 1,000 members of the population, the natural logarithm of real house prices, the unemployment rate, and the mortgage interest rate.

the study. For example, migration flows may be correlated with future income expectations. If this were true, then the impact of migration would be upwardly biased because it would also be a proxy for locals buying more-expensive homes.

- Third, an inflow of migrants may destabilise expectations about house price appreciation. If people or households have adaptive expectations this could cause a long period of disequilibrium.

Migration and house prices at the regional level

One major deficiency with a national time series analysis is that it does not make use of the fact that immigrants are predominantly attracted to metropolitan centres (Mare, Morten, and Stillman 2007). In 2006 over 70 percent of all overseas-born were living in either Auckland, Wellington or Christchurch.⁹ If migrants affect house prices and/or rents, this should be noticed more strongly in the areas with larger immigrant populations. However, again the relationship could be spurious if real house prices go up the most in large cities because of agglomeration advantages (that increase the value of land) while these advantages also increase employment opportunities for immigrants.

Grimes et al (2007) analysed the dynamics of adjustment in national and regional labour and housing markets¹⁰ from 1986 to 2006. Grimes et al found that, at the *national* level, house prices and migration indeed both rose strongly in response to increased employment. For example, a one percent positive employment shock led to a long-run level of employment 1.3 percent higher than in the absence of the shock, with immigrants filling approximately half of these extra jobs. The one percent employment shock was associated with house prices being six percent higher in the long run.

In contrast, at the local level, a *region*-specific employment shock results in strong in-migration, but this is not associated with movement in relative house prices. For example, a one percent region-specific increase in employment causes the long-run regional share of employment to be 0.5 percent higher, with the adjustment to the employment shock entirely met by migration (immigrants and New Zealand born) into the region in the long run. However, this one percent region-specific employment shock causes house prices to rise by only 0.02 percent.

Stillman and Maré (2008)¹¹ investigated the relationship between changes in population size and housing sale prices and rents in local areas between 1986 and 2006.¹² Importantly, the authors disaggregated population change into four

⁹ Statistics New Zealand.

¹⁰ Using a VAR model.

¹¹ This study was conducted as part of the Department of Labour's EII research programme and also received funding from Marsden Fund grant 05-MEP-002 – The impact of immigration on the labour market opportunities of New Zealanders.

¹² Four different levels of area were tested 16 Regional Councils, 58 Labour Markets, 73 Territorial Authorities, 140 Local Labour Market Areas, and Neighbourhoods typically with around 2,000 people.

groups, new migrants, New Zealanders returning from abroad, and New Zealanders and earlier migrants moving from other regions within New Zealand. This research was the first of its kind conducted at such a detailed level of analysis in New Zealand.

Using descriptive analyses, Stillman and Maré (2008) found a positive relationship between change in population, immigrants, and house prices at both the national and local levels. The authors also looked at the relationships over each intercensal period and found that results for 2001–2006 were quite unlike those for the other periods. Overall, house price appreciation and population growth was higher in 2001–2006 than in any other period. The areas with the *largest* population increases in 2001–2006 tended to experience *smaller* increases in house prices. These findings do not control for the diverse characteristics in the groups that live in different areas in New Zealand, or for the fact that people who change locations may self-select into growth areas where house prices are appreciating. To control for such factors, a more sophisticated multivariate analysis was applied.

The multivariate analysis, controlling for the different characteristics of people living in different areas, found that population growth and house prices were only weakly associated during 1991–2006. For example, a one percent increase in an area's population was associated with a 0.2–0.5 percent increase in house prices. The impact on rents was found to be even lower (around 0.2 percent).

The source of population growth was then broken down to separate impacts that new migrants, New Zealanders returning from abroad, and movement within New Zealand (including earlier migrants) had on house prices. Although immigration flows were an important contributor to population change, no evidence was found that the inflow of immigrants had an impact on house prices. Local house price increases were more associated with the location that New Zealanders returning from abroad settled in than where new migrants lived. For example, locations with a one percentage point higher inflow of returning New Zealanders had six to nine percent higher house prices and four percent higher rents. It is unclear what is driving this association: whether returning New Zealanders are increasing house prices or whether they are moving back to areas that have had higher-than-average price increases.

Discussion

Stillman and Maré (2008), Coleman and Landon-Lane (2007), and Grimes et al (2007) all found a relationship between immigration and house prices at the national level. Interestingly, Stillman and Maré (2008) and Grimes et al (2007), who included sub-national analyses, found much weaker relationships. Further, when the composition of the inflows was disaggregated, the impact of an inflow of overseas born to an area was negligible. Given the lack of a relationship at the local level, these results raise doubts about whether the strong positive correlation that exists between migration and house prices at the national level is in fact causal. In other words, given the uneven distribution of immigrants across New Zealand, if immigration were the key driver of recent house price inflation, then it would be expected that areas with higher inflows of immigrants would

have the highest levels of house price appreciation. This was not found to be the case and suggests that the relationship at the national level may be a consequence of omitted factors that raise both immigration and house prices. More research could be done to understand if there is causal relationship.

The impact of immigration on an economy is complex and multifaceted. It impacts both the demand (through consumption) and supply (through labour supply) sides of the economy. The demand impacts are likely to impact more in the short run. Of course if there is an increase in the population through net migration there will be an impact on housing demand. However, the evidence above lends to the idea that immigration was not a major cause of house price appreciation in recent years and other extraordinary influences may have overridden what may have been expected.

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