

**BUILDING BETTER
HOMES, TOWNS
AND CITIES**

Ko Ngā wā Kainga hei
whakamāhorahora

National
SCIENCE
Challenges

Revitalising the Production of Affordable Housing for Productive, Engaged & Healthy Lives: Integrated Report

Edited by Dr Kay Saville-Smith
CRESA

Building Better Homes Towns and Cities National Science Challenge:
Revitalising the Production of Affordable Housing for Productive,
Engaged & Healthy Lives

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Executive Summary

A dwelling that is an affordable home is not simply a matter of price, but the data shows that a dwelling that costs more than an individual or household can afford undermines its security and compromises the dwelling as a home. A dwelling that is priced more than can be afforded is transformed from a place of comfort and security to an arena of material struggle. It is associated with under-investment in many of the goods and services that generate wellbeing, it contracts rather than expands life chances, and makes precarious social, cultural and economic participation.

Four research components addressed the outcomes of accessing affordable secure housing. Specific, key findings in each of those research components are as follows:

1. IDI analysis of long-term outcomes (Section 4.1):

- People whether born in 1960s Auckland, 1960s Wellington or 1980s Auckland living in secure low cost housing on average generate a net fiscal benefit to government.
- The 1980s Auckland cohort, a cohort which was raised in a context in which access to low cost secure housing was increasingly problematic, showed higher proportions accessing benefits than the 1960s lower cost housing group born in the 1960s.
- Home ownership delivered statistically significant differences in relation to education.

2. Inter-generational housing trajectories (Section 4.2):

- Education – About 75 percent of generation 1 and generation 2 respondents considered that their own, or their parents' home ownership or secure rental had helped them a lot in obtaining benefit from education and training. 90 percent of generation 3 respondents felt this. Beneficial effects of home ownership or secure rental for education and training were greater for Māori and Pacific than for Pākehā.
- Employment – Over 70 percent of participants in each generation considered that their own, or their parents' home ownership or a secure rental had helped a lot with employment. Māori and Pacific participants were much more likely to say that home ownership or a secure rental had helped a lot with employment compared to Pākehā participants.
- Health – A large majority of Māori and Pacific participants across all generations considered that home ownership or a secure rental helped a lot with their health, compared to only just over one-third of Pākehā.

- Wellbeing and happiness – Over 80 percent of participants, irrespective of generation, considered that their own, or their parents’ home ownership or a secure rental helped a lot for their wellbeing and happiness.
- Home ownership and secure rentals were seen as having considerable positive effects on the inter-generational wellbeing of families.
- Home ownership was valued for the security and amenity it provided rather than as a financial or speculative investment.

3. Impacts of accessing rent for buy (Section 4.3)

- Participants in rent for buy saw the chance of home ownership as life changing.
- Health – Participants found their new homes as warmer and drier than previous housing and typically reported reduced coughs, colds, and asthma as well as reductions in health service use.
- Secure tenure and affordable housing allowed greater flexibility in balancing employment, their care for children, and education and training opportunities.
- Take-up of education and training increased.
- Housing costs tended to increase, but the largest set of participants found that their financial situation improved.
- Participants considered their life satisfaction had increased and stress was reduced.

4. Housing, home and whānau ora (Section 4.4)

- Home is central to the ontological security of whanau, but also a determinant of mana, a critical aspect of tūrangawaewae, and identity as Māori.
- Transforming a house to a home is facilitated by the practice of providing for whānau now and into the future, manaaki, being peopled with whānau, and wairua.
- A house is not a home when it is too costly, people feel disabled by poverty both economic and lack of capability or capacity, a lack of security, derelict or surrounded by conflict.
- Poor house conditions compromise health, create risks of domestic conflict, and are a symptom of limited choices.
- Insecure tenancy reduces commitment to tenant responsibilities and restricts the ability to provide manaaki.

- Home ownership is seen as a pathway out of precarity, poverty and facilitating attachment to the Māori world while mitigating exposure to costly rents and racism in the rental market.
- Participants saw investment in low cost housing for Māori as essential for whānau to be 'at home' and be able to 'be' Māori and 'do' or live Māori values such as whanaungatanga, manaakitanga and aroha. The memory and practice of these values is still real for many whānau who have seen home ownership rates among Māori young people decline significantly.

Given the importance of low cost house production to wellbeing, it is of concern that low cost house production has declined. Just as importantly, low cost new builds are not affordable to low and even lower-middle income households.

- Significant reductions since the 1990/91 housing reforms in Government investment in affordable housing including establishment of affordable subdivisions are associated with declines in production.
- Reduced investment in affordable housing has seen changes in the companies delivering lower quartile value construction.
- Residential construction companies have been characterised by liquidations and poor financial performance including those with diverse portfolios and economies of scale.
- Reductions in the supply of low cost housing is tracked by significant reductions in owner occupation since 1986 which has impacted most on younger cohorts and the populations (Māori and Pacific) that have the youngest age structures.
- The majority of households, will under current conditions, be dependent on rental housing within the next two decades.
- Construction costs and section costs in the lower quartile of value were kept relatively affordable despite fluctuations in interest rates in the period prior to 1991.
- Prior to 1991 a prescriptive building code and district planning requirements associated with successive Town and Country Planning Acts prevailed. The less rules based environment heralded by the Resource Management Act and new performance-based building regulation does not seem to have acted to moderate construction or land costs. Nor did the release of district planning requirements associated with Special Housing Areas.
- House price rises cannot be accounted for by aggregated under-supply. An increase in money supply tracks increases in house prices, and house prices increased in the first decade of the 21st century even in areas with falling populations.

- Increased materials and construction costs are associated with increased dwelling sizes, but the price of dwellings and land reflects existing house prices.
- Private covenants are typically imposed to increase the price of dwellings. In 2016 and 2017, over half of new residential titles in Auckland were subject to private covenants.
- Affordable housing is the major casualty of rising house prices with even low cost new-builds delivered to market at price points that are above affordable housing.
- Low cost construction on low cost sections provided affordable housing for households in both middle and low income brackets for many decades but not since 1991:
 - For median income households the house price to household income remained consistently affordable between 2.8 and 3.7 from 1966-1986. From 1991, the new build low cost house price rose from 4.2 to 7.4 of median household income.
 - For low income households at 80 percent of median household income, low cost houses on low cost sections were affordable at 3.5 to 4.1 of household income from 1966-1986. From 1991 the ratio increased for low cost construction on low quartile sections from 5.3 to 9.3 in 2013.
- Lowered mortgage interest rates do not generate affordable housing if low cost new builds are at a high price point. A 80 percent of median income household would pay on a low cost construction on an average priced section:
 - In 1966, 24 percent of income on a 25-year mortgage at 5.7 percent interest rate. In 2013 with 5.8 percent interest they would pay 56 percent of income.
 - In 1981, 50 percent of income on a 25-year mortgage at 14.9 percent interest rate. In 2013 with 5.8 percent interest they would pay 56 percent of income.

1 Introduction

It is now well-recognised that New Zealand has an aggregate under-supply of housing stock and that dwelling production will need to increase substantially if projected household formation is to be accommodated in the future.¹ In political and public discourse under-supply was for many years almost universally depicted as a problem of temporary lags in supply responses to demand. Rising house prices, and associated issues of declining housing affordability, were portrayed as symptomatic of that misalignment between aggregate supply and demand, in part due to New Zealand's 'rock star' economy and attraction to migrants. The most extreme form of housing exclusion, homelessness, was assigned to pathological dysfunction among affected individuals (Infobox 1.1).

Infobox 1.1 2017/18 Social Housing Investment Strategy Explains Homelessness

"Many people with unmet housing needs or people who are in social housing have mental health conditions, including drug or alcohol dependency; many people who require emergency housing have a Corrections history"

That narrative largely informed a view that simply raising the aggregate production of new-builds would be a primary pathway to resolving housing pressures, moderating house prices and increasing affordability. This was a narrative in which problems of rising homelessness tended to be assigned to the allegedly pathological characteristics of the homeless themselves. The precarious housing experiences of low-income households and their exclusion from owner occupation tended to be ascribed to failures on the demand-side – low and uncertain incomes in low wage economies – rather than a supply problem in relation to low cost housing. Alternatively the problem lay in barriers to the aggregate supply of housing. As a consequence, in 2013 the then Government introduced housing accords and special housing areas (SHAs) which allowed selected councils to reduce the planning requirements placed on housing developments to encourage new-build production. There were no requirements from central Government designed to ensure those new dwellings would be delivered to market at prices affordable to low-income or middle-income households.

With the exception of Queenstown Lakes, where the council specifically integrated SHAs with a commitment to progressive home ownership and affordable rent through its local community housing provider, there is little evidence that SHAs generated stock over and above that which would have been built eventually in any case. That stock which was built was not significantly different in pricing from other similar new builds, nor is there evidence that SHA builds had any significant effect on house prices in general. More recent attempts to impact on house prices through increased residential builds, such as Kiwibuild, have also struggled to get impact on house prices and improve affordability. Affordable housing production has been increased primarily through the current Government's investment in state house building combined with provision of contracts for transitional and emergency housing in motels and other existing buildings.

¹ Johnson, Howden-Chapman and Equb, 2018; Welfare Expert Advisory Group, 2018 and 2019.

While there has been an increasing recognition of under-supply as being problematic and a factor in unaffordable house prices and rents, little systematic attention has been given to the production of affordable housing relative to housing in general. This research programme was prompted by a concern with the pattern of production of low-cost dwellings, not simply housing under-supply in general. It is based on the proposition that the decline in low cost housing supply is a critical element in the dynamics of housing exclusion, persistent problems of housing affordability affecting both low- and middle-income households, and homelessness. It explores the pattern of low cost housing production and the contribution of low cost, secure housing as a platform for wellbeing.

This report integrates and triangulates data generated by a variety of research components in the programme and is structured as follows:

- Section 2 traces the production of lower quartile value housing in New Zealand.
- Section 3 looks at the costs and affordability of low cost housing in New Zealand.
- Section 4 explores key dimensions of well-being and their association with access to secure affordable housing represented in production of low cost housing.
- Finally, section 5 presents some overall conclusions about the potential impacts of affordable housing or its under supply and stimulating affordable housing.

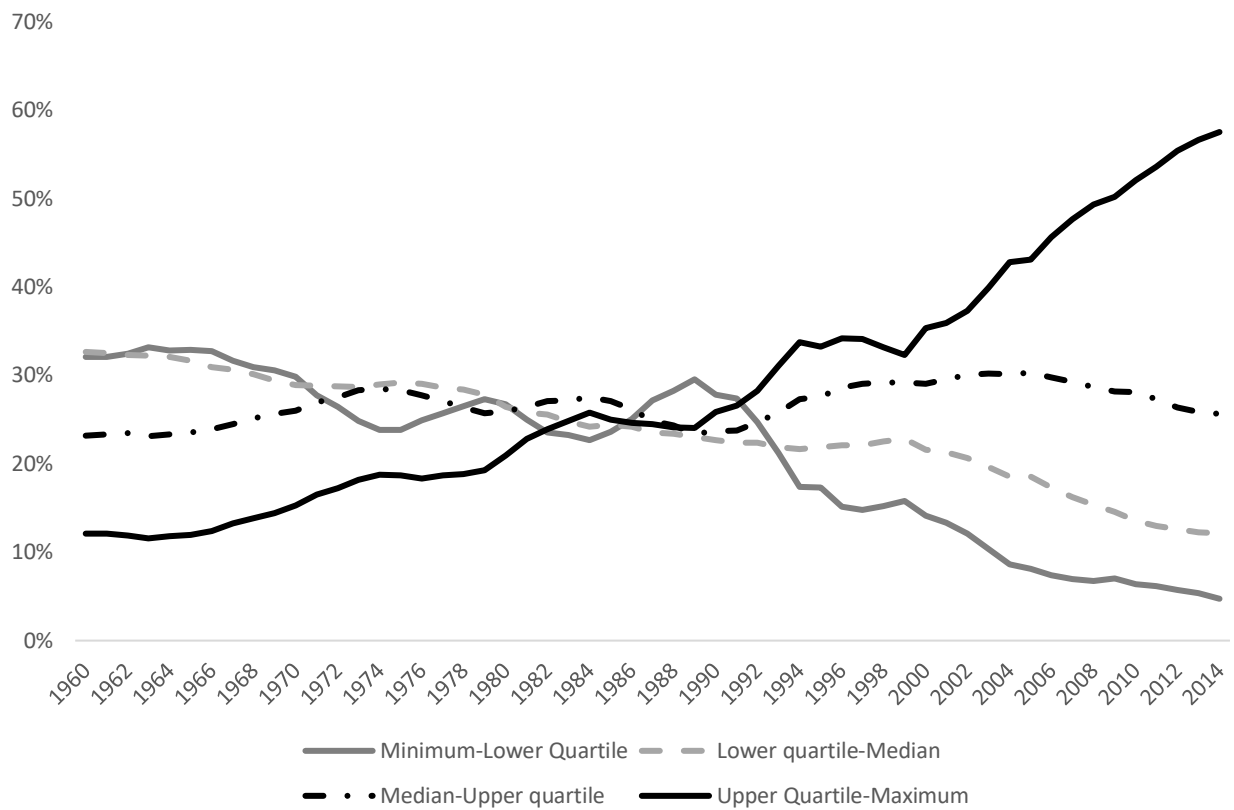
2 Lower Quartile Value Housing Production

This section focuses on the investment and production of lower quartile value housing. It explores that production in two discussions. The first discussion explores the factors which generated a decline in the production of lower quartile value new builds identified initially by the New Zealand Productivity Commission. The second focuses on the characteristics of the much diminished low cost housing segment of the building industry and the distribution of low cost housing new-builds between 1995 and 2017.

2.1 Lower quartile residential construction 1960-2012

In 2012 the New Zealand Productivity Commission undertook a review of housing affordability in New Zealand. It was a review notable for three reasons. Firstly, it was the first public agency for many years that suggested that New Zealand had a major problem with housing affordability and tied that problem to both a failure in productivity and a brake on New Zealand productivity. Second, it documented a significant shift in residential new-build production from low cost, lower quartile value housing to high cost, higher quartile housing (Figure 2.1).

Figure 2.1. New builds 1960-2014 by quartile of housing stock value ²



Third, despite indicators in its own reporting of the crucial shift in new-build production, the New Zealand Productivity Commission followed a well-established popular and political narrative around housing affordability. That narrative involved a series of virtually axiomatic propositions: that the primary driver of house prices were building material and land costs; that housing supply issues represented a temporary misalignment between supply and demand; that the primary structural problem in the production of affordable housing resided in an allegedly rigid and distorting land-use planning regime which disincentivized land release and development.³ This was a narrative that has been common in many jurisdictions including Australia and the United Kingdom.⁴

The regulatory argument as an explanation of that decline has, however, always sat uneasily in the New Zealand context. Compared to previous regulatory regimes, the district and land use planning approaches under 1953 and then 1977 legislation, it could be argued that the effects-based Resource Management Act 1991 (RMA) was significantly less rule bound. The Building Act 2004 was similarly performance directed rather than prescriptive. If the Resource Management Act 1991 had a deficiency for the building industry in relation to housing production it lay not in its rigidity, but in its focus and reactivity. Unlike the Town and Country Planning Acts which explicitly sought planned development for the built

² Data provided by the NZ Productivity Commission.

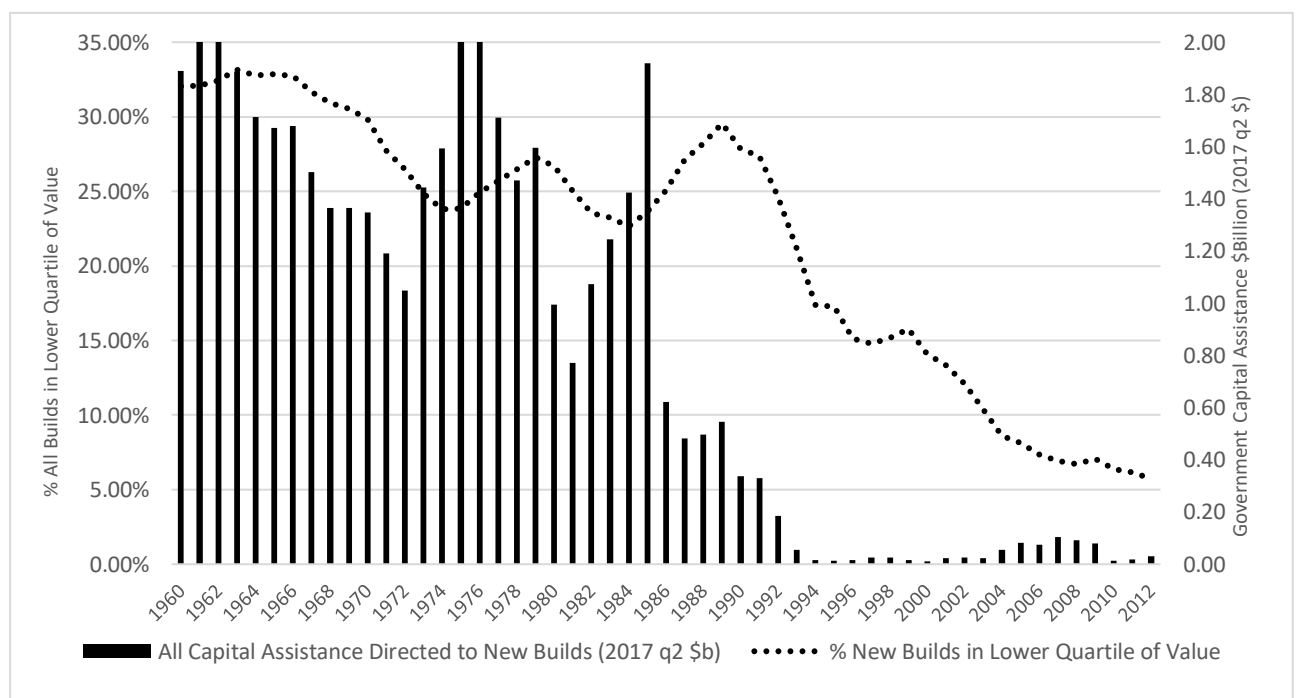
³ New Zealand Productivity Commission, 2012, 2015 and 2017.

⁴ Gurran and Phibbs, 2015; Barker, 2004.

environment to accommodate people, the RMA focus is on mitigating the environmental impacts of built environments. That this approach might neither protect environmental values nor meet the housing needs of people and the development of appropriate built environments for people was key criticism of that legislation at the time and since.⁵

The preoccupation with land use constraints associated with district planning and the RMA has taken attention away from something much more direct in the production of any good or service. That is, the investment in it. The data related to government investment in low cost housing is revealing. Figure 2.2 shows all Government assistance directed to new-build residential dwellings from the period 1960-2012. In real terms (\$2017), capital assistance in 1960 lay at around \$1.89 billion. The following two years saw it reach around \$2 billion. In 1972 it was about \$1 billion. Just after the 1990/91 housing reforms it fell to around half of that and then was reduced to and more or less stayed around \$0.03 billion throughout the period until 2012 with the exception of modest increases in the period 2004 to 2010.

Figure 2.2 Estimated government capital assistance to new builds and proportion of all new builds delivered in New Zealand in the lower quartile of value⁶



Government investment in lower quartile value housing came in a number of forms. Councils were provided assistance through low interest loans to produce pensioner housing. What was initially called the religious and voluntary sector but are now Community Housing Providers (CHPs) were funded to provide housing for people with particular long term as well as transitional housing need. The IHC homes, now Accessible Properties, was a significant recipient of government investment into group homes which were also funded by

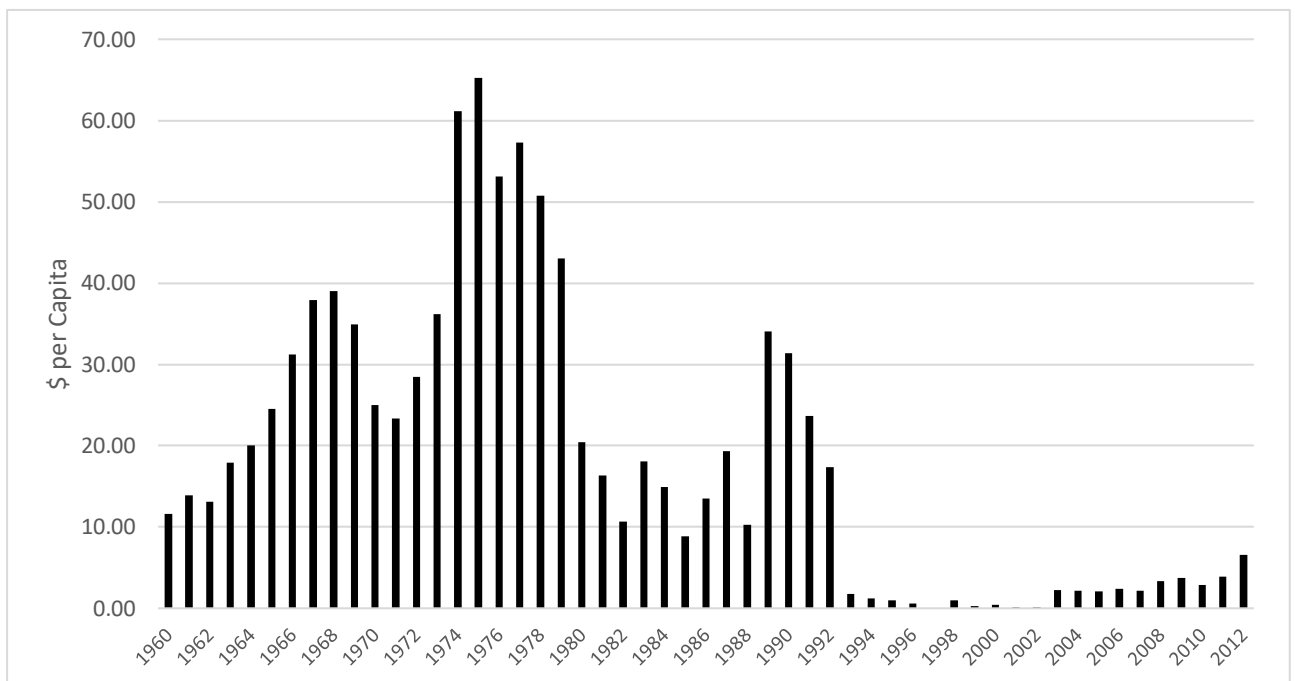
⁵ Perkins, Memon, Swaffield, and Gelfand, 1993.

⁶ Prepared by K Saville-Smith from successive annual reports and New Zealand Official Yearbooks.

parents of the children living in them. The size of the Accessible Properties portfolio, more than 2,700 properties, has its genesis in the investment prior to 1990.

Figure 2.3 sets out the per capita investment in community housing over this period. Community housing investment peaking in 1975 at \$205 million in 2017 June quarter dollars. The period from 1991/2 housing reforms to 2012 saw funding reduced to an annual average of less than \$8 million in 2017 June quarter dollars to less than ten dollars per capita.

Figure 2.3 Community Housing New Build Government Capital Assistance per capita (real June 2017 \$)⁷



There was also investment in state housing (Figure 2.4 and Figure 2.5). This also showed a per capita decline from 1991 with a brief period of commissioning from the building sector for new builds in the period 2002-2008. In addition, there was finance for urban regeneration and investment in low cost land development. But most importantly there was investment by way of mortgage support for low income families to assist them into owner occupation, primarily through the State Advances Corporation (later the Housing Corporation of New Zealand) and the Department of Māori Affairs. For much of the period until the 1991 housing reforms, Government investment combined with the investment of families as they paid off their mortgages directed to low cost new builds.

⁷ Prepared by K Saville-Smith from successive annual reports and New Zealand Official Yearbooks.

Figure 2.4 Number of state houses per capita 1960-2013⁸

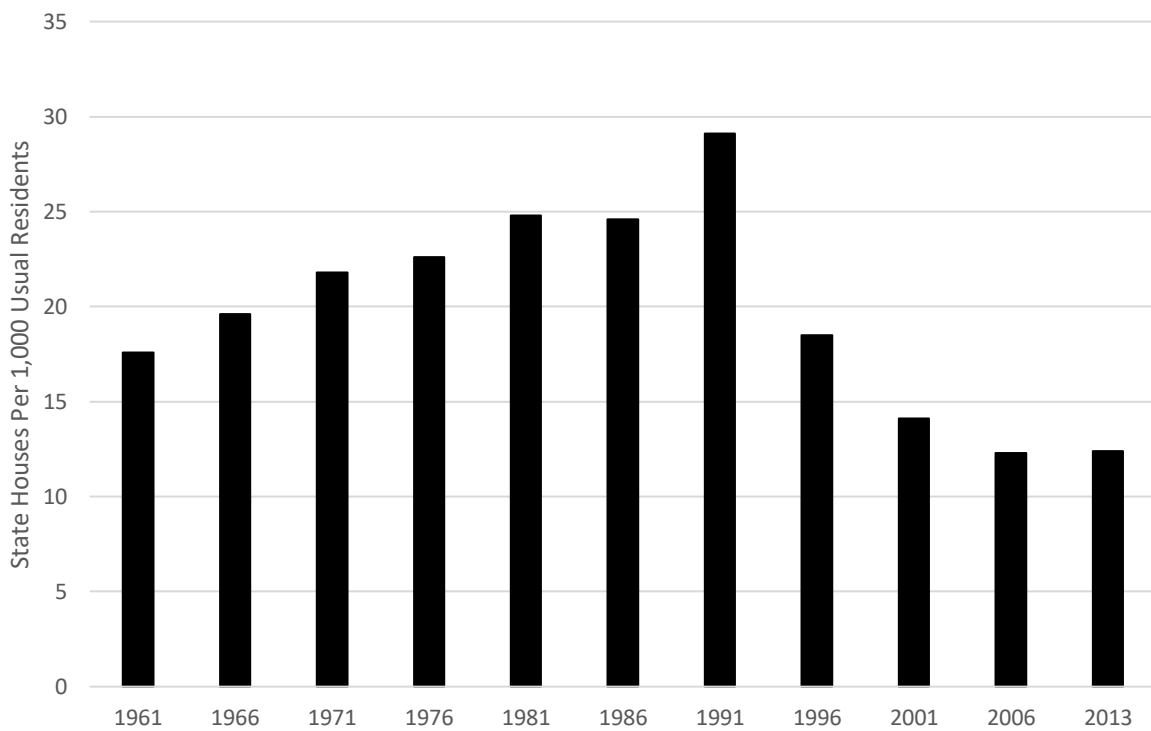
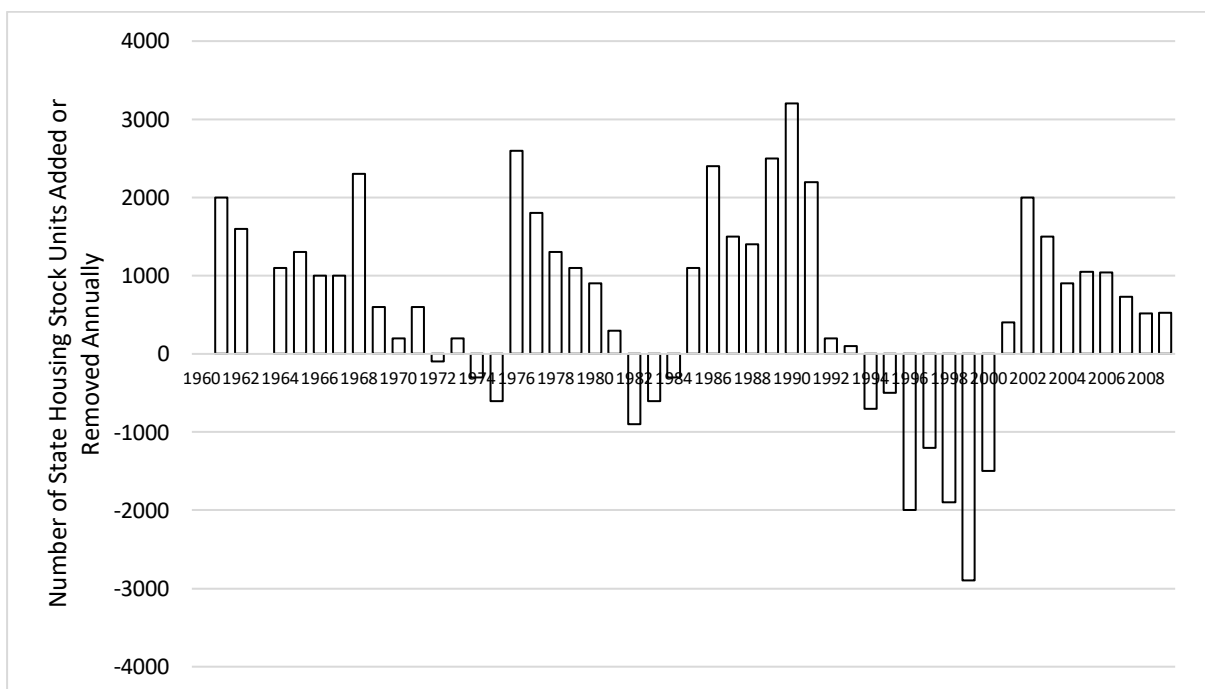


Figure 2.5 Additions/Divestment state housing stock annually 1960-2008⁹



⁸ Prepared K Saville-Smith from successive annual reports and New Zealand Official Yearbooks.

⁹ Prepared K Saville-Smith from successive annual reports and New Zealand Official Yearbooks.

The impact of the decline in new build investment is clear. As Figure 2.2 shows there is a lag time between investment and consented new builds. For instance, the \$1.92 billion of government expenditure in 1985 was followed by a resurgence in lower quartile builds peaking in 1989 with over 29% of new builds in that year categorised as in the lower quartile of value.

2.2 Lower quartile residential construction 1995-2017

The building consent database, a nationwide compilation of key data from building consent applications, has been used to trace the pattern of new builds in the 2015-2017 period. After dividing the stated value of a consent by the number of dwellings, which accounts for multi-unit developments such as terraced houses and apartments, all consented new residential dwellings at or below the 25th percentile in a given region within a given year have been coded as being a lower quartile new dwelling. Builders with regional offices noted in the 'builder name' field were truncated to the root firm name. Builders were also aggregated when operating under multiple trade names (e.g. Fletcher Residential and Fletcher Living). As many of the building consents did not provide floor area measures, it was not possible to determine which consents were for minor dwellings, sleepouts and the like. It is important to understand the nature of this measure.

All applications for building consents require an estimate of the value of the labour and materials involved with the consented works. The dwellings that fall into the lowest twenty-five percent of new-build construction costs may not necessarily reach the market in the lowest quartile of value. Nor is the price at market necessarily affordable. Other cost inputs such as land are not relevant to the building consent and site infrastructural works may be, but not always, subject to a separate consent. In addition, estimated costs are not always an accurate rendition of actual build costs. Most importantly, as Murphy has shown in relation to residual land valuation practices¹⁰ and others have noted in relation to construction costs,¹¹ the price point for new-builds in the market is calibrated against the price of existing dwellings.

As the previous section shows, the price of existing dwellings are not only influenced by alignments between demand and the supply of stock. Other dynamics such as the money supply can impact on house prices. In short, house prices and the affordability of dwellings on the market are not a simple reflection of prevailing construction costs.

Lower quartile construction homebuilders

Table 2.1 shows the way in which dominant producers in the lower quartile construction costs have changed over the twelve years from 1995. For instance, Keith Hay Homes, a family-owned company for around eighty years, was a significant producer of low-cost

¹⁰ Murphy, 2019; Saville-Smith and Murphy, 2018.

¹¹ Tookey, 2016.

housing in the post-war period. It tendered, like Fletcher’s for state housing production, and was heavily involved in land subdivision. It remained a prominent producer through 1995-2017. Notably, in the two-year period 2015-2017, however, Keith Hay Homes was only the tenth producer of lower quartile new-build consents. The number of consents for lower quartile dwellings in 2015-2017, suggests that less than a third of its production was in lower quartile construction costs. Its diversification is apparent in the Keith Hay’s scoping of its production segments in 2019 (Infobox 2.1).¹²

Infobox 2.1 Keith Hay Homes Product Scope

“First Choice Range: Affordable and practical, these homes are ideal as first homes, farm accommodation, rental properties or a holiday bach. From 60m² to 120m².

Classic Collection: A step up in design and specifications from our First Choice range. Classic homes are timeless and contemporary, at an affordable price. From 89m² to 140m².

Coastal: Designed for casual indoor/outdoor living, from a simple Kiwi bach at just 76m² to a spacious 135m² entertainer's delight. These stylish, modern designs are equally at home at the beach, the country or the suburbs.

Architectural: These contemporary homes are the result of a collaboration between Keith Hay Homes and Architex NZ, an award winning practise recognised for excellent design resulting in sustainable homes perfectly suited to New Zealand landscapes”.

Table 2.1 Home Builders Producing Lower Quartile Value Dwellings 1995-2017¹³

| Homebuilder | Number of Annual appearances (1995-2017) | | Consented LQ dwellings |
|----------------------|--|----------|------------------------|
| | Top Ten | Top Five | 2015-17 |
| Mike Greer Homes | 9 | 8 | 937 |
| Fletcher Residential | 9 | 8 | 632 |
| G J Gardner Homes | 17 | 13 | 611 |
| Universal Homes | 10 | 3 | 473 |
| Classic Builders | 7 | 3 | 407 |
| Horncastle Homes | 14 | 6 | 378 |
| Stonewood Homes | 9 | 2 | 269 |
| Peak Construction | 5 | 3 | 244 |
| Versatile Buildings | 19 | 17 | 190 |
| Keith Hay Homes | 16 | 13 | 187 |
| Jennian Homes | 6 | 0 | 158 |
| A1 Homes | 9 | 5 | 156 |
| Sunshine Homes | 11 | 7 | 68 |
| Hawkins | 4 | 4 | 9 |
| Affordable Homes | 5 | 3 | 2 |
| Ryman Healthcare | 6 | 2 | 0 |

Versatile Buildings is most prevalent producer and unlike Keith Hay Homes but like G J Gardner Homes, produces through a franchise structure. Versatile has its origins in the production of garages and while it does construct larger homes, it is likely that its high ranking among lower quartile consents reflects its production of smaller, simpler buildings. Horncastle Homes, a persistent provider of lower construction cost production, closed its volume build business in 2017. It is notable that Fletcher Residential, with its ‘genealogy’

¹² <https://www.keithhayhomes.co.nz/housing/> retrieved October 2019.

¹³ Prepared by M. Rehm from build consent and valuation data.

firmly embedded in state housing construction from 1935,¹⁴ has produced a significant number of dwellings with lower quartile construction costs in the 2015-2017 period although it has not been particularly prominent over the twelve years as a whole. Indeed over 2015-2017, Fletcher Residential's production of dwellings in the lower quartile of construction costs was only about two-thirds of the more recently established Mike Greer Homes.

Mike Greer Homes and Sunshine Homes both have experience in pre-fabrication and factory builds although Sunshine Homes was a low producer of lower quartile construction cost dwellings in the 2015-2017 period. This may be artefactual with the firm not being recorded on some builds. The same might be occurring with A1 Homes. A1 Homes tends to specialise in kitset homes where they supply the building materials and others, often the owners themselves, provide the construction labour. It is not clear in the building consent records whether the consented dwellings with A1 Homes noted as builder are being erected by the firm, which is a service they do provide, or if A1 Homes are merely supplying the materials. Given their ranking it is quite possible that consents with A1 Homes listed as builder involve the full package of labour and material, but this is not known for sure. Ryman Healthcare is a specialised builder, developer and operator of retirement villages across New Zealand. No explicit effort was made to cleanse the dataset of such specialist builders. Similarly, the data was not coded to determine new dwellings owned by Housing New Zealand (HNZ) or a Community Housing Provider (CHP).

Before looking at the geographic distribution of low cost construction new-builds, it is worth noting that a number of the sixteen companies listed in Table 2.1 have had problems with the parent company, a division or franchisees going into liquidation. The Stonewood Group was in receivership in 2016 although some franchises survived. A raft of Hawkins' businesses was liquidated around 2018 and Fletcher Residential made significant losses in 2018 and despite a return to profitability was still seen as fragile in 2019.¹⁵ The G J Gardner franchisee in Oamaru, Harper Enterprises (2007) had its franchise withdrawn in 2017 and the company liquidated in 2019 owing creditors in excess of \$700,000. In 2015, the company running the Mid- and South Canterbury franchises went into liquidation owing \$1.7 million. A1 Homes' franchisee in Hawke's Bay, Gisborne and Taupo, Fargher Construction, went into liquidation in March 2018. Jennian Homes has seen franchisees in Manawatu, Hawkes Bay and Otago in liquidation. The first two in 2013 and the last in 2010.

These liquidations are not generated by delivering into lower cost new-builds. Richard Carver of Jennian Homes is reported as saying in 2009:

"A key problem is the lack of professionalism and business acumen displayed by some home builders. Throughout the property boom, these builders have had large cash flows to manage, without the underlying business

¹⁴ Ferguson, 1994.

¹⁵ Gibson, 2019.

management skills or robust business practices to ensure that this cash was wisely controlled. They simply spend cash that they have not yet earned. Sadly, too many builders are simply poor business people.”¹⁶

It is notable that Fletcher Residential has, despite a very large portfolio of work and apparent economies of scale over a very diversified portfolio, struggled financially. Similarly, the series of Hawkins companies that unravelled in 2018 were unable to protect themselves by leveraging economies of scale and diversification across the residential and commercial sectors. Indeed, it is arguable that the complexity, diversification and scale of work being undertaken by these companies contributed to problems of governance and management.

Lower quartile construction across the country

To understand the spatial distribution of lower quartile new dwellings, the following thematic maps were produced focusing on the following urban areas: Auckland, Hamilton, Tauranga, Wellington, Nelson, Christchurch and Dunedin. As the study timeframe spanned twenty-three years (1995-2017), it was decided to divide the study period into the following periods: 1995-1999, 2000-2004, 2005-2009, 2010-2014 and 2015-2017. In order to appreciate the spatial patterns at the area unit level, as depicted in Table 2.2 and maps Figures 2.6-2.10,¹⁷ the building consent records were geocoded and then linked to their respective land title. During this process the multi-unit developments proved more challenging to accurately locate. Consequently, the maps largely represent the spatial distribution of only newly built lower quartile standalone houses with apartments and terraced homes underrepresented. This is not the case in the above-mentioned top lower quartile construction cost homebuilders. Some builders such as Fletcher Residential (including Fletcher Living and other branches of the firm), produce strong numbers of lower quartile value in the context of multi-unit dwellings.

