

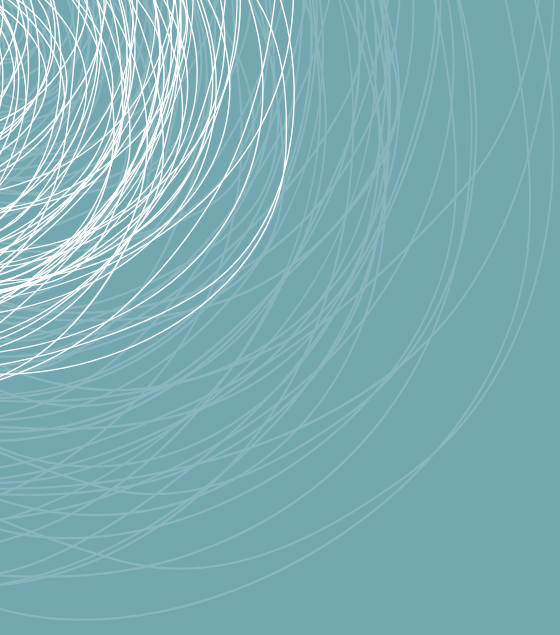


EMPTY NESTS, CROWDED HOUSES

BUILDING FOR AN AGEING POPULATION

JENESA JERAM

**THE
NEW ZEALAND
INITIATIVE**



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Our mission is to help build a better, stronger New Zealand. We are taking the initiative to promote a prosperous, free and fair society with a competitive, open and dynamic economy. We develop and contribute bold ideas that will have a profound, positive, long-term impact.

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Executive summary

It is by now widely established that New Zealand currently faces a housing affordability crisis, with a shortfall of about 10,000 new dwellings annually. Unless action is taken, this shortfall is likely to increase, due to an ageing population.

This report follows on from The New Zealand Initiative's previous reports on housing affordability, and examines the question: If demand for affordable housing exceeds supply now, how will the housing market cope with a continuing shift in demographics?

Statistics New Zealand has produced projections to model the likely demography of New Zealand's future population. Although there is some uncertainty about the future rates of fertility, migration and life expectancy; under a range of plausible scenarios, the population is likely to be larger, and older with a rising median age.

So what are the implications for housing? In the future, it is likely there will be fewer people per household, mainly due to the increase in life expectancy and independence of older people. These 'empty nesters', comprising of one or two people per household, will account for a growing proportion of all households, as they can occupy their homes independently for a longer period of time than previous generations.

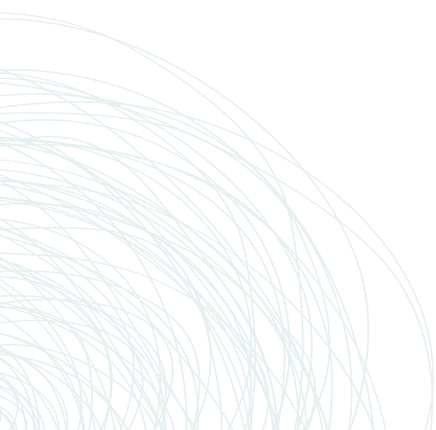
Meanwhile, if the growing proportion of 'empty nesters' stay longer in their family homes before downsizing, younger households may struggle to find affordable family housing for their own needs. This might lead to several families living under the same roof, or offspring delaying leaving the family home. These 'crowded houses' could occur if there is an under-supply of appropriate housing.

Demographic trends have implications for housing policy: more houses are needed to accommodate a growing population, and a growing number of households. The building industry must be able to respond flexibly to both the increased demand and its changing composition.

Based on projections published by the Department of Building and Housing, there is likely to be a substantial shortfall of housing for the next 15 years. This in itself would be worrying. But even more concerning is that these projections do not even capture New Zealand's current levels of new construction, which are much lower than those produced by the Department

of Building and Housing. If the rate of new construction does not increase from what it is today, the housing shortfall has the potential to accumulate up to 113,800 by 2031.

To ensure New Zealand is prepared for almost inevitable changes in its demographics, we need to build more – and we need to build now.



Foreword

Last year, The New Zealand Initiative released a trilogy of publications analysing the historical problems of our country's housing market. The reports, co-authored by Hon Dr Michael Bassett, Luke Malpass and Jason Krupp, left no doubt as to the main culprit of New Zealand's declining housing affordability. Since the mid-1970s, we have allowed construction rates to decline. As a result, housing supply was no longer able to keep up with housing demand.

As any economist knows, all other things being equal, decreases in supply coupled with increases in demand lead to rising prices. This is precisely what has happened in the housing market.

This new report by Jenesa Jeram continues our previous work on housing affordability by asking what would happen if current undersupply trends continue into the future. Again, from an economics perspective, it is unsurprising that continued undersupply will exacerbate the pressure on prices. However, as Jenesa points out, the problems are likely to get worse due to New Zealand's changing demographic profile.

In my previous housing research, I had come across this phenomenon in other countries that are already further advanced in their trajectory of population ageing. Germany in particular provides some instructive case studies on what ageing can do to the housing market.

Take the German city of Cologne, for example. In 2000, Cologne had a resident population of 997,605. By 2009, this had moved only slightly higher to 999,035 – a minuscule increase. At the same time, the average household size declined from 1.94 to 1.88 individuals per household. This reduction may not sound much but it is a 3 per cent decrease in just a decade.

The main reason for the decline was population ageing. Elderly people are much more likely to live in single-person households. In 2000 only 15.4 per cent of the population of Cologne was 65 or older, but in 2009 their share stood at 18 per cent.

As a result of this demographic shift, Cologne needed to build more houses. In 2000, there were 518,530 dwellings. Nine years later this had increased to 537,666. To deal with a population increase of just 0.1 per cent over nine years, Cologne had to increase its dwelling stock by 3.7 per cent. In absolute figures, to house an extra 1,430 people, Cologne had to build another 19,136

dwellings (this is a net figure; the gross completions number would have been even higher due to replacement of existing stock).

New Zealand can expect similar demand pressures in its housing market. The ageing process that Germany is going through has only just started here. Whereas Germany's median age is 44 years, ours is still only 37 years. However, New Zealanders are ageing too and we are likely to reach 43 or 44 years by the middle of the century.

If this happens, and if it also leads to declines in household sizes as can reasonably be expected, this will have consequences for the housing market. To put it simply, the number of dwellings in the housing market needs to rise by the same proportion as the average household sizes declines. Even a stagnant population would therefore require an effort to keep them housed if household sizes decline notably. Considering New Zealand's households are currently around 2.65 persons on average, and comparing them to household sizes in, say, Germany, it is clear to see that there is considerable scope for future declines in household size.

Jenesa's report argues that this demographic-induced extra housing demand needs to be taken seriously. She makes a convincing case that combined with an already inadequate housing supply and simultaneous population increases, New Zealand's housing affordability problems could get a lot worse in the coming years.

Unless, of course, we respond to this impending housing crisis in the one and only way that would make a difference to the housing market: by building more homes – and by starting to build them now.

Demographic change is inevitable. New Zealand's future housing crisis is not.

Dr Oliver Hartwich

Executive Director

The New Zealand Initiative

Introduction

New Zealand's population continues to grow. It is also ageing as a result of increased life expectancy and declining total fertility rates. These trends present a challenge to a housing market that is already manifestly unable to respond effectively to growing housing needs.

Currently, New Zealand faces a housing affordability crisis, with a new dwelling shortfall of about 10,000 homes annually in 2010 – and this shortfall is expected to increase over time.¹ In its three-part series of reports on housing, The New Zealand Initiative has investigated the factors contributing to housing affordability in New Zealand (*Priced Out: How New Zealand Lost its Housing Affordability*), studied international housing markets (*Different Places, Different Means: Why Some Countries Build More Than Others*), and offered policy recommendations (*Free to Build: Restoring New Zealand's Housing Affordability*).² Our policy recommendations call for long-term supply-side solutions that free up the housing market and augment the supply of new homes.

This report follows on from the series and examines the question: If demand for affordable housing exceeds supply now, how will the housing market cope with a continuing shift in demographics?

To investigate this, this report considers demographic projections produced by Statistics New Zealand to analyse future housing demand, and building construction projections produced by the Department of Building and Housing (DBH) to analyse future supply.

Of course, New Zealand is by no means alone in facing the challenges of an ageing population. Chapter One reviews the experiences of other countries facing ageing populations, with a particular focus on Germany, Australia and the United Kingdom. Countries such as Germany are already much further down the track than New Zealand in these trends. Other countries such as the United Kingdom and Australia are implementing housing policies anticipating an ageing population. From these international examples, we learn that to meet the needs of an ageing population, the building and construction sector must be responsive. Bureaucratic regulations that inhibit flexibility are common internationally, restricting the number of houses being built and the types of houses to suit people at all lifecycle stages.

1. Department of Building and Housing, "Structure, Pressures and Issues," New Zealand Housing Report 2009/2010 (New Zealand Government, 2010), 8.
2. Michael Bassett and Luke Malpass, *Priced Out: How New Zealand Lost its Housing Affordability* (The New Zealand Initiative, 2013); Michael Bassett and Luke Malpass, *Different Places, Different Means: Why Some Countries Build More Than Others* (The New Zealand Initiative, 2013); Michael Bassett, Luke Malpass, and Jason Krupp, *Free to Build: Restoring New Zealand's Housing Affordability* (The New Zealand Initiative, 2013).

Chapter Two examines the relationship between changing demographic trends and Statistics New Zealand's population projections. Statistics New Zealand has extensively projected population trends to 2061. Under a range of scenarios for future rates of fertility, migration and life expectancy, the population is likely to be older and larger. These demographic trends have implications for housing policy.

Chapter Three looks at how these demographic changes affect housing demand. Statistics New Zealand has projected household formation to 2031. The most significant changes in household formation are the increases in one-person households and couple-without-children households. These will lead to a rise in housing demand by increasing the sheer number of households, even ignoring the demand for second homes, such as holiday homes.

Based on projections published by the DBH (produced by Statistics New Zealand and Infometrics), there is likely to be a shortfall of housing. This in itself would be worrying. But even more concerning is that these projections do not even capture New Zealand's current levels of new construction, which are much lower than those calculated by the DBH. If the rate of new construction does not increase from what it is today, by 2031, the housing shortfall has the potential to accumulate to 113,800.

If New Zealand is already facing a housing crisis now, the future looks even more grim based on the current rate of construction. In fact, there is likely to be a serious mismatch between older and younger generations, leading to older people living in 'empty nests' as their offspring have long since left home; and 'crowded houses' where there is not enough new housing supply to meet the needs of the younger generation.

To ensure New Zealand is prepared for changes in its demographics, we need to build more – and we need to build now.

1.

Overseas Developments

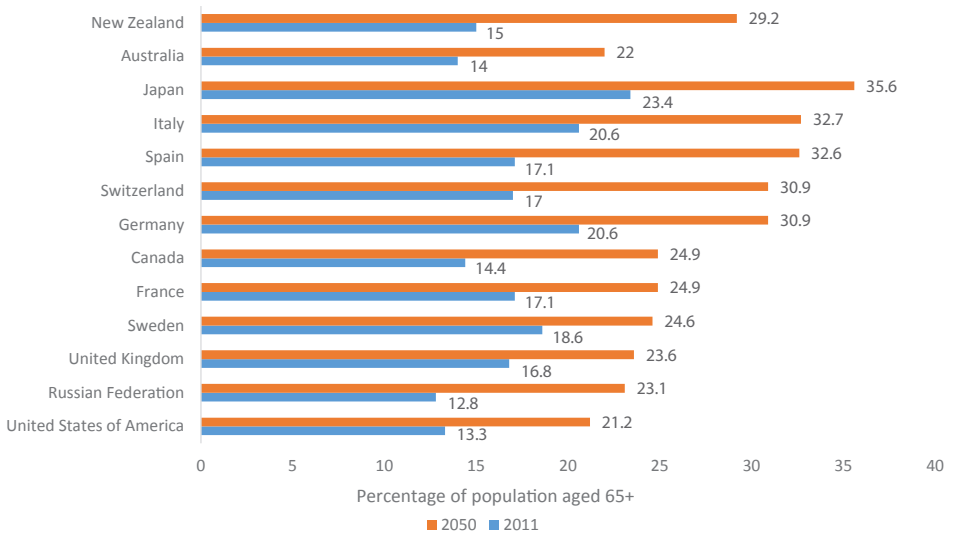
1.1 Ageing populations elsewhere

The phenomenon of ageing societies is by no means unique to New Zealand. By 2050, the number of people aged 65 and over globally is set to nearly triple, rising to around 22% of the world's total population.³

Figure 1 shows the changes in the population of 12 countries aged 65 and over, as projected by the United Nations Department of Economic and Social Affairs. Projections from Statistics New Zealand have been added to illustrate how New Zealand compares to these countries.

3. International Housing Partnership, "Fit for the Future: Meeting the Challenge of Housing an Ageing Population" (2013), 7.

Figure 1: Percentage of population aged 65+, 2011 and 2050



Source: House of Commons Library, UN Department of Economic and Social Affairs cited in International Housing Partnership, *Fit for the Future: Meeting the Challenge of Housing an Ageing Population* (2013), 7, www.housinglin.org.uk/_library/Resources/Housing/OtherOrganisation/Fit_for_the_future.pdf, accessed 20 January 2014. And Statistics New Zealand, "Projected Population of New Zealand by Age and Sex, 2011 (base)–2061," NZStat.

The populations of Germany, Italy and Japan have already aged to a degree that New Zealand is not projected to experience until the mid-2020s. These countries have around 20–25% of their population aged 65 and over, compared with about 15% for New Zealand.

By 2050, the population aged 65 and over in Germany, Switzerland, Spain, Italy and Japan is projected increase to between 30–35%, while New Zealand's 65 and over population is projected to be 29.2%.⁴

Countries that already have household sizes similar to what is projected for New Zealand in 2031 (at an average of 2.4 persons per household) include France, the United Kingdom, Austria and Australia. Germany's average household size is already even smaller, at 2.2 persons per household. While the extent of the decline in household size varies from country to country, there is a common downward trend.