Table 2.2 lists the top three area units per region per five-year segment where the highest number of lower quartile new dwellings were built. Listed suburbs that appear three times or more have been boldfaced to draw attention to them. Some regions, including Auckland, do not see lower quartile home construction occurring in particular area units. Rather these dwellings are built across a range of suburbs. This is partially due to the sheer size of Auckland which during the 2015-2017 period had lower quartile dwellings built in 325 different area units. The lower quartile residential construction activity in Auckland appears to be concentrated in the west (Waitakere), north (North Shore, west of the Northern Motorway), Waiheke Island, the near south (Mangere, etc) and in the far south (Weymouth, etc). In the most recent years, a concentration of LQ housing construction has occurred in

¹⁶ <https://www.propertytalk.com/forum/showthread.php?19725-David-Reid-Homes-Wellington-went-into-voluntary-liquidation-on-Monday>

¹⁷ Prepared by M. Rehm.

Hobsonville with notable activity in the Auckland Isthmus at Glenn Innes (Tamaki Regeneration) and Otahuhu.

Table 2.2 Highest Number of Lower Quartile Value New build Areas by 5-Yearly Timeframes¹⁸

| Region | 1995-1999 | 2000-2004 | 2005-2009 | 2010-2014 | 2015-2017 |
|--------------------------|---|--|---|---|--|
| Northland Region | Springs Flat (18) Mangawhai Heads (14) Kerikeri (13) | Springs Flat (21) Marsden Point-Ruakaka (20) Tikipunga West (18) | Springs Flat (140) Tikipunga West (35) Mangawhai Heads (30) | Mangawhai Heads (50) Mangawhai (48) Punaruuku-Kiripaka (29) | Springs Flat (56) Awanui (54) Kamo East (42) |
| LQ BCs Issued | 1,187 | 1,332 | 1,336 | 738 | 737 |
| Auckland Region | Waiheke Island (234) Clendon South (206) Lynnmall (164) | Greenmount (272) Mangere South (221) Sturges North (209) | Northcross (168) McLeod (131) Henderson North (115) | Stonefields (171) Takanini South (153) Orewa (76) | Weymouth East (208) Hobsonville East (185) Swanson (129) |
| LQ BCs Issued | 8,225 | 7,529 | 5,042 | 4,981 | 4,949 |
| Waikato Region | Te Rerenga (135) Whangamata (81) Whitianga (59) | Te Rerenga (208) Peachgrove (139) Whitianga (111) | Te Rerenga (149) Te Rapa (130) Hautapu (102) | Hautapu (126) Swarbrick (100) Te Rerenga (82) | Hautapu (113) Huntly East (93) Swarbrick (91) |
| LQ BCs Issued | 2,609 | 3,004 | 3,137 | 2,120 | 2,046 |
| Bay of Plenty Region | Te Maunga (99) Mt Maunganui North (91) Palm Beach (88) | Hairini (135) Pyes Pa (127) Brookfield (61) | Pyes Pa (70) Kawaha Point (66) Hairini (49) | Pyes Pa (88) Palm Springs (57) Brookfield (51) | Palm Springs (289) Omanu (74) Pyes Pa (60) |
| LQ BCs Issued | 2,456 | 2,059 | 1,686 | 1,133 | 1,421 |
| Gisborne Region | Gisborne Central (8) Gisborne Airport (7) Mangapapa (7) | Wainui (12) Gisborne Central (10) Riverdale (10) | Te Hapara (28) Gisborne Airport (16) Riverdale (12) | Wainui (13) Makaraka (12) Whataupoko (9) | Gisborne Central (6) Wainui (5) Gisborne Airport (4) |
| LQ BCs Issued | 111 | 103 | 161 | 90 | 46 |
| Hawke's Bay Region | Taradale South (64) Marewa (34) Greenmeadows (33) | Greenmeadows (57) Taradale South (40) Te Mata (31) | Greenmeadows (76) Ahuriri (48) Bridge Pa (45) | Onekawa West (29) Taradale North (27) Meeanee (23) | Meeanee (22) Taradale South (14) Greenmeadows (12) |
| LQ BCs Issued | 431 | 646 | 797 | 488 | 324 |
| Taranaki Region | Fitzroy (17) Struan Park (17) Bell Block (13) | Kaitake (17) Inglewood (15) Bell Block (14) | Bell Block (76) Barrett (34) Inglewood (31) | Bell Block (36) Inglewood (31) Kaitake (30) | Moturoa (22) Barrett (21) Bell Block (20) |
| LQ BCs Issued | 213 | 313 | 617 | 477 | 328 |
| Manawatu-Wanganui Region | Levin South (45) Williams Domain (29) Levin East (28) | Aokautere (52) Kelvin Grove (51) Mangaore-Manakau (33) | Milson (113) Kelvin Grove (86) Ohakune (51) | Blueskin (32) Roslyn (24) Palmerston North Central (22) | Milson (91) Oroua Bridge (20) Feilding North (19) |
| LQ BCs Issued | 542 | 855 | 1,043 | 588 | 519 |

¹⁸ Prepared by M. Rehm.

| Region | 1995-1999 | 2000-2004 | 2005-2009 | 2010-2014 | 2015-2017 |
|--------------------|--|---|---|---|--|
| Wellington Region | Paraparaumu Central (164) Karori East (74) Mt Victoria West (47) | Paraparaumu Central (224) Glenside North (164) Kilbirnie East (117) | Paraparaumu Central (104) Karori South (78) Carterton (76) | Taita North (42) Maoribank (35) Grenada Village (34) | Newtown East (50) Churton Park North (46) Berhampore West (44) |
| LQ BCs Issued | 1,496 | 1,899 | 1,679 | 1,219 | 919 |
| Marlborough Region | Redwoodtown (63) Springlands (38) Witherlea (28) | Redwoodtown (46) Whitney (34) Witherlea (33) | Redwoodtown (70) Blenheim Central (65) Whitney (52) | Mayfield (23) Springlands (23) Witherlea (21) | Whitney (18) Redwoodtown (15) Blenheim Central (14) |
| LQ BCs Issued | 308 | 398 | 484 | 215 | 172 |
| Nelson Region | Grampians (33) Langbein (19) The Wood (19) | The Wood (55) Grampians (45) Langbein (27) | Ngawhata (118) Washington (37) Nayland (25) | Washington (31) Saxton (28) Grampians (20) | Isel Park (14) Enner Glynn (10) Washington (6) |
| LQ BCs Issued | 229 | 281 | 288 | 218 | 131 |
| Tasman Region | Richmond East (31) Mapua (17) Motueka East (15) | Motueka East (39) Richmond West (31) Richmond East (24) | Richmond East (43) Richmond West (39) Golden Bay (27) | Motueka West (31) Golden Bay (24) Motueka East (23) | Motueka West (30) Mapua (19) Richmond West (18) |
| LQ BCs Issued | 384 | 552 | 333 | 297 | 235 |
| West Coast Region | Westport Urban (9) Cobden (5) Greymouth South (5) | Charleston (5) Haast (4) Westport Urban (4) | Westport Urban (22) Hokitika Urban (12) Greymouth South (9) | Westport Urban (15) Greymouth South (10) Lake Brunner (6) | Franz Josef (8) Barrytown (4) Westport Urban (4) |
| LQ BCs Issued | 127 | 159 | 269 | 186 | 80 |
| Canterbury Region | Sydenham (106) Avon Loop (102) Riccarton (101) | Wigram (131) Sydenham (121) Hornby North (114) | Hornby North (170) Sydenham (122) Phillipstown (108) | Wigram (284) Halswell West (188) Rolleston South East (139) | Wigram (280) Halswell West (257) Rolleston South East (227) |
| LQ BCs Issued | 2,944 | 3,564 | 3,634 | 4,741 | 3,253 |
| Otago Region | Queenstown Hill (59) Wanaka (42) Mosgiel East (35) | Wanaka (101) Queenstown Hill (65) Cromwell (53) | Wanaka (89) Cromwell (83) Mosgiel South (66) | Otago University (72) Wanaka (53) Wingatui (50) | Lake Hayes South (227) Cromwell (73) Wanaka (69) |
| LQ BCs Issued | 647 | 1,172 | 1,362 | 1,151 | 1,115 |
| Southland Region | Waikiwi (29) Grasmere (10) Te Anau (10) | Te Anau (21) Waikaia (14) Waikiwi (13) | Central Gore (40) Heidelberg (38) Grasmere (33) | Otakaro Park (17) Gladstone-Avenal (16) Windsor (15) | Te Anau (20) Otakaro Park (13) Gladstone-Avenal (8) |
| LQ BCs Issued | 149 | 286 | 462 | 305 | 168 |

Figure 2.6

SPATIAL DISTRIBUTION OF LOWER QUARTILE
 CONSENTED, GEOCODED DWELLINGS
 BY STATISTICAL AREA UNIT (1995-1999)

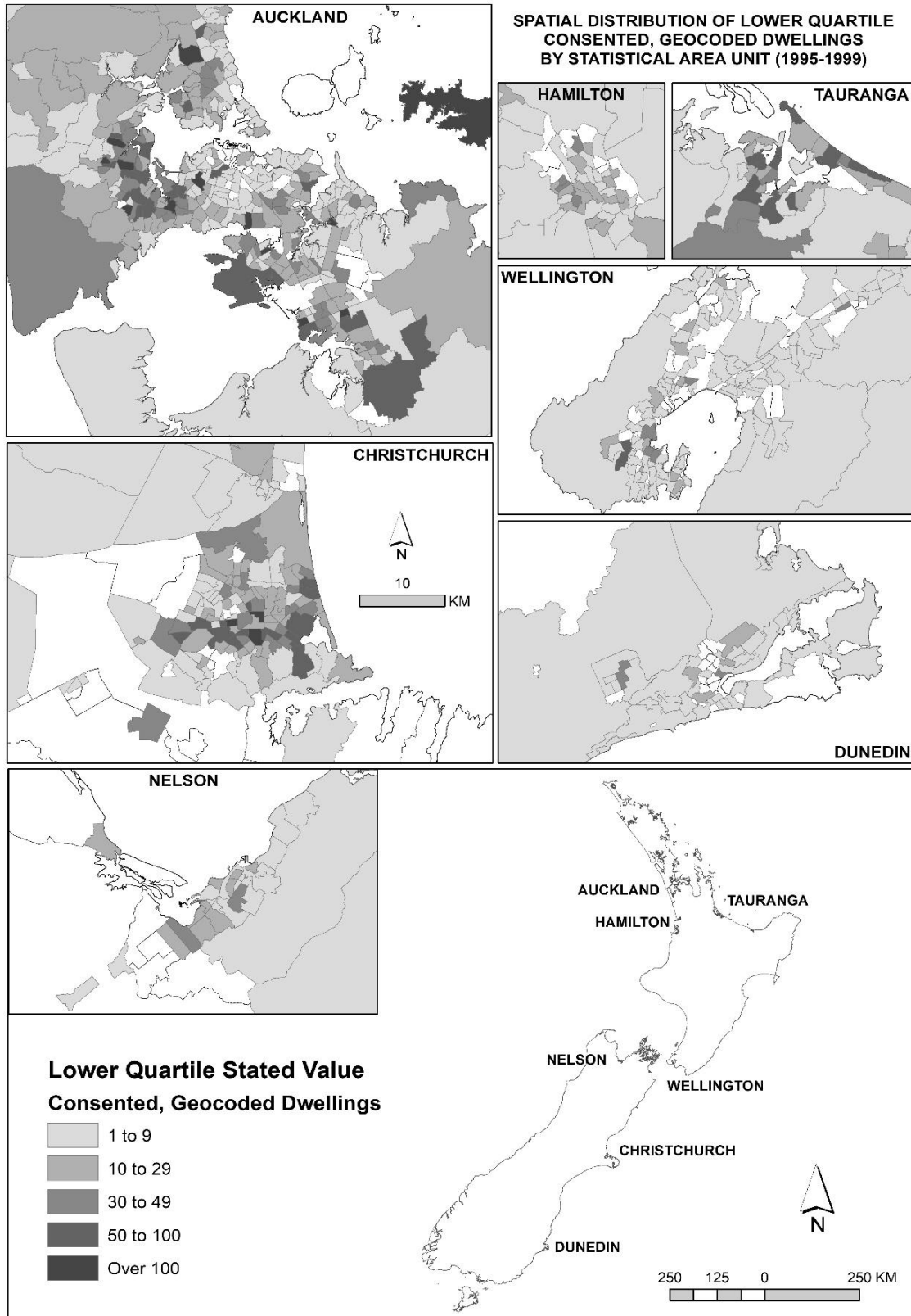


Figure 2.7

**SPATIAL DISTRIBUTION OF LOWER QUARTILE
 CONSENTED, GEOCODED DWELLINGS
 BY STATISTICAL AREA UNIT (2000-2004)**

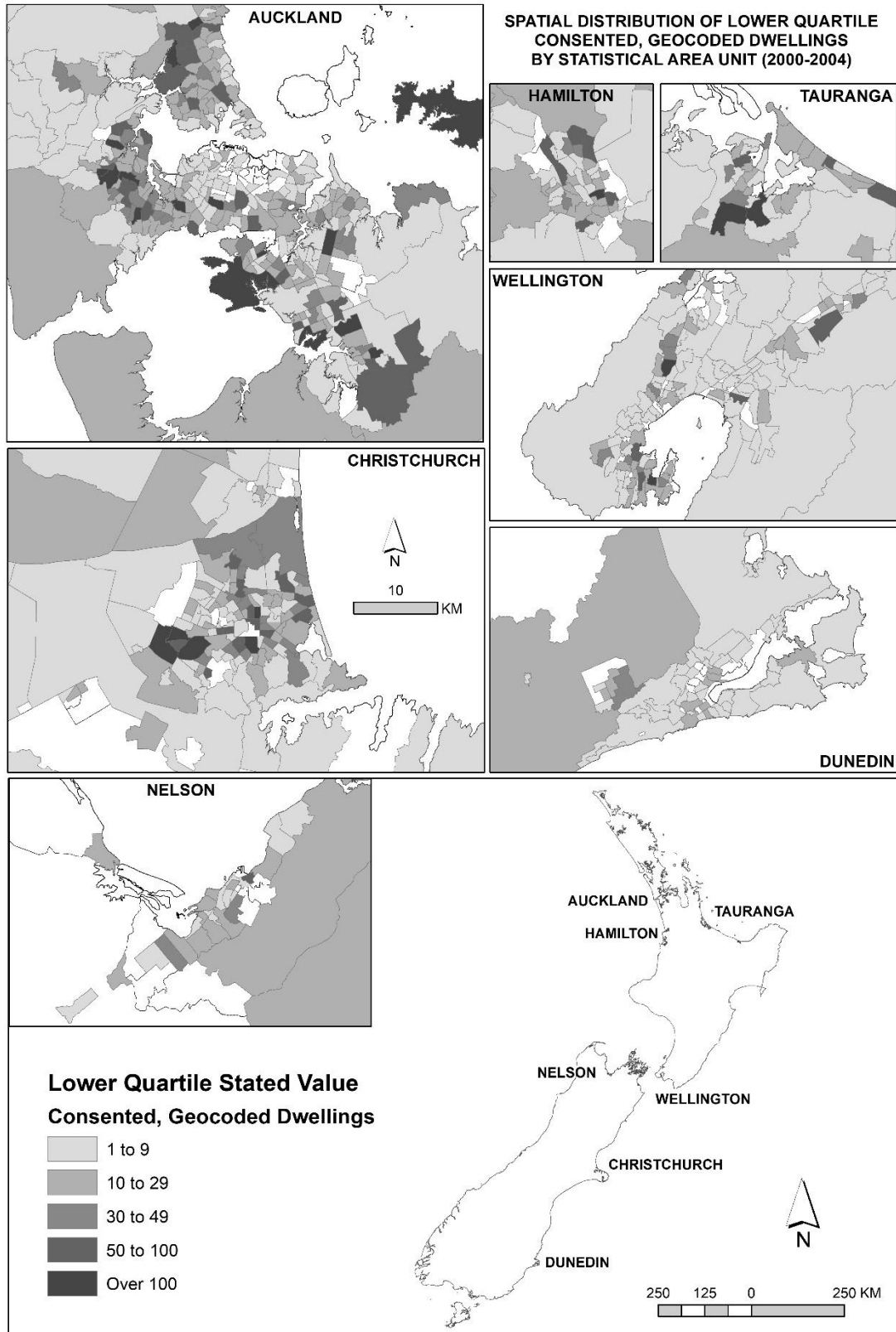


Figure 2.8
SPATIAL DISTRIBUTION OF LOWER QUARTILE
CONSENTED, GEOCODED DWELLINGS
BY STATISTICAL AREA UNIT (2005-2009)

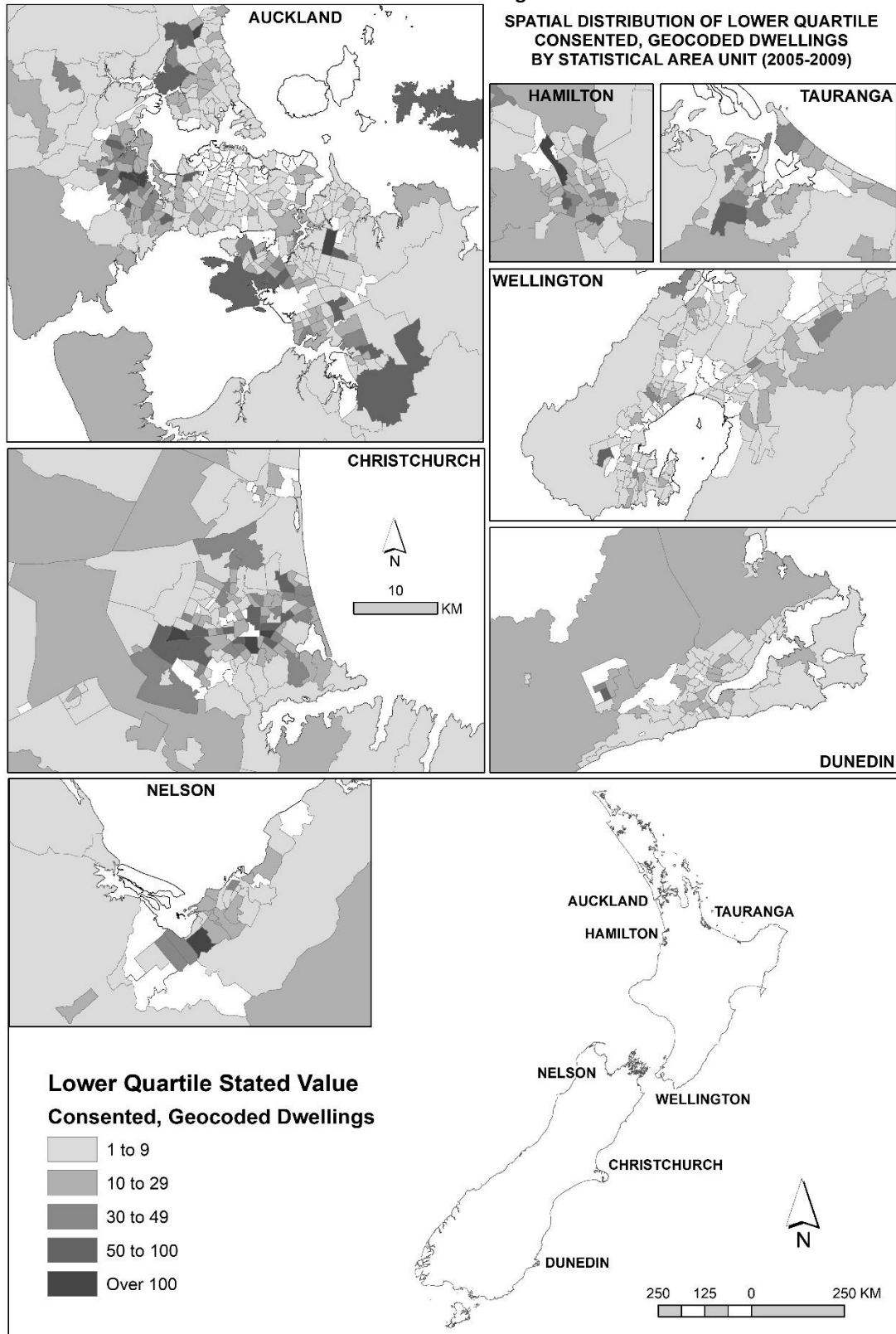


Figure 2.9

**SPATIAL DISTRIBUTION OF LOWER QUARTILE
 CONSENTED, GEOCODED DWELLINGS
 BY STATISTICAL AREA UNIT (2010-2014)**

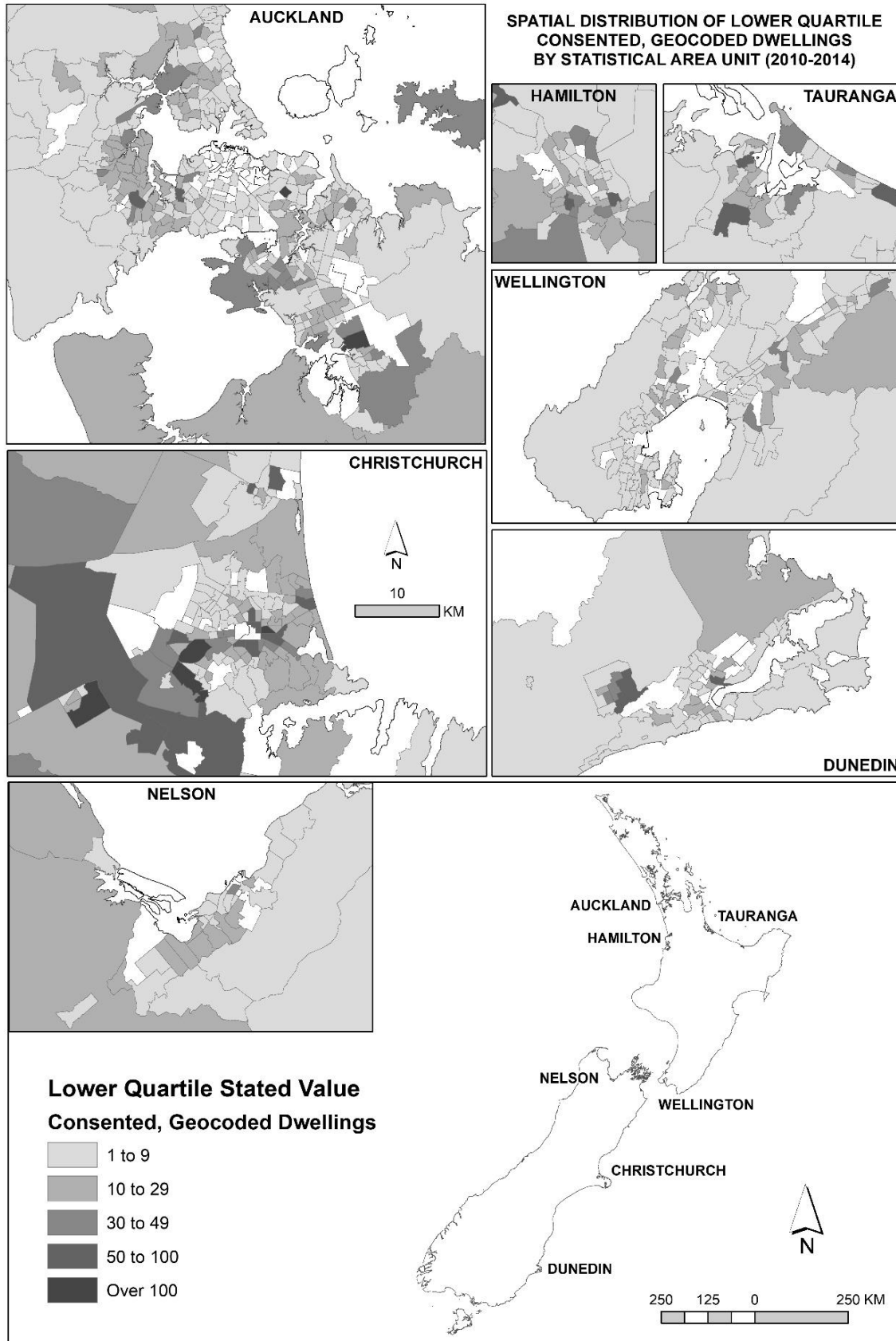
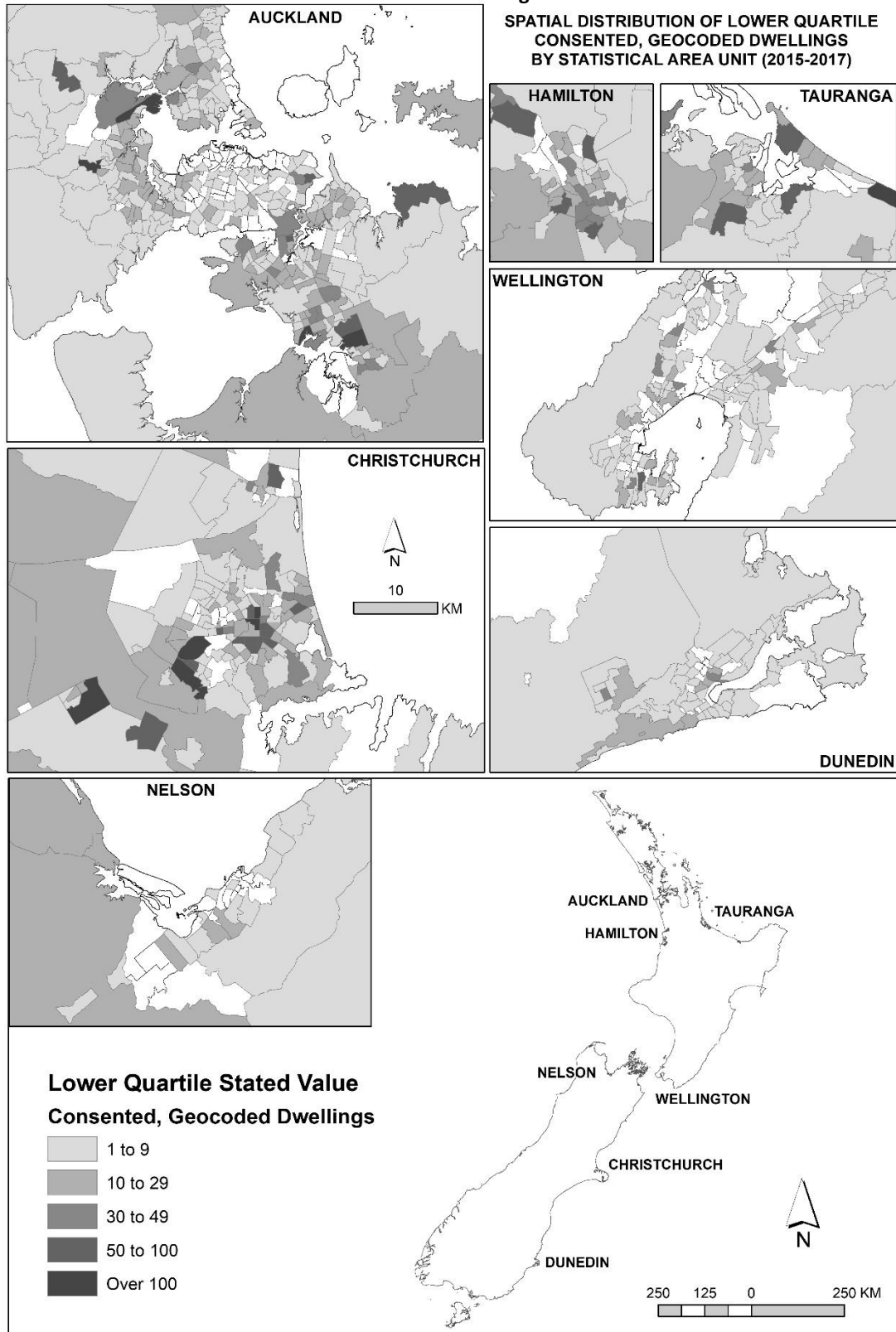


Figure 2.10
SPATIAL DISTRIBUTION OF LOWER QUARTILE
CONSENTED, GEOCODED DWELLINGS
BY STATISTICAL AREA UNIT (2015-2017)



3 The Price of New-Build Low-Cost Housing

Prior to the 1990/91 housing reforms the Government used a mix of demand-side and supply side assistance. In particular, assistance to families to take-up mortgages for owner occupation. After the 1990/91 reforms, assistance was largely through the welfare system in the form of the demand-side Accommodation Supplement and, later, a reintroduction of Income Related Rents for state housing and, later again, for some registered community housing providers. Owner occupiers could apply for support by way of Accommodation Supplements, but relatively few did and the array of first home-owner and 'second chance' provision simply fell away. One of the reasons why the retraction of Government investment in those seeking low cost new-builds was associated with a decline in the production of low-cost dwellings in the lower quartile of value was because both Government investment and the leveraged household expenditure into new-build owner occupation was curtailed.

Nevertheless, there is, by definition, always a lower quartile of value. Government investment in lower quartile housing was specifically directed to developing a stock, either in rental or owner occupation, that was affordable for households. This section traces the relationship between low cost housing, housing in the lower quartile of value, and patterns of access to affordable housing. It addresses three questions. The first question is the extent to which low cost housing prices have changed. The second question is the implications for affordability of changes in low cost house prices. Finally, this section asks what the factors are that explain price shifts in new build low cost housing.¹⁹

3.1 Price shifts in new build low cost housing

The estimated price of low cost housing is calculated from the sum of the section price and the price of constructing a low cost dwelling. For the purpose of this analysis, section prices from Valuation New Zealand between 1966 and 1989 and Corelogic from 1990 to 2016 are used. Low cost dwelling construction prices, including the builder's profit margin, were sourced from a number of providers:

- Moderate dwelling tender prices from the Housing Corporation of New and its predecessors' and successors' publications/annual reports;
- New Zealand Institute of Valuers (NZIV) modal housing cost series; and
- Building Economist's (NZBE) low housing construction price series.

There were a number of challenges associated with accumulating a price series for that timeframe. Typical materials used and typical dwelling attributes changed over the time period. Building regulations as well as how the completed dwelling was presented to a purchaser also changed. These estimates include a builder's profit margin and reflect the typically floor area of a low cost dwelling at different points in time. The analysis initially

¹⁹ The analysis in this section was undertaken primarily by Ian Mitchell with assistance from M. Rehm and K. Saville-Smith.

focuses on the trend at a national level followed, where possible by estimates for greater Auckland and Wellington.

New build construction costs for low cost housing

There has long been a popular narrative that building costs have largely driven the apparent high costs of housing in New Zealand and, in particular, the crisis of housing affordability not only for low income but middle-income households. This discussion addresses that narrative by presenting analysis of:

- National average estimated price of low-cost construction prices;
- National average estimated price of low-cost dwelling section and dwelling packages; and
- The estimated price of low cost dwelling section and land packages in Auckland and Wellington.

The square metre price of a low-cost dwelling from 1950-2017 has been estimated from NZIV, NZBE and the Housing Corporation of New Zealand (HCNZ) tender prices. Tender prices are based on a 92.9 square metre dwelling built to their standard specifications which was similar to NZIV's modal house design. NZIV modal dwelling construction costs are based on a 92.6 m² dwelling built to standard set of specifications. NZBE estimates are based on their standard dwelling of 94 square metres. NZBE reviewed the floor area of their dwelling in 2001 and increased to 120 square metres. The specifications and materials used in the buildings used in their price estimates also changed to reflect variations in industry practice and the building code. These series were combined to estimate an index between 1950 and 2017. The cost series for this figure and subsequent figures can be found in Appendix A.

As Figure 3.1 shows, the nominal square metre construction price for low cost dwellings increased significantly over the last 67 years. However, when real prices are estimated, deflated as they are by the Consumer Price Index (CPI), there is a more nuanced and moderated trend. Figure 3.2 shows at 2017 dollars, construction real prices on a per square metre showed a persistent but relatively modest increase from around \$1359 (2017\$) in December 1950 to \$1803 (2017\$) in December 2017.

Figure 3.1 Nominal price of low-cost dwelling construction prices 1950 to 2017 (\$ per square metre)

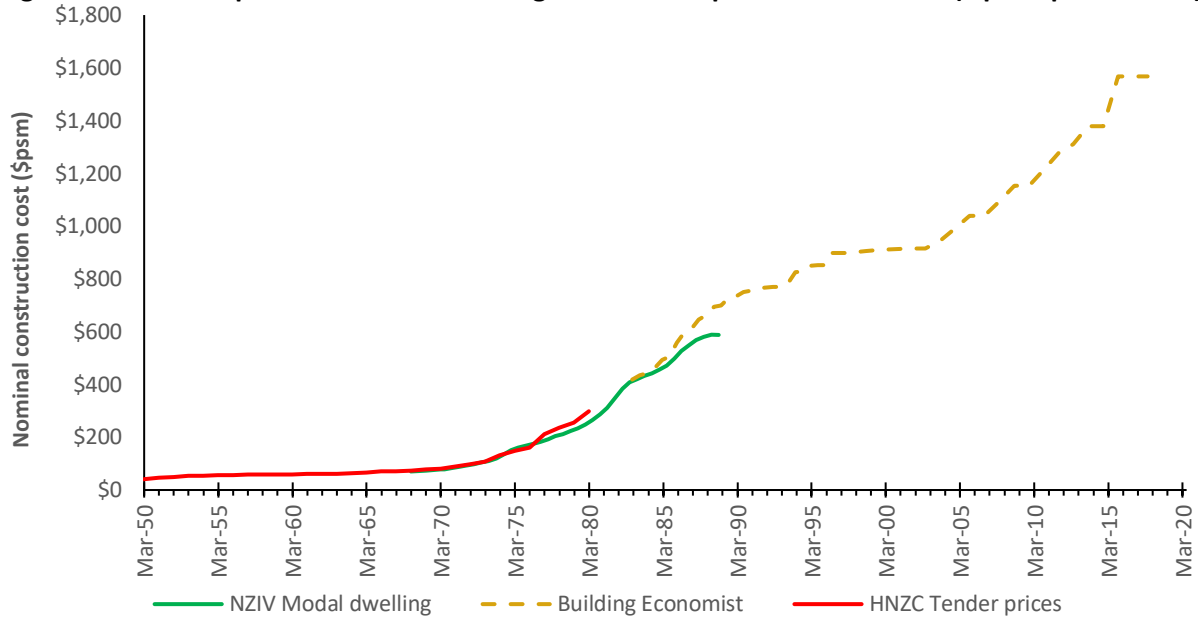
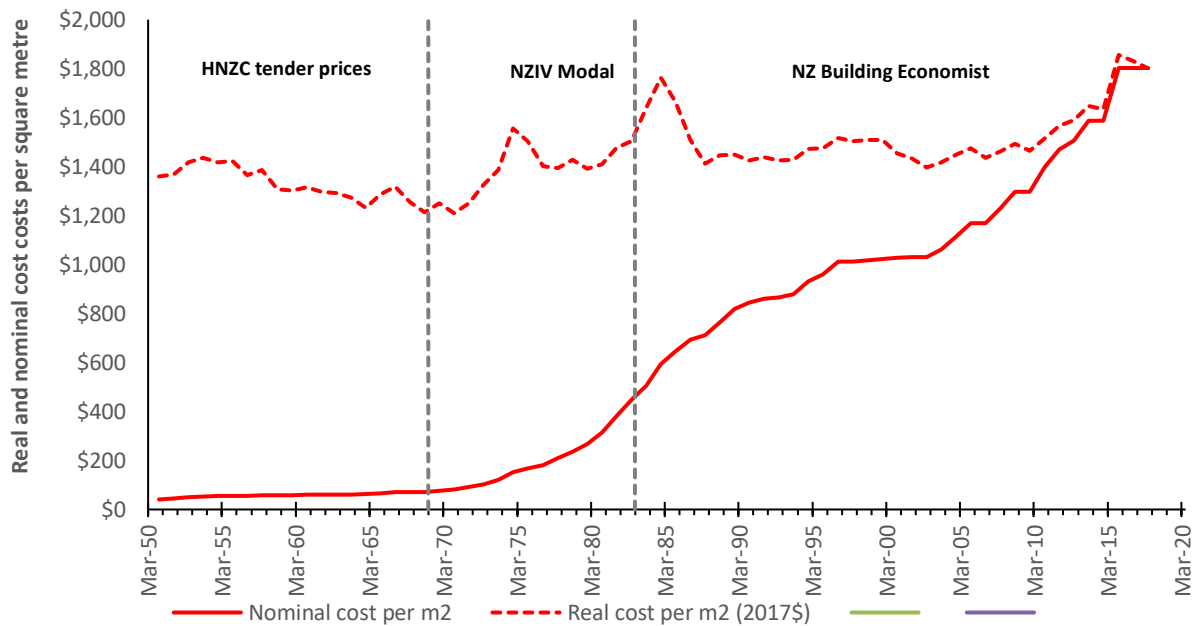


Figure 3.2 Real and nominal price of low cost construction prices per square metre (1950 to 2017)



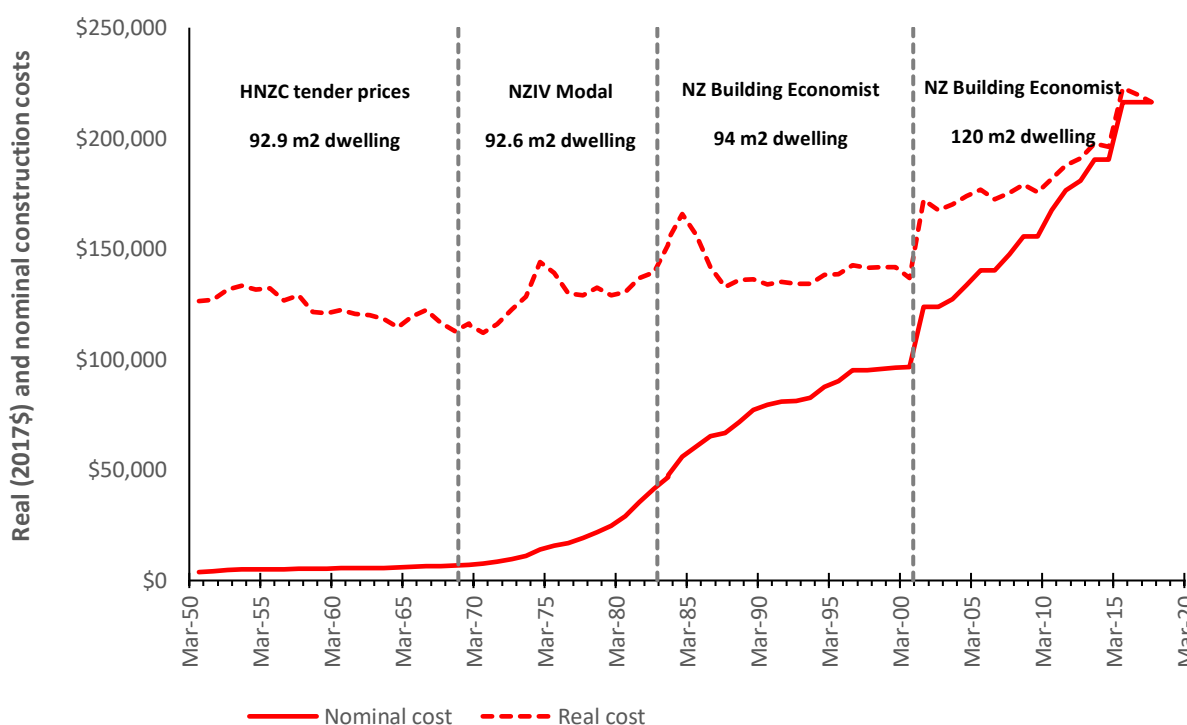
The construction cost of a dwelling reasonably deemed as low cost in the context of the new build market rose 71% from \$126,244 (2017\$) in December 1950 to \$216,304 (2017\$) in December 2017. This reflects, in part, increased dwelling size and increased per square metre construction price as described previously. But there were other changes. The most important of those was an increase in the modal floor size. Table 3.1 sets out the nominal and real costs of construction for low cost dwellings 1950-2017.