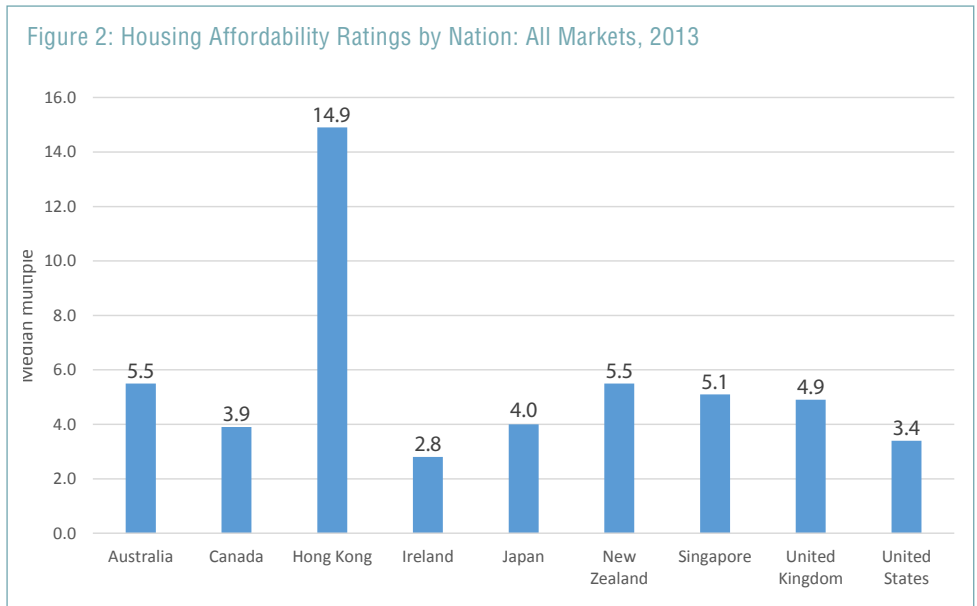
What is less consistent among countries with an ageing population structure is the projected change in the size of future populations. Germany's population, for instance, is projected to shrink by 3% from 81.89 million in 2014 to 79.5 million in 2031. In contrast, populations are projected to increase in New Zealand, Australia and the United Kingdom. Australia's population is projected to grow by 16% from 2014 to 2031, while the United Kingdom's population is projected to grow by 9%.

One consensus across the international literature on population ageing and housing is that most older people prefer to age 'in place'. Rather than moving to specialised retirement villages or other non-private dwellings, the increased independence and capabilities of older people means they can stay in their current homes and neighbourhoods for much longer than previous generations. This preference is also influenced by older people often having long-term roots in their area. Because older people often do less paid work for less income than younger people, they are less likely to move for work-related reasons. This situation is problematic for two reasons:

- Empty nests: Houses can become under-occupied, leading to a clear mismatch in needs where properties may be better utilised by families demanding larger homes. This problem is even more pronounced during housing supply crises.
- Crowded houses: It delays the intergenerational transfer of housing stock. If older people stay in their family homes for longer, fewer family-sized homes will be available for the next generation, unless new houses are built.

4. Statistics New Zealand, "Projected Population of New Zealand by Age and Sex, 2011 (base)–2061," NZStat.

1.2 Housing affordability comparisons



Source: Demographia, *10th Annual Demographia International Housing Affordability Survey: 2014*, Data for 3rd Quarter 2013, 23, www.demographia.com/dhi.pdf.

Figure 2 compares housing affordability in 2013, measured by the ‘median multiple’: the median house price divided by the median household income. A higher median multiple indicates a less affordable housing market.

While New Zealand may lag behind many countries in having an ageing population, it is well ahead of others in having a serious housing affordability problem. Measured by the median multiple, Auckland has the seventh most unaffordable housing market (with a median multiple of 8.0) out of 85 centres surveyed with populations of more than 1 million. New Zealand as a whole was also deemed ‘severely unaffordable’, with a median multiple of 5.5. Taking a median multiple of 5.1 and over as the threshold for ‘severely unaffordable’ housing, by international standards the New Zealand market is in a pathological state.

1.3 Germany

To get an idea of the potential pitfalls New Zealand's housing market may face, Germany serves as an illustrative example as it is already undergoing population ageing.

Of most concern for the German housing market is the lack of mobility between houses as people enter different life stages.

Because most home buyers prefer a 'home for life', there are very few 'moves' between homes in Germany. Due to this lack of mobility, there is very little 'dwelling size adjustment' for the ageing population, leading to a lack of 'intergenerational transfer of housing'.

The intergenerational transfer of housing refers to the downsizing of housing that occurs between generations, so that larger houses are transferred from older generations to the younger. This satisfies the demand for larger houses by younger generations, and ensures older generations are not stuck in houses too large for their requirements.

Through regulation and subsidy mechanisms, the National Bureau of Economic Research argued that Germany's housing market is hugely distorted in its tenure choice, mobility and living arrangement decisions.⁵

In West Germany, this 'home for life' preference is argued to be due to tenant protection legislation. Many elderly people live in rental accommodation, and are subject to the rental adjustment provision of tenant protection legislation. Under this legislation, movers are subject to high initial rents, while sitting tenants receive large discounts (tenure discounts). This creates windfalls for older tenants and a larger rental burden for the young.⁶

For Germany, increased mobility would ease housing demand pressure if there was more downgrading of house size in old age and faster new construction.⁷

5. Axel H. Boersch-Supan, 'Aging in Germany and the United States: International Comparisons,' National Bureau of Economic Research (1994), 320.

6. Ibid., 321.

7. Ibid., 322.

1.4 Australia

Australia faces similar challenges to New Zealand, both in regards to its culture of homeownership expectations and rise of one-person households. To ensure adequate supply for future generations, changes are needed in the size of new dwellings, the way houses are taxed, and the centralisation of housing regulation.

According to a study conducted by the Australian Housing and Urban Research Institute, the number of old people entering the rental housing market is expected to increase, concentrated mostly in the private market. Because of this, there is a growing concern that older renters may struggle to access affordable and stable housing.⁸

Another study, conducted by the Bank for International Settlements, has expressed concern about the number of older people living alone in large homes. Among houses owned by older couples (with at least one partner over 70), 82% were living in homes of at least three bedrooms.

This results from artificial restrictions on the market rather than the exercise of unconstrained choices.⁹ In particular, it has been argued that restrictions such as zoning and planning rules often exacerbate the undersupply of smaller housing, by inhibiting the construction of more diverse housing stock. Therefore, the types of housing being built may not necessarily satisfy buyers' preferences, which in turn inhibits effective downsizing.

Reflecting these potentially distorting considerations, some commentators have referred to the current situation as 'overconsumption', where people are living in larger houses than what they prefer or require. Overconsumption is caused by the lack of smaller houses available to be moved into, even though this would satisfy preferences. Because of this, there has been a lack of downsizing.

8. Julie Lawson and Vivienne Milligan, "International Trends in Housing and Policy Responses" (Australian Housing and Urban Research Institute, February 2007), 28.

9. Előd Takáts, "Ageing and Asset Prices" (Bank for International Settlements: Monetary and Economic Department, Working Paper No. 318 (August 2010), 11.

1.5 United Kingdom

The United Kingdom is also expecting demographic transitions similar to New Zealand, and is only just trying to put policies in place to address this.

For the United Kingdom, projections by independent property consultants Knight Frank indicate that the increase in households occupied by retired and older people will account for around half of all household growth between 2010 and 2026.¹⁰ Knight Frank's report found that policies towards the United Kingdom's retirement sector lagged behind more innovative policies in countries such as Australia and New Zealand.