Table 3.1 Nominal and real low-cost housing construction cost prices 1950 to 2017.

| Date | Low cost construction costs | | | | | % change in low cost construction costs | | | |
|--------|-----------------------------|-----------|-------------|----------------------------------|-----------|---|------|-------------------|-------|
| | Nominal costs | | Modal House | Real inflation adjusted (2017\$) | | Total % change | | Annual compounded | |
| | \$ psm | Total | Floor Area | \$ psm | Total | Nominal | Real | Nominal | Real |
| Dec-50 | \$41 | \$3,800 | 93 m2 | \$1,359 | \$126,224 | | | | |
| Dec-60 | \$60 | \$5,560 | 93 m2 | \$1,315 | \$122,185 | 46% | -3% | 3.9% | -0.3% |
| Dec-70 | \$82 | \$7,615 | 93 m2 | \$1,210 | \$112,015 | 37% | -8% | 3.2% | -0.9% |
| Dec-80 | \$314 | \$29,096 | 93 m2 | \$1,409 | \$130,466 | 282% | 16% | 14.3% | 1.5% |
| Dec-90 | \$844 | \$79,379 | 94 m2 | \$1,425 | \$133,918 | 173% | 3% | 10.6% | 0.3% |
| Dec-00 | \$1,027 | \$96,510 | 94 m2 | \$1,455 | \$136,783 | 22% | 2% | 2.0% | 0.2% |
| Dec-10 | \$1,395 | \$167,449 | 120 m2 | \$1,514 | \$181,640 | 74% | 33% | 5.7% | 2.9% |
| Dec-17 | \$1,803 | \$216,304 | 120 m2 | \$1,803 | \$216,304 | 29% | 19% | 2.6% | 1.8% |

As Figure 3.3 shows the modal floor size for low cost dwellings has increased from 93m² to 120m². That increase in floor size is almost as important in the generation of low cost housing construction costs as the increase of construction costs on a per square metre basis. There was an increase of 29 percent in the size of the modal, lower value dwelling between 1950 and 2017. By contrast the construction costs on a per square metre basis increased by a little under 33 percent.

Figure 3.3 The price of low cost dwelling nominal and real prices (excluding section price)



Section costs and low cost housing

Like dwellings, section prices can vary across a price range. Those prices reflect permutations of various factors: the prevailing price of equivalent sections and the prices assessed as realisable from development and dwelling construction; costs related to consenting, subdivisions and titles; and costs related to financing land acquisition or the various elements of the subdivision process and striking of titles. It should be noted in this context, that the amount developers are prepared to pay for land is driven by those other cost considerations and developer calculations regarding construction costs and dwelling sale prices into the future as well as pressure from financiers in relation to the calculation of returns.²⁰ The cost of land is, thus, determined by processes of residual valuation.

Average sections prices have increased from 28 percent of the total price in 1966 to 62 percent in 2016. If the lower quartile section price series is used in the analysis, section prices increased from 19 percent to 49 percent over the same time period. An analysis of Auckland and Wellington average section and lower quartile real prices (2017\$) from 1968 to 2016 shows a similar ratio between average section prices and lower quartile value section prices for data 1968 to 1986. That is, average section prices were consistently 1.74 times greater than the price of lower value sections for 1968, 1976 and 1986. Some time in the decade between 1986 and 1996, however, the dynamics changed. Auckland sections saw the gap in price between average sections and lower quartile value sections narrow while in Wellington it opened up. In both urban areas, thereafter, the difference in average price and lower quartile value section price closed (Table 3.2 and Table 3.3).

In both Wellington and Auckland section prices rose in real terms not simply nominally. As Figure 3.4 and Figure 3.5 show, the rise in lower quartile section prices was particularly pronounced. Average section prices in Wellington were marked by a degree of fluctuation over the upward trend. By contrast, lower quartile value section prices showed a pronounced acceleration in the 1990s and thereafter. Notably, Figure 3.6 shows that while there were some differences in section price increases for Wellington and Auckland respectively, construction costs for low cost dwellings followed a very similar trajectory.

²⁰ Murphy, 2019; Saville-Smith and Murphy, 2018.

Table 3.2 Ratio of Average Section Cost to Lower Quartile Value Cost, 2017\$ Auckland and Wellington 1968-2016

| Year | Auckland (2017\$) | | | Wellington (2017\$) | | |
|--------|----------------------|-----------------------|-------------------|----------------------|-----------------------|-------------------|
| | Ratio Average to LQV | Average Section Price | LQV Section Price | Ratio Average to LQV | Average Section Price | LQV Section Price |
| Mar-68 | 1.74 | \$53,870 | \$1,842 | 1.74 | \$52,600 | \$1,799 |
| Mar-76 | 1.74 | \$100,600 | \$7,508 | 1.74 | \$75,560 | \$5,639 |
| Mar-86 | 1.74 | \$93,280 | \$24,647 | 1.74 | \$50,210 | \$13,267 |
| Mar-96 | 1.64 | \$166,760 | \$68,000 | 1.88 | \$95,290 | \$33,750 |
| Mar-06 | 1.44 | \$373,710 | \$212,000 | 1.49 | \$191,520 | \$105,000 |
| Mar-16 | 1.53 | \$614,600 | \$396,000 | 1.41 | \$229,790 | \$160,000 |

Table 3.3 Real, inflation adjusted, low cost house prices in Auckland and Wellington 1968 to 2016

| Period | Auckland (2017\$) | | | | | Wellington (2017\$) | | | | |
|-----------------------------------|-------------------|--------------------|---------------------------------|---------------|------------------------|---------------------|--------------------|----------------|---------------|-------------|
| | Ave Section SP | Construction costs | LQV Build Average Section total | LQ Section SP | LQV Build & Land Total | Ave Section SP | Construction costs | Combined total | LQ Section SP | Combined LQ |
| Mar-68 | \$53,870 | \$120,880 | \$174,750 | \$30,970 | \$151,860 | \$52,600 | \$128,630 | \$181,230 | \$30,240 | \$158,880 |
| Mar-76 | \$100,600 | \$131,680 | \$232,280 | \$57,850 | \$189,530 | \$75,560 | \$136,080 | \$211,650 | \$43,450 | \$179,530 |
| Mar-86 | \$93,280 | \$125,210 | \$218,490 | \$53,630 | \$178,850 | \$50,210 | \$125,440 | \$175,650 | \$28,870 | \$154,310 |
| Mar-96 | \$166,760 | \$146,220 | \$312,980 | \$101,920 | \$248,150 | \$95,290 | \$135,840 | \$231,130 | \$50,590 | \$186,430 |
| Mar-06 | \$373,710 | \$180,420 | \$554,130 | \$260,170 | \$440,590 | \$191,520 | \$168,160 | \$359,680 | \$128,860 | \$297,020 |
| Mar-16 | \$614,600 | \$220,820 | \$835,420 | \$402,310 | \$623,130 | \$229,790 | \$210,300 | \$440,090 | \$162,550 | \$372,850 |
| Annual compounded % Change | | | | | | | | | | |
| 68-76 | 8.1% | 1.1% | 3.6% | 8.1% | 2.8% | 4.6% | 0.7% | 2.0% | 4.6% | 1.5% |
| 76-86 | -0.8% | -0.5% | -0.6% | -0.8% | -0.6% | -4.0% | -0.8% | -1.8% | -4.0% | -1.5% |
| 86-96 | 6.0% | 1.6% | 3.7% | 6.6% | 3.3% | 6.6% | 0.8% | 2.8% | 5.8% | 1.9% |
| 96-06 | 8.4% | 2.1% | 5.9% | 9.8% | 5.9% | 7.2% | 2.2% | 4.5% | 9.8% | 4.8% |
| 06-16 | 5.1% | 2.0% | 4.2% | 4.5% | 3.5% | 1.8% | 2.3% | 2.0% | 2.3% | 2.3% |
| 68-16 | 5.2% | 1.3% | 3.3% | 5.5% | 3.0% | 3.1% | 1.0% | 1.9% | 3.6% | 1.8% |

Figure 3.4 Real Section Cost Wellington for Average and Lower Quartile Value 1968-2016

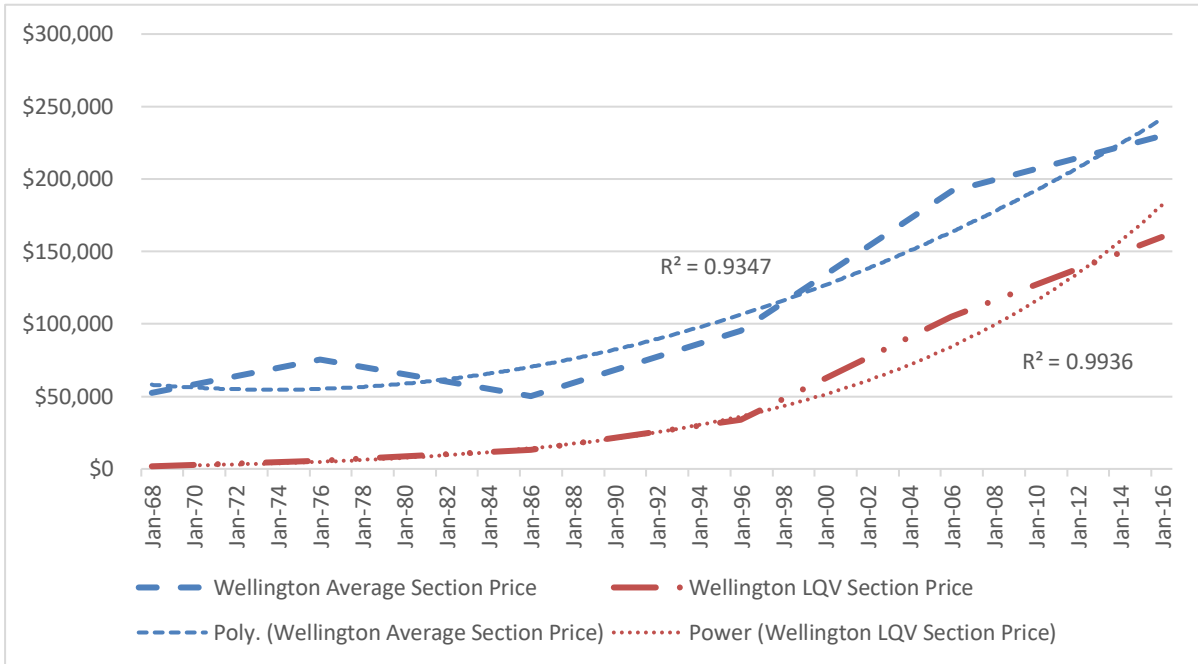


Figure 3.5 Real Section Cost Auckland for Average and Lower Quartile Value 1968-2016

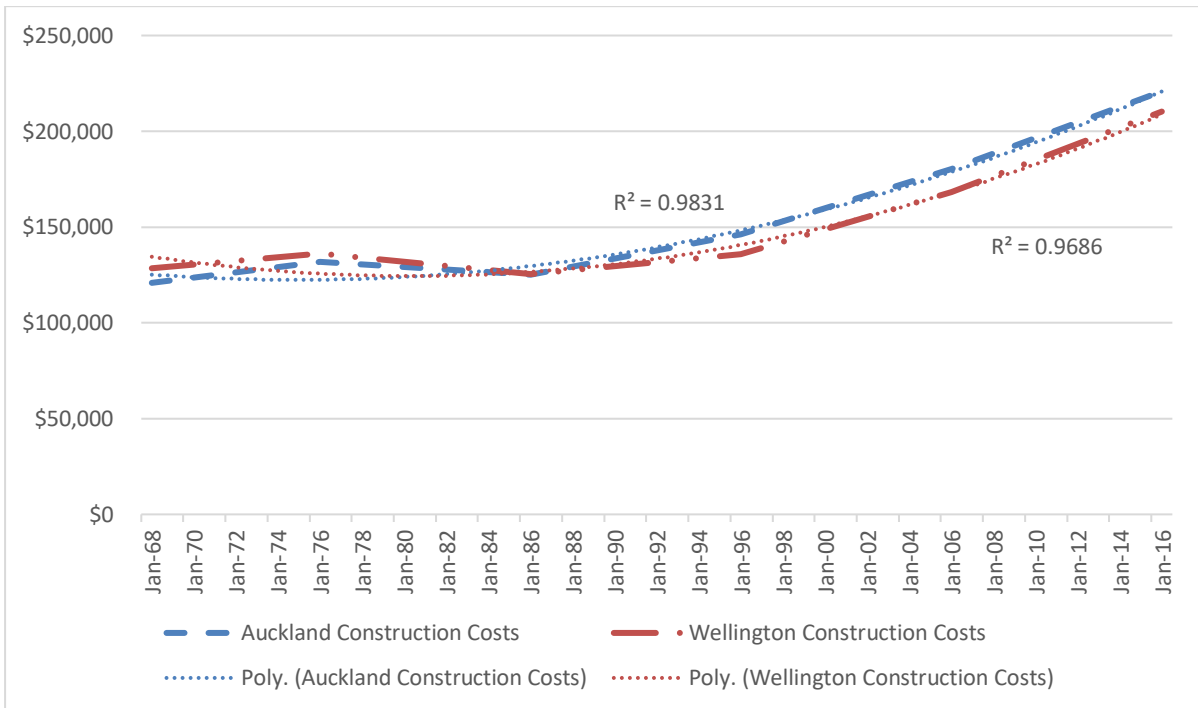
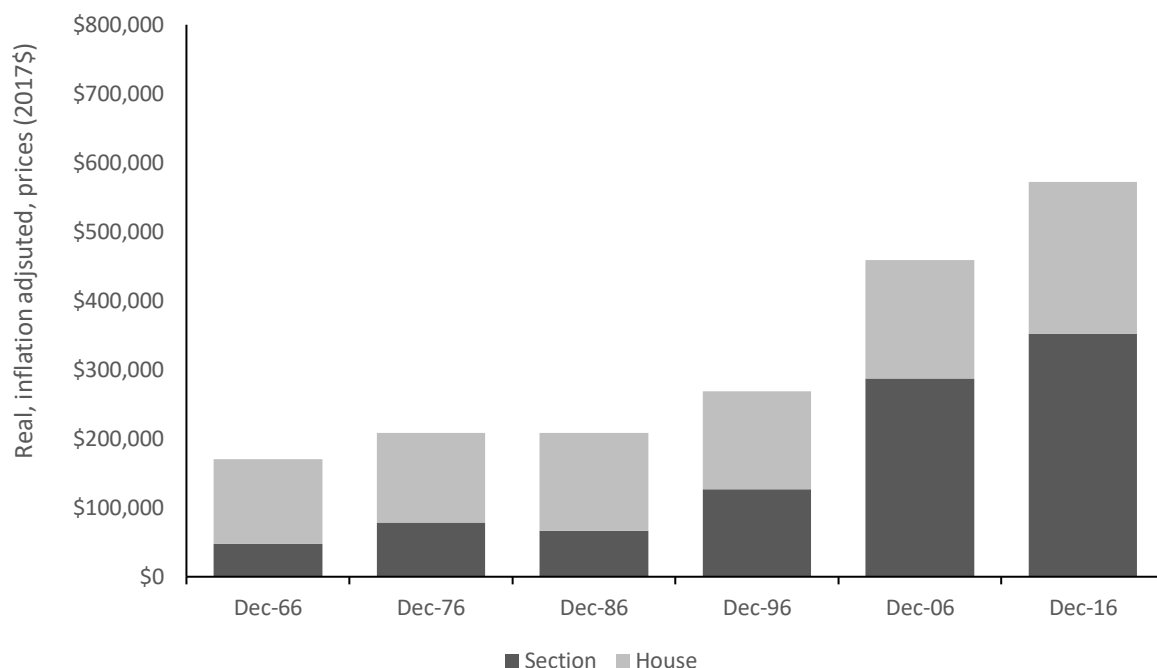


Figure 3.6 Real, inflation adjusted, new low-cost housing price estimates – average section prices ²¹

22



An analysis of the low cost construction prices and section prices for fifty years from 1966 to 2016 suggests a probable re-arrangement in the relative contributions of section price relative to construction price in new-build low cost dwellings (Table 3.4).

Table 3.4 National dwelling and section prices as a percentage of total price

| | Low cost dwelling incorporating the average section price | | Low cost dwelling incorporating the lower quartile section price | |
|--------|---|---------|--|---------|
| | Dwelling component | Section | Dwelling component | Section |
| Dec-66 | 72% | 28% | 81% | 19% |
| Dec-76 | 62% | 38% | 73% | 27% |
| Dec-86 | 68% | 32% | 78% | 22% |
| Dec-96 | 53% | 47% | 65% | 35% |
| Dec-06 | 38% | 62% | 50% | 50% |
| Dec-16 | 38% | 62% | 51% | 49% |

Unsurprisingly such a rearrangement tends to be most pronounced where average section prices (Figure 3.6) are used, compared to considering the impact of lower quartile value section prices (Figure 3.7). Section prices increased at a faster rate than the other key components of the low cost new dwelling package. Between 1966 and 2016 the section price as a proportion of price increased from 28 percent in 1966 to 62 percent in 2016.

²¹ Core logic – urban areas average section price.

²² Assumes a 120 square metre building using NZIV modal housing cost up to 1983 and post 1983 building economist’s low-cost housing estimates.

Figure 3.7: Real, inflation adjusted, new low-cost housing price estimates – LQ section price²³

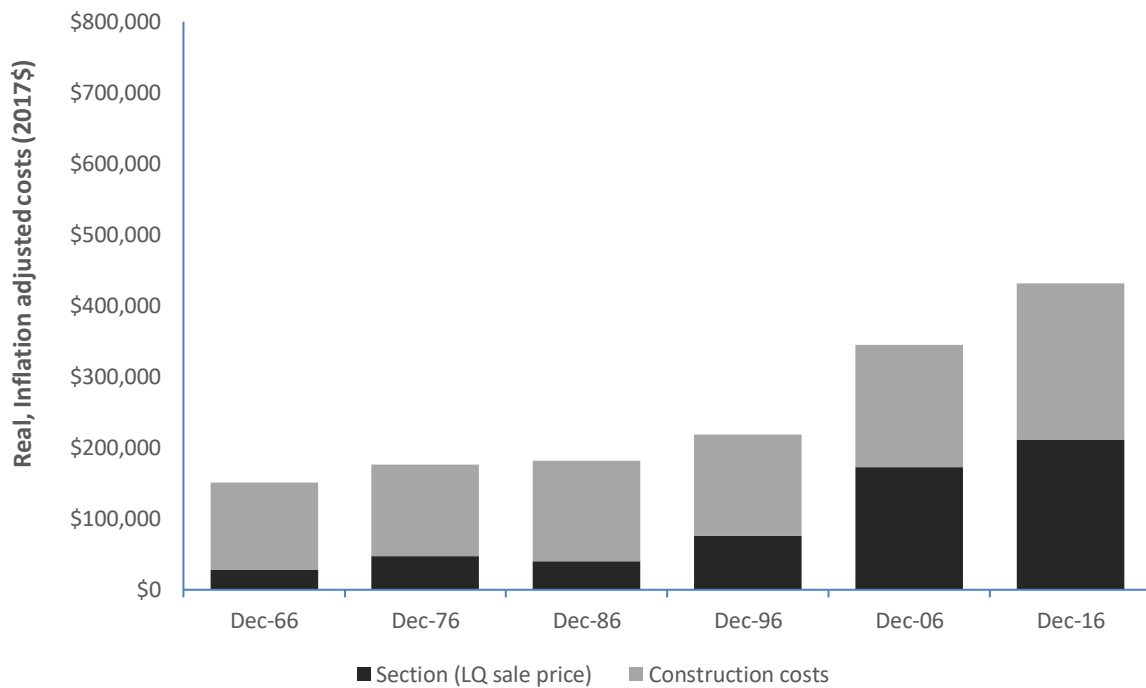
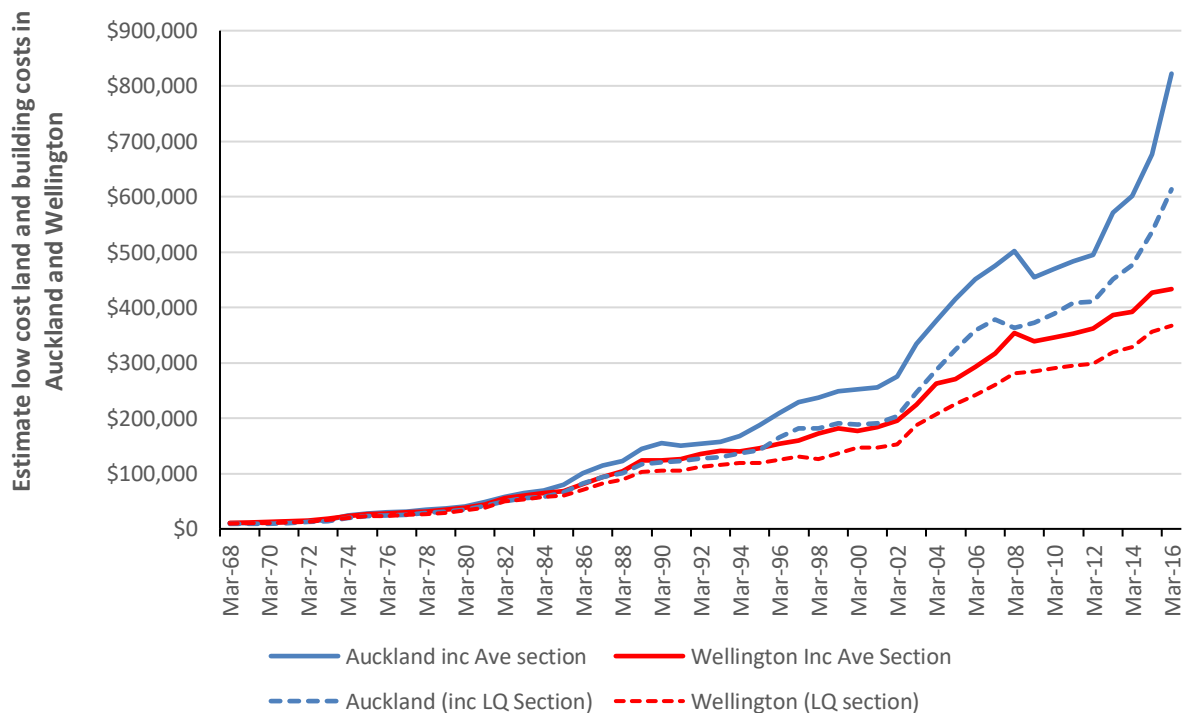


Figure 3.8 presents the trend in low cost land and building packages in Auckland and Wellington using both the average and the lower quartile section sale price.

Figure 3.8 Nominal Auckland and Wellington new low-cost land and dwelling prices 1968 to 2016



²³ The lower quartile section price between 1966 and 1989 was assumed to be 60% of the average sale price.

Auckland's real, inflation adjusted, house and land package price increased by 378 percent between 1966 and 2016 whilst land and building packages assuming the lower quartile section price, increased by 310 percent over the same period. The majority of the growth in both section prices and land and building packages occurred between 1986 and 2016. Wellington also experienced strong growth in real, inflation adjusted prices, with a total increase of 143 percent between 1968 and 2016. The rate of growth, assuming lower quartile section prices, increased by 135 percent over the same time.

Overall analysis of the average price of sections in urban areas shows a significant 'bidding' up of land prices by 2006 and this continued for low cost housing through to 2016. That pattern is not embedded in a long past. Three data points over twenty years (1966, 1976 and 1986) shows relative stability in section prices. Moreover, there was a consistent ratio between average section prices and lower quartile value section prices at each of those data points.

3.2 Low cost housing and affordability

From 1996 the ratio between average and lower quartile section prices contracted. While both increased in price, lower quartile value sections tended to increase more rapidly. Construction costs also increased although a significant portion of that cost can be accounted for by increases in dwelling size. It is in that context we turn to the issue of the increasing cost of low cost housing and changes in housing affordability.

Two affordability statistics are presented. The first is the ratio of low cost house prices to household income. The second sets out the proportion of household income required to service a 25 year mortgage. Table 3.5 and Table 3.6 calculate those measures in relation to median household incomes. Table 3.7 and Table 3.8 calculate those measures for households at 80 percent of the median. Those latter households are typically accepted internationally as at the upper end of the income segments requiring affordable housing.

In all the following analysis the house prices represent the combination of low cost dwelling construction price and either the average section price or the lower quartile price. The analysis incorporates a number of characteristics. First, census data is used to estimate median household incomes, Reserve Bank statistics were used as the source of variable first home mortgage interest rates, a 25-year mortgage with monthly repayments was assumed along with a 20 percent deposit.

Table 3.5 presents the national trend in the affordability of lower cost housing between 1966 and 2013. Table 3.6 presents the trend in Auckland’s and Wellington’s housing affordability between 1981 and 2013 using the estimated low cost new house price calculated in the previous section of the report. Prior to the 1990s the house price to median household income ratio was less than 4.0. From 1991 the ratio steadily increased reaching in 2013 7.4 for low cost housing built on average price sections and 5.6 for low cost housing built on lower quartile value sections.

Table 3.5 Affordability of lower cost housing nationally

| Year | House price to median household income ratio (Multiple Median) | | % median household income required to service a 25-year mortgage using the estimated low cost new house price | | |
|------|--|--------------------------------|---|-------------------------------------|--------------------------------|
| | House price – Average section price | House price – LQ section price | Mortgage Interest Rates | House price – Average section price | House price – LQ section price |
| 1966 | 3.1 | 2.8 | 5.7% | 19% | 17% |
| 1971 | 3.7 | 3.3 | 7.2% | 26% | 23% |
| 1976 | 3.4 | 2.9 | 10.0% | 29% | 25% |
| 1981 | 3.3 | 2.9 | 14.9% | 40% | 36% |
| 1986 | 3.6 | 2.9 | 19.2% | 56% | 44% |
| 1991 | 4.2 | 3.6 | 13.7% | 47% | 40% |
| 1996 | 5.2 | 4.2 | 10.4% | 46% | 38% |
| 2001 | 5.5 | 4.3 | 8.2% | 42% | 32% |
| 2006 | 7.3 | 5.5 | 9.6% | 61% | 46% |
| 2013 | 7.4 | 5.6 | 5.8% | 45% | 34% |

Table 3.6 shows Auckland was confronted with that affordability stressor as early as 1981. The issues for Wellington were a little less pronounced at the time. Both urban areas exceeded the nationwide ratios from 1981 to 2013. The problem of affordability of even low cost new-build dwellings is not, however, simply a Wellington and Auckland issue. The national data shows that half of New Zealand’s households could not have met the usually accepted prudential criteria of house price being around three times annual income if seeking a new build dwelling low cost dwelling.²⁴

²⁴ This is the median multiple measure of house affordability. It was generated originally as a simple ‘rule of thumb’ for bankers seeking a prudential guideline but has become incorporated into monitoring frameworks for housing affordability globally and is used by the World Bank and the International Monetary Fund as well as in the United Nations.

Table 3.6 Auckland and Wellington’s affordability of low cost housing trends

| | House price to median household income ratio (Multiple Median) | | | | % of median household income required to service a 25-year mortgage using the estimated low cost new house price | | | |
|------|---|----------------------------|-----------------------------|----------------------------|--|----------------------------|-----------------------------|----------------------------|
| | Auckland | | Wellington | | Auckland | | Wellington | |
| | Price inc ave section | Price inc LQ section | Price inc ave section | Price inc LQ section | Price inc ave section | Price inc LQ section | Price inc ave section | Price inc LQ section |
| 1981 | 5.4 | 4.9 | 4.4 | 4.0 | 66% | 60% | 53% | 49% |
| 1986 | 6.1 | 5.4 | 5.1 | 4.7 | 94% | 83% | 79% | 73% |
| 1991 | 6.5 | 5.7 | 5.3 | 4.8 | 73% | 64% | 60% | 54% |
| 1996 | 7.3 | 6.2 | 5.9 | 5.2 | 65% | 56% | 53% | 47% |
| 2001 | 7.3 | 6.0 | 5.9 | 5.1 | 55% | 45% | 44% | 39% |
| 2006 | 9.4 | 8.0 | 7.2 | 6.3 | 80% | 67% | 61% | 53% |
| 2013 | 10.0 | 8.4 | 7.6 | 6.7 | 60% | 51% | 46% | 41% |

There has been some criticism of the multiple median as providing a too simplified view of housing affordability because it does not take account of interest rates.²⁵ Certainly, As Table 3.5 shows, interest rates can make housing unaffordable even where the median multiple appears acceptable. But this should not be over-stated. The driver here is not primarily interest rates but the price of dwellings.

In 1981 and 1986, for instance, the median multiple was close to 3 for low cost dwellings constructed on the average section price (3.3 and 3.6 respectively), the very high interest rates (14.9 percent and 19.2 percent) respectively reduced affordability for households with median incomes. For low cost dwellings built on lower quartile value sections, interest rates had an impact but the median value of 2.9 in 1981 and 1986 mitigated the effects of high interest rates.

The impacts of interest rates relative to median value is perhaps clearest when comparing 1966 and 2013 where interest rates were comparable but median values were very different. In 1966 the low cost new build on an average section would be around 3.1 median value and on a lower quartile section around 2.8. In 2013 those median values were 7.4 and 5.6 respectively. The interest rate was around 5.7 percent in 1966 and a little more in 2013 at 5.8 percent. The proportion of mortgage related outgoings were, however, very different. In 1966 the median household would have seen outgoings on a 25-year mortgage of 17-19 percent of income. In 2013, despite a similar interest rate, those outgoings would have been 34 percent for a low cost dwelling on a lower quartile section to 45 percent on low cost dwelling on an average price section.

²⁵ See, for instance Chitale and Norman, 2017.

Two other points also need to be highlighted here. While the affordability of low cost dwellings in 2013 could be considered manageable in prudential terms, although slightly higher than often seen as desirable:

1. The actual production of low cost dwellings in 2013 was small as a proportion of all new-build dwellings delivered into the market at the time. As the previous discussion has shown, in 1966 lower quartile dwellings made up 32.7 percent of dwelling production in that year. By way of contrast, in 2013 only 5.3 percent of new builds were in the lower quartile of value. Consequently, while those dwellings might have been broadly affordable to households at the median income, the probabilities of purchasing a new-build low cost dwelling were comparatively low.²⁶
2. Lower quartile value new builds were originally targeted to households whose incomes were low because they were in the early stages of career and family-building or because they were in positions in which their incomes were likely to be constrained throughout their life cycles. In the context of rising house prices, and despite the low levels of production of low cost new builds, those with incomes at the median of household income are likely to seek low cost housing as a pathway to owner occupation. That, combined with investors look for low cost rental property as the demand for rental properties has increased and owner occupation rates have fallen, means that traditionally served households are squeezed out of even the low cost new build market.

Those households seeking what is classically defined as in need of Affordable Housing, that is those with incomes at or below 80 percent of median incomes, were able to afford low cost new builds in the period prior to 1991. There are three reasons for that. Firstly, median values were low enough with constrained interest rates to deliver affordable home ownership certainly until the late 1970s. Second, until 1990/91, low income owner occupiers unable to access affordable mortgage finance on the market, could access income-related mortgages through State Advances, then the Housing Corporation of New Zealand, and the Department of Māori Affairs for new build low cost dwellings where they were first entering owner occupation.²⁷ Third, income-related interest rates served to mitigate the impacts of the high interest rates prevailing in the mid to late 1980s.

Table 3.7 shows, however, that a critical pillar of affordable housing for low income households was low cost construction on low cost sections. In 2013, the median multiple for households at 80 percent of the median household income was 7 compared to 3.5 in 1966. The proportion of income paid on a mortgage for a modal house was 21 percent in 1966 compared to 43 percent in 2013 at a very similar interest rate.

²⁶ This problem of supply has been noted in previous research around seniors and downsizing. See Saville-Smith, 2013 and Saville-Smith, 2019.

²⁷ There was also some opportunity to receive mortgage support where individuals had lost their homes through marital separation or other shocks.

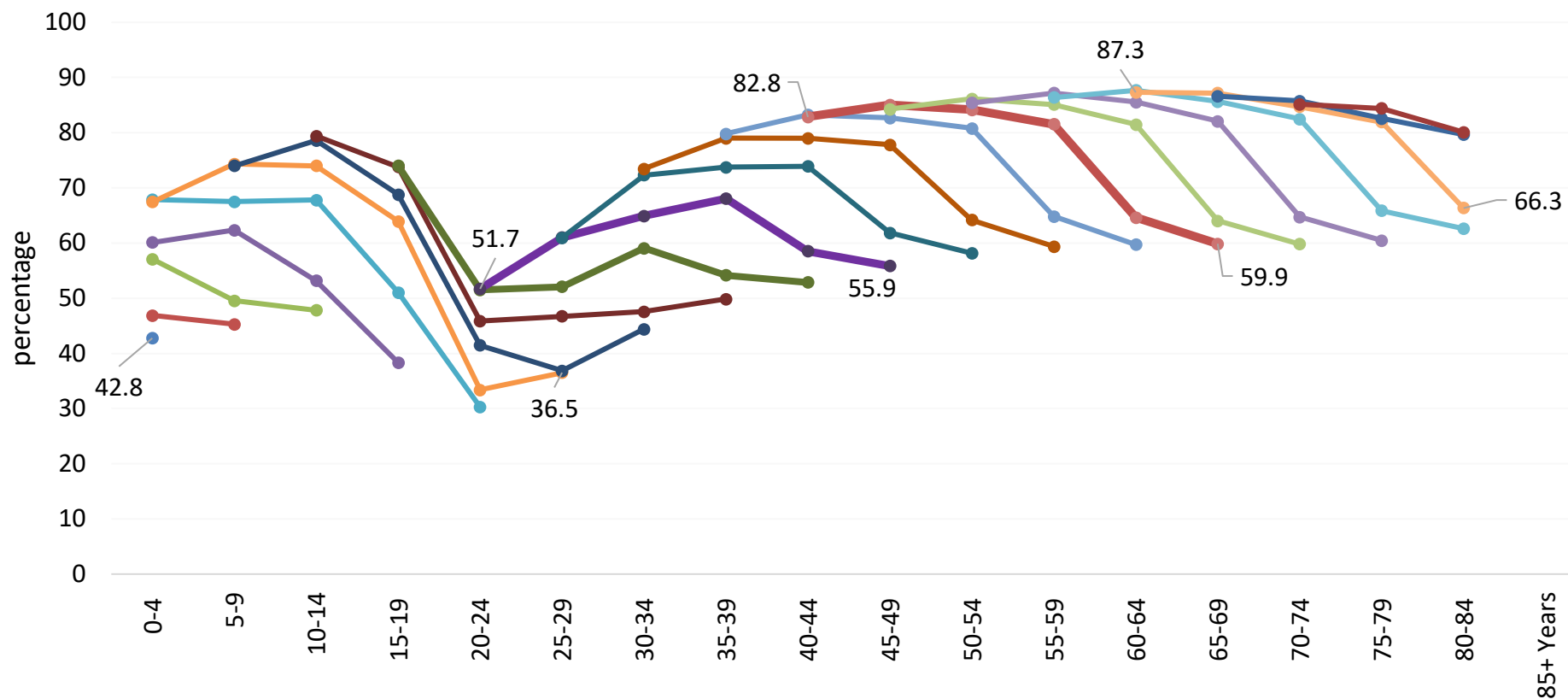
Table 3.7 National housing affordability for households earning 80% of median household income

| Year | House price to 80% of median household income ratio | | The proportion of income required for a household earning 80% of the median household income to service a 25-year mortgage using the estimated low cost new house price | | |
|------|---|--|---|---|--|
| | House price incorporating average section price | House price incorporating lower quartile section price | Mortgage Interest Rates | House price incorporating average section price | House price incorporating lower quartile section price |
| 1966 | 3.9 | 3.5 | 5.70% | 24% | 21% |
| 1971 | 4.6 | 4.1 | 7.20% | 33% | 29% |
| 1976 | 4.3 | 3.6 | 10.00% | 36% | 31% |
| 1981 | 4.1 | 3.6 | 14.90% | 50% | 45% |
| 1986 | 4.5 | 3.6 | 19.20% | 70% | 55% |
| 1991 | 5.3 | 4.5 | 13.70% | 59% | 50% |
| 1996 | 6.5 | 5.3 | 10.40% | 58% | 48% |
| 2001 | 6.9 | 5.4 | 8.20% | 53% | 40% |
| 2006 | 9.1 | 6.9 | 9.60% | 76% | 58% |
| 2013 | 9.3 | 7.0 | 5.80% | 56% | 43% |

For low income households, the loss of income-related interest rates in the 1990/91 housing reforms and its replacement with an Accommodation Supplement did not provide a platform for affordable housing. That was, in part, because the Accommodation Supplement's settings were designed to address only a portion of the unaffordable gap whether for rental or owner occupation. Moreover, the nominal maximum level subsidised in the affordability gap was frequently not reached because of other maxima in the Accommodation Supplement settings. The movement from supply-side assistance, focused until the late 1980s on low cost new builds, to a welfare approach to housing assistance did not encourage or support low income households investing in their own housing futures.

Declining rates of owner occupation evident from 1991 across younger cohorts reflects those shifts in policy settings (Figure 3.9). The fall in owner occupation is particularly acute among populations characterised by lower incomes: Māori and Pacific populations (Figures 3.10-3.15) both of whom had achieved much higher levels of owner occupation in the past than generally recognised.

Figure 3.9 Home Ownership by Birth Cohort, Total NZ (source: Dr Natalie Jackson NZ Census Data)



Cohort Born:



Figure 3.10 Total NZ 25-39 years 1986-2013 (source: Dr Natalie Jackson, NZ Census)

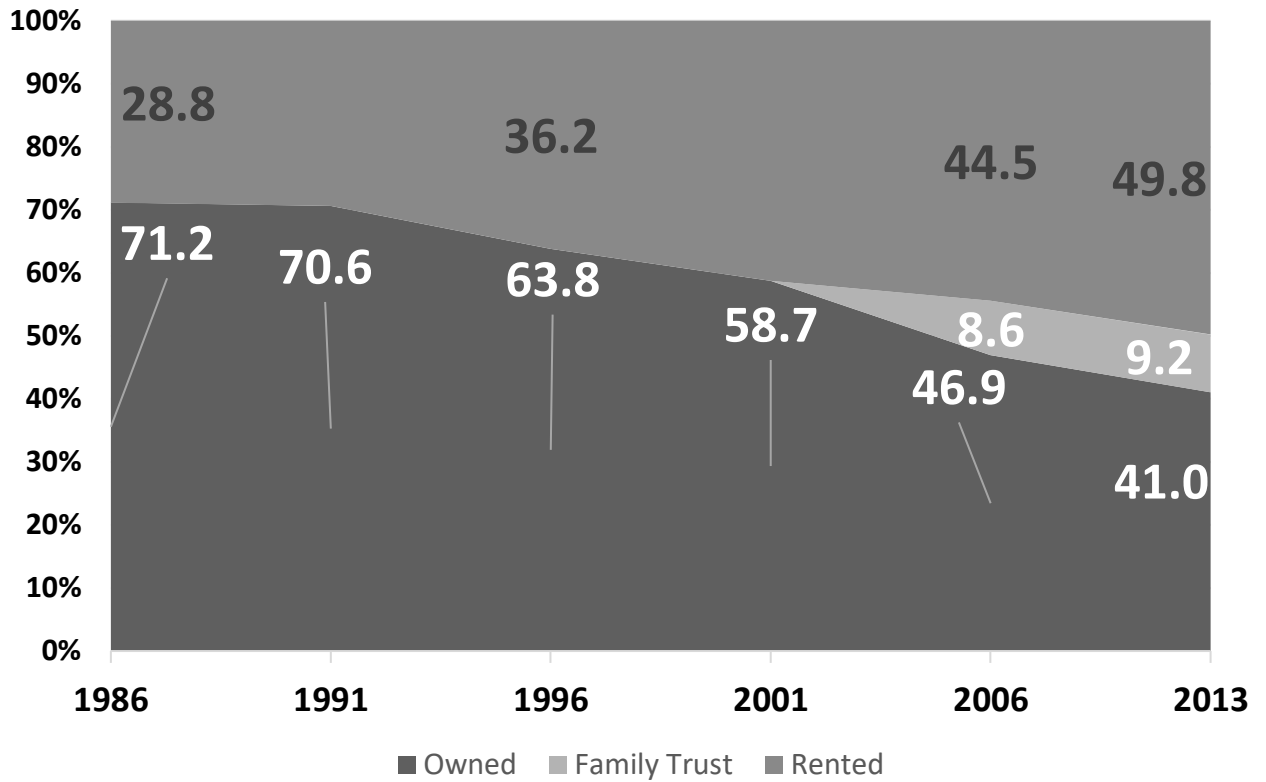


Figure 3.11 Total NZ 50-54 years 1986-2013 (source: Dr Natalie Jackson, NZ Census)

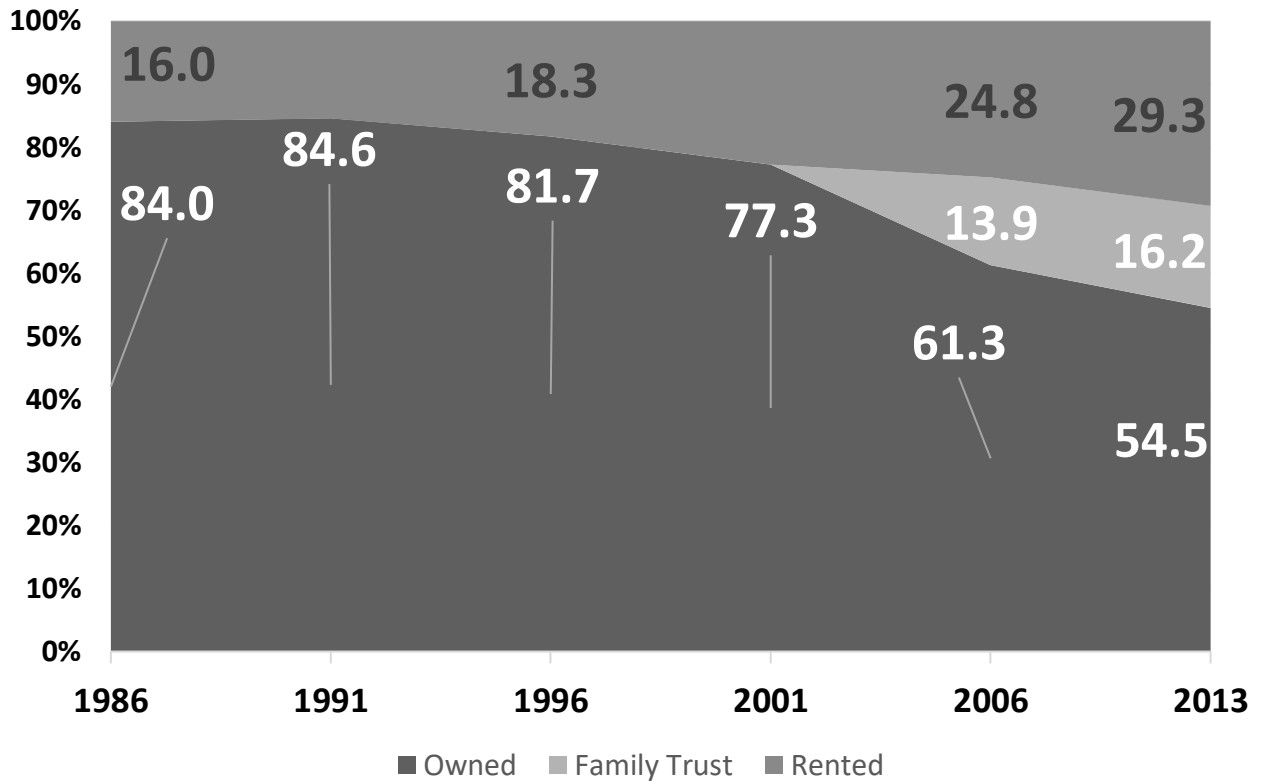


Figure 3.12 Total NZ 55-64 years 1986-2013 (source: Dr Natalie Jackson, NZ Census)

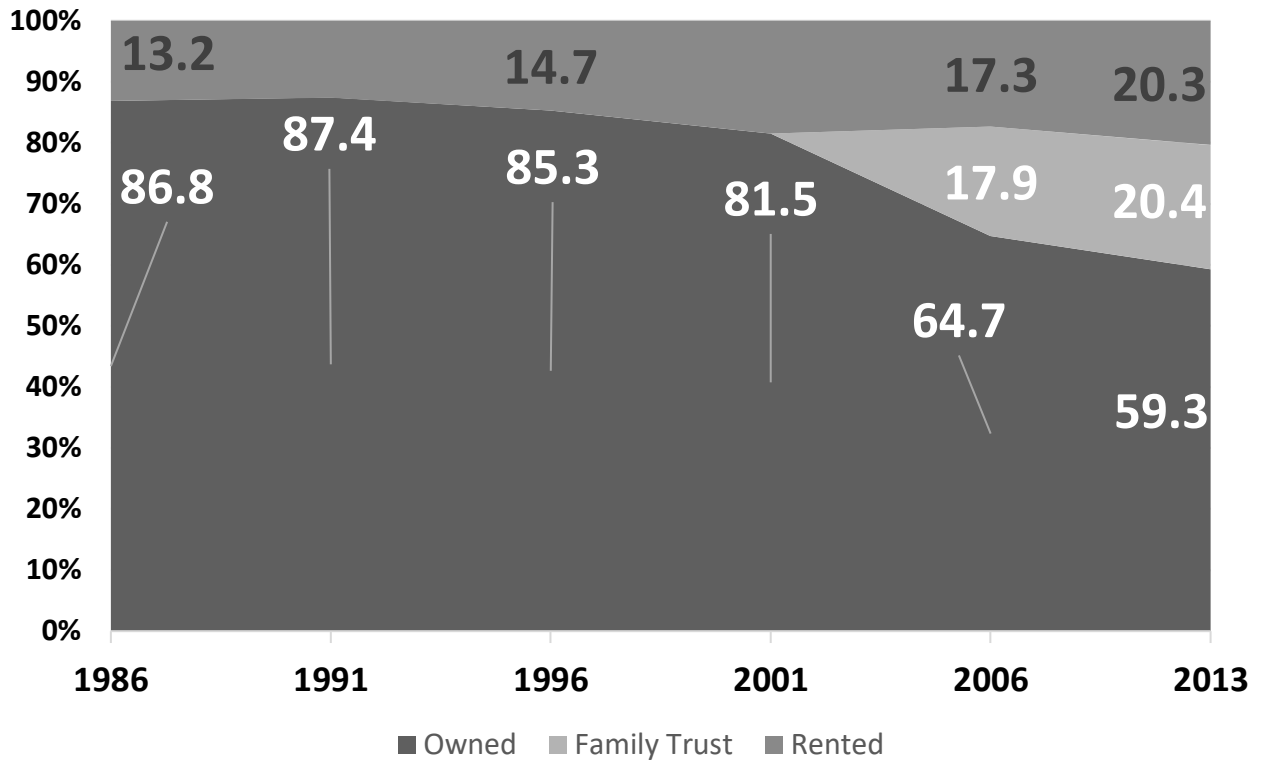


Figure 3.13 European aged 55-64 years 1986-2013 (source: Dr Natalie Jackson, NZ Census)

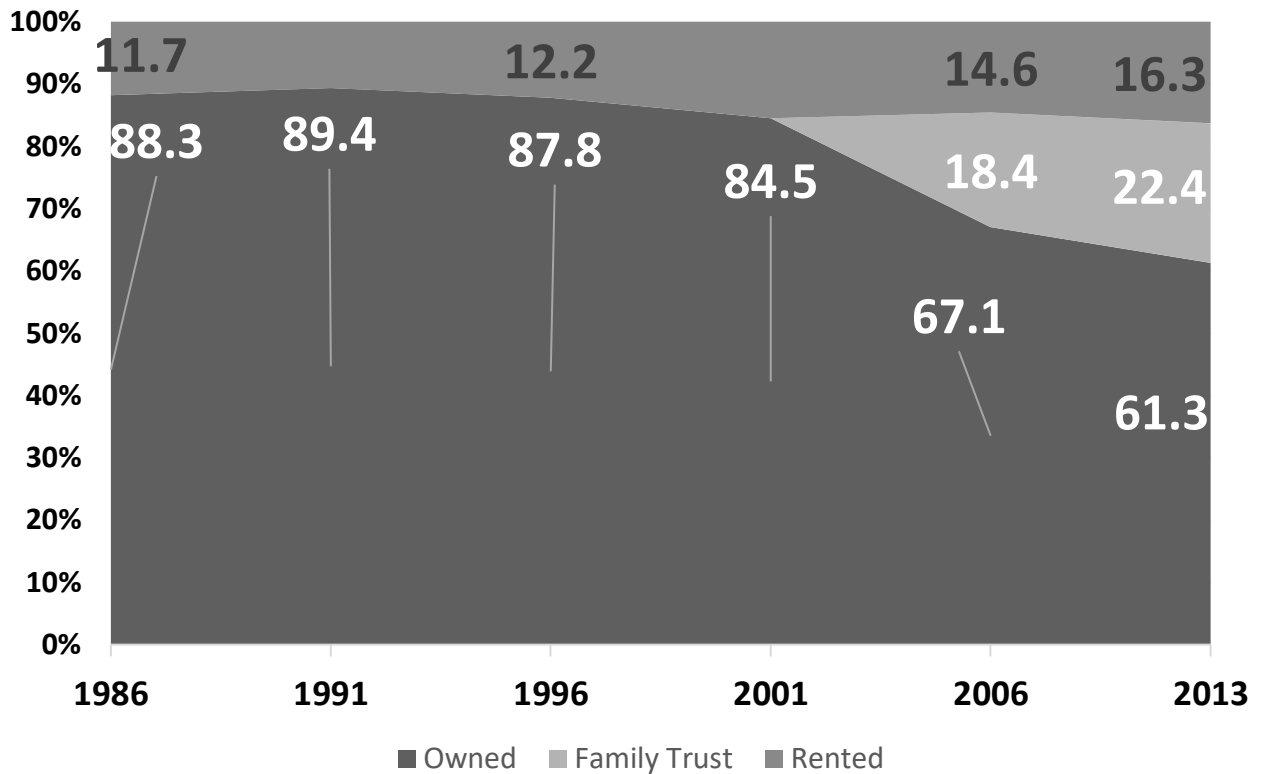


Figure 3.14 Māori aged 55-64 years 1986-2013 (source: Dr Natalie Jackson, NZ Census)

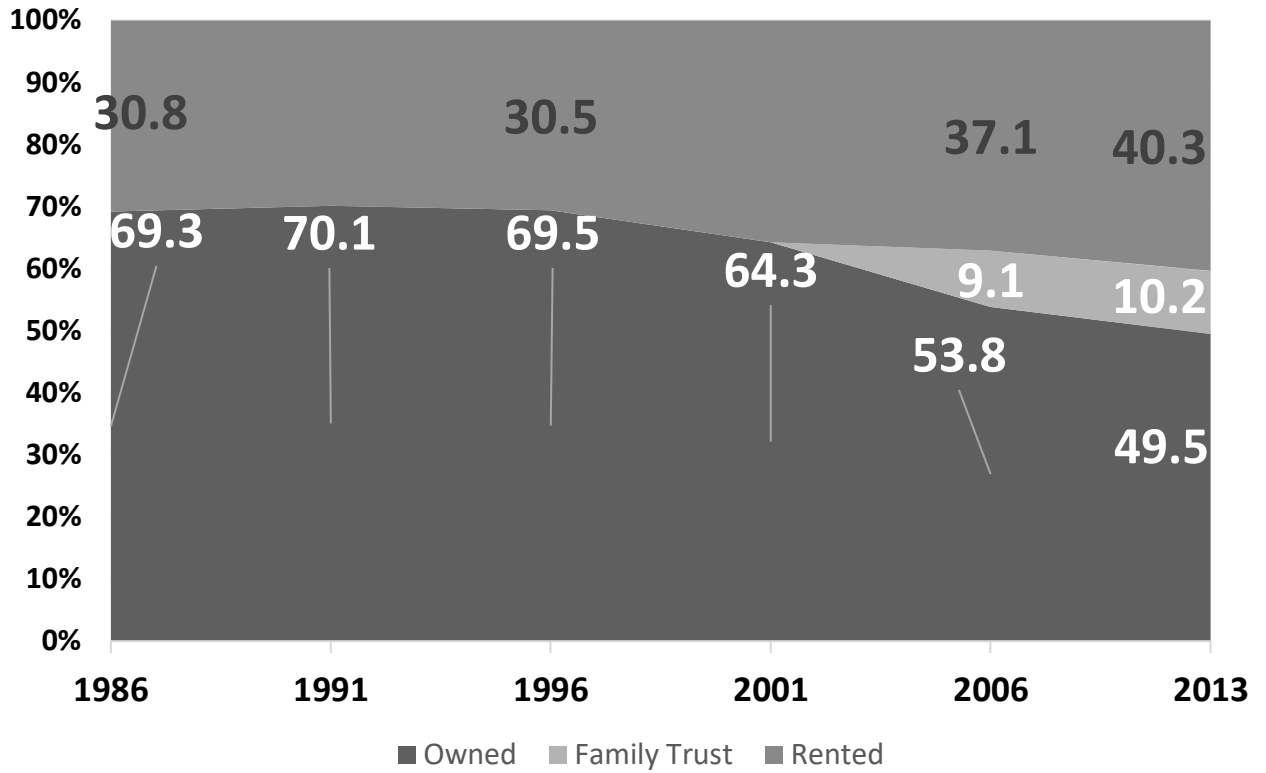
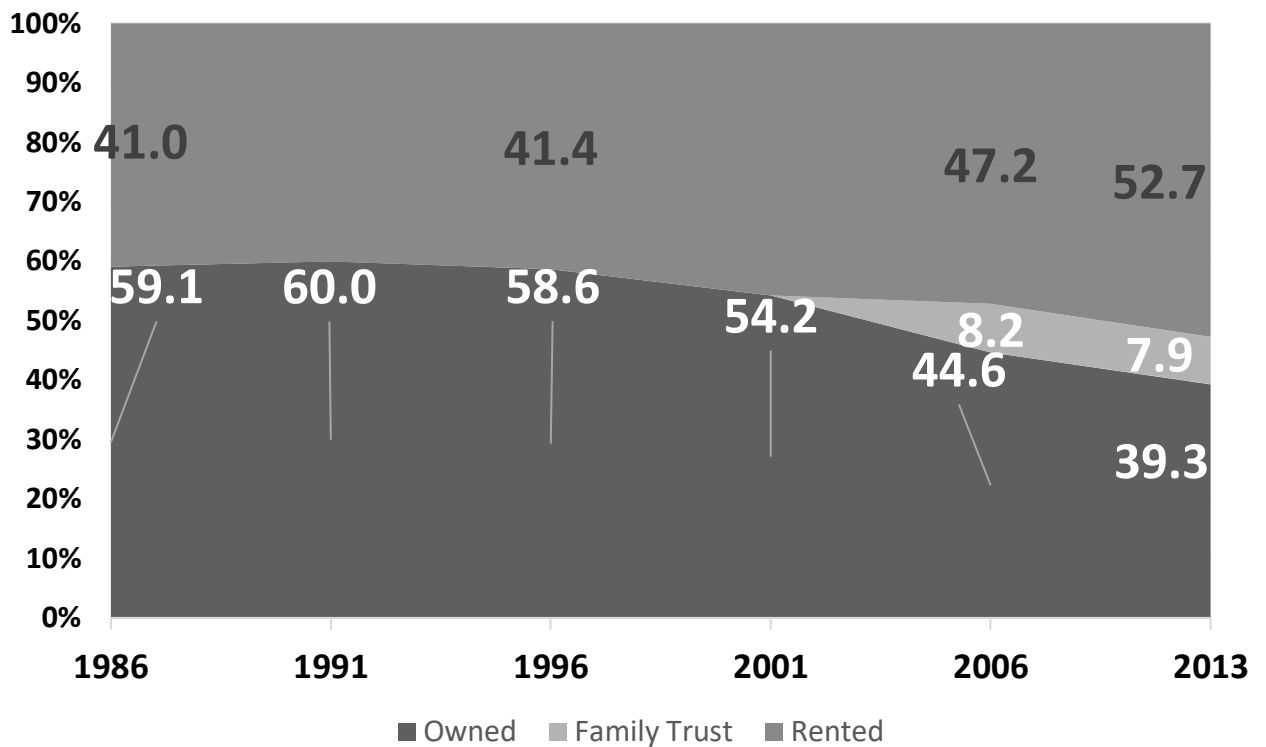


Figure 3.15 Pacific aged 55-64 years 1986-2013 (source: Dr Natalie Jackson, NZ Census)



3.3 Explaining the costs for low cost new-builds

There is no doubt that low cost new-build housing prices have increased as part of a broader increase in house prices. Equally there is no doubt that the affordability of new-build low cost house prices has declined and has not been sustained by either increases in household income nor declines in interest rates. There is a stark difference in the affordability of low cost housing in 1966 and 2013 despite interest rates being very similar. In this section we consider a variety of explanations for the increase in the price of low cost new-builds. Those are the: effects of under-supply associated with population growth; impacts of input increases such as construction inputs or land; the impacts of land use constraints, particularly associated with the Resource Management Act (1991); impacts of money supply; and the effects of changes in Government investment in and incentivisation of low cost new builds.

Price increases in housing in general cannot be simply reduced to housing under-supply. Murphy and Rehm show a pattern of significant house price steps around New Zealand in rural, secondary cities and primary urban areas. While the latter saw significant population growth, the same is not true of rural areas or the small cities they considered. Appendix B presents figures demonstrating the prevalence of those patterns. Moreover, the number of occupied dwellings in many of the markets seen as most under pressure have frequently been in surplus of household growth (Table 3.8).²⁸

Table 3.8 Balance of Households and New-Builds Auckland 1986-2013

| | 1986-91 | 1991-96 | 1996-2001 | 2001-06 | 2006-13 |
|------------------------------------|---------|---------|-----------|---------|---------|
| New Dwellings | 31,638 | 35,252 | 37,063 | 44,898 | 33,435 |
| New Households | 31,509 | 35,385 | 34,749 | 44,151 | 35,235 |
| Dwelling Surplus/deficit | 129 | (133) | 2,314 | 747 | (1,800) |
| Compounding Surplus/deficit | 129 | (4) | 2,310 | 3,057 | 1,257 |

This should not be taken to suggest that there is a supply surplus. But rather that dwellings that were being built were not serving those in need of affordable housing. The rise of homelessness and the expansion of households with multiple unrelated people as well as households composed of multiple families or families and others suggest under-supply in the low cost segment of the housing stock and a loose connection between demand, supply and house price.

²⁸ Rehm, 2016.

While construction, material and land costs are frequently cited as the key drivers of house prices, the previous analysis of real costs show that construction costs for low cost new build dwellings were relatively moderate. Similarly while residual land valuation used by developers and their financiers tend to encourage the 'bidding up' of land, and that bidding up becomes institutionalised through the system of land valuation subsequent to land sales,²⁹ those land prices must be seen as a symptom of prevailing and predicted house prices. The drivers for price increase in low cost housing must, then, be sought elsewhere.

One of the common arguments around house price driving and the decline of lower quartile house production has been that public land use planning constraints through the Resource Management Act and district planning both inhibit the quantum and increases the cost of builds. The previous comments on the way in which new-build prices tend to follow the market largely constituted by existing dwellings apply here. However, there is more direct evidence around this arising from what was effectively a natural experiment in the form of the special housing area policy instituted in 2013. That policy removed a range of different requirements around such elements as residential density, height and public consultation in specific areas. With the exception of Queenstown Lakes where a form of inclusionary zoning and affordable housing investment was instituted, that there is little evidence of a net increase in housing production. Many of these so-called SHA developments would have occurred in any case. In addition, there was no substantial reductions in house prices apart from that which might be expected in some case from reductions in dwelling size.³⁰

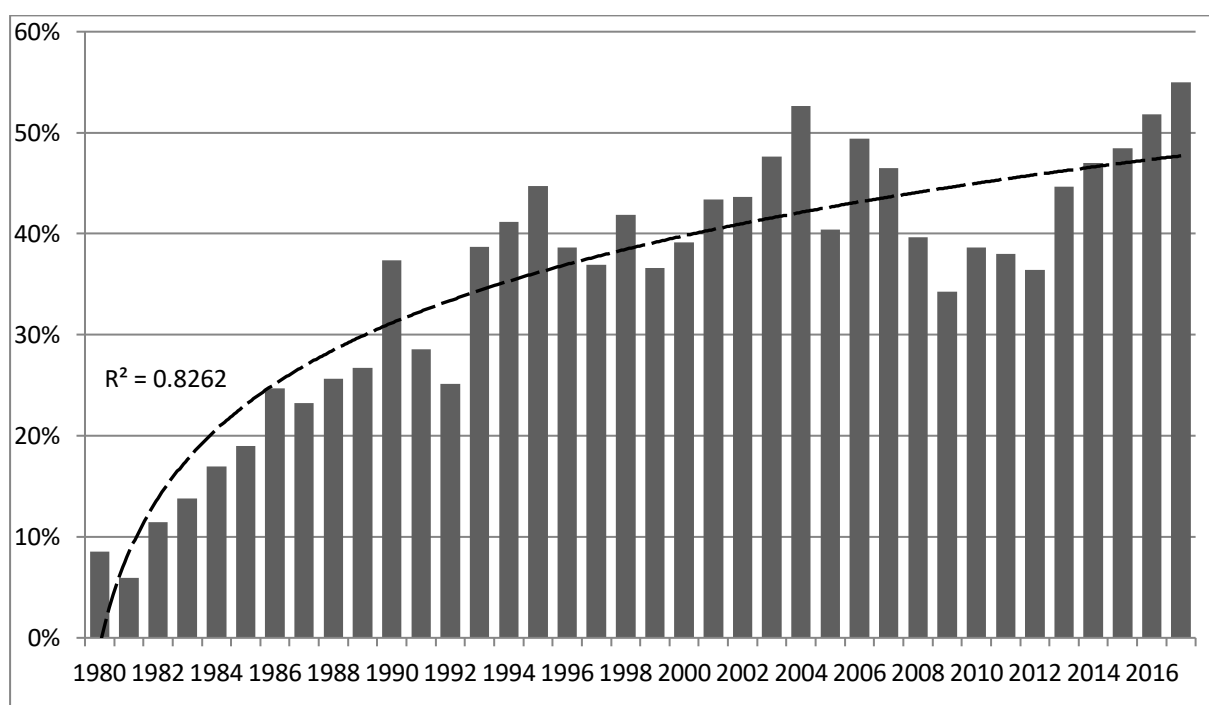
By way of contrast, as Frederickson has shown, large minorities of new titles are encumbered by private covenants imposed by developers (Figure 3.16). Typically those covenants are related to protecting land from reverse effects claims, infrastructure uses or environmental values and are applied to titles related to land not intended for residential use. However, it is also clear that developers do try to sustain an upward movement in new dwelling price through successive or staged release of dwellings in new developments and, more specifically, the imposition of covenants. The later tend to be directed to reducing the production of low cost dwellings either through controls on the value to market of dwellings, requirements for dwellings of larger size, designs and materials.³¹

²⁹ Saville-Smith and Murphy, 2018; Murphy 2019.

³⁰ James, 2018; James, 2019; Murphy, 2016.

³¹ Frederickson, 2018.

Figure 3.16 Proportion Auckland current residential titles with a land covenant by title issue year³²



If, compared to anxiety around the impacts of the Resource Management Act on housing costs, covenants have been given little attention until recently, a similar conclusion could be made around issues of money supply.

A number of overseas studies have also found positive links between changes in liquidity, bank lending conditions and house price outcomes. Rubio and Carrasco-Gallego found that a combination of an increase in liquidity in the euro area coming from the common monetary policy, together with asymmetric house price and technology shocks, contributed to an increase in house prices.³³ In 2018, Eerola’s investigation of time-on-the-market and credit conditions in the Finnish housing market using a general equilibrium model, concluded that housing market liquidity is very sensitive to changes in household credit conditions. In particular, that a moderate tightening of household borrowing constraints increased the average time-on-the-market and price dispersion. Vector Auto Regression (VAR) and Error Correction models testing asset inflation in the United Kingdom and Spain between 1991 to 2013 found evidence of liquidity impacting on house prices. Notably there were substantial differences between Spain and the United Kingdom.³⁴ There is empirical evidence suggesting that where housing demand is stronger, liquidity effects are also stronger.³⁵

³² Frederickson, 2018.

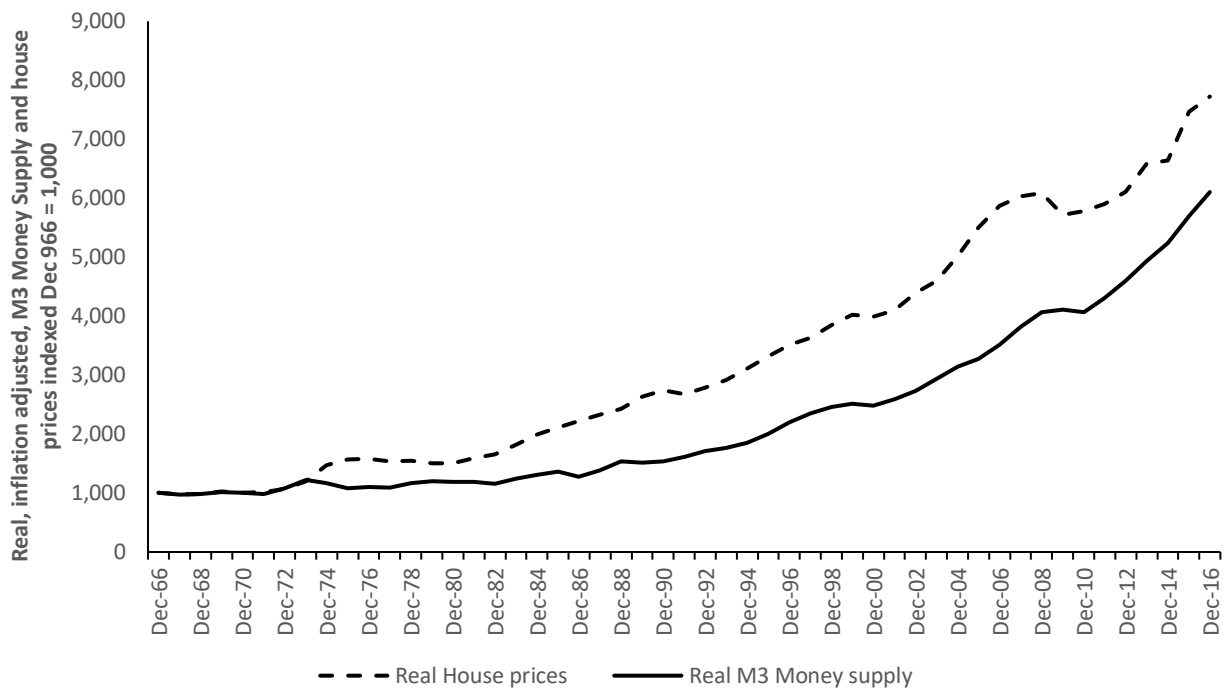
³³ Rubio and Carrasco-Gallego, 2016.

³⁴ Eerola, 2018.

³⁵ Taltavull de La Paz and White, 2016.

In New Zealand, there are indications that money supply does have an impact. Figure 3.17 presents the trend in real, inflation adjusted, low cost housing prices and real M3 money supply (as a proxy for liquidity) between 1966 and 2016. Real house prices increased by 677 percent and M3 money supply by 510 percent between December 1966 and December 2016 (Figure 3.18).

Figure 3.17 Real money supply and low cost housing prices 1966-2016



It could be argued that the introduction of Loan to Value Ratios restricted money supply for residential house buying. But borrowing for residential housing has since 2016 at least been dominated by those with significant assets, existing owner occupiers and to a lesser extent investors (Figure 3.18). These actors are not strongly affected by the Loan to Value Ratio unless, and in the case of investors this has been the case at times, borrowers are highly leveraged.

As Figure 3.19 shows real low cost house prices and money supply increased along a similar pattern. Figure 3.19 presents the annual percentage change in real low cost house prices and real M3 money supply between 1996 and 2016. The growth in real M3 money supply and real low cost house prices appear correlated with no statistically significant cross correlation leads or lags. Access to liquidity and the associated money supply enabling existing home owners and investors to acquire additional properties or increase

housing consumption in relation to a single property has been suggested as fuelling house prices.³⁶

Figure 3.18 NZ mortgages 2016-2019 ending June 30 (source RBNZ)

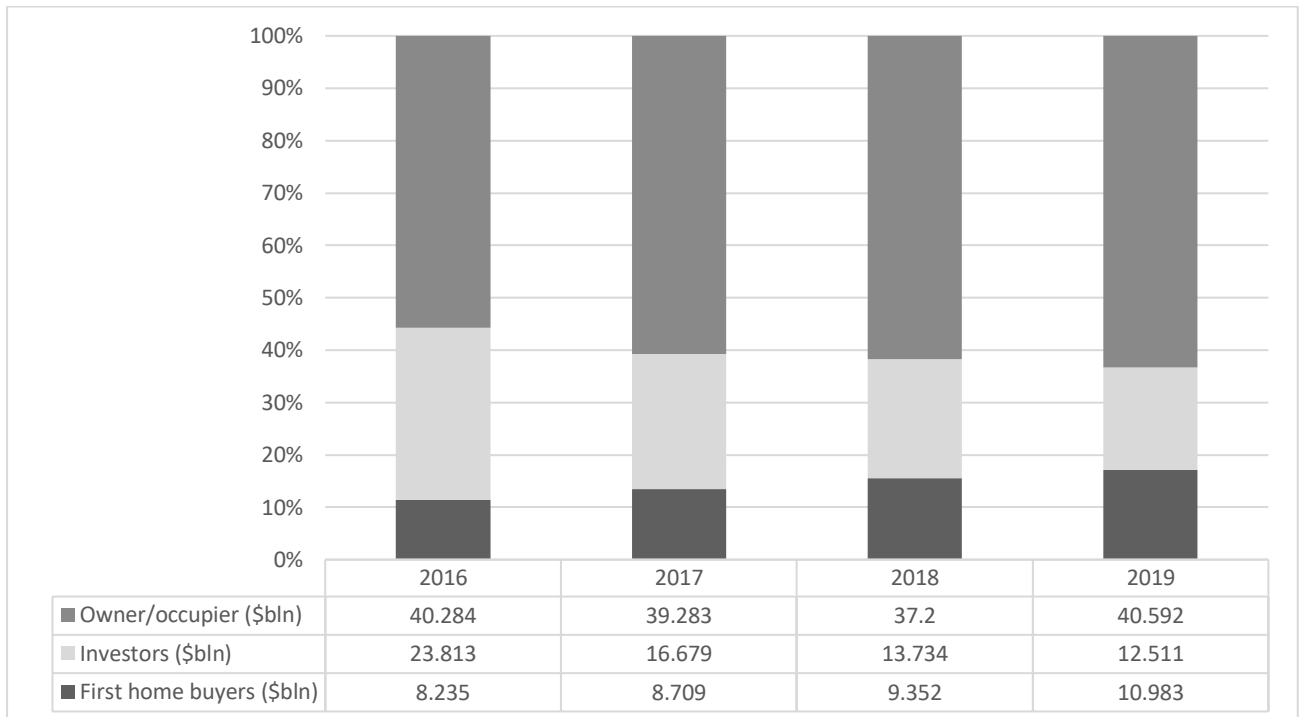
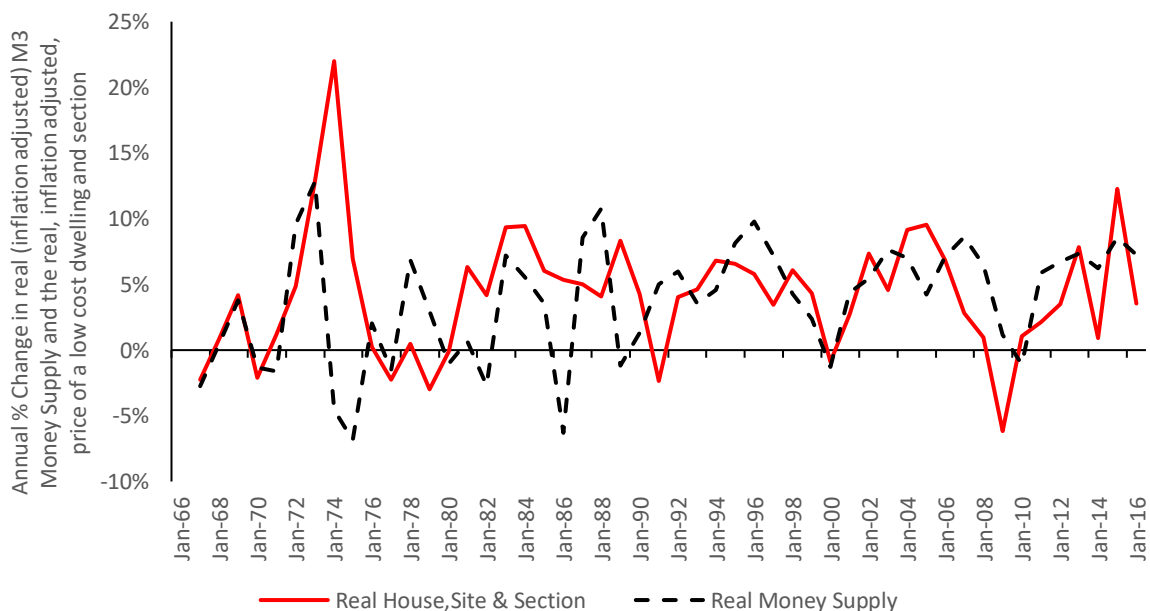


Figure 3.19 The annual percentage change in real M3 money supply and real low cost housing prices



³⁶ Rehm, 2016.

There are a number of aspects of the data presented in this and the previous section that read to the impacts of Government and public agencies on house prices, particularly in relation to low cost housing. It is notable that the high interest rates which challenged affordability for median income households and those on lower incomes in the mid-1980s and the Loan to Value Ratio (LVR) were both imposed by the autonomous Reserve Bank of New Zealand. Both reflect the legislative imperatives of the Reserve Bank. In the case of high interest rates, the Reserve Bank couched those in terms of its responsibilities to constrain domestic inflation. In relation to the LVR, the Reserve Bank has been concerned to reduce the risk of over-exposure by the banking system to residential lending, particularly what is seen as high-risk or sub-prime lending.

Neither the LVR or the high interest rate policy of the mid-1980s was directed to ensuring the supply or affordability of low cost housing. Prior to the 1990/91 housing reforms, however, there were a raft of policies directed to delivering affordable housing and to constraining house prices. Those varied over time and they were not restricted to the investment in new-builds already demonstrated in Figure 2.2.