Like other ageing countries, the International Longevity Centre UK predicts the United Kingdom's mainstream housing stock will likely be inappropriate for millions of older people. A major reason for this is lack of choice. Few houses are built to 'Lifetime Homes' standards; new dwellings are often dominated by flats and small properties; and there is a significant shortage of leasehold retirement housing options. These all have a valuable role to play in addressing the private market demand of the ageing population, alongside specialist social stock.¹¹

In order to ensure older people have access to appropriate housing stock, the United Kingdom has a national strategy for housing an ageing society; 'Lifetime homes: Lifetime neighbourhoods', where planning for housing must include plans for public services, amenities, space and infrastructure – and address the expectation that the ageing population will be much more 'active' than previous generations.¹² Minimum national standards are needed to accommodate the new population trend, according to the Housing and Ageing Alliance.¹³

According to the Intergenerational Foundation, the current UK housing affordability crisis is not principally because of a lack of housing, but the way the tax system has created perverse incentives. The tax system encourages under-occupation of housing. What is needed is a tax system that better balances income taxes and wealth-related taxes, and reflects the social costs of the overconsumption of housing.¹⁴ The distribution of existing housing stock matters. Close to 40% of current housing stock is under-occupied in England, where people are living in homes larger than their preferences and requirements, and this figure is set to grow further.

A further problem is that high house prices will deter immigrants, businesses and young skilled workers. In fact, a YouGov poll in 2007 found Londoners

10. PropertyWire, "An Ageing Population Will Have a Significant Impact on UK Residential Property Market, Report Shows" (4 March 2010).

11. Ed Harding, "Sustainable Planning for Housing in an Ageing Population: A Guide for Regional-Level Strategies (International Longevity Centre UK), 15.

12. Ibid.

13. Housing and Ageing Alliance, "Economic Implications of Housing in an Ageing Society," Policy Paper.

14. Matt Griffith, "Hoarding of Housing: The Intergenerational Crisis in the Housing Market" (Intergenerational Foundation).

aged 25–34 who earned high wages were the group most likely to consider leaving London as they struggled to afford a family home.¹⁵ The problem is that these skilled, high-earning professionals are the most attractive to the economy – and also have the greatest choice for international mobility.

Policy Exchange has found that more homes need to be built in the United Kingdom, and the way to do this is by reducing local authority opposition.¹⁶ Obstacles such as the political pressure from NIMBYs (Not-In-My-Backyard), poor provision of infrastructure, and low quality of new homes must all be addressed.¹⁷ A solution suggested by Policy Exchange is to use neighbourhood plans to encourage downsizing. Neighbourhood plans are already a major reform of the government’s planning sector, but is currently an under-utilised tool.

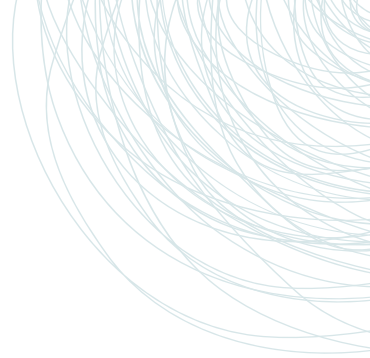
This review of the debate in the United Kingdom on how to better balance housing supply and demand indicates that much needs to be done. Policy Exchange’s recommendations seem to be most applicable to New Zealand. Like the United Kingdom, New Zealand must also understand that a lack of affordable housing may drive away highly skilled workers.

15. Alex Morton, *Housing and Intergenerational Fairness* (London: Policy Exchange, 2013).

16. *Ibid.*

17. *Ibid.*





2.

Statistics New Zealand's Population Projections

2.1 Statistics New Zealand projection methodology

Starting with an estimated resident population of 4.405 million in 2011, Statistics New Zealand has projected the size and structure of the New Zealand population up to 2061.¹⁸ These projections are based on a range of assumptions about key variables, which include net migration, total fertility rates, and life expectancy rates.

Changes in these variables alter the size, median age, and age structure of a population. The age structure of the population in turn affects the dependency ratio: the ratio of the non-working-age population who are dependent on the working-age population. The dependency ratio is currently measured by taking the sum of those aged below 15 and above 65, divided by the sum of those aged between 15 and 65.

Statistics New Zealand used stochastic methodology for the projections, which involves extrapolating observed variations in demographic data to the future. These projections are not predictions or forecasts, but represent the statistical outcomes “of various combinations of selected assumptions about future changes in the dynamics of population change (e.g. future fertility, mortality, and migration patterns).”¹⁹ While stochastic projections are measures of uncertainty, they still do not encapsulate extreme events such as major disasters, wars or pandemics. Nor can they encompass major political or business developments.

Using computer-generated combinations of the key variables, thousands of sets of projected outcomes/scenarios were produced. For any given outcome variable in a scenario (e.g. population size by 2061), the family of outcomes can be divided into percentiles.

18. Statistics New Zealand, “Projected Population of New Zealand by Age and Sex, 2011 (base)–2061,” NZStat.

19. Statistics New Zealand, “Experimental Stochastic Population Projections for New Zealand: 2009 (base)–2111,” Working Paper 11–01 (Wellington: Statistics New Zealand, 2011), 34.

Additionally, Statistics New Zealand has produced a number of ‘what if’ scenarios, based on extreme rates of fertility, migration and life expectancy. While they are not designed to represent likely predictions for New Zealand’s future population, they do provide a useful illustration of the impact these individual variables have on demographics.

2.2 The uncertainty of demographic projections

The size and structure of the population depends on the path of key variables such as net migration and rates of fertility and mortality. While recent trends in such variables are known, the future trends are difficult to predict.

Net migration, and in particular immigration into New Zealand, has become a politically unstable issue. The current housing shortage has provoked some to call for tighter controls on immigration to ease housing demand.

Net migration flows have been historically volatile, and cannot be modelled accurately. In a globalised world, where mobility between countries is common and reasonably easy, migration levels can fluctuate a great deal. Relatively free migration between New Zealand and Australia, and the large New Zealand diaspora in Australia, makes the future attractiveness of those two economies an important consideration. Changes in retirement policies could also influence migration flows between the two countries. Additionally, New Zealanders living in Europe may return to New Zealand as Europe faces its own fiscal and demographic challenges.

Future labour and immigration policies also cannot be predicted, which can have a significant impact on New Zealand’s ability to retain its native working-age population, or attract migrants from overseas.

Nor can increases in life expectancy be predicted with certainty. Life expectancy should continue to rise due to gains in medical advancements and living standards. However, it may be that medical advancements can only raise life expectancy so much before reaching its peak.²⁰ Other factors that can influence future life expectancy include the possibility of pandemics, changes in the ethnic composition of the population, changes in lifestyle and behaviour, and environmental changes.

Fertility is also uncertain, as it is affected by personal decisions, population health, and government policy. These include factors such as advancements in

20. John Bryant, “The Ageing of New Zealand’s Population, 1881–2051,” Working Paper 03/27 (The Treasury, 2003), 17.

artificial fertility research, changes in New Zealand's ethnic composition, the age of marriage, and the level of support available to parents. Nevertheless, historical trends for fertility rates in developed countries fluctuate modestly, instead often remaining within a common range.

When there is little certainty as to how the future might unfold for such variables, it is useful to undertake a number of 'what if' scenarios to explore the range of plausible outcomes.