In the context of the immediately previous discussion in relation to money supply, it is notable that Government investment in new-builds through state housing and to first home buyer loans (State Advances, the Department of Maori Affairs and, later, the Housing Corporation of New Zealand) were accompanied by constraints around the value of new-build dwellings into which it was willing to assist families. Those constraints were not imposed primarily through prudential guidelines with household income determining a household's borrowing, but through an array of requirements around new-build house prices. It was in the opinion of the New Zealand Institute of Surveyors in 1971, that the State Advances Corporation's fixed monetary ceilings acted as "a break on the price of low-cost housing."³⁷ That conclusion appears consistent with the data from 1960-1969 which shows a considerable degree of stability around the costs and affordability associated with a 100m² house (Table 3.9).³⁸

Table 3.9 Modal Incomes, House Building and Average Section Prices 1960-1969

| Year | Modal Income (\$ 1965) | Modal House Build Cost (\$ 1965) | Average Section Cost (\$ 1965) | Modal House Build Cost Plus Average Section Cost (\$ 1965) | Modal Income % Modal House Build Cost + Average Section Cost | Modal Multiple (House Price to Income Ratio) |
|------|------------------------|----------------------------------|--------------------------------|--|--|--|
| 1960 | 1,825-2,280 | 6,328 | 1,860 | 8,188 | 25.1% | 3.6-4.5 |
| 1965 | 2,000-2,399 | 6,000 | 2,326 | 8,326 | 26.4% | 3.5-4.2 |
| 1966 | 1,945-2,335 | 6,050 | 2,480 | 8,560 | 25.1% | 3.7-4.4 |
| 1967 | 1,835-2,201 | 5,881 | 2,389 | 8,270 | 24.4% | 3.8-4.5 |
| 1968 | 2,110-2,462 | 5,849 | 2,431 | 8,280 | 27.7% | 3.4-3.9 |
| 1969 | 2,010-2,346 | 5,823 | 2,536 | 8,359 | 26.1% | 3.6-4.2 |

³⁷ NZ Commission of Inquiry, 1971.

³⁸ NZ Commission of Inquiry, 1971.

4 Affordable Housing and Wellbeing

The association between individual wellbeing and adequate housing has been the subject of significant research effort internationally. There is evidence that wellbeing is generated out of four dimensions of housing: its affordability, the security of tenure it provides, the building performance of a dwelling, and the extent to which housing householders can sustain their cultural, social and economic connections. In New Zealand, where the condition, performance and security of rental dwellings has been poorer than owner occupied dwellings, it is difficult to separate out the impact of tenure from the impact of simply the provision of low cost housing irrespective of tenure. This section attempts to tease out the multi-layered impact on wellbeing of low cost housing by presenting the findings from the following research activities:

- An analysis of the long-term outcomes of affordable housing evident in IDI data;
- In-depth interviews examining the inter-generational patterns of housing security and outcomes associated with them for Pākehā, Māori and Pacific families.
- An analysis of the impacts of secure, affordable housing on a set of families who became involved in a rent for buy scheme with a non-profit community housing provider.
- Kaupapa Māori research into the way in which houses become home for whanau Māori.

4.1 IDI analysis of long-term outcomes of secure low cost housing

This research component asked: Does growing up in secure affordable housing provide individuals with better long - term outcomes, than growing up in insecure housing? The question was addressed by using existing statistical data sets, using house size as a proxy for secure, affordable housing.³⁹

Method

In examining the long-term outcomes of individuals raised in secure low cost or affordable housing compared to those raised in insecure housing, BERL has built on earlier work related to the outcomes of individuals in rented housing, compared to the outcomes of individuals in owner-occupied housing. That earlier research concluded that the fiscal benefit to Government was lower for individual in rented houses compared to individuals in owner occupied housing. This analysis attempted to set aside the tenure variable and analysed Statistics New Zealand's Longitudinal Census Dataset (LCD) and Integrated Data Infrastructure (IDI) using three cohorts of individuals. The first was born in Auckland during

³⁹ This component of research was undertaken by BERL, see Nana *et al.*, 2019.

the 1960s. The second was born in Auckland in the 1980s and the third cohort was born during the 1960s in Wellington.

The data and the two-stage analysis of that data is set out in a stand-alone report,⁴⁰ but the selection those cohorts not only allowed analysis of long-term outcomes but focused on two important time periods. The 1960s was a period of substantial building of low cost housing in both Auckland and Wellington, while the 1980s born experienced the post housing reforms.

Within each of these cohorts, individuals were put into two broad groups based on the size of the home they were raised in during the selected period. The size of the home is used as a proxy for affordable housing. The first group are those who raised in smaller houses (called the “lower” group in the report). The second group were those who raised in larger houses (called the “higher” group in the report). This second group serve as the comparison group for the first stage of our research analysis. Initially, a further split into those individuals living in owner-occupied and rental housing was to be made. However, due to the small number of individuals in rented housing, there were not enough records to present outcomes in the broad stage one analysis. In stage two of our research, this split would be possible due to employment an alternative statistical models.

As there is no data relating to the size of homes in the census of the 1960s and 1980s, the size of the remaining homes, built in these decades, in the meshblocks (geographical location) is used to identify the size of homes. Data supplied by the University of Auckland (UoA) is used to identify meshblocks within Auckland. Those that had at least 75 percent of the dwellings within the meshblock built in the 1960s and 1980s were used. 110 square meters was used as the cut off between the lower and higher groups within the cohorts.

However, this process was not able to identify a large enough sample of meshblocks for the Wellington 1960s cohort (in total 54 meshblocks can be identified). As a result, a different method was used which involved to identify additional meshblocks. Given the limited information available, all meshblocks located within specific suburbs and locations that were built during the 1960s are used for the Wellington 1960s cohort. These locations were Wainuiomata, Naenae, Woburn, and Maungaraki. Individuals raised in Wainuiomata and Naenae were assigned to the lower group. Individuals raised in Woburn and Maungaraki were assigned to the higher group.

⁴⁰ Nana, Fareti, Hurren, and Dixon, 2017.

The IDI datasets did not go back far enough to enable us to identify individuals living in the identified meshblocks in the 1960s and 1980s. Therefore, to identify the individuals of interest, the LCD, which contains census data from 1981 through to 2013 was used. This enabled us to use the 1981 data to identify individuals living in the meshblocks at the 1981 census who were born in the 1960s. Additionally, 1986 and 1991 data was used to identify individuals living in the identified meshblocks who were born in the 1980s. To access the IDI information on the identified individuals in each of the three cohorts, 2013 Census records in the LCD were used to match individuals to their 2013 Census records in the IDI. Outcomes tested were: (a) Education: Highest qualification as at 2013 Census; (b) Employment: Occupation employed in as at 2013 Census; Labour force status as at 2013 Census; Employment status as at 2013 Census; and time spent in employment between 2013 and 2018 from Inland Revenue Department; (c) Income: Personal income from all sources as at 2013 Census; Personal income from wages, salaries and benefit payments between 2013 and 2018 from Inland Revenue Department; Personal tax paid to Government between 2013 and 2018 from Inland Revenue Department; (d) Various fiscal costs related to corrections, welfare benefit takeup and period reliant on a benefit; and health related costs; and (e) Net fiscal cost determined by taking personal tax paid between 2013 and 2018 and subtracting from it the fiscal cost of criminal sentences, the public hospitalisation, and benefits paid between 2013 and 2018.

Outcomes across cohorts – stage 1 analysis

In analyzing outcomes, individuals living in smaller houses was used as proxy for low cost homes. Individuals living in larger houses was used as a proxy for a comparator group. During this stage there was no comparison between individuals living in secure low cost houses and individuals living in insecure low cost houses. This was because only a small number of individuals in the cohort were living in rented houses within the lower group (our proxy for insecure affordable housing). The second stage analysis overcame this through the use of an alternative statistical modelling method. For each of our three cohorts examined in this stage, individuals living in larger houses (higher group) had on average better outcomes than those living in smaller houses (lower group) across all seven outcome areas. The cohort specific findings are set out in Table 4.1.

Table 4.1 Outcomes by Cohort and Wellbeing Dimensions

| Key Dimension | 1960s Auckland cohort | 1960s Wellington cohort | 1980s Auckland cohort |
|-----------------|---|--|---|
| Sample size | 9,027 individuals with 5,919 in the lower housing cost group and 3,108 in the higher housing cost group. | 5,442 individuals with 3,444 in the lower housing cost group and 1,998 in the higher group. | 5,166 individuals with 2,823 in the lower group and 2,343 in the higher group. |
| Net fiscal Cost | The average net fiscal benefit to Government in 2017 from individuals raised in the lower housing group was \$7,500. This means that on average individuals in this lower housing group paid more taxes than the Government paid out in healthcare, correction, and benefit costs. | The average net fiscal benefit to Government in 2017 from individuals raised in the lower housing group was \$8,600. This means that on average individuals in this lower housing group paid more in taxes than the Government paid out in healthcare, correction, and benefit costs. | The average net fiscal benefit to Government in 2017 from individuals raised in the lower housing group was \$5,800. This means that on average individuals in this lower housing group paid more in taxes than the Government paid out in healthcare, correction, and benefit costs. |
| Education | At 2013 Census, almost 60% of the lower group have either no qualification or level 1 or 2 qualification gained at school (5th and 6th form qualifications) as their highest qualification. At the higher end, 16% of the lower group have a level 4 qualification, and 11% have a bachelor degree or a postgraduate qualification. | At 2013 Census, almost 53 percent of the lower group had either no qualification or level 1 or 2 qualification gained at school (5th and 6th form qualifications) as their highest qualification. At the higher end, 19 percent of the lower group had a level 4 qualification, and 12 percent have a bachelor degree or a postgraduate qualification. | At the 2013 Census, almost 60% of the lower group had either no qualification or level 1 or 2 qualification gained at school (5th and 6th form qualifications) as their highest qualification. At the higher end, 16 percent of the lower group have a level 4 qualification, and 11 percent have a bachelor degree or a postgraduate qualification. |
| Employment | 71% of the lower group are full-time employed, 12% are part-time employed, 16% are unemployed or not in the labourforce. The lower group comprised 6% employers, 10% self-employed, and 66% paid employees. In 2013, 28% of the lower group were working less than 40 hours, around a third were working 40 hours, and 40% were working more than 40 hours a week. 36% of the lower group were managers or professionals, 19% were clerical and administrative workers, 18% were machinery operators and drivers, or labourers. | 73% of the lower group are full-time employed, 12% are part-time employed, and 15% are unemployed or not in the labour force. The lower group comprised 6% employers, 8% self-employed, and 71% paid employees. In 2013, 32% of the lower group were working less than 40 hours, around 30% were working 40 hours, and 38% working more than 40 hours a week. 42% of the lower group worked as managers or professionals, 20% were clerical and administrative workers, 11% were either machinery operators and drivers, or labourers. | 69% of the lower group are full-time employed, 12% are part-time employed, and 23% are unemployed or not in the labour force. The lower group comprised 2% employers, 4% percent self-employed, and 69% paid employees. In 2013 25% of the lower group working less than 40 hours, around 36% worked 40 hours, and then around 41 percent working more than 40 hours a week. 38% worked as managers or professionals, 18% were clerical and administrative workers, 12% were machinery operators and drivers, or labourers. |
| Income | At the 2013 census the average annual income from all sources for the lower group was \$61,270 (equivalent to \$69,830 in 2018\$). 20% earned more than \$100,000. 22% earned less than \$20,000. In 2018 the average income from wages, salaries and benefits for the lower group was \$44,700. | At the 2013 census the average income from all sources for the lower group was \$64,900 (equivalent to \$74,000 in 2018\$). 24% earned more than \$100,000. 18% earned less than \$20,000. In 2018 the average income from wages, salaries and benefits for the lower group was \$46,200. | At 2013 census the average income from all sources for the lower group was \$47,800 (equivalent to \$55,200 in 2018\$). 10% earned more than \$100,000. 22% earned less than \$20,000. In 2018 the average income from wages, salaries and benefits for the lower group was \$39,300. |
| Welfare | 29% in the lower group received a benefit payment over a 26 year period, between 1992 and 2018. | Over 26 years the average benefit receipt was \$10,500. | 50 percent received a benefit in 21 years 1997-2018. On average, payments totalled \$54,800. |
| Health | Using public hospital discharges from the Ministry of Health dataset in the IDI, reveals that between 2001 and 2017, individuals in the lower group averaged a \$8,257 fiscal cost to the Government from their hospital stays at public hospitals. This is in effect an average cost per year between 2001 and 2017, for the lower group of \$516. | Between 2001 and 2017, individuals in the lower group accounted for a \$12,000 fiscal cost to the Government from their hospital stays at public hospitals across this period. This is in effect an average cost per year between 2001 and 2017, for the lower group of \$750. | Individuals in the lower group accounted for an average \$8,350 fiscal cost to the Government from their hospital stays at public hospitals over the 2001 to 2017 period. This is an average cost per year for the lower group of \$522. |
| Corrections | Too small a population count. | Too small a population count. | Too small a population count. |

Propensity for long-term outcomes – stage 2 analysis

The stage 2 analysis compared individuals from the same lower housing meshblocks who live in either owned-occupied or rental housing. The individuals in rental housing group are in the same areas as their comparators in the owner-occupied group. Consequently, all individuals should be subject to similar networks or clusters, and have access to similar services and amenities. A propensity score matching model matched individuals in secure affordable housing to similar individuals in insecure housing across 10 characteristic variables and enabled a direct comparison of the 10 outcome variables. The 1960s Auckland and Wellington cohorts were merged together in order to boost the sample size of individuals who were raised in rented housing.

The variables used to match individuals in both the owner-occupier and rental housing groups were: (a) Number of occupants within a household as at 1981; (b) Total parental income as at 1981; (c) Employment status of parents as at 1981 (Divided into three categories of not employed, employed, and self-employed and employers); (d) Highest qualification of parents as at 1981 (Divided into three categories of no qualification or school qualification, post school qualification below degree, and bachelor degree or higher); (e) Age of study individual as at 1981; (f) Sex of study individual; (g) Dummy variable to account for Auckland and Wellington individuals in the study group; (h) Ethnicity grouped as Non-Māori and Māori.

The focus was on the following outcomes: (a) Education: Completion of a post school qualification as at 2013 Census, expressed as 1 for yes and 0 for no; Completion of a qualification of level 4 or higher as at 2013 Census, expressed as 1 for yes and 0 for no; (b) Employment: Average percentage of time employed across 2013 to 2018, expressed as 1 for employed for every month across the period, and 0 for not employed at all across the period; (c) Income: Average personal income across 2013 to 2018; Average tax paid across 2013 to 2018; (d) Corrections: Conviction for a crime across 2013 to 2018 based on the seriousness of the crime, expressed as 5 for no convictions, 4 for a minor convictions through to 1 for a serious conviction; (e) Benefit: Average percentage of time on benefit across 2013 to 2018, expressed as 1 for on a benefit for every month across the period, and 0 for receiving no benefit at all across the period; Average benefit payments across 2013 to 2018; (f) Health: Average cost of public hospital costs across 2013 to 2018; (g) Net Fiscal: Average net fiscal revenue to Government between 2013 and 2018. This was derived by taking the average tax paid between 2013 and 2018 and subtracting the average annual cost of public hospitalisation and the average annual cost of benefits.

The difference in outcomes between those in secure and those in insecure housing is mostly statistically insignificant. This is found for outcomes in the areas of: income (personal incomes and tax paid); health (public hospitalisation costs); education (completion of level 4

or higher qualification); benefits (benefits paid); justice (convictions); and net fiscal (net fiscal revenue). Nevertheless, it is noted that the outcomes for variables in all these areas (excluding justice) do tend to favour individuals in the secure (owner-occupied) housing.

Furthermore, for education (completing a post-school qualification) and benefit (time on benefit) outcomes there were statistically significant differences. In particular, individuals in secure housing were 11 percentage points more likely to have a post-school qualification than their counterparts in insecure (rented) housing. Individuals in secure housing also spent 15 percentage points less time on a benefit. This means individuals in secure homes spent on average 10.8 months less (over the 2013 to 2018 period) on a benefit than those in insecure homes.

4.2 Inter-generational housing trajectories – In-depth interviews⁴¹

This research component looked at the outcomes associated with housing provision in lower quartiles of value. It asked ‘what is the association between low-cost housing, life chances and outcomes?’ Life course and housing histories were conducted with up to three generations of Māori, Pacific and Pākehā/European families. The first generation household was living in low-cost housing, either owner-occupation facilitated by a state mortgage, owner-occupation in low-cost new build, or in social housing. Interviews generated nuanced understanding of actual experiences, as well as housing, social and economic trajectories over time. The following material summarises the findings of the full report.

Method

In-depth, semi-structured interviews were conducted with a total of 119 people by three sets of culturally matched interviewers, each of whom focused on recruiting and interviewing respondents of Māori, Pacific or Pākehā/European ethnicity. Up to three generations of family members were interviewed.

The compositions of the overall and sub-group interviewees are shown in Table 4.2 by gender, ethnicity and generation in relation to the first family member in secure, low cost housing.

⁴¹ This research component was undertaken by The Family Centre Social Policy Research Unit with instrument assistance and development with B. James, Public Policy & Research and K. Saville-Smith, CRESA.

Table 4.2 Number of interviewees by generation and ethnicity

| Generation | Pākehā | Māori | Pacific | Total |
|--------------|-----------|-----------|-----------|------------|
| 1 | 23 | 13 | 18 | 54 |
| 2 | 13 | 17 | 17 | 47 |
| 3 | 1 | 12 | 5 | 18 |
| Total | 37 | 42 | 40 | 119 |

Those interviewees making up the first generation were defined as living in the ‘platform house’, i.e., the low-cost owned dwelling or in social housing. That dwelling was established within the period late 1950s to late 1970s, the period when there was significant public investment into lower quartile value new builds through mortgage support for low income families, and in state housing. Selected family members in the next 1-2 generations were also interviewed. In this way, housing trajectories from the platform house were traced over time.

Participants were recruited through the researchers’ existing networks in the Wellington region. Appropriate cultural protocols and research ethics and consents procedures were followed.

The interview schedule consisted of a mix of closed-ended and open-ended questions, and focused on the following broad areas:

- Characteristics of the platform house and successive housing over time, including tenure, housing type, physical features, financing arrangements (where applicable).
- Characteristics of the family living in the platform house and family and demographic changes over time.
- Housing trajectories from the platform house of selected members to extended family members in generations 2 and 3.
- Participants’ perceived impacts and outcomes of living in a lower-quartile value owned home or in social housing.

Key characteristics of participants’ socio-economic positions are summarised in Tables 4.3, 4.4 and 4.5. Table 4.3 summarises the work status of participants by ethnicity.

Table 4.3 Work status by ethnicity

| Work status | Survey sample | | | |
|-------------------------------|---------------|-------------|-------------|-------------|
| | Pākehā | Māori | Pacific | Total |
| Retired | 42.9% | 16.7% | 37.9% | 31.1% |
| Employed full time | 37.1% | 42.9% | 44.8% | 41.5% |
| Employed part-time | 2.9% | 16.7% | 6.9% | 9.4% |
| Not employed but seeking work | -% | 7.1% | 3.5% | 3.8% |
| Other | 17.1% | 16.7% | 6.9% | 14.2% |
| Total percent | 100% | 100% | 100% | 100% |
| Total number | 35 | 42 | 29 | 106 |

Table 4.4 and Table 4.5 show the mean annual personal and household income brackets by total participants, ethnicity, and generation. With the exception of Pacific households, the personal and household incomes of generation 2 are higher than those of generations 1 and 3. In general, Pākehā personal incomes and household incomes are higher than those of Māori and Pacific.

Table 4.4 Mean annual personal income bracket by generation and ethnicity

| Generation | Mean annual personal income | | | |
|------------|-----------------------------|-------------------|-------------------|-------------------|
| | All | Pākehā | Māori | Pacific |
| 1 | \$25,001-\$30,000 | \$30,001-\$40,000 | \$30,001-\$40,000 | \$20,001-\$25,000 |
| 2 | \$40,001-\$50,000 | \$50,001-\$70,000 | \$40,001-\$50,000 | \$40,001-\$50,000 |
| 3 | \$20,001-\$25,000 | \$40,001-\$50,000 | \$20,001-\$25,000 | \$25,001-\$30,000 |

Table 4.5 Mean annual household income bracket by generation and ethnicity

| Generation | Mean annual household income | | | |
|------------|------------------------------|---------------------|--------------------|--------------------|
| | All | Pākehā | Māori | Pacific |
| 1 | \$40,001-\$50,000 | \$40,001-\$50,000 | \$50,001-\$70,000 | \$50,001-\$70,000 |
| 2 | \$70,001-\$100,000 | \$100,001-\$150,000 | \$70,001-\$100,000 | \$70,001-\$100,000 |
| 3 | \$50,001-\$70,000 | \$70,001-\$100,000 | \$50,001-\$70,000 | \$50,001-\$70,000 |

Outcomes

A variety of outcomes were explored. One of those was the inter-generational position of participants' families in relation to housing assets. In addition, Generation 1 respondents were asked to assess the effects on their own lives of owning or securely renting their own home. Generation 2 and 3 respondents were asked to assess the effects on their own lives of their parents having owned or had secure rental housing. Participants were asked to assess the effects of home ownership or secure rental on their lives in relation to the following factors:

- Education and training;
- Employment;
- Health;
- Generate assets and wealth;
- Generate family and community wealth (Pacific respondents only);
- Wellbeing/happiness;
- Being near family;
- Being near lotu and community resources (Pacific respondents only);
- Social status and/or cultural fulfilment; and
- Living standards.

Housing assets: A key consideration of the research was whether participants sustained home ownership or moved from renting to home ownership. This pattern is set out in Table 4.6 and can be summarised as follows:

- In generation 1, the large majority either stayed owning, or moved from renting to owning.
- In generation 2, the owning related trajectories are similar to those of generation 1, but with higher representation in the renting to renting trajectory.
- In generation 3, the representation in the owning related trajectories is much lower than for generations 1 and 2, and the representation in the renting to renting trajectory is much higher, at 58.8 percent.
- There is a notable decline in home ownership in later generations.

Table 4.6 Tenure trajectories by generation

| Tenure trajectory | Total sample | | | |
|----------------------|--------------|-------------|-------------|-------------|
| | Generation | | | |
| | 1 | 2 | 3 | Total |
| Owning to owning | 42.0% | 40.0% | 11.8% | 36.6% |
| Renting to owning | 42.0% | 42.2% | 17.7% | 38.4% |
| Renting to renting | 10.0% | 15.6% | 58.8% | 19.6% |
| Owning to renting | 6.0% | 2.2% | 11.8% | 5.4% |
| Total percent | 100% | 100% | 100% | 100% |
| Total Number | 50 | 45 | 17 | 112 |

There were ethnic differences in tenure trajectories. None of the Pākehā generation 1 participants moved from owning to renting. Over 90 percent either stayed owner occupiers or rented their first home and owned their current home. Just over 9 percent rented their first home and their current one. In generation 2, the owning-related trajectories are similar to those of generation 1. In contrast, all generation 3 participants had always rented.

Māori generation 1 participants were similar to Pākehā, in that the large majority (84.6 percent) either stayed owners or rented their first home and owned their current home. None moved from owning to renting. In generation 2, the owning related trajectories are similar to those of generation 1. Māori in generation 3 had a higher proportion of participants either remaining owners, or renting their first home and owning their current home. Nevertheless two-thirds rented their first home and their current one, and a small proportion moved from owning to renting.

There were lower proportions of Pacific participants in all three generations either remaining owner occupiers or renting their first home and owning their current home. In generation 3, none owned the first home they identified as well as their current home; one-third rented their first home and owned their current one; one-third rented their first home and their current one; and one-third moved from owning to renting.

Those trajectories are consistent with and reflected in the tenure and cohort analysis presented in Figures 3.9-3.15.

Education: Just over three-quarters of generation 1 and just under three-quarters of generation 2 considered that their own, or their parents' home ownership or secure rental had helped them a lot in obtaining benefit from education and training. Generation 3 respondents felt this the most strongly, at over 90 percent. Findings suggest that the effects of home ownership or secure rental for obtaining benefit from education and training were greater for Māori and Pacific than for Pākehā. One Pacific participant in Generation 1 represented those benefits when they reported:

House with more rooms enable children to have room of their own, helped with study desk etc for their education, healthier for them with space etc in the house. We can make more spaces if needed by children for their study.

Employment: Over 70 percent of participants in each generation considered that their own, or their parents' home ownership or a secure rental had helped a lot with employment. When the 'Helped a little' category is included, generations 1 and 2 were much more of the view that it had been beneficial for their employment opportunities.

Māori and Pacific participants were much more likely to say that home ownership or a secure rental had helped a lot with employment compared to Pākehā participants. Across all generations, Pacific participants were the most likely to agree that home ownership or a secure rental had helped a lot with employment. A Pacific participant in generation 1 commented:

Our home became a stable place from which our children stepped into good employment opportunities. They had a stable home address that was in a good neighbourhood. Employment was also near, so they had good access to jobs in the central city of Auckland.

Health: There was little difference across the generations, with over 70 percent of participants in each generation considering that their own, or their parents' home ownership or a secure rental helped a lot with their health. The large majority of Māori and Pacific participants across all generations considered that home ownership or a secure rental helped a lot with their health, compared to only just over one-third of Pākehā. One Māori generation 2 participant said:

We have invested in making our house warm and dry which has ensured it is a healthy home for my family.

Generating wealth: Over 78 percent of participants across the three generations considered that their own, or their parents' home ownership or a secure rental had helped them a lot to generate assets and wealth. The strength of this view declined from generation 1 to

generation 3. A higher proportion of Māori and Pacific participants considered that home ownership or a secure rental had helped them a lot to generate assets and wealth. However, this factor was more positive for Pākehā than for education, employment and health factors. One Māori generation 2 participant commented on intergenerational wealth creation benefits:

Without home ownership my mother wouldn't have been able to help me get into my first home and build wealth for herself. We [ourselves] have seen considerable capital gains over the last few years, which is money which those who don't own would not have access to. It also lets me set up for my daughter's future.

Generating family and community wealth: This question was asked only of Pacific participants. Pacific respondents considered that their own, or their parents' home ownership or a secure rental helped them generate family and community wealth. One Pacific participant in generation 2 commented:

Yes, we have been able to generate family and community resources and wealth, spiritually, culturally, physically and of course mental resources and wealth. Culturally, we will be able to hold our family together and provided a network of support for our wide extended family. Some of them leaders in community groups and through their work these community groups also became faces of resources and cultural wealth.

Wellbeing and happiness: Over all generations, in excess of 80 percent of participants considered that their own, or their parents' home ownership or a secure rental helped a lot for their wellbeing and happiness. This view was stronger among Māori and Pacific participants. Nevertheless it was also characteristic of Pākehā as well. As one Pākehā participant in generation 1 said:

Absolutely, in Nelson as a single parent it gave us stability. Could have friends around unrestricted. Restriction more likely in a rental. [My] daughter played sport with a team – continuity. It meant that whatever she was involved in I didn't have to pull her out [of activities] ... If life is good, everyone happy.

Being near family: Almost 80 percent of participants considered that their own, or their parents' home ownership or a secure rental helped a lot with being near family. This view was less for generation 1 and strongest for generation 3. This view was strongest for Pacific across all generations. It was considerably weaker for Māori, suggesting that the location of the parental home owned or securely rented did not coincide with locations associated with whānau. A Pacific participant in generation 1 commented:

Yes, our extended family sought their own homes near where we live. Our place became the centre and each of the family members and their houses became a network of family support.

Being near lotu (church) or community resources: This question was only asked of Pacific participants. Almost all considered that their own or their parents' home ownership or a secure rental helped a lot with being near lotu and community resources. One Pacific participant in generation 2 said:

Yes, we participated in lotu and we learnt Christian values and Samoan cultural and language in our lotu. It was near and we can access it quite easily.

Social status and/or cultural fulfilment: Over three-quarters of respondents considered that their own, or their parents' home ownership or a secure rental had helped them a lot with their social status and/or cultural fulfilment. All the Pacific participants, 70 percent of Māori and over half of Pākehā considered that their own, or their parents' home ownership or a secure rental had helped them a lot with their social status and/or cultural fulfilment. One Māori generation 2 participant commented:

We realise we are very fortunate to have home ownership and that it is no longer a given which puts us at an advantage to others. This doesn't necessarily change our social status though. I feel like homeowners are boxed as superior but it is really down to family wealth whether someone owns their own home so it shouldn't really reflect the person. I am extremely lucky my mother helped me into a home. I wouldn't own otherwise.

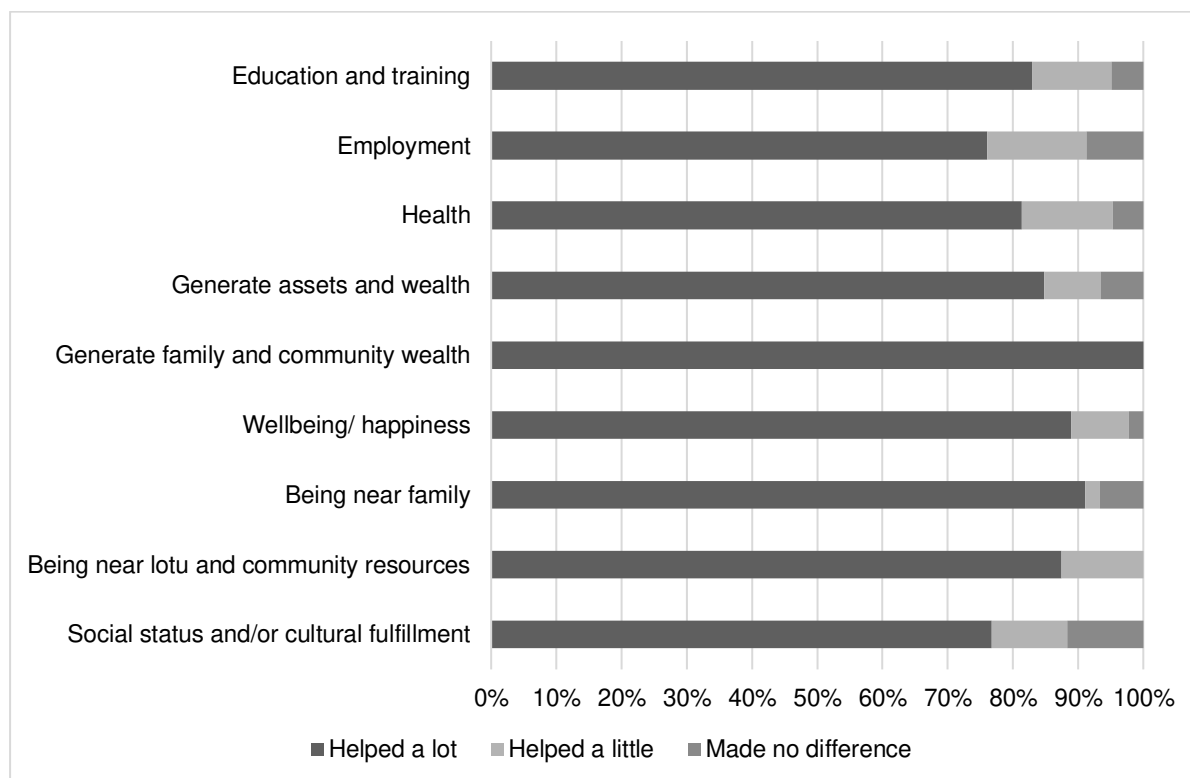
Living standards: Participants were asked to rate their material living standards, their satisfaction with them, and the adequacy of their income to enable them to meet their needs. Almost all participants rated their material living standard as medium to high.

Pākehā were more likely to rate their living standard as high, compared to Māori and Pacific participants. Over 81 percent were satisfied or very satisfied with their living standard, although Pākehā were more satisfied with their living standard than Māori and Pacific participants.

Satisfaction tended to decline across the generations. Almost two-thirds of participants rated their income as being 'enough' or 'more than enough', although this was higher for Pākehā than for Māori and Pacific participants. When assessing their children's living standards, over 87 percent of generation 1 participants and three-quarters of generation 2 participants considered their children's living standard to be medium to high. A higher proportion of Pacific generation 1 and 2 participants rated their children's living standard as medium to high, compared to Māori and Pākehā participants.

Overall, home ownership and secure rentals were seen as having considerable positive effects on the inter-generational wellbeing of families (Figure 4.1).

Figure 4.1 Positive effects on subsequent generations (generations 2 and 3) of respondents themselves owning or having secure rental



There was a strong view that owner occupation provided significant inter-generational advantages. Owner occupation was not viewed primarily as a financial asset or investment. Owner occupation was seen as delivering two primary benefits:

- Ensuring a secure place to live. 90% of participants agreed that concerns around the likelihood of a landlord selling up was part of the attraction of owner occupation. Irrespective of ethnicity, the vast majority of participants in owner occupation reported their home to be a secure place to live.
- Delivering a home that was more comfortable than a rental. Over 90 percent of participants saw an owner occupied home as more comfortable to live in than a rental house. This was consistent across all ethnic groups, although slightly higher for Māori and Pacific compared to Pākehā. When owner occupiers were asked about their own home, almost 95 percent considered their home to be more comfortable than a rental house. This was the case for all ethnicities.

The least important factors for participants in relation to owner occupation related to the home being a financial investment, as an asset to sell for capital gain, or as an asset to help to pay for retirement. However, over 85 percent of respondents agreed that they expected the home to be something they might pass on to their children one day. This expectation was much higher among Pacific and Māori participants compared to Pākehā.

The expectation that the home would be something that could be sold in response to a future problem was lower than for the other factors, with just under 60 percent of participants

agreeing. Māori were the most likely to agree a lot that that they had viewed the home as something that could be sold in response to a future problem, followed by Pacific then Pākehā. Those findings are similar to a 2018 survey undertaken in the Building Better Homes Towns and Cities National Science Challenge's Architecture of Decision-making Research Stream.⁴²

4.3 Impacts of low cost housing and rent for buy⁴³

This research component explored the lived experiences of and outcomes for 20 low-moderate income families on a journey from unaffordable and unstable housing to affordable home ownership. Those families are participants in an assisted home ownership programme run by a community housing provider (CHP) which delivers mainly low cost new builds. This material summarises the findings of the full report.⁴⁴

Method

In-depth, semi-structured interviews were conducted with one or more adult members of households that are being assisted into home ownership. Initial access to potential interviewees was made through the CHP, which sent information about the research to all householders involved in the assisted home ownership programme. This first contact was followed by direct phone or email contact by one of the researchers. Once contact was made, householders were provided with a handout with additional information about the research, and a consent form. Participants gave their consent to participate, either by email or orally. Interviews lasted between 45 minutes and 1.5 hours.

The interview schedule consisted of a mix of closed-ended and open-ended questions. Key areas that the interviews explored were: (a) How the households came to be engaged in assisted home ownership; (b) Housing trajectories and experiences over a five-year period prior to their current housing; (c) Changes experienced since entering assisted home ownership, in individual and family: health; education; training; employment and community participation. Both quantitative and qualitative data were gathered through the interviews. Qualitative data were analysed to identify patterns, similarities and differences, in order to develop both an understanding of each family's experience as well as similarities and variations across the families. Quantitative data were analysed through IBM SPSS Statistics using primarily frequency and cross-tabulation tables.

All participants had been long-term renters, mainly in the private rental market. None had owned a home in the past. They had been in the programme between two and eight years.

⁴² Saville-Smith and Murphy, 2018.

⁴³ This research component was led by B. James, Public Policy & Research.

⁴⁴ See the full report James *et al.*, 2019.

They had all met programme criteria around low income and assets and demonstrated serious housing need. Over 80 percent of the households involved in the assisted home ownership programme agreed to be interviewed. Research participant household characteristics are set out in Table 4.7.

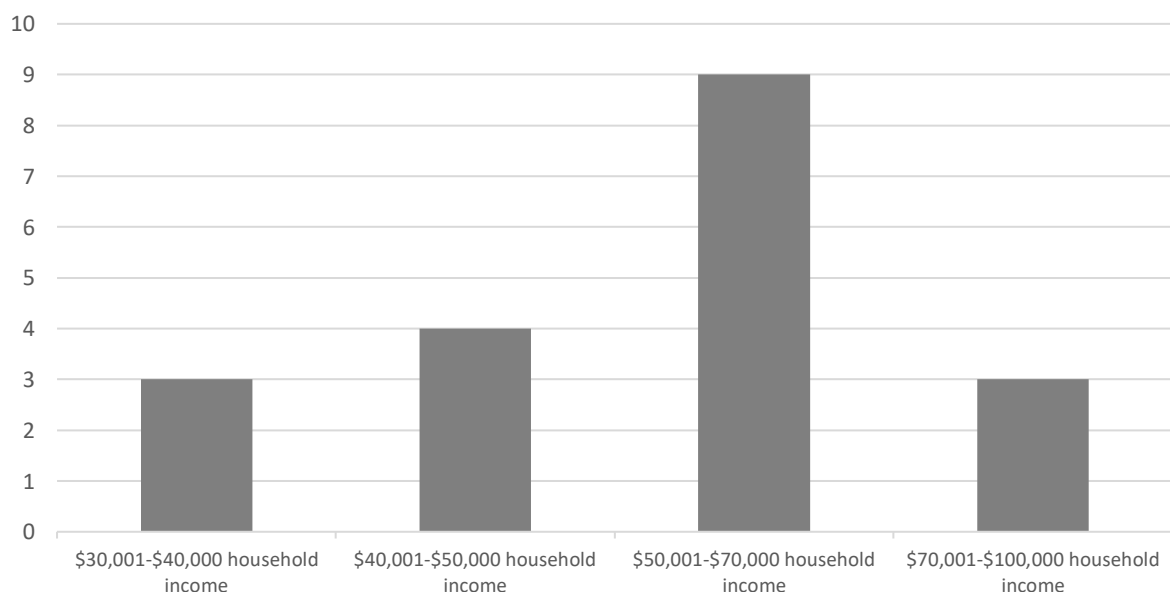
Table 4.7 Households in rent for buy programme participant profile

| Key Household Characteristic | | Households |
|--|--|------------|
| Household type | <i>Couple with children</i> | 17 |
| | <i>Sole parent with children</i> | 2 |
| | <i>Sole parent with children and other adult</i> | 1 |
| Household size | <i>3 people</i> | 1 |
| | <i>4 people</i> | 6 |
| | <i>5 people</i> | 5 |
| | <i>6 people</i> | 7 |
| | <i>7 people</i> | 1 |
| Number of pre-school children under 5 years of age | <i>0 under five years</i> | 11 |
| | <i>1 under five years</i> | 7 |
| | <i>2 under five years</i> | 2 |

Gross household income for the year ending March 2017 is presented in Figure 4.2. This shows that most of the 20 households were in the low-moderate income bracket, earning less than \$70,000 gross per annum. The highest earning household earned 97 percent of the median annual household income for the region in which they lived, and the lowest income household earned 42 percent of that region’s median annual household income.