2.3 The median scenario

Out of the stochastic projections produced, this report focuses on the median scenario. The median (50th percentile) scenario indicates an estimated 50% chance that the actual result will be lower than projected, and a 50% chance it will be higher (meanwhile, a 25% projection would indicate a 25% chance the actual result will be lower, and a 75% chance it will be higher – and so on for every percentile).

The median scenario assumes:

- Base population (June 2011) of 4.405 million;
- Net migration of -3,000 in 2012, rising to level out at 12,000 by 2015, when it will increase by that rate annually;
- Total fertility rate will decline from its current rate of 2.1 births per women to 1.96 in 2021 and 1.9 from 2036 and beyond;
- For males, life expectancy at birth is assumed to increase to 84.3 in 2036 and 88.1 in 2061.
- For females, life expectancy is assumed to increase to 87.3 in 2036 and 90.5 in 2061.

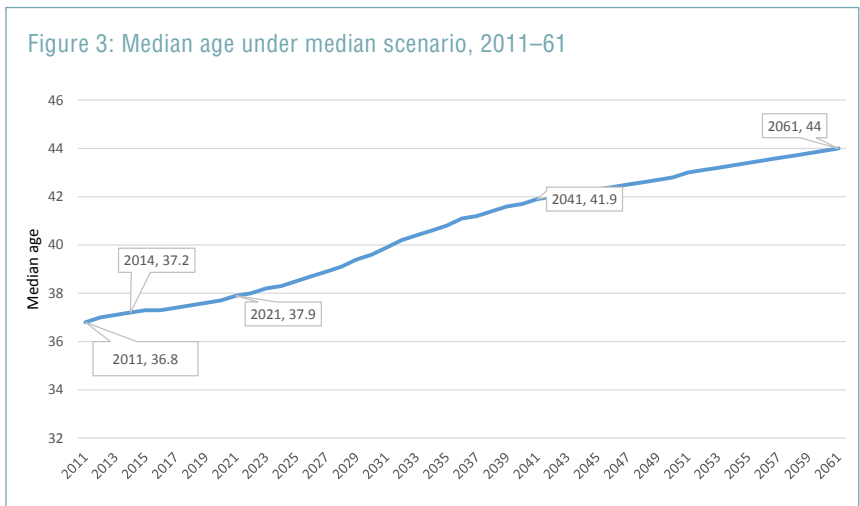
The assumed steady-state figure of 12,000 for net migration from 2015 reflects the annual net increase of 10,000–15,000 since the late 1980s and the influence of current immigration policy.

Meanwhile, the decline in the fertility rate reflects New Zealand's progressively declining trend, and is also supported by international trends. The age-specific fertility rate varies according to domestic and international trends of having children later in life, by declining for women aged under 36, and increasing for women over 36.

The projected outcomes for 2061 under these assumptions are:

- New Zealand’s population will be 33% higher than in 2014, at 6 million. This represents an average annual compounded growth rate of 0.36% per annum;
- The median age will be 44 years, up from 37.2 in 2014;
- The elderly (65+) will be 31.8% of the population, up from 16.4% in 2014;
- Those who are deemed too young to work (under 15 years) will be 16% of the population, down from 20% in 2014;
- There will be 2.08 people of working age for each dependent person, down from 2.77 in 2014.

The following charts depict the projected time paths to 2061 for some of these outcomes.

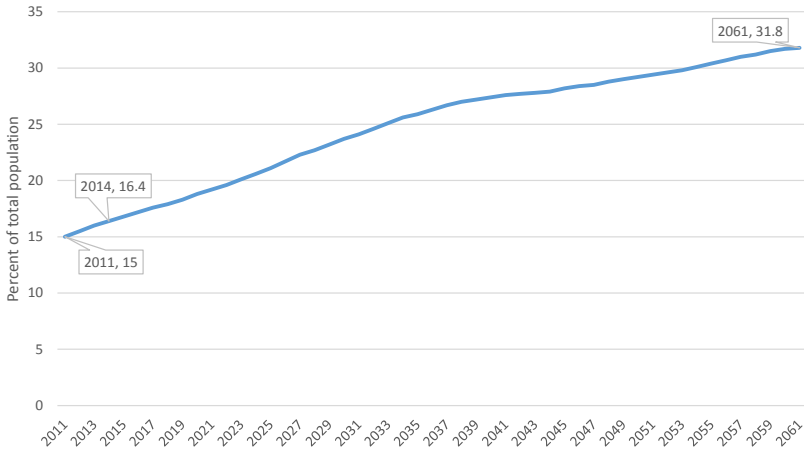


Source: Statistics New Zealand, “NZ.Stat: Projected Population of New Zealand by Age and Sex, 2011 (base)–2061,” <http://nzdotstat.stats.govt.nz/wbos/Index.aspx>, accessed 20 January 2014.

The first demographic change to note is that by 2061, New Zealand’s population will be older. The median age of New Zealand’s population is projected to be 44 years compared to nearly 37 years in 2011. However, this projected rise is not uniform. It rises by four years in the 20-year period between 2021 and 2041, but by only seven years for the entire 50-year period to 2061. Perhaps surprisingly, the projected median age of 44 years in 2061 is roughly similar to the median ages today in Japan, Italy and Germany.²¹

21. Central Intelligence Agency, “The World Factbook: Field Listing: Median Age.”

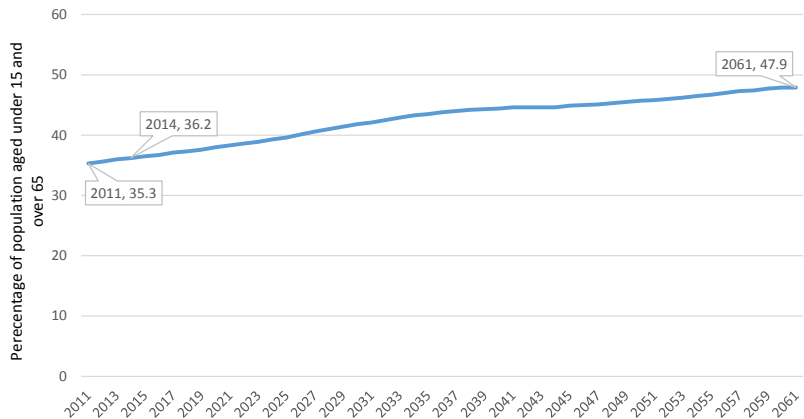
Figure 4: Population over 65 under median scenario, 2011–61



Source: Statistics New Zealand, “NZ.Stat: Projected Population of New Zealand by Age and Sex, 2011 (base)–2061,” <http://nzdotstat.stats.govt.nz/wbos/Index.aspx>, accessed 20 January 2014.

The percentage of the population aged over 65 is projected to rise from 15% in 2011 to 31.8% in 2061.

Figure 5: Dependency ratio under median scenario, 2011–61



Source: Statistics New Zealand, “NZ.Stat: Projected Population of New Zealand by Age and Sex, 2011 (base)–2061,” <http://nzdotstat.stats.govt.nz/wbos/Index.aspx>, accessed 20 January 2014.