Participants’ houses were mainly new builds, although a small number were older homes that had undergone major renovations and upgrading. All were single-level dwellings. Twelve were three-bedroom homes and eight were four-bedroom homes.

Figure 4.2 Income Profile of Participant Households



Before finding secure, affordable housing

All these families had a history of frequent movement, insecure and inadequate housing before joining the assisted home ownership programme. The majority (12) lived in three or more houses or temporary accommodation during the previous five years. The most mobile family had lived in seven houses in the previous five years. Three families had lived in only one house over that time. In total, the 20 families had lived in 63 dwellings over the previous five years. One-quarter of the houses that the families had lived in during the previous five years, were the homes of relatives or friends. One family, with several children, said that they have had significant difficulties finding accommodation suited to their family size and budget, and as a consequence spent periods living with others. Although interviewees termed those stays 'temporary', some lived with others for long periods. The length of stay ranged from 2-3 months, to 16 months. The following comments were typical of those families' experiences of staying with others, often in crowded housing:

I don't really count all the transition homes in that two years - it was friends doing us a favour ... we had nowhere to go (Family B).

Before that we were staying with others, in their spare rooms. For a while we were all split up, the children had to stay in two different towns as couldn't find anywhere for them both together (Family G).

We were staying with parents, boarding, we were in the caravan and the kids were inside. In the end we moved because our parents needed space (Family N).

The most common problem was cold and damp housing. Crowding was also a common experience. Most were living with unmet repairs in addition to other housing problems. A glimpse of the persistent inadequacies of house condition and performance that families contended with is shown in the following comments:

Bathroom was in very poor repair - dangerous - cold and mouldy (Family D).

This house was only a temporary arrangement - living with Mum - It was cold though - everyone got sick. Was really crowded too as well as our family, we had my partner's brother and parents - they were looking for a state house but staying with us in the meantime (Family E).

That was a cheap rental so that's why we took it but it was uninsulated, we put bubble wrap over windows and walls. House was mouldy, kids getting sick (Family K).

Most were disheartened and demoralised. They had home ownership dreams, but never thought that they would have a realistic chance of achieving them:

We always dreamed about it but it wasn't something on the radar. You don't dream of things you can't realistically attain. Don't have a big income. Felt we had missed the boat (Family C).

It seemed unobtainable with a low paid job and my wife not working. We've spent years just scraping by surviving but no opportunity to save. An impossibility when rent is taking everything (Family K).

Umm couldn't see it as a reality due to income. I'm a stay-at-home mum. How would you have afforded a house. Pie in the sky (Family M).

In owner occupation they were not seeking speculative capital gain but comfort and security:

We're very grateful to be in the programme ... The opportunity to have a nice new home. We have never lived in a new home before (Family J).

We're in a house. There's no way that we would have our own home otherwise. A warm, dry home. My children are very happy and it's a great neighbourhood (Family P).

It's everybody's dream, it's stability - you don't have to repeatedly move, you can set down roots (Family F).

To have a stable home for our family. To not have to move all the time. Have a healthy home. (Family H).

Participants saw home ownership as giving them as platform for securing the futures of their children through inheritance and protecting their own futures through encouraging savings, assisting with retirement or a form of insurance. Comments included:

My daughter said, "we've always had a house and we've never had a home". We're building the home for our future (Family G).

I want to own my own home. Plant my own plants, and for my retirement plus something for the kids (Family I).

After finding secure, affordable housing

Aspiring to home ownership was the fundamental reason for entering the assisted homeownership programme, although participants also identified other reasons. These included:

- Could not find affordable rental housing.
- Rental was sold.
- A desire for tenure security and stability for the family.
- To improve housing for the family's health.

Participants considered that being part of a programme was critical for achieving their home ownership dream. This was because the programme's disciplines around saving, financial planning and debt clearance provided them with a structured way of working towards home ownership. So too did the encouragement to acquire home-owner skills. As part of the programme families had the opportunity to gain information and skills through workshops on home maintenance, managing dwelling running costs, budgeting and applying for a bank loan. Another important feature of the programme was that families were part of a group working towards home ownership, from which each family could receive support.

Participants saw the chance of home ownership through the programme as life changing. In this respect they echoed the views of other New Zealand families that have achieved home ownership through affordable housing programmes.⁴⁵ One couple in their 50s regarded the programme as their last opportunity to achieve home ownership. Two other participants commented on how participating in the programme has generated a high degree of commitment to becoming home owners:

It was a lot of effort, it really pushed us ... It was good because it showed that we really wanted it (Family D).

We were really desperate, really wanted a house. The application was a lot of hard work ... We thought our chances were pretty slim because there was such a housing need ... You've got to jump through hoops even to apply. Only those who are really willing will do it. No other way we could get a deposit ... We would give it our best shot. It didn't sound easy! But it was going to be worth it ... It will really set us up for life ... The kids have a place to call home where we didn't think it was possible to get this opportunity. A miracle! (Family O).

Only two participants considered that, without the programme, home ownership might still have been possible in the long-term for them, and this was largely due to their Kiwisaver membership.⁴⁶ They nevertheless considered home ownership would be very hard to achieve without a programme that provided financial assistance and other support, because of the difficulties in saving sufficient money for a deposit.

⁴⁵ Fergusson *et al.*, 2016.

⁴⁶ Kiwisaver allows eligible members to withdraw funds for the purchase of a first home, and depending on eligibility, those members can also obtain a first home deposit subsidy from Housing New Zealand.

Outcomes

For participants moving into their rent for buy home has been health-promoting, due to their new dwelling being much warmer and drier than previous accommodation. Some also noted that they are living in a much lighter environment, compared to their previous accommodation. Six families noticed a significant improvement in parents' and children's health owing to reduced asthma problems. Other families considered that they suffered far less from coughs, colds and flu, while one person reported her baby was no longer suffering from a persistent rash. It was common for participants to mention fewer doctors' visits and trips to the hospital, compared to living in previous housing. Three participants estimated that their medical/health costs have gone down since moving to their current home. Those participants attributed reduced medical/health costs directly to moving to a warmer, drier home, and talked about improvements in their family's health.

Figure 4.3 shows little change in labour market activity among participants when their prior housing situation is compared to their current situation. In general, participants did not attribute changes in employment status to their move to assisted home ownership. Employment status was more influenced by factors such as the age of children and job opportunities, than by housing tenure. A similar pattern is evident among the partners of householders (Figure 4.4).

Figure 4.3 Householder employment currently and prior to entering the programme

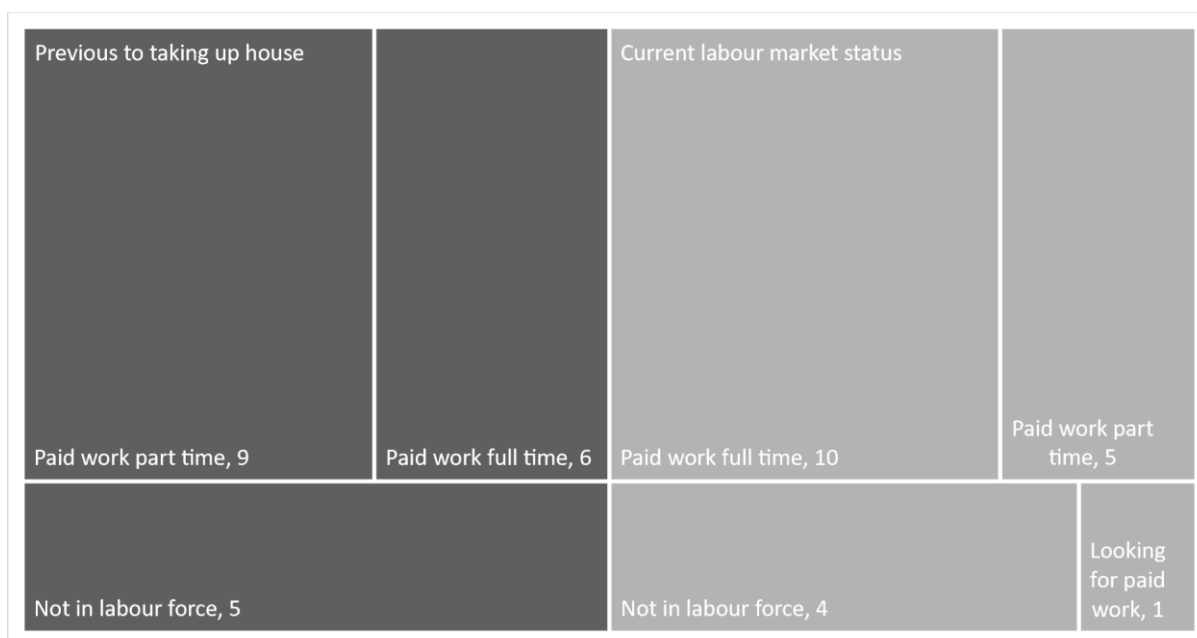
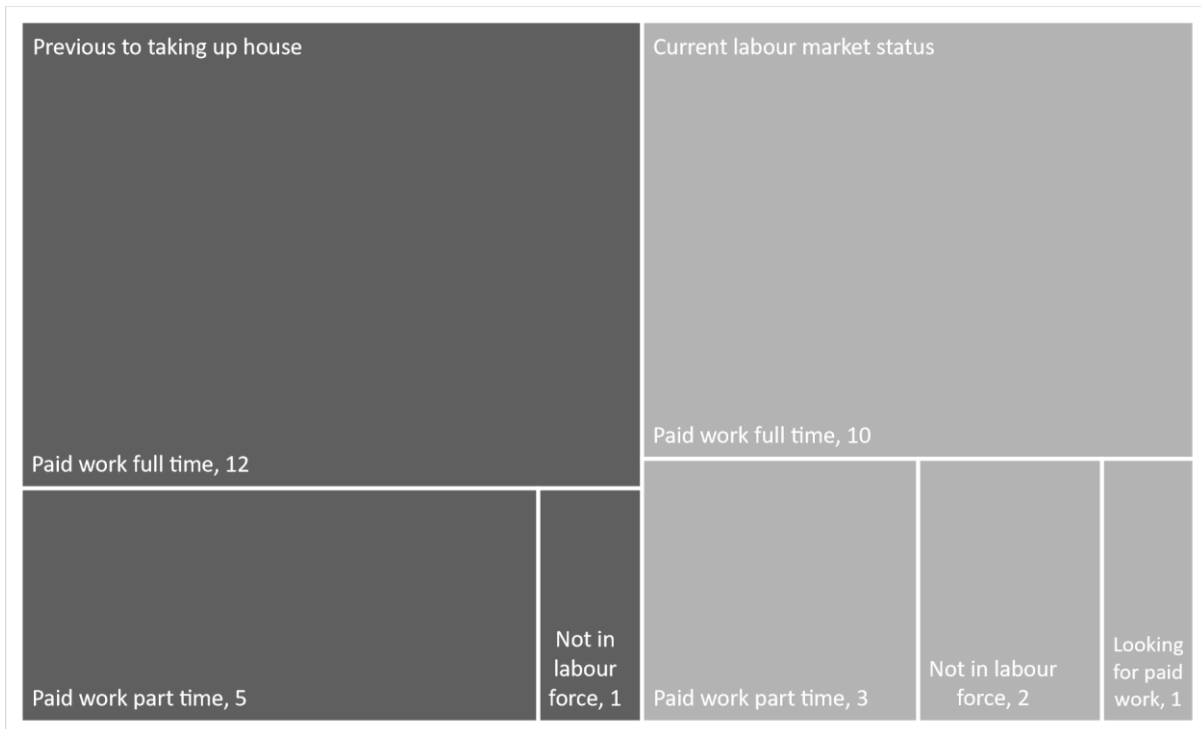


Figure 4.4 Partner employment currently and prior to entering the programme



Four participants considered that moving to their new home has had a positive effect on employment decisions. One person commented that it was easier for both parents to look for or change jobs now, due to their secure tenure. A second participant was planning to set up and run a business from home, something that she could never have done in a rental. Nor would she have had sufficient funds to dedicate to setting up a business before. Now she has affordable and predictable housing costs, and can plan for business expenditure.

In two families, the wives have increased work hours and husbands have reduced hours. For one family, this was possible due to the location of their new home which is convenient to both workplaces and to their children’s school. The other family, in which the husband now cares for their baby fulltime, considered that changing parenting roles would not have been possible previously because of the higher housing costs and uncertainty of renting. Having secure tenure and affordable housing has given this couple more flexibility in how they organise their employment and caring responsibilities.

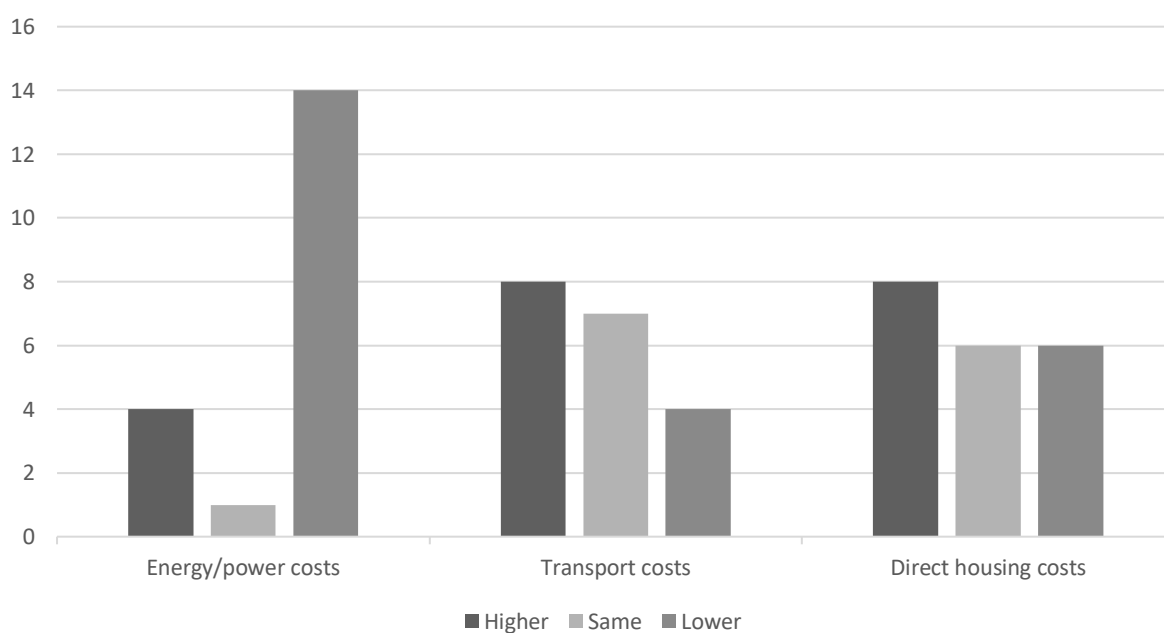
More participants and their partners were involved in education and training than before they moved into assisted home ownership. Most did not see their move to home ownership as influencing their education or training activities, a few considered having a more stable and comfortable housing situation supported new ambitions. One person said that having tenure security has enabled a return to full-time study. Two noted that the assisted home ownership programme encouraged on-going learning, and as such was an incentive to gain qualifications. Another participant considered that having certainty around housing outgoings has widened the family’s horizons. One person commented:

There's more incentive to do well to keep the house. It's a perfect opportunity to do training, it makes you think about what is possible (Family N).

Being part of an assisted home ownership programme has affected participants' social connections in two ways. Firstly, some live in locations in which assisted home ownership housing is clustered, and consequently their close neighbours are also programme participants. Secondly, all interviewees have participated with others in activities required by the programme. Several participants especially mentioned how they like being part of an immediate neighbourhood and a programme in which they share similar experiences, challenges and goals with others. A feeling of belonging and mutual support has been generated among the families. Similar positive experiences have been reported in other studies of participants in assisted home ownership programmes.⁴⁷

Participants were asked about current living costs, including housing costs, energy/power costs, and transport costs, compared to their previous living costs (Figure 4.5).

Figure 4.5 Current direct housing and living costs compared to previous house



Overall, the majority found that their financial situation has become easier after moving to their new home (11 participants), or about the same (5 participants). Participants considered that their improved financial situation was due to a greater ability to plan and manage their household budget, due to more certainty around their housing costs and reduced expenditure on energy costs. The improved ability to estimate and plan for living

⁴⁷ Fergusson *et al.*, 2016.

costs was attributed to living in their new home. All except one participant indicated they were 'satisfied' or 'very satisfied' with their lives now.⁴⁸

While the question indicates general life satisfaction, some participants specifically linked their life satisfaction to feeling settled and living in a home they can call their own. Participants identified a number of benefits they have gained from moving to their new home. The most notable outcome was an increased feeling of security, and associated with that, freedom:

There's a bit more freedom, especially for the kids. We've got security within the street - everyone's watching the houses if we go away. We are able to have the freedom of changing jobs or study if we want because it's affordable [housing costs]. We can actively go and do something we're passionate about and not just look at the money side of it (Family D).

Participants said that security and an emotional as well as financial stake in their home have enabled them to do things that they were unable to do previously. In this respect, the most common benefits were being able to make a garden, decorate and do work on their home. Participants talked about the freedom they and their children had to make the home their own. Some participants contrasted this freedom to the restrictions on activities that they experienced as tenants. Two participants said:

Really just the gardening - knowing you don't have to move lets you do it. The outdoor area/space is nice, we can really use the outdoor space. Luckily Dad has helped us with landscaping (Family H).

We can do bits and pieces to the house, like paint it - there's more freedom. We put more into it because it's ours (Family Q).

Generally, participants considered their life to be less stressful than before. Some participants emphasised improvements in their mental health as a key benefit of the move. Overall, there was less stress around their housing situation, in particular the uncertainty of rental tenure and rising and unpredictable rental costs. As a consequence, some felt less stressed about their financial situation. Importantly, participants emphasised that their new sense of security reduced stress. This was not only due to secure tenure, but also because they were part of a neighbourhood in which they felt secure. Two participants commented about reduced stress:

It changes our whole future and for the children as well. It gives us a chance to own our own home, it's a stepping stone. It's allowed us to calm down and ease stress from a

⁴⁸ The life satisfaction question is based on an international satisfaction measure. See Inglehart, Basanez *et al.*, 2004.

couple of years of very stressful financial situations and living situation. We feel we can breathe again (Family O).

More emotionally stable, stress has gone from trying to provide for your family. Mentally it's really helped us, given us a good positive outlook for our future - we didn't have that before. I was so stressed out a few years ago (Family R).

4.4 Housing, home and whānau ora⁴⁹

This research component is focused on whānau Māori, defined by the Taskforce on Whānau-Centred Initiatives as a collective of Māori sharing common descent and kinship, as well as collective interests that guide reciprocal ties and aspirations.⁵⁰ The material in this section summarises the findings of the full report.⁵¹ It is concerned with what makes a house a home for whānau Māori and how housing supports Whānau Ora (Māori collective wellbeing). The study traversed the financial (low cost) and nonfinancial (meaning of home) benefits of lower quartile housing.

Method

A *Kaupapa Māori* (by Māori, for Māori) methodology guided this research. This methodology sees being Māori as normal, thereby avoiding a victim-blaming mentality and promoting a structural analysis. In addition, the importance of whānau was foundational to the research, as whānau are the fundamental building block of Māori society.

To provide a background to this research the concept of ontological security is used as a way of understanding the meaning of home for whānau. Ontological security is about emotional, rather than cognitive, sense established in early childhood that enables a sense of stability and trust. Ontological security in relation to housing defines the home as more than a structure; it is about how people are able to inhabit that structure and perform flexibly routine life. For someone's home to be a source of ontological security it should be a place where they can construct their identity, feel at ease and in control of their environment.

Ontological security for Māori involves the constancy of surroundings that inform Māori cultural identity. For Māori, the environment extends beyond the four walls of a dwelling and into the whenua (land), in acknowledgement of the importance of place for our sense of belonging. Likewise, the social environment extends to encompass whānau who may live in multiple dwellings, as well as whakapapa (genealogy) connections with tipuna (ancestors) who have passed and mokopuna (grandchildren) yet to be born. This is not some premodern notion of ontological security, but rather a contemporary form of Māori cultural

⁴⁹ This research component was undertaken by F. Cram, Katoa Ltd.

⁵⁰ Taskforce on Whānau-Centred Initiatives, 2010, p. 12.

⁵¹ Cram, 2019.

resilience. It is also about Māori resistance of many years of colonialism that has tried to assimilate and integrate Māori.

Twenty-seven key informants (17 women, 10 men) were recruited for this research from the researcher's existing networks and from housing hui and conferences she attended in 2015-17. The selection criteria for key informants was that they were Māori and knowledgeable about Māori housing. Key informants came from a range of professional backgrounds including: Māori and Iwi leaders; Māori housing, education, social service and health providers; national and local government employees; researchers and evaluators; and pakeke (elders).

Interviews took place face-to-face, over the internet (by Skype or Zoom), or by phone, depending on what was most convenient for the key informant. The interviews were conversational, with key informants invited to share personal and professional experiences and understandings. As a consequence, key informants' talk was a self-selected mix of knowledge and experience from their personal and professional lives.

Five main areas of inquiry were canvassed, and key informants had knowledge of these before their interview. Comments were made by the interviewer and follow-up questions asked depending on the lead taken by the informant, and if and when clarification was needed. The areas of inquiry were:

- What makes a house a home for whānau Māori?
- What housing challenges are whānau Māori currently facing?
- What initiatives are helping whānau Māori overcome challenges?
- How are housing and whānau ora connected?
- Is low cost housing a good option for whānau Māori?

While the kaupapa of the research was on the meaning of home for whānau Māori and the role of lower quartile housing in whānau ora, the conversational method adopted gave key informants the freedom to describe those aspects of housing and home that they saw as important to them and their whānau and/or to whānau Māori more generally.

Importance of home and making a house a home

Key informants connected the strengthening of mana or status of Māori by houses being a home. Their korero cohered around two superordinate themes: the facilitators and barriers to transforming housing into homes respectively. Each of those superordinate themes were associated by subthemes in key informants' talk. In relation to the facilitator of a successfully transforming houses to homes themes around collective capital, including social and cultural capital; financial capital; and structural responsiveness emerged. These are depicted in Table 4.8.

Table 4.8 Facilitators of a house being a home and supporting whānau ora

| Superordinate theme | Subordinate themes |
|---|---|
| <p>FACILITATORS – of Māori having a house that’s a home and supportings whānau ora</p> | <p>Collective capital – values and principles applied by collective in routine, everyday life; including</p> <ul style="list-style-type: none"> a. Growing up – the experience of key informants growing up, of their parents and grandparents’ generation b. Current home – the experience of key informants of creating their own home c. Current location – the importance of where their home was located d. Future generations – the experiences of the next and future generations |
| | <p>Financial capital – being able to make astute financial decisions</p> |
| | <p>Structural responsiveness – systemic responses that nurture and strengthen collective resilience</p> |

The subtheme of collective capital describes how having a home is about social and cultural connectedness. Key informants talked about their own home environment when they were growing up, describing what makes a home for whānau in the present day, and speculating about what a home will look like for future generations. When key informants recalled the house they grew up in, they described it as a place of solace. Regardless of what was happening in the wider environment they could count on the shelter, love and comfort of their whānau. This made their house a home even when the house did not have many amenities or their whānau did not have material wealth. Their home was often opened to whānau members who needed a place to stay and key informants continued this practice of manaaki (hospitality) as they saw this cultural practice as central to whānau ora. One informant said:

My mum...actually went out and got them, she was...the first Māori minister here...so she had a spirit for people, so we were brought up in a house that we didn't know who we was going to wake up with down in our lounge, so we had many people come in through our home from all sorts of different walks of life, so I think that very much made the home... I learnt that from my mum to always be sure that people are judged by who they are and not by what they've got. (Kahu)

Many key informants described the importance of whānau for making a house feel like a home. A few said their current house was not a home because their whānau were not there with them. Feeling at home and safe was about a feeling of predictability and control over the environment inside their home, about the good relationships among the people living there, and also about the wairua of the house. Some key informants were trying to provide the same kind of sanctuary that they had been brought up with.

Some key informants considered the importance of which lwi rohe (area) they resided in. Some actively sought to live within their own rohe because it was where their whakapapa was. Others acknowledged the extra effort required when people lived outside their rohe. The collective resilience of rangatahi and coming generations was described by some key informants as they contemplated how they were brought up compared to how the world was now for their children and grandchildren.

The subtheme of financial capital involved commentary about financial capacity and financial literacy, and particularly how that would lead them into home ownership. Being on a low income and not being able to save was also identified as a barrier to home ownership. Informants talked about how financial literacy can be passed down from parents who know the value of money and housing because of their own experience of hardship.

The subtheme of structural responsiveness described the structural factors that supported whānau into homes, such as affordability and good housing condition. lwi-led housing and papakāinga as an intentional community, lwi and Māori provider organisations helping whānau into home ownership, the revitalisation of marae to include housing, and the role of urban marae in housing provision were also discussed. The combination of housing in different tenures, care facilities for pakeke (elders), enterprise and employment opportunities would be part of such initiatives. One informant commented:

[What] I'd like to do is sort of a mix of both social housing but affordable housing and even high end so that you don't create sort of a ghetto and to have retail space under it... so that you have some infrastructure around these housing developments, so they don't have to travel for miles to get to a supermarket or something (Awhina).

The theme of 'barriers to making a house a home' encompasses the explanations offered by key informants about what disrupts their own and other's feelings of a house being a home. Included here are subthemes of poverty, both economic and capability poverty; the impact of poor housing quality; and structural resistance, that is, the issues arising around renting, home ownership, neighbourhoods and Māori land that prevent whānau from establishing a home (see Table 4.9).

The subtheme of poverty was summed up as whānau often going from one crisis to the next and without the head space needed to make a house a home, let alone contemplate building a future. There was much aroha among key informants for whānau in this situation. Social housing or even just the availability of more rental accommodation were seen as ways of supporting whānau, including older people on pensions for whom rents were too high.

Table 4.9 Barriers to a house being a home

| Superordinate theme | Subordinate themes |
|--|--|
| BARRIERS – challenges to the ability of Māori to having a house that’s a home | Poverty – pressures on individuals mean they live day-to-day. This may mean a lack of routine, or a lack of knowledge about contributing to the household and caring for one another, etc. |
| | Poor quality housing – the quality of housing that whānau are able to afford impacts negatively on their health and whānau ora |
| | Structural resistance – systemic impediments and challenges to Māori gaining housing security, including issues related to: <ul style="list-style-type: none"> a. Renting b. Home ownership c. Neighbourhoods d. Māori land |

While key informants described the impact of poverty on whānau, they also talked about whānau who were working and earning money, and still not managing to get by because of high rents. For many whānau, the combination of low wages, high rents and high food costs meant that one unexpected bill could drive them into debt. Whānau were also doubling up living arrangements with other whānau so they could afford their rent. One informant described a situation he knew:

I know of heaps of people back home living in two bedroom homes with about two whānau living in them cause they can’t afford the stupid renting prices or can’t even get a home and these whānau do have mahi like my mate, he’s in a three bed whare with his wife and two kids, his sister and her two kids and his mate, his partner and baby. Now can you imagine all those people in that house. They work part-time or fulltime but can’t afford the rent prices or can’t get a place cause of the kids (Rawiri).

Key informants connected poverty to a process of compromising people’s social and cultural capabilities as well as their financial circumstance. Some key informants grew up in homes that provided refuge to whānau members in need of shelter and support getting back on their feet, and they were trying to practice in similar ways in their own homes. However, they described experiences they had had when relations and friends they had opened their doors to had not behaved as expected, not joining in with or contributing to the household.

One informant described how this previous ‘learning’ can be undone, with effort. Talking about a housing development providing tenancies to young whānau, and seeing the benefits as people learned to live together, Tamati described this as bringing “a bit of pride back into themselves and their whānau” so everyone could “be deemed to be safe in their own community.”

The subtheme of poor quality housing focused on several key issues including how the health of whānau is disrupted when their poor housing conditions impact upon their physical health (e.g., respiratory conditions) and mental health (e.g., stress from overcrowding). One informant has seen the health and wellbeing of many whānau suffer because of the poor condition their rentals are in:

...living in a house that water is running down a wall, where there's a swamp under your whare, where you know you can't have any input into improving the conditions of your home. Which is a case that we see on a daily basis. Whānau living in those conditions cos they don't have any other options, and it's not a safe and sustainable, it's not healthy but they have no other options (Hana).

When poor health impacts on parents' ability to care for their children this also disrupts their whānau ora, so poor quality housing can drive a downward spiral for whānau, with parents often forced to choose between paying their rent, heating the house, and putting food on the table. These housing conditions were seen as the result of whānau having no other options, nowhere else to go, with this sometimes leading to overcrowding and the risk of domestic violence.

Some key informants talked about the internal structure of a house being a cultural quality issue, commenting on what they saw as Eurocentric design and layout. Housing quality can also be about location and access to services. Living a long way away and potentially without the means to get to services can also undermine the connectivity whānau feel and their sense of home. Similarly, kaumātua can feel isolated if they are housed away from services or if they stay in a place that has little infrastructure to support employment and opportunities for younger generations. As Awhina pointed out, "the sense of home gets lost because all your young ones move away from home" because there is no work.

The subtheme of structural resistance is about the structural disruption to enable a house to a home for whānau Māori that can be attributed to non-Māori policies and legislation, or the lack thereof. Four main topics were discussed: renting, home ownership, neighbourhoods and Māori land.

In key informants' experience long-term rentals—including state housing—were now rare. Whānau that thought their rental home would be theirs for the duration of their lives because they were good tenants were being caught out by recent increases in rents and were being forced to move homes. Housing New Zealand houses in communities were being considered short-term (3-5 year) options for whānau, who were expected to be able to move into the private rental market or home ownership after this time. Having a house with insecure tenancy weakens the ability of whānau to feel settled and at home and may impact on how they see their responsibilities as a tenant. It can also impact on the manaaki they are able to provide their whānau if their rental agreement restricts the number of people

who can stay in the house. This may be particularly hard on older people when the ones asking to stay with them are their mokopuna. Even getting into a rental housing was seen as fraught with difficulty because of racism in the housing market whereby even city councils discriminated against Māori.

The inability to accumulate a deposit for a home was seen by key informants as the biggest hurdle to home ownership. Poverty and Māori under-employment were described as two key barriers that constrained Māori housing opportunities. Housing prices had also risen beyond what many whānau could afford. One informant said:

That's the biggest issue that I see, that we have young couples wanting to raise good citizens in their children, educate them well and do their bit in our country, but they can't even consider having a roof over their heads (Amiri).

Informants described what they saw as racism in the housing market infecting neighbourhoods and the community, through differential treatment based on ethnic make-up and socio-economic status. One informant described differences in the way the district council engaged with a poorer community compared to a wealthier community that spoke volumes about what the council thought the people living in the poorer community deserved. This impacted on provision of services and facilities and even on land and housing restrictions which meant large houses could not be built on large sections in that community. Another informant talked about major urban redevelopment projects taking place in suburbs where older state housing is replaced with mixed-purpose town houses. This redevelopment has resulted in the diverse ethnic community being replaced by white residents as the desirable suburb undergoes gentrification and existing residents are displaced.

Finally, informants talked about the complexities of building on whānau land. Such complexities include the need to obtain whānau agreement for housing development and council by-laws that restricted the use of Māori land for housing. The homelessness of people who had sold their land was also a concern raised. In some cases, people had gotten into debt because they were not able to pay their rates and were not getting the help they needed from the council or their local rūnanga that would enable them to stay and build on their land.

Housing, home and pathways to whanau ora

Key informants knew what made a house a home from the ways they had been brought up. Although for some their childhood home had not been flash, it was a home because of the love, comfort and security provided by their whānau. This was what they had carried forward with them into the environment they created in their own home and what they saw as either present or challenged in the homes of whānau they visited in their professional

lives. As a contributor to ontological security, the social environment of a home was more important than the material objects that were present. While the material conditions of a house could impact upon the health of whānau, it was likely to be the subjective qualities of that house that made it feel like a home and as something that promoted wellbeing or Whānau Ora. This social environment was imbued with cultural values that reflected people's lives as Māori. This is the safe haven component of ontological security, that within the confines of their own house whānau are not under surveillance to assess their 'fit' within colonial society and can be Māori.

Key informants had a values-informed response to the social changes that have taken place in Aotearoa over the last 40-60 years—from their childhood, to the establishment of their own homes, to reflecting on the lives of their children and grandchildren. Their cultural values of manaaki, aroha, awhi (support) and whanaungatanga (kinship relations) have provided continuity across generations, with the practising of these values sometimes remaining consistent and sometimes being revised. On the one hand, whanaungatanga and aroha were perhaps the most constant as key informants stressed the importance of whānau connectivity and love. Practices of manaaki, on the other hand, were being managed in more constrained ways than in their parents' generation to keep whānau safe, with this sometimes coming about because open-door practices had brought whānau into their homes who did not know how to live in a values-based way. In effect they were managing an expert system based in te ao Māori and using this to assess and position themselves within the contemporary world.

This complex of cultural values was more difficult to implement for those whānau whose lives were constrained by poverty and who have not had the opportunity to purchase their own home. Poverty can be defined simply as the lack of income, with poor whānau being pushed into precarious housing arrangements and potentially homelessness by systems that have undermined the affordability and security of rental housing. The result is that whānau are clinging to whatever housing security they can, even if this means they are living in poor quality housing and are afraid to request repairs and maintenance for fear that they will lose their house. The resulting chronic housing stress impacts on people's ability to create a home and to practise values such as manaaki, as supporting their whānau when they need somewhere to stay may impact upon their tenancy, if not also the limited resources that whānau themselves have to call upon to keep themselves afloat.

Amartya Sen's (2000) conceptualisation of poverty as capability deprivation speaks to this link between material and cultural deprivation. Henare, Puckey, Nicholson, Dale and Vaithianathan (2011) have based their model of wellbeing, 'He Korunga a Ngā Tikanga', on Sen's capability approach, framing the achievement by Māori of a good life as a combination of functionings; namely, states of being (e.g., mauri, mana) and states of doing (e.g., whanaungatanga, manaakitanga). Having a good life centres around people's access to

these functionings. For example, monetary poverty can stifle people's capability for 'doing' manaakitanga (Hohepa, 1998). It should not then be surprising that those growing up in households marked by poverty do not experience ontological security within a Māori world. This was seen in key informants' reports of those who came into their households but who did not know how to behave; that is, live Māori values-informed lives.

Housing whānau is an important step to supporting their wellbeing and enabling them to have a sense of home; however, whānau will often need access to support services in addition to housing. These services may be a proxy for the social component of ontological security, as Whānau Ora services, for example, will support whānau in a way that shores up their whanaungatanga or interconnectedness as whānau. Some social housing and papakāinga developments have also considered how to design and implement an intentional community that will enable whānau to be part of something akin to a neighbourhood and potentially reap benefits from being in a lived environment with other people.

Key informants involved in housing developments were considering what sort of community was needed in terms of the social, cultural, material and economic security of whānau. This is important for whānau experiencing the hardships of financial poverty, as well as for those whānau who are working and earning a living that should guarantee them a good life except for the fact that they spend too large a proportion of their income on their rent and often still have difficulty finding rental accommodation. It is also hopeful that Māori intentionally designed mixed housing communities will be about whakapapa and other Māori values-informed criteria that would add cultural benefits.

High rents and racism in the rental housing market mitigate against housing being a source ontological security for whānau. Outcomes for those being discriminated against can include segregation into high-poverty neighbourhoods and poor-quality housing, with consequent impacts on people's health and wellbeing. Recent legislative changes have required improvements to house condition and performance, however high rents have not been addressed, with the result that one house may of economic necessity be home to many whānau. Crowding in housing is a consequence of housing not being affordable for people, especially those on lower incomes. It can contribute to the spread of infectious diseases, increased respiratory conditions, and other health and social problems including stress and violence.

Low cost housing and support for whānau to purchase their own home are a solution to high rent costs. Whānau paying rent may well be able to service a mortgage but find themselves 'stuck' in rental accommodation because they have little spare money to put towards a deposit for their own home. While parents with housing equity may be able to contribute towards ensuring their offspring are housed well, parents and grandparents who have lived in what they thought was secure and affordable rental accommodation for many

years may never have considered the need to purchase their own home. Or if they had considered it and were able to afford it, they may have been unable to get their head around the level of debt involved in a mortgage. This latter explanation can account for why, in the past, whānau who have been supported into their own home have subsequently sold it and gone back to renting. It also provides a rationale for the practices of community housing providers who first want to settle whānau into a home, provide them with the support they need and create in them a 'habit' of paying their rent regularly. It is only after some years of this happening that a provider will be confident that a whānau can and will service a mortgage.

A key informant described some of her work as exciting as it was about "looking at existing systems and how we can disrupt them to get better gains for the community." While she was not describing a housing initiative, the findings from the current research support the need for systemic disruption if whānau are to be housed well and be able to make their house into a home that strengthens their whānau ora. The disruption of a system is about prototyping and trying new ways of doing business, such as housing people around rural and urban marae. The other place where disruptive housing solutions are needed is on Māori multiply-owned land where permissions are not forthcoming from all shareholders for whānau to build houses and/or local bylaws prevent the density of housing that is required if all those wanting houses are to be catered for. There are examples where whānau have found solutions and kept their whenua from passing into smaller and smaller shareholdings as whānau increase each generation or enabled whānau to build on their land. More research on these solutions would go some way to spreading knowledge among whānau about how it is possible to build on their land. The next step would be to ensure that the economics of a 'return home' is possible so that whānau are being pulled back to their whenua, not merely pushed out of towns and cities where they can no longer afford the rent and where home ownership is an impossible dream.

Māori reside both inside and outside the bounds of their tribal rohe (areas). Māori living within their tribal rohe may feel more connected to whenua and whakapapa and more secure in their identity because of this. Māori living outside their tribal rohe may have a sense of obligation towards those who host and care for them, as well as feel the pull of their own places and the need to return home when they can. There is not necessarily a 'one size fits all' Māori in terms of where people chose to live. Many older Māori who travelled from their homes in the North Island to the South Island for trades training fell in love in their new place, married and raised their family there, and may also be buried there. The take-away is that place is important to identity and needs to be recognised as part of what makes a house a home for whānau, and what provides Māori with a sense of ontological security.