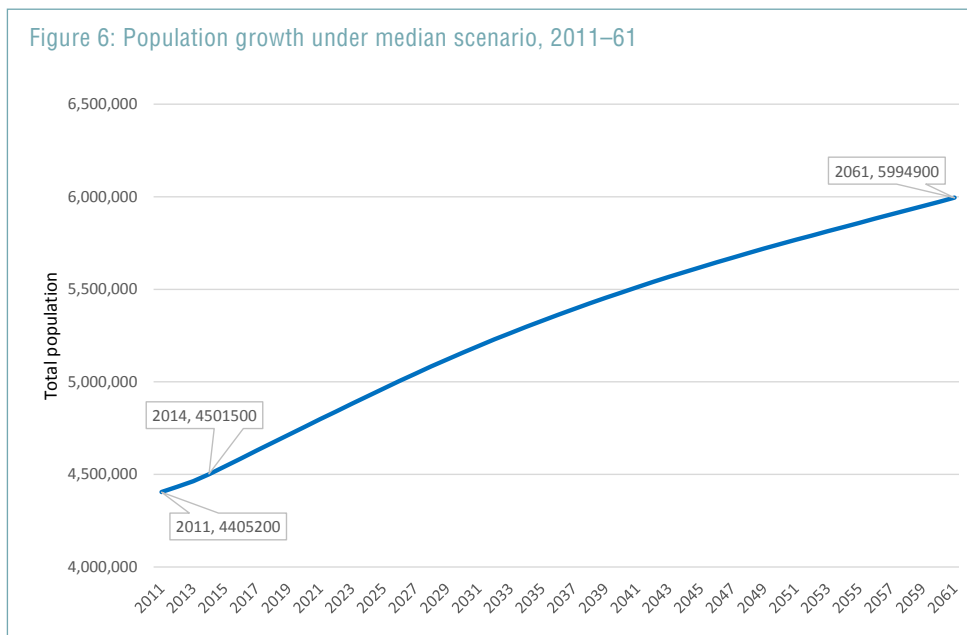
The dependency ratio is projected to increase from 35.3% to 47.9% between 2011 and 2061. This is much less than the projected increase in the proportion of people over age 65 because the proportion of children (aged under 15) is projected to fall markedly with declining fertility rates. Even so, the rise in the dependency proportion represents a significant increase in the burden on the working-age population to produce the goods and services that non-workers will be consuming.

To keep this in perspective, the dependency burden in 2061 would still be less than what it is today in Australia and the United States (49.11% and 49.84%, respectively). And it is much less than the current dependency ratios for Japan (60.03%), France (55.58%), Denmark (54.17%), and Italy (53.53%).²²

Note that dependency ratios are not a precise measure of the burden on the available labour force. Some people of working age will not be in employment, while other people younger or older than the working age may still be working. Given potential changes in life expectancy, quality of health, and retirement policies, it is likely that an increasing proportion of those aged over 65 will still be in work.

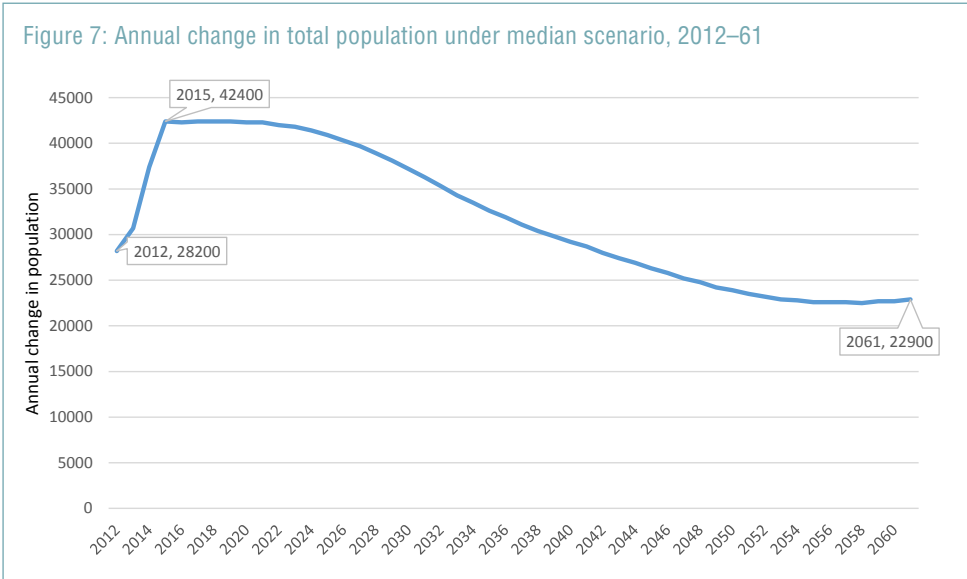
22. Quandl Contributors, "Age Dependency Ratio – All Countries" (Quandl).

Figure 6: Population growth under median scenario, 2011–61



Source: Statistics New Zealand, "NZ.Stat: Projected Population of New Zealand by Age and Sex, 2011 (base)–2061," <http://nzdotstat.stats.govt.nz/wbos/Index.aspx>, accessed 20 January 2014.

Figure 6 plots the annual changes in the projected total population to 2061. The initial rise to 2015 reflects a sharp rise in the assumed net inflow from migration, from a negative figure in 2011 to a steady state of 12,000 by 2015. Thereafter, annual population growth slows with the assumed decline in the fertility rate. In other words, the total population is projected to grow, albeit at a decreasing rate. Altogether, the cumulative population is projected to increase by 33% by 2061.



Source: Statistics New Zealand, “NZ.Stat: Projected Population of New Zealand by Age and Sex, 2011 (base)–2061,” <http://nzdotstat.stats.govt.nz/wbos/Index.aspx>, accessed 20 January 2014.

2.4 ‘What if’ projections

In addition to its stochastic methodology, Statistics New Zealand published a range of ‘what if?’ projections, modelling scenarios where fertility, life expectancy, and migration levels depart from the values assumed in the median scenario.²³ The scenarios comprise:

- zero migration;
- ‘very high’ migration;
- ‘very low’ mortality;
- ‘very high’ fertility.

The zero migration scenario assumes there are no arrivals or departures into or out of New Zealand. While this is extremely unrealistic, the scenario is useful in illustrating how much of the population growth in the median scenario is due to migration versus births and deaths.²⁴

The ‘very high’ migration scenario considers what would happen if migration increased from the median scenario of 12,000 a year to 25,000 a year.²⁵ Again, such a situation is unrealistic with current policies, but it helps isolate the individual effects of migration flows on the projections. It is also useful in illustrating the frequent policy debates on whether New Zealand should introduce more accommodating immigration policy, or if fewer native New Zealanders migrated overseas.

The ‘very low’ mortality scenario projects what demographic changes could occur if life expectancy increased up to 95 for males and females. No country is currently projected to reach this life expectancy by 2050, but this projection allows the contribution of changes in mortality rates to outcomes under the median scenario to be assessed.²⁶

The ‘very high’ fertility scenario illustrates what could happen if the total fertility rate increased from 2.1 births per woman to 2.5.²⁷ This fertility rate would go against decreasing trends, but it is currently around the world average, and is being experienced by India, Fiji and Bangladesh, to name a few.²⁸ Again, the utility of this scenario arises from its ability to isolate the effect of changes in the fertility rate.

23. Statistics New Zealand, “National Population Projections: 2011 (base)–2061.”

24. Ibid.

25. Ibid.

26. Department of Economic and Social Affairs, “World Population to 2300” (New York: United Nations, 2004).

27. Statistics New Zealand, “National Population Projections: 2011 (base)–2061.”

28. Central Intelligence Agency, “The World Factbook: Country Comparison: Total Fertility Rate.”

Table 1: Statistics NZ population projections under a range of scenarios to 2061

(Figures in brackets indicate change from 2014)

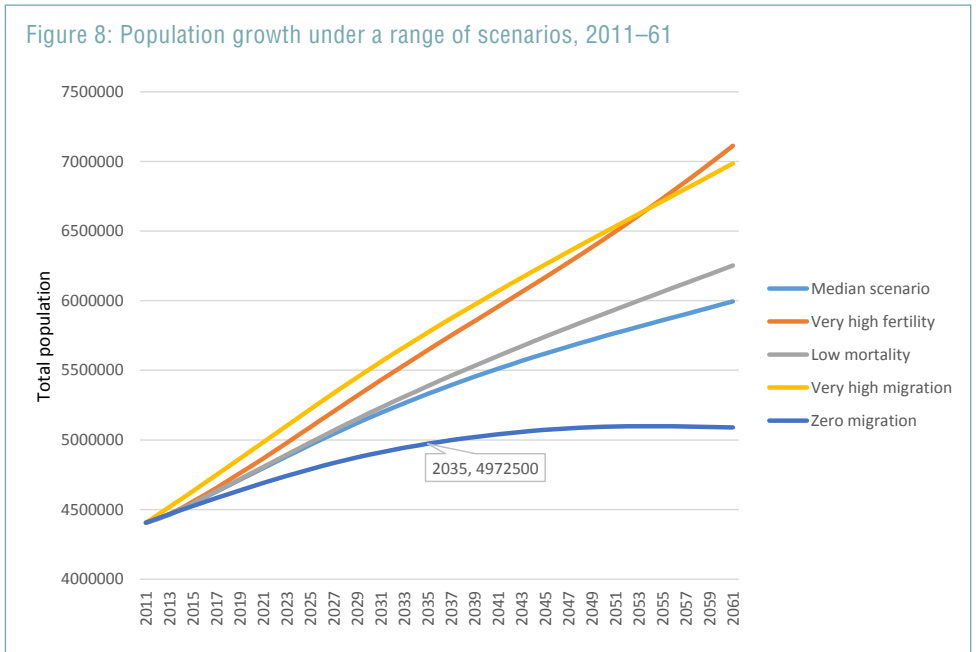
Scenario	Population 2061	Median age 2061	Population 65+ 2061	Dependency ratio 2061	Annual compounded growth rate (2012–61)
Median scenario	5,994,900 (+33%)	44 (+18%)	31.8% (+15.4%)	47.9% (+11.9%)	0.36
Zero migration	5,090,400 (+13%)	46.1 (+24%)	35.30% (+19%)	51% (+15%)	0.16
Very high migration	6,985,500 (+55%)	43 (+16%)	29.90% (+14%)	46.40% (+10%)	0.59
Very low mortality	6,251,900 (+39%)	45.7 (+23%)	37.40% (+21%)	52.90% (+17%)	0.42
Very high fertility	7,112,300 (+58%)	37.7 (+0.01%)	26.80% (+10%)	48.10% (+12%)	0.61
Projected current population (2014)					
	4,501,500	37.2	16.40%	36%	N/A

Source: Statistics New Zealand, “Projected Population of New Zealand by Age and Sex, 2011 (base)–2061,” NZStat, <http://nzdotstat.stats.govt.nz/wbos/Index.asp>, accessed January 8, 2014

Table 1 summarises the main outcomes for 2061 from the median scenario and ‘what if’ projections. It illustrates how sensitive New Zealand’s future population size and structure is to different assumptions about future rates of fertility, migration and life expectancy. Compared to the projected values for 2014:

- The population rises in all scenarios, but only by 13% to 5.1 million in the zero migration scenario. At the other extreme, the projected population in 2061 under the very high fertility scenario is 7.1 million;
- The median age barely rises from 2011 for the very high fertility scenario, but rises markedly in the other scenarios. The oldest projected median age for 2061 is 46.1 years, which occurs under the zero migration scenario;
- The proportion of the population that is over 65 rises in all scenarios, rising by 10 percentage points even in the very high fertility scenario; and by 21 percentage points in the very low mortality scenario;
- The dependency ratio rises by between 10 percentage points (very high migration scenario) and 17 percentage points (very low mortality scenario);
- Between 2012 and 2061, the projected average annual compounded rate of population growth ranges from 0.16% (zero migration) to 0.61% (very high fertility).

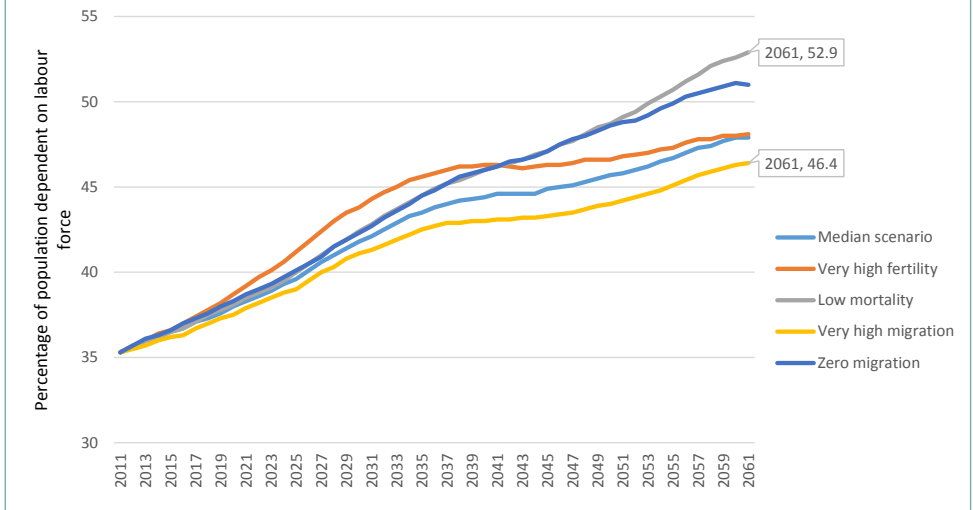
Figures 8–10 depict the annual values for key variables between 2011 and 2061.



Source: Statistics New Zealand, “Projected Population of New Zealand by Age and Sex, 2011 (base)–2061,” NZStat, <http://nzdotstat.stats.govt.nz/wbos/Index.asp>, accessed January 8, 2014

The projected population rises under all scenarios, but the growth rate varies considerably. The biggest rises occur for the scenarios of very high fertility and very high migration. The zero migration scenario projects what could happen if New Zealand relied on the reproduction of its native population only. If a zero migration scenario were to occur, the population growth rate would be almost stagnant by 2035.