An investment in low cost housing for Māori is essential for ensuring that Māori are well-housed in secure and affordable accommodation, and that whānau are able to be 'at home'. This being at home is about being able to 'be' Māori and 'do' or live Māori values such as whanaungatanga, manaakitanga and aroha. The memory and practice of these values is still real for many whānau and creates the context for ontological security and the certainty of identity. While neighbourhoods did not feature greatly, the importance of the whenua and more generally place were also seen to add to the feeling whānau have of being at home. The fear is that a long-term crisis in housing will undermine the ontological security of Māori and have detrimental impacts on people's mana (status), tūrangawaewae and their very identity as Māori.

5 Low cost housing, secure affordable homes

Until the last decade of the 20th century, successive governments and the people of New Zealand gave considerable attention to housing and the building industry's ability to deliver to a young and growing population and a country presenting itself to attract new settlers. The workings of the housing market were shaped by an active policy of mixed supply and demand-side policies which was designed to support a building industry to deliver low cost housing as well as housing to affluent households. Government investment was designed to create a mosaic of housing providers to deliver to owner occupied, rental and specialist community housing. The rental market was dominated by private landlords but balanced by public housing delivered by the state and councils. Although owning only a minority of the housing stock, the state was the largest single landlord.

Although it has been common in recent years to reference as if they are new and innovative private public private partnerships as a pathway to ensuring the viability and manage the risks of big infrastructure investments, it could be argued that New Zealand's housing stock emerged in the 20th century through a moving array of investment partnerships involving public agencies and the community sector, Government and households seeking to invest in new build and affordable, Government and developer/builders in the development of affordable sections, and between all of those and community housing providers.

In that dynamic environment, there emerged a sustained production of affordable houses built on affordable sections. Low cost housing made up only a minority of dwellings produced each year between the 1960s and 1990, but it was a sizable minority. This report shows that low cost housing was also affordable housing, both in the rental and the owner occupier sectors. Moreover, as successive reports stated, low cost housing was well built housing which largely met housing needs in New Zealand and set New Zealand apart from overseas experiences of persistently poor housing and problems of homelessness:

1971: Report of the Commission of Inquiry *Housing in New Zealand*

“The general standard of [low-cost] construction is reasonably high. So also is the standard of accommodation, its fitting out and servicing, when measured by average low-cost housing standards in developed countries... Nor is it likely, under the present system... that a dwelling that is structurally weak or lacking in the basic environmental qualities needed for physical health can any longer be built in New Zealand.”

1983: National Housing Commission *Five Yearly Report*

“In physical terms New Zealanders are very well housed by world standards.”

1988: National Housing Commission *Housing New Zealand: Provision and Policy at the Crossroads*

“New Zealand does not have the huge, insoluble problems of homelessness and substandard housing which confront other nations... New Zealand has so far escaped the type and scale of housing crisis suffered in many other industrialised societies... for the majority of New Zealanders the legacy of our forebears in providing a relatively adequate housing stock gives a better basis than many countries in meeting... limited problems.”

After considerable resistance, New Zealand has now had to confront that we have an aggregate under-supply of housing, our building industry struggles to produce dwellings either in the quantity, the quality and the price points at which new homes are needed, and we have a significant portion of the population who are homeless or consuming housing which is insecure in tenure and unaffordable in price.

This report addresses three dimensions of that situation. The first relates to the question of what has happened to low cost housing production. The second considers the question of whether low cost housing, even when it is produced, is affordable housing – that is, affordable to households whose incomes are 80 percent or less of median incomes. The third dimension is concerned with the outcomes associated with being able to access low cost affordable housing. That latter dimension effectively asks whether low cost, affordable homes have supported life chances and wellbeing. The report started with the first of these two dimensions, but this conclusion starts with a comment on the outcomes associated with low cost affordable housing and then will return to the findings around low cost housing production and affordable housing.

5.1 Low cost housing, creating homes and wellbeing

The research components focusing on outcomes in this programme were purposefully diverse in their methods and focus. It is always difficult to establish both meaningfully and statistically causal relationships between material conditions and outcomes, particularly where the factors that might impact on or mediate outcomes are so numerous and

dynamic. This research, then, took an approach designed to allow the findings from statistical and qualitative research to be triangulated. The approaches range from statistical modelling of census and administrative data to test outcomes for cohorts of two separate generations of people, in-depth interviews with people from diverse ethnicities around their and other generations of their family in relation to housing and outcomes, evaluation of the impact of access to affordable, secure housing through a rent for buy programme, and kaupapa Māori research into the interaction between housing, home and whānau ora.

This methodological triangulation recognises the diversity of people who have been able to access or need to now or in the future affordable homes. It allows us to test the robustness of findings around outcomes but also the transferability of those findings. It also allows us to think about outcomes in relation to individuals and individuals within households, extended families and with connections to communities and their own cultural attachments. It is notable that for both Māori and Pacific participants, home is defined not simply in relation to familial comfort or space, but as centring the ability of people to engage meaningfully within their cultures and communities and meet reciprocal obligations and responsibilities. While couched less in cultural attachment, the participants in the rent for buy programme also referenced the importance of secure, affordable homes as a platform for their engagement in and contributions to their communities of interest and locality.

A dwelling that is an affordable home is not simply a matter of price, but the data shows that a dwelling that costs more than an individual or household can afford undermines its security and compromises the dwelling as a home. A dwelling that is priced more than can be afforded is transformed from a place of comfort to an arena of material struggle. It is associated with under-investment in many of the goods and services that generate wellbeing, it contracts rather than expands life chances, and makes precarious social, cultural and economic participation.

Those conclusions are evident across the four research components addressing the outcomes of accessing affordable secure housing. Specific, key findings in each of those research components are as follows:

1. IDI analysis of long-term outcomes (Section 4.1):

- People whether born in 1960s Auckland, 1960s Wellington or 1980s Auckland living in secure low cost housing on average generate a net fiscal benefit to government.
- The 1980s Auckland cohort, a cohort which was raised in a context in which access to low cost secure housing was increasingly problematic, showed higher proportions accessing benefits than the 1960s lower cost housing group born in the 1960s.
- Home ownership delivered statistically significant differences in relation to education.

2. Inter-generational housing trajectories (Section 4.2):

- Education – About 75 percent of generation 1 and generation 2 respondents considered that their own, or their parents' home ownership or secure rental had helped them a lot in obtaining benefit from education and training. 90 percent of generation 3 respondents felt this. Beneficial effects of home ownership or secure rental for education and training were greater for Māori and Pacific than for Pākehā.
- Employment – Over 70 percent of participants in each generation considered that their own, or their parents' home ownership or a secure rental had helped a lot with employment. Māori and Pacific participants were much more likely to say that home ownership or a secure rental had helped a lot with employment compared to Pākehā participants.
- Health – A large majority of Māori and Pacific participants across all generations considered that home ownership or a secure rental helped a lot with their health, compared to only just over one-third of Pākehā.
- Wellbeing and happiness – Over 80 percent of participants, irrespective of generation, considered that their own, or their parents' home ownership or a secure rental helped a lot for their wellbeing and happiness.
- Home ownership and secure rentals were seen as having considerable positive effects on the inter-generational wellbeing of families.
- Home ownership was valued for the security and amenity it provided rather than as a financial or speculative investment.

3. Impacts of accessing rent for buy (Section 4.3):

- Participants in rent for buy saw the chance of home ownership as life changing.
- Health – Participants found their new homes as warmer and drier than previous housing and typically reported reduced coughs, colds, and asthma as well as reductions in health service use.
- Secure tenure and affordable housing allowed greater flexibility in balancing employment, their care for children, and education and training opportunities.
- Take-up of education and training increased.
- Housing costs tended to increase, but the largest set of participants found that their financial situation improved.
- Participants considered their life satisfaction had increased and stress was reduced.

4. Housing, home and whānau ora (Section 4.4):

- Home is central to the ontological security of whānau, but also a determinant of mana, a critical aspect of tūrangawaewae, and identity as Māori.
- Transforming a house to a home is facilitated by the practice of providing for whānau now and into the future, manaaki, being peopled with whānau, and wairua.
- A house is not a home when it is too costly, people feel disabled by poverty both economic and lack of capability or capacity, a lack of security, derelict or surrounded by conflict.
- Poor house conditions compromise health, create risks of domestic conflict, and are a symptom of limited choices.
- Insecure tenancy reduces commitment to tenant responsibilities and restricts the ability to provide manaaki.
- Home ownership is seen as a pathway out of precarity, poverty and facilitating attachment to the Māori world while mitigating exposure to costly rents and racism in the rental market.
- Participants saw investment in low cost housing for Māori as essential for whānau to be 'at home' and be able to 'be' Māori and 'do' or live Māori values such as whanaungatanga, manaakitanga and aroha. The memory and practice of these values is still real for many whānau who have seen home ownership rates among Māori young people decline significantly.

5.2 Low cost production declines & low cost new builds are not affordable

Given the importance of low cost house production to wellbeing, it is of concern that low cost house production has declined. Just as importantly, low cost new builds are not affordable to low and even lower-middle income households.

- Significant reductions since the 1990/91 housing reforms in Government investment in affordable housing including establishment of affordable subdivisions are associated with declines in production.
- Reduced investment in affordable housing has seen changes in the companies delivering lower quartile value construction.
- Residential construction companies have been characterised by liquidations and poor financial performance including those with diverse portfolios and economies of scale.

- Reductions in the supply of low cost housing is tracked by significant reductions in owner occupation since 1986 which has impacted most on younger cohorts and the populations (Māori and Pacific) that have the youngest age structures.
- The majority of households, will under current conditions, be dependent on rental housing within the next two decades.
- Construction costs and section costs in the lower quartile of value were kept relatively affordable despite fluctuations in interest rates in the period prior to 1991.
- Prior to 1991 a prescriptive building code and district planning requirements associated with successive Town and Country Planning Acts prevailed. The less rules based environment heralded by the Resource Management Act and new performance-based building regulation does not seem to have acted to moderate construction or land costs. Nor did the release of district planning requirements associated with Special Housing Areas.
- House price rises cannot be accounted for by aggregated under-supply. An increase in money supply tracks increases in house prices, and house prices increased in the first decade of the 21st century even in areas with falling populations.
- Increased materials and construction costs are associated with increased dwelling sizes, but the price of dwellings and land reflects existing house prices.
- Private covenants are typically imposed to increase the price of dwellings. In 2016 and 2017, over half of new residential titles in Auckland were subject to private covenants.
- Affordable housing is the major casualty of rising house prices with even low cost new-builds delivered to market at price points that are above affordable housing.
- Low cost construction on low cost sections provided affordable housing for households in both middle and low income brackets for many decades but not since 1991:
 - For median income households the house price to household income remained consistently affordable between 2.8 and 3.7 from 1966-1986. From 1991, the new build low cost house price rose from 4.2 to 7.4 of median household income.
 - For low income households at 80 percent of median household income, low cost houses on low cost sections were affordable at 3.5 to 4.1 of household income from 1966-1986. From 1991 the ratio increased for low cost construction on low quartile sections from 5.3 to 9.3 in 2013.
- Lowered mortgage interest rates do not generate affordable housing if low cost new builds are at a high price point. A 80 percent of median income household would pay on a low cost construction on an average priced section:

- In 1966, 24 percent of income on a 25-year mortgage at 5.7 percent interest rate. In 2013 with 5.8 percent interest they would pay 56 percent of income.
- In 1981, 50 percent of income on a 25-year mortgage at 14.9 percent interest rate. In 2013 with 5.8 percent interest they would pay 56 percent of income.

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Appendix A National, Auckland and Wellington construction and section cost trends

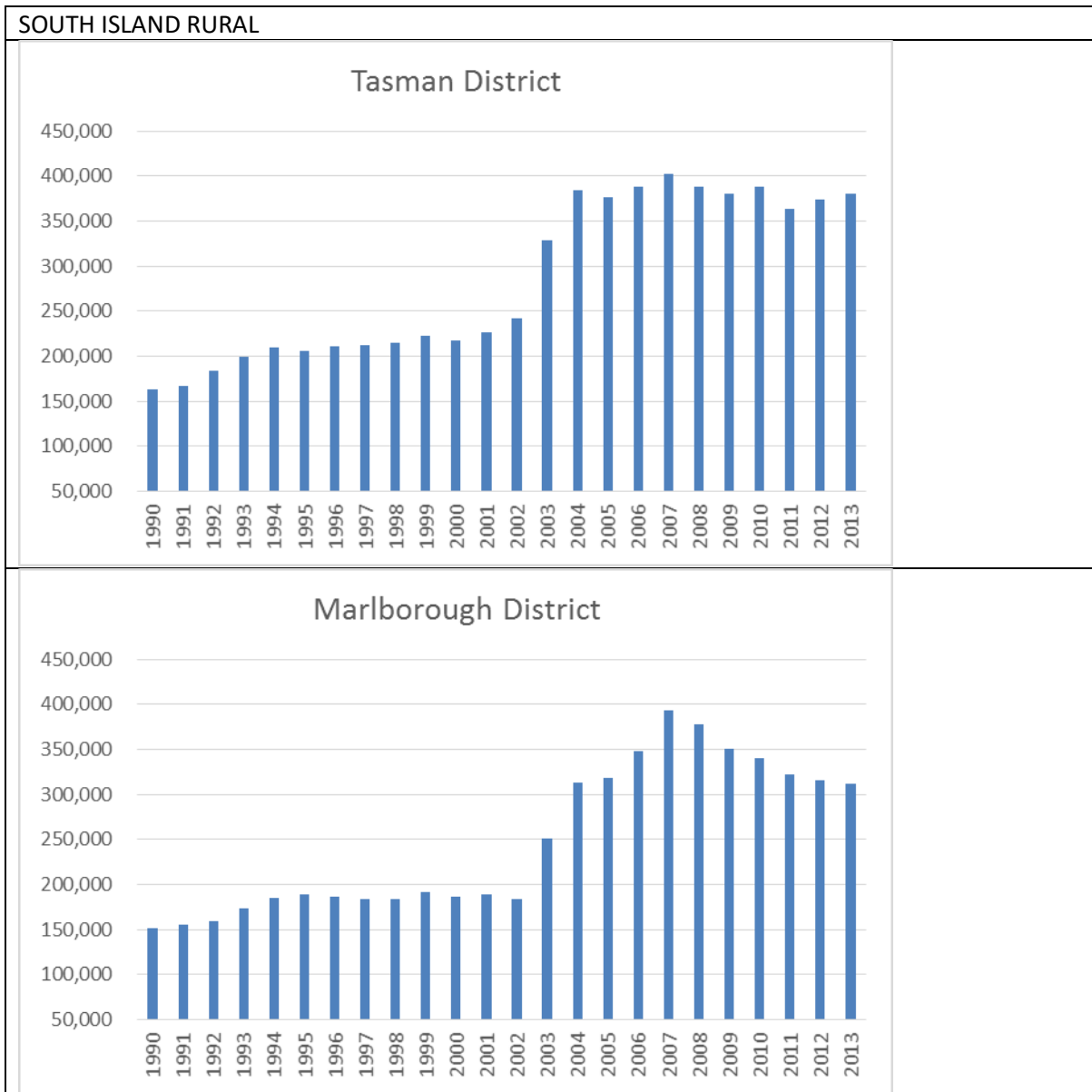
Trends in the cost of low cost dwellings assuming a 120 square metre house

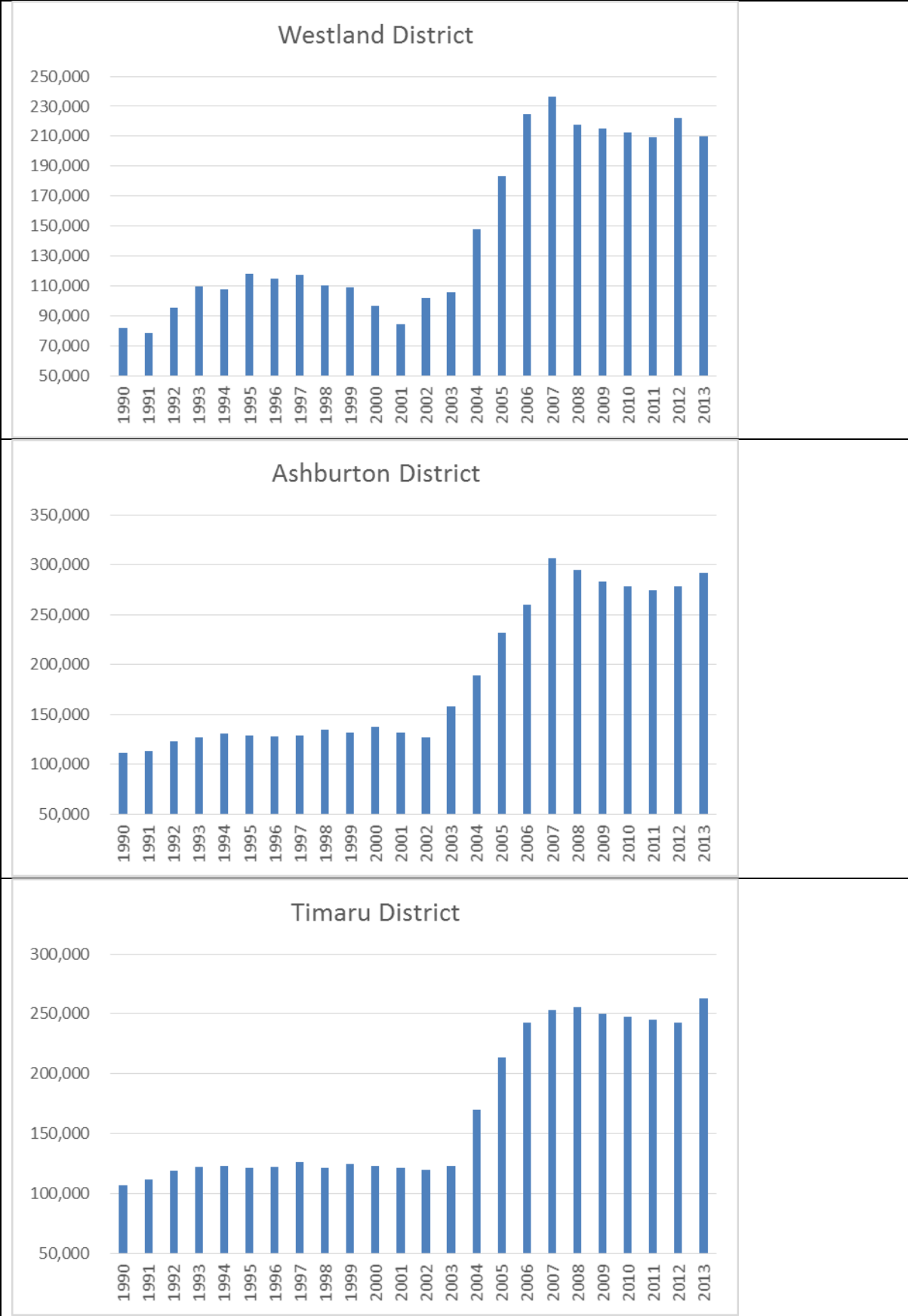
| | Nominal | | | | | Real | | | | |
|--------|----------------|----------------|-----------------|-----------------|----------------|----------------|----------------|-----------------|-----------------|----------------|
| | Section prices | | Construct costs | Combined total | | Section prices | | Construct costs | Combined total | |
| | Average | Lower Quartile | | inc ave section | inc LQ section | Average | Lower quartile | | inc ave section | inc LQ section |
| Dec-66 | \$2,540 | \$1,520 | \$6,500 | \$9,040 | \$8,020 | \$47,840 | \$28,700 | \$6,500 | \$54,340 | \$35,200 |
| Dec-67 | \$2,600 | \$1,560 | \$6,600 | \$9,200 | \$8,160 | \$45,999 | \$27,600 | \$6,600 | \$52,599 | \$34,200 |
| Dec-68 | \$2,770 | \$1,660 | \$6,700 | \$9,470 | \$8,360 | \$46,577 | \$27,946 | \$6,700 | \$53,277 | \$34,646 |
| Dec-69 | \$3,040 | \$1,820 | \$7,180 | \$10,220 | \$9,000 | \$49,109 | \$29,466 | \$7,180 | \$56,289 | \$36,646 |
| Dec-70 | \$3,190 | \$1,910 | \$7,620 | \$10,810 | \$9,530 | \$46,858 | \$28,115 | \$7,620 | \$54,478 | \$35,735 |
| Dec-71 | \$3,450 | \$2,070 | \$8,590 | \$12,040 | \$10,660 | \$46,529 | \$27,918 | \$8,590 | \$55,119 | \$36,508 |
| Dec-72 | \$3,830 | \$2,300 | \$9,600 | \$13,430 | \$11,900 | \$49,003 | \$29,402 | \$9,600 | \$58,603 | \$39,002 |
| Dec-73 | \$4,960 | \$2,980 | \$11,050 | \$16,010 | \$14,030 | \$57,569 | \$34,541 | \$11,050 | \$68,619 | \$45,591 |
| Dec-74 | \$7,180 | \$4,310 | \$13,970 | \$21,150 | \$18,280 | \$74,004 | \$44,402 | \$13,970 | \$87,974 | \$58,372 |
| Dec-75 | \$8,940 | \$5,360 | \$15,620 | \$24,560 | \$20,980 | \$79,665 | \$47,799 | \$15,620 | \$95,285 | \$63,419 |
| Dec-76 | \$10,170 | \$6,100 | \$16,840 | \$27,010 | \$22,940 | \$78,353 | \$47,012 | \$16,840 | \$95,193 | \$63,852 |
| Dec-77 | \$10,840 | \$6,510 | \$19,310 | \$30,150 | \$25,820 | \$72,436 | \$43,462 | \$19,310 | \$91,746 | \$62,772 |
| Dec-78 | \$11,490 | \$6,900 | \$21,800 | \$33,290 | \$28,700 | \$69,751 | \$41,850 | \$21,800 | \$91,551 | \$63,650 |
| Dec-79 | \$11,980 | \$7,190 | \$24,740 | \$36,720 | \$31,930 | \$62,409 | \$37,446 | \$24,740 | \$87,149 | \$62,186 |
| Dec-80 | \$12,630 | \$7,580 | \$29,100 | \$41,730 | \$36,680 | \$56,616 | \$33,969 | \$29,100 | \$85,716 | \$63,069 |
| Dec-81 | \$14,400 | \$8,640 | \$35,310 | \$49,710 | \$43,950 | \$55,793 | \$33,476 | \$35,310 | \$91,103 | \$68,786 |
| Dec-82 | \$15,740 | \$9,450 | \$41,450 | \$57,190 | \$50,900 | \$52,922 | \$31,753 | \$41,450 | \$94,372 | \$73,203 |
| Dec-83 | \$17,830 | \$10,700 | \$46,780 | \$64,610 | \$57,480 | \$57,845 | \$34,707 | \$46,780 | \$104,625 | \$81,487 |
| Dec-84 | \$20,300 | \$12,180 | \$55,060 | \$75,360 | \$67,240 | \$60,214 | \$36,128 | \$55,060 | \$115,274 | \$91,188 |
| Dec-85 | \$24,560 | \$14,740 | \$60,750 | \$85,310 | \$75,490 | \$63,190 | \$37,914 | \$60,750 | \$123,940 | \$98,664 |
| Dec-86 | \$30,410 | \$18,250 | \$65,170 | \$95,580 | \$83,420 | \$66,177 | \$39,706 | \$65,170 | \$131,347 | \$104,876 |
| Dec-87 | \$36,560 | \$21,940 | \$66,820 | \$103,380 | \$88,760 | \$72,602 | \$43,561 | \$66,820 | \$139,422 | \$110,381 |
| Dec-88 | \$38,840 | \$23,300 | \$71,690 | \$110,530 | \$94,990 | \$73,647 | \$44,188 | \$71,690 | \$145,337 | \$115,878 |
| Dec-89 | \$46,510 | \$27,910 | \$76,990 | \$123,500 | \$104,900 | \$82,274 | \$49,364 | \$76,990 | \$159,264 | \$126,354 |
| Dec-90 | \$52,060 | \$31,240 | \$79,380 | \$131,440 | \$110,620 | \$87,832 | \$52,699 | \$79,380 | \$167,212 | \$132,079 |
| Dec-91 | \$48,500 | \$29,100 | \$80,890 | \$129,390 | \$109,990 | \$81,037 | \$48,622 | \$80,890 | \$161,927 | \$129,512 |
| Dec-92 | \$53,800 | \$32,280 | \$81,310 | \$135,110 | \$113,590 | \$88,716 | \$53,230 | \$81,310 | \$170,026 | \$134,540 |
| Dec-93 | \$59,610 | \$35,760 | \$82,550 | \$142,160 | \$118,310 | \$96,938 | \$58,163 | \$82,550 | \$179,488 | \$140,713 |
| Dec-94 | \$66,920 | \$40,150 | \$87,420 | \$154,340 | \$127,570 | \$105,871 | \$63,523 | \$87,420 | \$193,291 | \$150,943 |
| Dec-95 | \$76,730 | \$46,040 | \$90,150 | \$166,880 | \$136,190 | \$117,946 | \$70,767 | \$90,150 | \$208,096 | \$160,917 |
| Dec-96 | \$84,300 | \$50,580 | \$95,050 | \$179,350 | \$145,630 | \$126,357 | \$75,814 | \$95,050 | \$221,407 | \$170,864 |
| Dec-97 | \$91,240 | \$54,740 | \$95,050 | \$186,290 | \$149,790 | \$135,629 | \$81,377 | \$95,050 | \$230,679 | \$176,427 |
| Dec-98 | \$102,410 | \$61,450 | \$95,680 | \$198,090 | \$157,130 | \$151,686 | \$91,011 | \$95,680 | \$247,366 | \$186,691 |
| Dec-99 | \$111,130 | \$66,680 | \$96,200 | \$207,330 | \$162,880 | \$163,762 | \$98,257 | \$96,200 | \$259,962 | \$194,457 |
| Dec-00 | \$113,330 | \$68,000 | \$96,510 | \$209,840 | \$164,510 | \$160,621 | \$96,373 | \$96,510 | \$257,131 | \$192,883 |
| Dec-01 | \$121,010 | \$72,610 | \$96,840 | \$217,850 | \$169,450 | \$168,454 | \$101,072 | \$96,840 | \$265,294 | \$197,912 |
| Dec-02 | \$141,260 | \$84,760 | \$96,840 | \$238,100 | \$181,600 | \$191,426 | \$114,856 | \$96,840 | \$288,266 | \$211,696 |
| Dec-03 | \$152,160 | \$91,300 | \$127,360 | \$279,520 | \$218,660 | \$203,045 | \$121,827 | \$127,360 | \$330,405 | \$249,187 |
| Dec-04 | \$176,060 | \$105,640 | \$133,700 | \$309,760 | \$239,340 | \$228,754 | \$137,253 | \$133,700 | \$362,454 | \$270,953 |
| Dec-05 | \$205,210 | \$123,120 | \$140,390 | \$345,600 | \$263,510 | \$258,468 | \$155,081 | \$140,390 | \$398,858 | \$295,471 |
| Dec-06 | \$233,950 | \$140,370 | \$140,390 | \$374,340 | \$280,760 | \$287,112 | \$172,267 | \$140,390 | \$427,502 | \$312,657 |
| Dec-07 | \$246,000 | \$147,600 | \$147,430 | \$393,430 | \$295,030 | \$292,581 | \$175,549 | \$147,430 | \$440,011 | \$322,979 |
| Dec-08 | \$250,880 | \$150,530 | \$155,700 | \$406,580 | \$306,230 | \$288,643 | \$173,186 | \$155,700 | \$444,343 | \$328,886 |
| Dec-09 | \$230,430 | \$138,260 | \$155,700 | \$386,130 | \$293,960 | \$260,019 | \$156,011 | \$155,700 | \$415,719 | \$311,711 |
| Dec-10 | \$233,170 | \$139,900 | \$167,450 | \$400,620 | \$307,350 | \$252,933 | \$151,760 | \$167,450 | \$420,383 | \$319,210 |
| Dec-11 | \$238,030 | \$142,820 | \$176,320 | \$414,350 | \$319,140 | \$253,525 | \$152,115 | \$176,320 | \$429,845 | \$328,435 |
| Dec-12 | \$250,820 | \$150,490 | \$180,880 | \$431,700 | \$331,370 | \$264,629 | \$158,777 | \$180,880 | \$445,509 | \$339,657 |
| Dec-13 | \$280,910 | \$168,550 | \$190,400 | \$471,310 | \$358,950 | \$291,640 | \$174,984 | \$190,400 | \$482,040 | \$365,384 |
| Dec-14 | \$287,430 | \$172,460 | \$190,400 | \$477,830 | \$362,860 | \$296,156 | \$177,694 | \$190,400 | \$486,556 | \$368,094 |
| Dec-15 | \$322,830 | \$193,700 | \$216,300 | \$539,130 | \$410,000 | \$332,359 | \$199,415 | \$216,300 | \$548,659 | \$415,715 |
| Dec-16 | \$346,950 | \$208,170 | \$216,300 | \$563,250 | \$424,470 | \$352,480 | \$211,488 | \$216,300 | \$568,780 | \$427,788 |

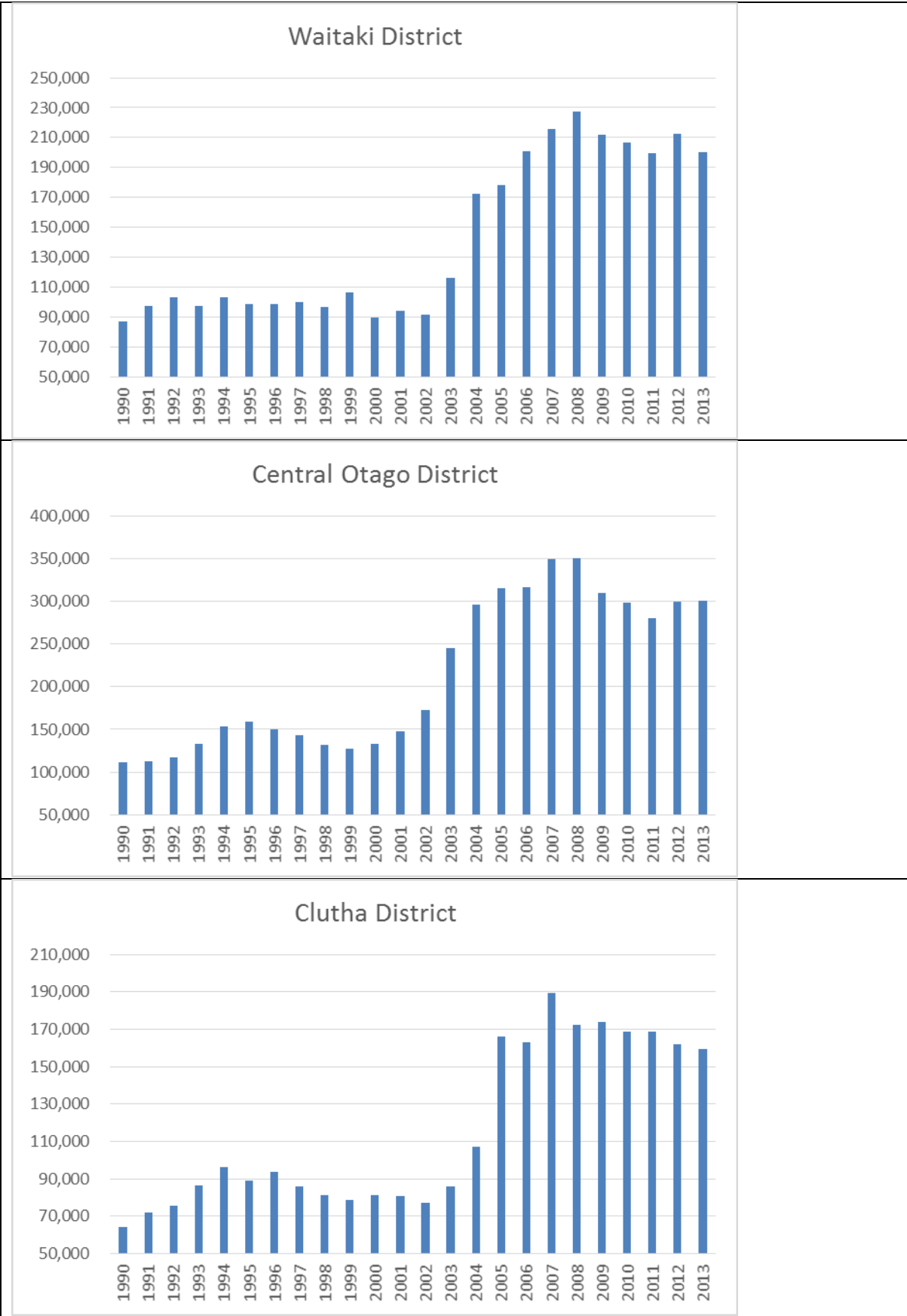
Auckland and Wellington construction price trends

| | Auckland | | | | | Wellington | | | | |
|--------|------------|-----------|----------------|---------------|-----------|------------|-----------|--------------|---------------|-----------|
| | Section SP | | Const Costs | Total package | | Section SP | | Const Ave | Total package | |
| | Ave | LQ | | Ave | LQ | Costs | works | | Ave SP | LQ SP |
| Mar-68 | \$10,390 | \$9,030 | \$7,190 | \$17,580 | \$16,220 | \$10,779 | \$9,449 | \$7,650 | \$18,429 | \$17,099 |
| Mar-69 | \$10,950 | \$9,470 | \$7,460 | \$18,410 | \$16,930 | \$11,849 | \$10,349 | \$8,320 | \$20,169 | \$18,669 |
| Mar-70 | \$11,330 | \$9,770 | \$7,660 | \$18,990 | \$17,430 | \$12,348 | \$10,735 | \$8,550 | \$20,898 | \$19,285 |
| Mar-71 | \$12,490 | \$10,830 | \$8,590 | \$21,080 | \$19,420 | \$13,631 | \$11,803 | \$9,330 | \$22,961 | \$21,133 |
| Mar-72 | \$14,170 | \$12,330 | \$9,850 | \$24,020 | \$22,180 | \$14,902 | \$13,004 | \$10,440 | \$25,342 | \$23,444 |
| Mar-73 | \$16,550 | \$14,170 | \$10,950 | \$27,500 | \$25,120 | \$18,431 | \$15,944 | \$12,580 | \$31,011 | \$28,524 |
| Mar-74 | \$23,940 | \$19,700 | \$13,970 | \$37,910 | \$33,670 | \$22,999 | \$19,673 | \$15,170 | \$38,169 | \$34,843 |
| Mar-75 | \$27,640 | \$22,780 | \$16,210 | \$43,850 | \$38,990 | \$26,884 | \$22,876 | \$17,450 | \$44,334 | \$40,326 |
| Mar-76 | \$30,150 | \$24,600 | \$17,090 | \$47,240 | \$41,690 | \$27,470 | \$23,302 | \$17,660 | \$45,130 | \$40,962 |
| Mar-77 | \$30,990 | \$25,640 | \$18,390 | \$49,380 | \$44,030 | \$29,705 | \$25,182 | \$19,060 | \$48,765 | \$44,242 |
| Mar-78 | \$34,230 | \$28,360 | \$20,410 | \$54,640 | \$48,770 | \$31,494 | \$26,869 | \$20,610 | \$52,104 | \$47,479 |
| Mar-79 | \$37,100 | \$30,730 | \$22,110 | \$59,210 | \$52,840 | \$34,247 | \$29,325 | \$22,670 | \$56,917 | \$51,995 |
| Mar-80 | \$40,760 | \$34,210 | \$25,350 | \$66,110 | \$59,560 | \$38,649 | \$33,764 | \$27,150 | \$65,799 | \$60,914 |
| Mar-81 | \$48,970 | \$41,720 | \$31,910 | \$80,880 | \$73,630 | \$44,058 | \$38,076 | \$29,980 | \$74,038 | \$68,056 |
| Mar-82 | \$57,920 | \$49,780 | \$38,770 | \$96,690 | \$88,550 | \$55,174 | \$49,568 | \$41,980 | \$97,154 | \$91,548 |
| Mar-83 | \$65,140 | \$55,370 | \$42,150 | \$107,290 | \$97,520 | \$59,764 | \$53,548 | \$45,140 | \$104,904 | \$98,688 |
| Mar-84 | \$68,920 | \$57,700 | \$42,520 | \$111,440 | \$100,220 | \$64,667 | \$57,397 | \$47,560 | \$112,227 | \$104,957 |
| Mar-85 | \$79,990 | \$66,230 | \$47,620 | \$127,610 | \$113,850 | \$67,978 | \$59,749 | \$48,610 | \$116,588 | \$108,359 |
| Mar-86 | \$100,410 | \$82,190 | \$57,540 | \$157,950 | \$139,730 | \$80,718 | \$70,912 | \$57,650 | \$138,368 | \$128,562 |
| Mar-87 | \$114,370 | \$93,470 | \$65,190 | \$179,560 | \$158,660 | \$93,834 | \$81,706 | \$65,300 | \$159,134 | \$147,006 |
| Mar-88 | \$122,110 | \$100,340 | \$70,880 | \$192,990 | \$171,220 | \$104,545 | \$89,161 | \$68,350 | \$172,895 | \$157,511 |
| Mar-89 | \$145,100 | \$116,330 | \$77,410 | \$222,510 | \$193,740 | \$123,871 | \$102,507 | \$73,600 | \$197,471 | \$176,107 |
| Mar-90 | \$154,540 | \$120,790 | \$80,790 | \$235,330 | \$201,580 | \$123,544 | \$104,669 | \$76,670 | \$200,214 | \$181,339 |
| Mar-91 | \$150,680 | \$122,540 | \$82,540 | \$233,220 | \$205,080 | \$126,253 | \$105,198 | \$79,050 | \$205,303 | \$184,248 |
| Mar-92 | \$153,610 | \$127,670 | \$83,170 | \$236,780 | \$210,840 | \$135,071 | \$112,428 | \$81,430 | \$216,501 | \$193,858 |
| Mar-93 | \$157,210 | \$129,170 | \$83,540 | \$240,750 | \$212,710 | \$140,767 | \$115,971 | \$82,220 | \$222,987 | \$198,191 |
| Mar-94 | \$167,690 | \$136,300 | \$87,300 | \$254,990 | \$223,600 | \$140,269 | \$119,653 | \$84,650 | \$224,919 | \$204,303 |
| Mar-95 | \$187,030 | \$142,530 | \$92,530 | \$279,560 | \$235,060 | \$145,350 | \$118,960 | \$88,460 | \$233,810 | \$207,420 |
| Mar-96 | \$208,810 | \$165,550 | \$97,550 | \$306,360 | \$263,100 | \$154,200 | \$124,378 | \$90,630 | \$244,830 | \$215,008 |
| Mar-97 | \$228,840 | \$181,990 | \$100,990 | \$329,830 | \$282,980 | \$159,695 | \$130,628 | \$90,630 | \$250,325 | \$221,258 |
| Mar-98 | \$237,400 | \$181,990 | \$100,990 | \$338,390 | \$282,980 | \$172,086 | \$125,628 | \$90,630 | \$262,716 | \$216,258 |
| Mar-99 | \$248,610 | \$190,990 | \$100,990 | \$349,600 | \$291,980 | \$181,149 | \$136,347 | \$92,480 | \$273,629 | \$228,827 |
| Mar-00 | \$252,660 | \$188,220 | \$100,990 | \$353,650 | \$289,210 | \$177,011 | \$146,329 | \$94,330 | \$271,341 | \$240,659 |
| Mar-01 | \$255,450 | \$190,990 | \$100,990 | \$356,440 | \$291,980 | \$184,110 | \$147,281 | \$95,280 | \$279,390 | \$242,561 |
| Mar-02 | \$275,650 | \$203,490 | \$100,990 | \$376,640 | \$304,480 | \$195,569 | \$152,233 | \$96,230 | \$291,799 | \$248,463 |
| Mar-03 | \$333,720 | \$246,150 | \$131,150 | \$464,870 | \$377,300 | \$224,206 | \$187,593 | \$123,590 | \$347,796 | \$311,183 |
| Mar-04 | \$375,560 | \$286,710 | \$136,690 | \$512,250 | \$423,400 | \$262,735 | \$206,565 | \$127,440 | \$390,175 | \$334,005 |
| Mar-05 | \$414,940 | \$323,510 | \$143,510 | \$558,450 | \$467,020 | \$270,742 | \$225,785 | \$133,790 | \$404,532 | \$359,575 |
| Mar-06 | \$451,530 | \$359,020 | \$147,020 | \$598,550 | \$506,040 | \$293,087 | \$242,025 | \$137,030 | \$430,117 | \$379,055 |
| Mar-07 | \$474,790 | \$378,730 | \$150,730 | \$625,520 | \$529,460 | \$317,439 | \$260,468 | \$140,470 | \$457,909 | \$400,938 |
| Mar-08 | \$502,420 | \$363,290 | \$158,290 | \$660,710 | \$521,580 | \$353,931 | \$280,988 | \$147,490 | \$501,421 | \$428,478 |
| Mar-09 | \$453,930 | \$372,140 | \$162,140 | \$616,070 | \$534,280 | \$338,508 | \$284,065 | \$151,070 | \$489,578 | \$435,135 |
| Mar-10 | \$469,230 | \$389,040 | \$166,120 | \$635,350 | \$555,160 | \$345,893 | \$289,845 | \$154,850 | \$500,743 | \$444,695 |
| Mar-11 | \$482,950 | \$408,370 | \$178,370 | \$661,320 | \$586,740 | \$352,479 | \$295,385 | \$166,640 | \$519,119 | \$462,025 |
| Mar-12 | \$494,490 | \$410,130 | \$185,130 | \$679,620 | \$595,260 | \$361,765 | \$298,397 | \$173,400 | \$535,165 | \$471,797 |
| Mar-13 | \$570,740 | \$451,410 | \$191,410 | \$762,150 | \$642,820 | \$385,976 | \$319,676 | \$179,680 | \$565,656 | \$499,356 |
| Mar-14 | \$601,340 | \$476,280 | \$195,410 | \$796,750 | \$671,690 | \$391,718 | \$328,461 | \$183,680 | \$575,398 | \$512,141 |
| Mar-15 | \$676,300 | \$536,380 | \$206,380 | \$882,680 | \$742,760 | \$426,743 | \$356,439 | \$195,340 | \$622,083 | \$551,779 |
| Mar-16 | \$822,310 | \$613,350 | \$217,350 | \$1,039,660 | \$830,700 | \$433,182 | \$367,000 | \$207,000 | \$640,182 | \$574,000 |

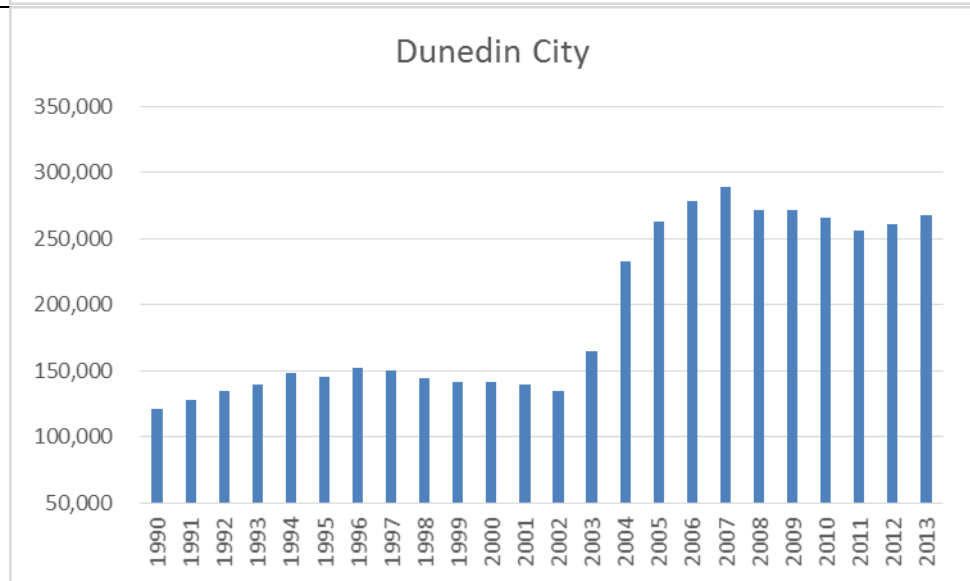
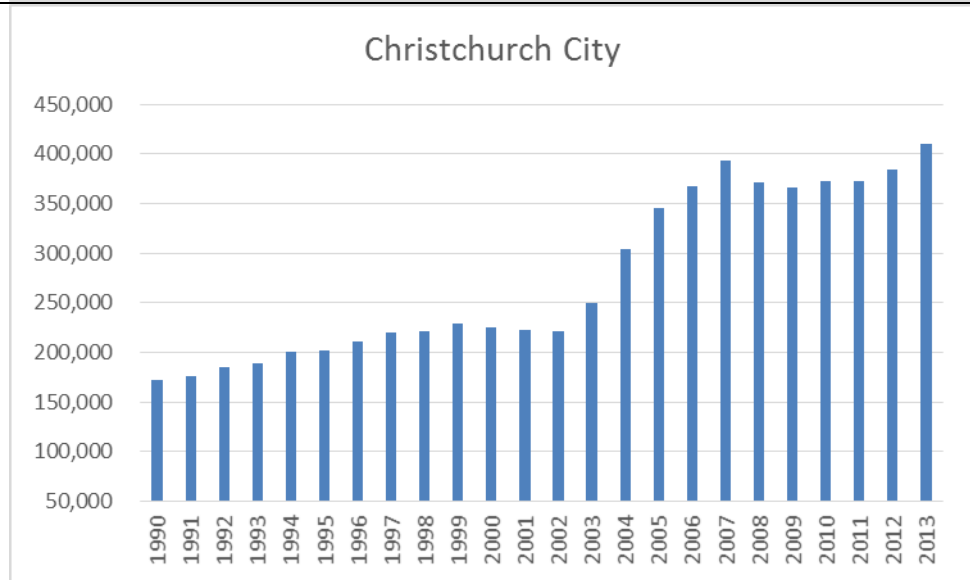
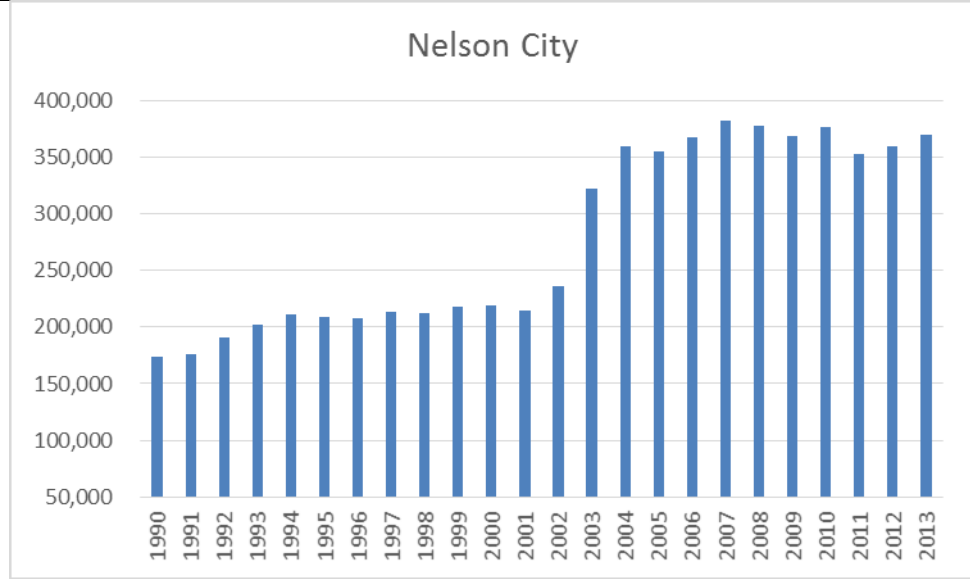
Appendix B Step Change and Typologies of House Prices (Prepared by Michael Rehm, University of Auckland)

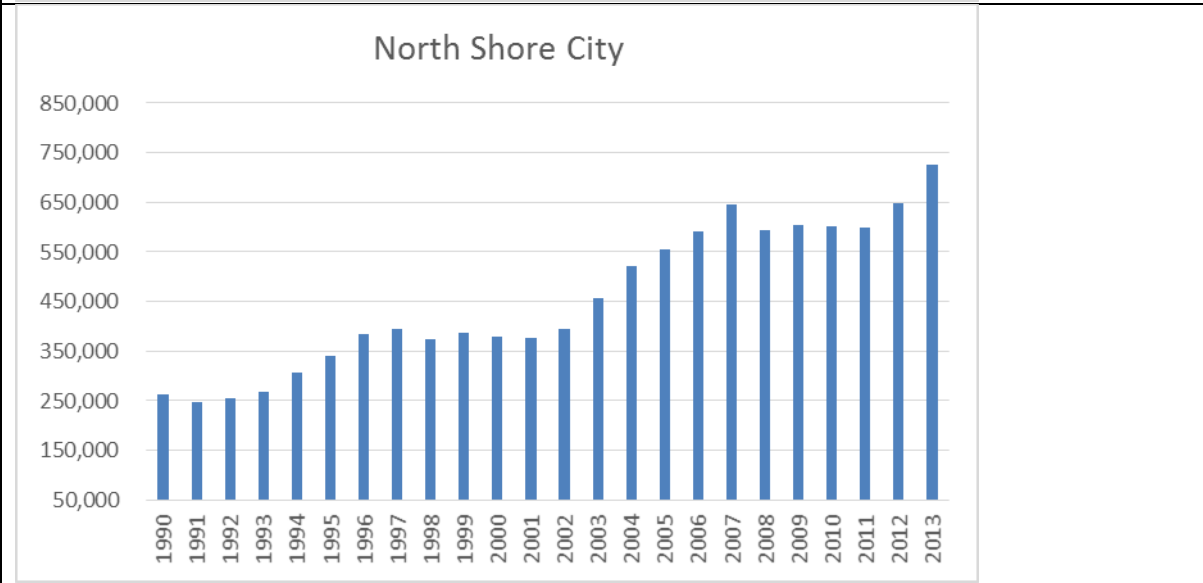
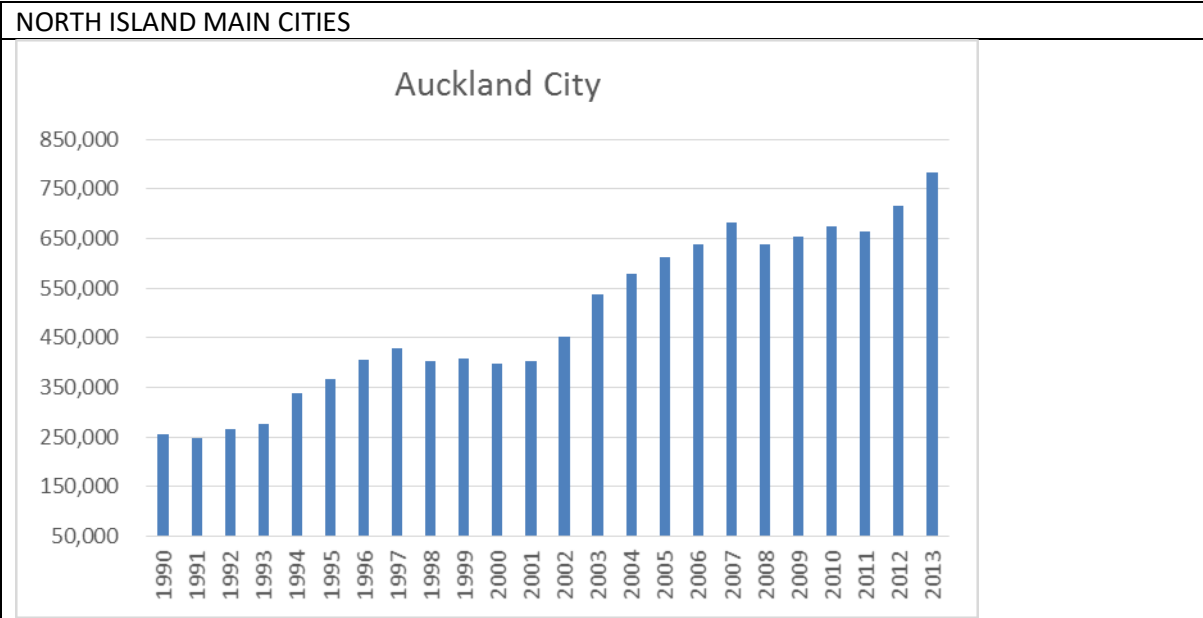
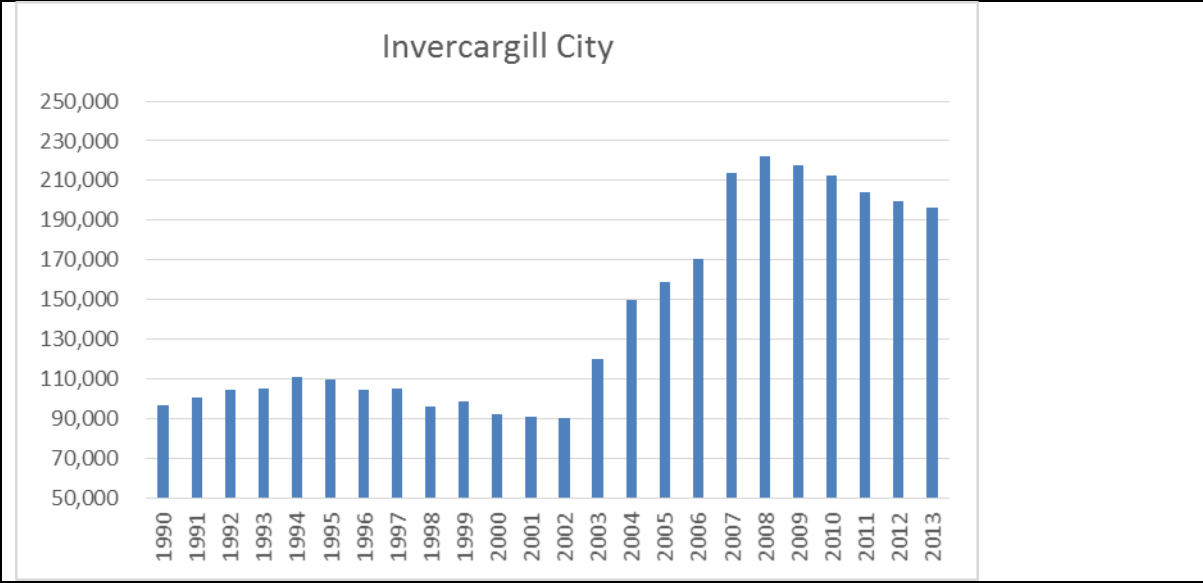


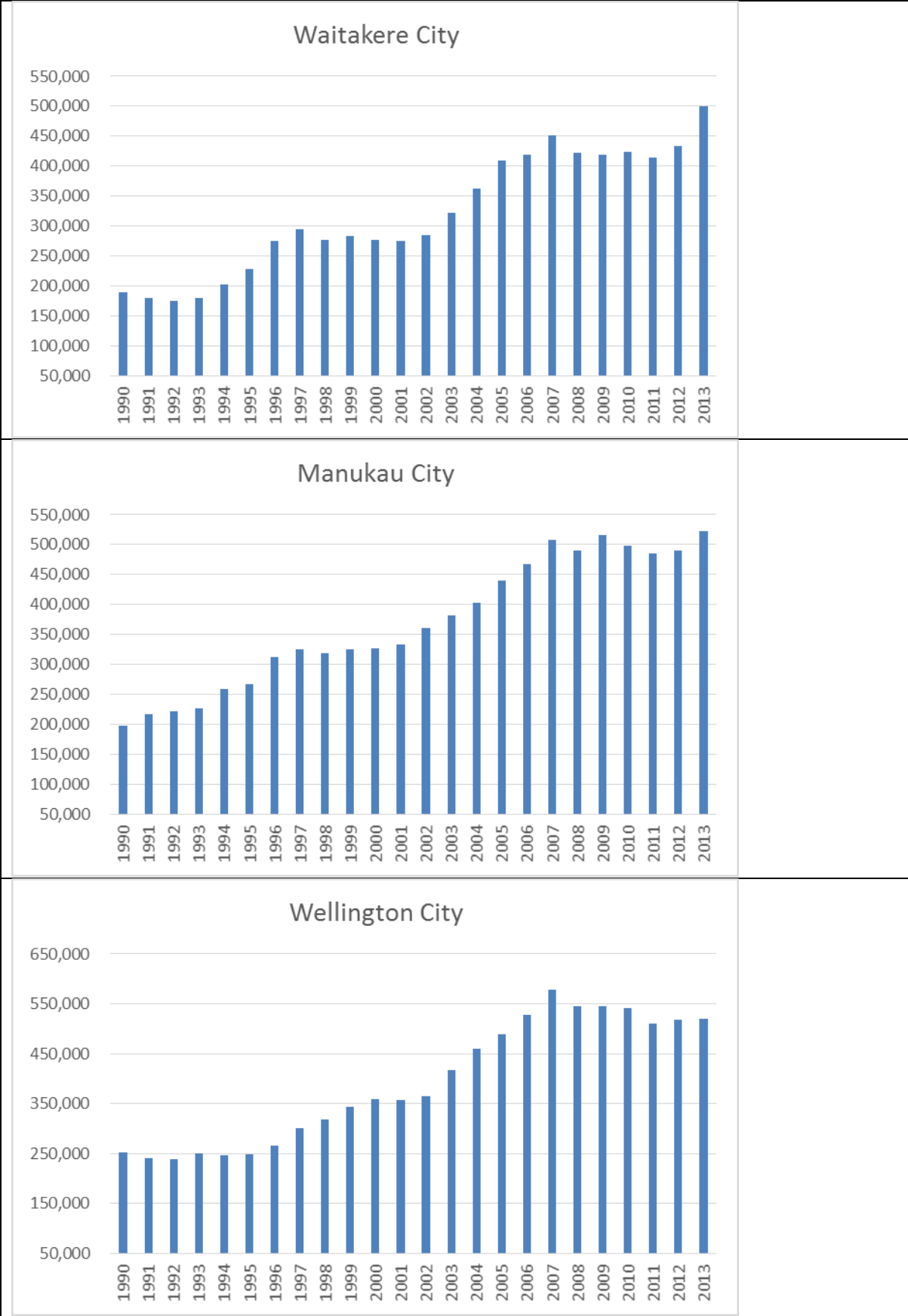


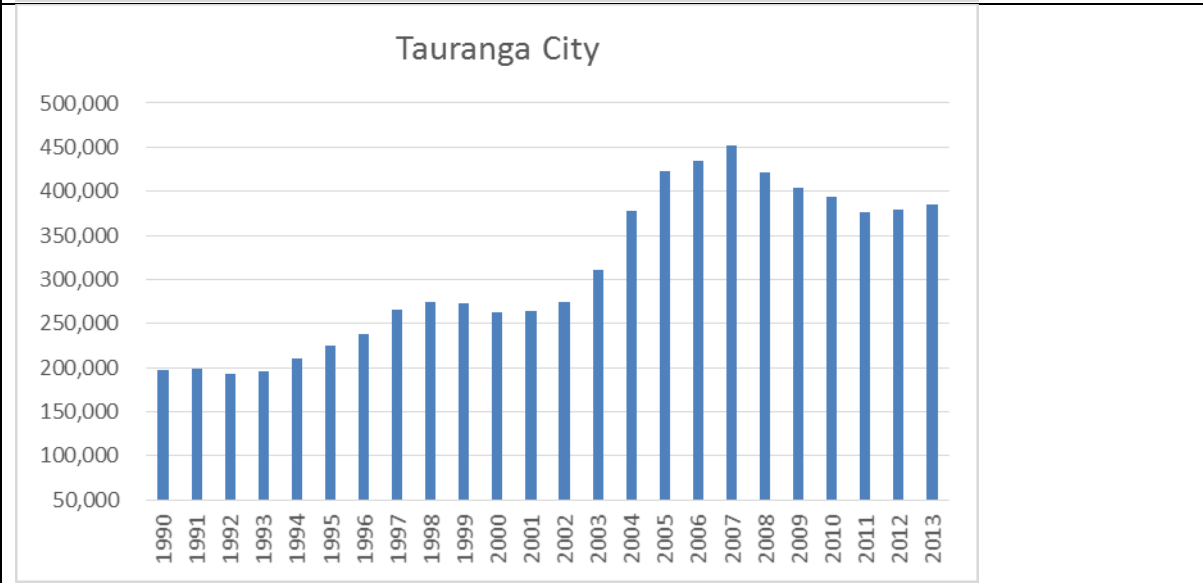
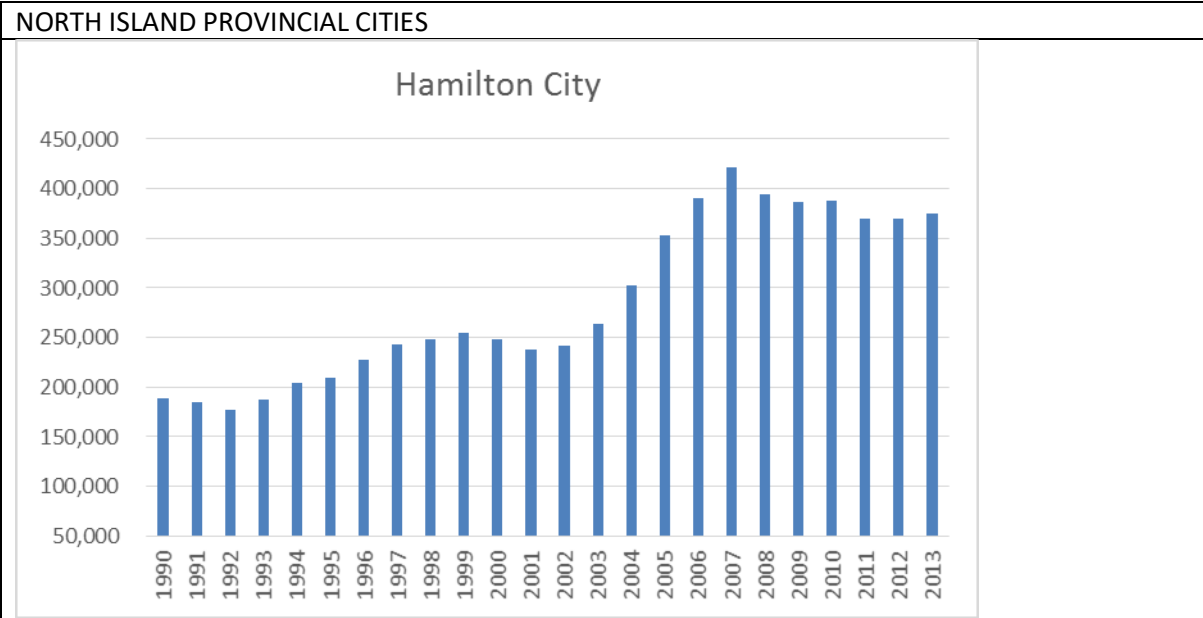
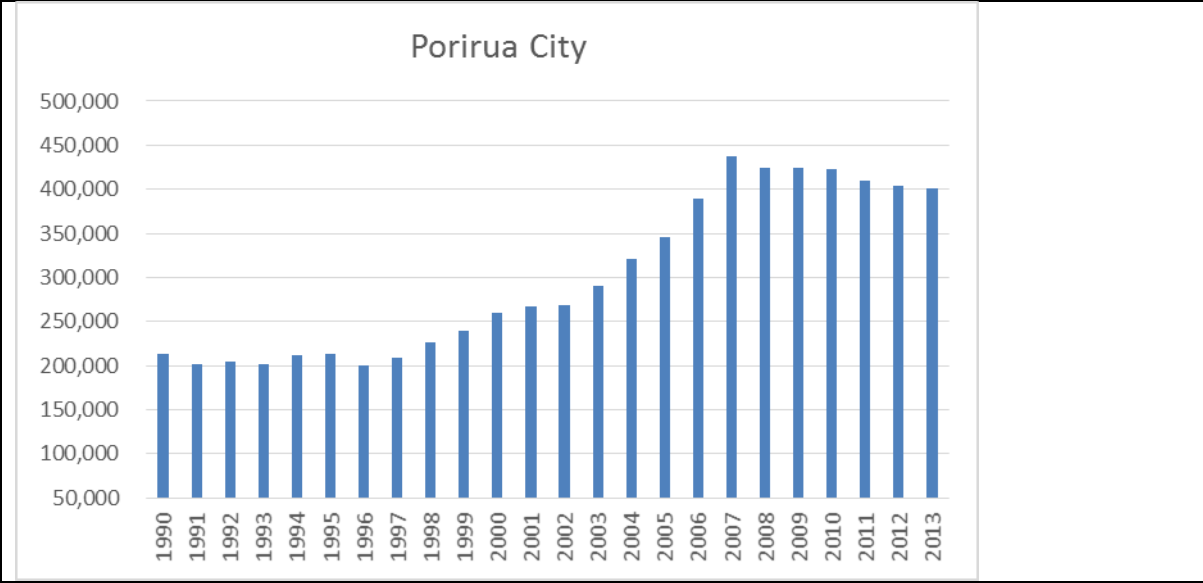


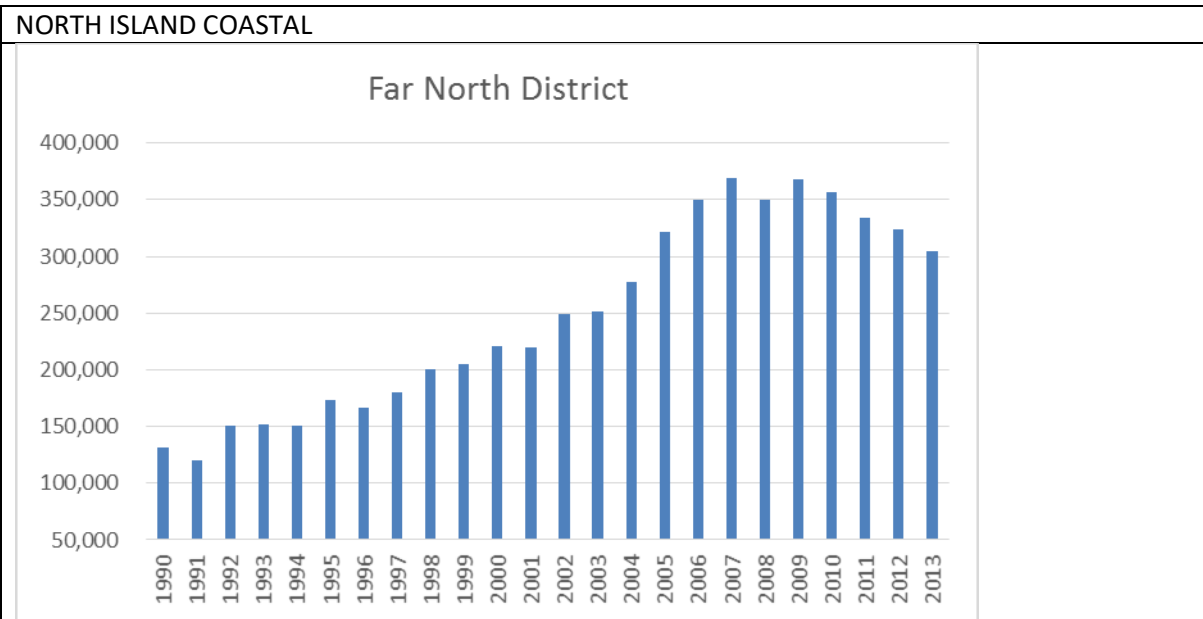
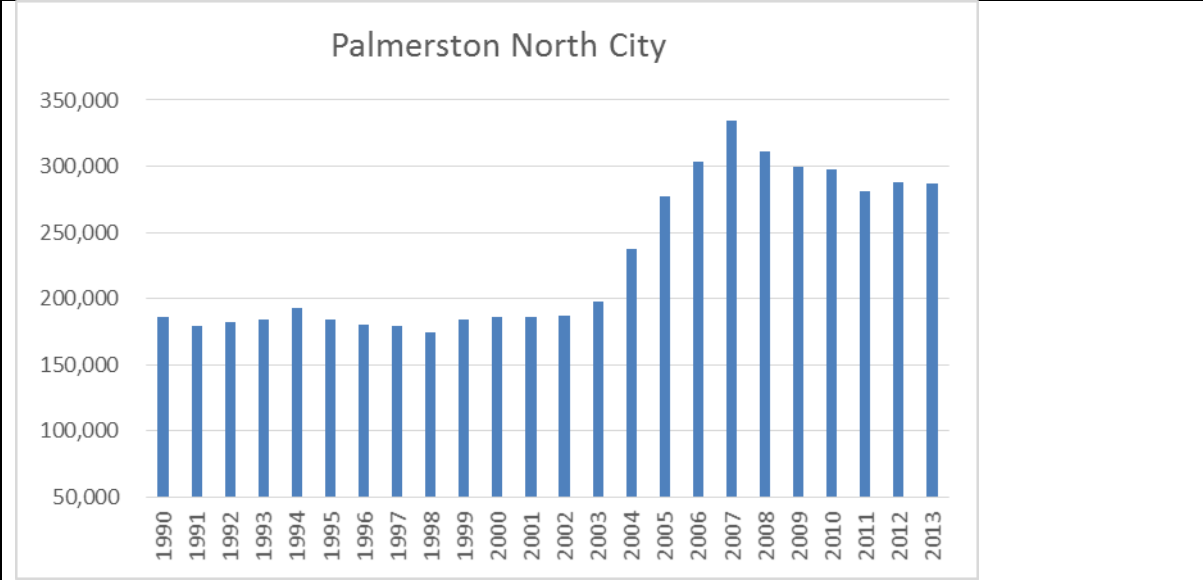
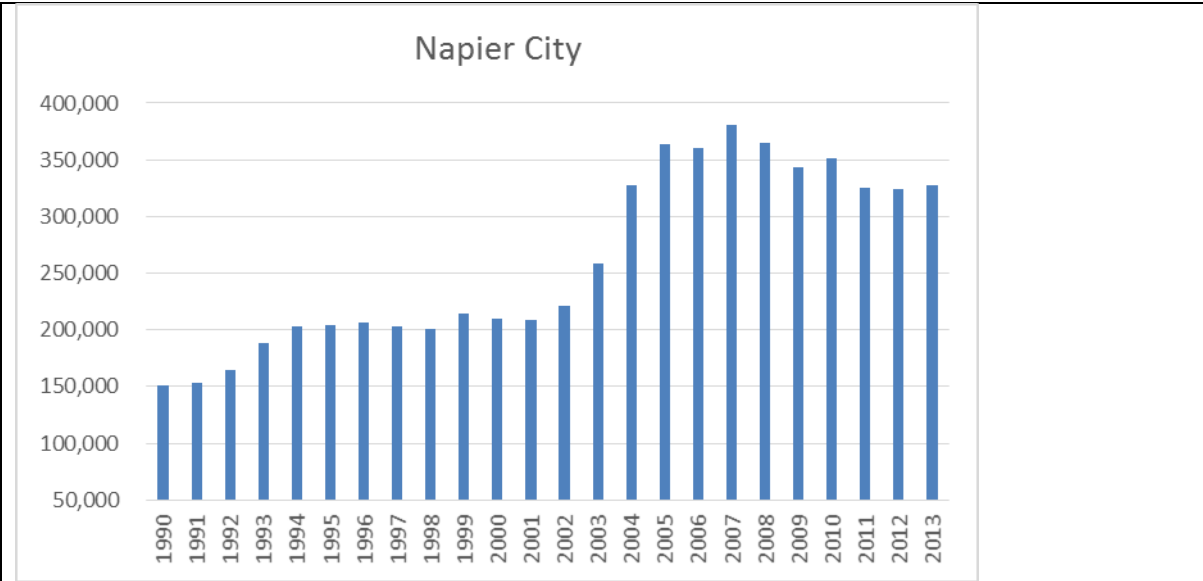
SOUTH ISLAND CITIES



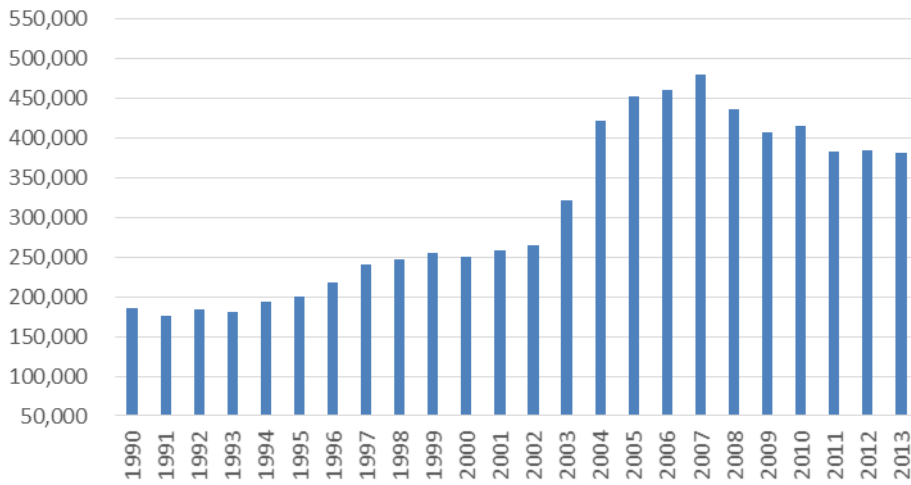




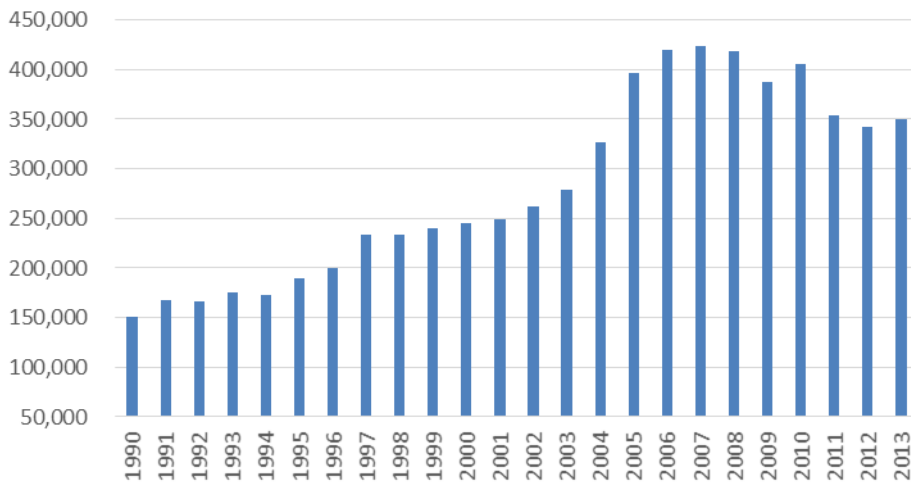




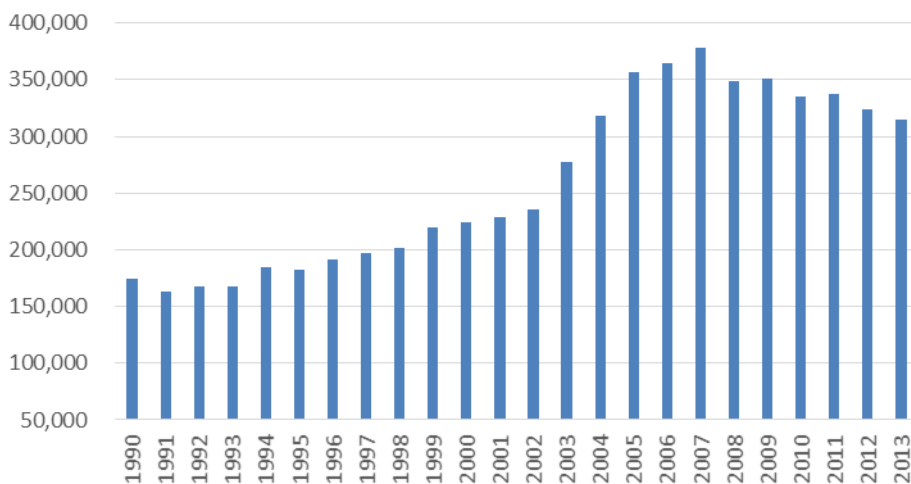
Thames Coromandel District



Western Bay of Plenty District



Taupo District



NORTH ISLAND RURAL