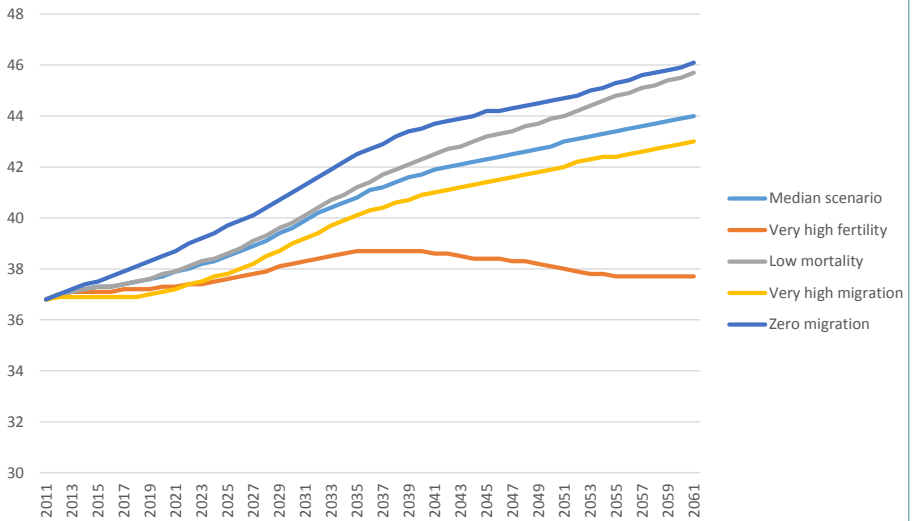
Figure 9: Dependency ratio under a range of scenarios, 2011–61



Source: Statistics New Zealand, “Projected Population of New Zealand by Age and Sex, 2011 (base)–2061,” NZStat, <http://nzdotstat.stats.govt.nz/wbos/Index.asp>, accessed January 8, 2014

The dependency ratio rises markedly in all six scenarios. The most burdensome situation arises from the ‘very low mortality’ scenario, where the dependency ratio reaches 52.9% in 2061. The ‘very high migration’ scenario eases the situation by injecting more people into the workforce. The dependency ratio for a ‘very high migration’ scenario is projected to be 46.4% by 2061. The outcome of the high fertility rate is interesting in that it increases the dependency ratio initially (more children) compared to the median scenario, but by 2061 that effect has dissipated. This occurs despite the proportion of the population that is elderly being much lower in 2061 than in the median scenario.

Figure 10: Median age under a range of scenarios, 2011–61



Source: Statistics New Zealand, “Projected Population of New Zealand by Age and Sex, 2011 (base)–2061,” NZStat, <http://nzdotstat.stats.govt.nz/wbos/Index.asp>, accessed January 8, 2014

Figure 10 shows that a very high fertility rate potentially stops the median age from increasing markedly from 2011, notwithstanding the large increase in the dependency ratio under this scenario (see Figure 9). This is, of course, because of the increased proportion of the population that would be below the working age (under 15), compared to the other scenarios. The projected median age rises more in the ‘zero migration’ scenario than in the median scenario, presumably because the latter assumes that new migrants will be younger on average than the native population.

2.5 General implications

These projections indicate that it is reasonable to plan housing in New Zealand on the basis that:

- New Zealand's population will continue to grow, but perhaps at a rate of below 0.5% a year (which is far below its long-historical rate), unless a scenario of very high migration or very high fertility is achieved;
- Large changes in net migration flows can affect population growth, the median age, and the long-term dependency ratio.
- Significant advances in life expectancy, perhaps from medical advances, could lift the median population age and the dependency ratio;
- Large changes in fertility rates have the potential to change population growth and the age structure of the population, including the median age, but less so the dependency ratio in the long run. More young people from higher fertility is offset to some extent by a lower proportion of older people;
- The population will age, unless a very high fertility scenario becomes plausible;
- The proportion of the population that is older than 65 years will rise, even under a high fertility scenario; and
- The dependency ratio will rise regardless of the future fertility rate assumption.

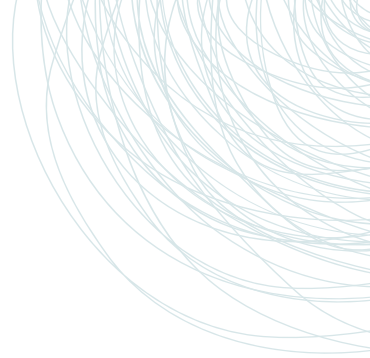
In short, New Zealand's population is set to age markedly, even with very high immigration, unless the fertility rate rises sharply. The dependency ratio is set to rise materially under all scenarios. Meanwhile, population growth is likely to be slow.

Positive population growth, coupled with an ageing population, has implications for housing policy.

Although arguably less amenable to policy choices, the projections indicate that changes in fertility rates have potentially large demographic implications by 2061. High fertility rates would increase the population, while significantly reducing the median age population and the proportion of the population over 65.

What these projections tell us is that if current trends persist, there is very little that can be done to turn back the clock on population ageing, and even less to deter population growth.





3.

Implications for Housing

3.1 Statistics New Zealand's household projections

Demographics play an important part in determining household formation, specifically, the number of people in a household and their relationship to each other (as flatmates, married couples, single-parent families, etc.)

Traditional projections for housing formation have followed the lifecycle model of a person living in their parental home, moving to rented accommodation, purchasing a first home, then upgrading to a new home as employment and family circumstances change. As people get older or as children leave the family home, people may trade down their home.²⁹ Such a model recognises that people have different preferences and requirements for housing as they enter different stages of their life.

However, Statistics New Zealand's projections suggest that the traditional model is changing. This is due to changes in family formation and breakup, family size and lifestyles, employment, and financial instability. Changes in the ethnic makeup of New Zealand also affect family size and household formation due to differing preferences such as multigenerational families living together, or multiple families living in the same house.³⁰ In other words, the lifecycle model for housing demand needs to accommodate changes in demography and social patterns.

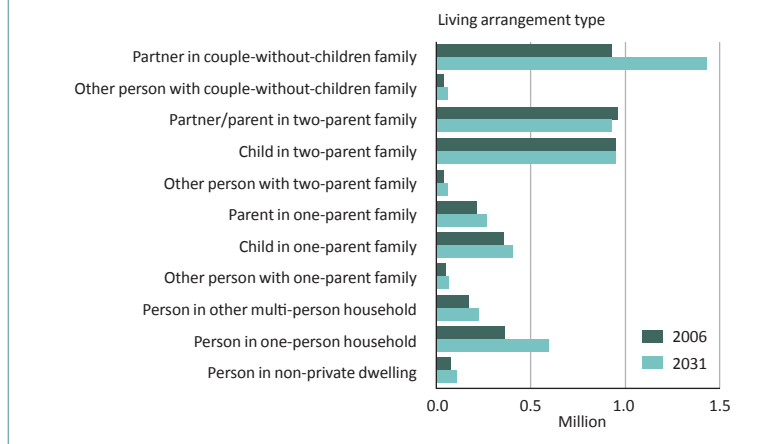
Figure 11 summarises Statistics New Zealand's latest projections for changes in household composition between 2006 and 2031 for a scenario that assumes medium fertility and mortality, annual net immigration of 10,000, and extrapolated recent linear trends for changes in household composition.³¹

29. Judith Davey, "Housing," in Boston, Jonathon and Judith Davey (eds), *Implications of Population Ageing: Opportunities and Risk* (Wellington: Institute of Policy Studies, 2006), 253–273.

30. Statistics New Zealand, "How Will New Zealand's Ageing Population Affect the Property Market?"

31. See series 5B in Statistics New Zealand, "National Population Projections: 2011 (base)–2061."

Figure 11: Population by projected living arrangement type, 2006–31



Source: Statistics New Zealand, “National Family and Household Projections: 2006 (base)–2031 Update,” www.stats.govt.nz/browse_for_stats/population/estimates_and_projections/NationalFamilyAndHouseholdProjections_HOTP2006-2031update/Commentary.aspx, accessed January 8, 2014.

As expected with an ageing population, the greatest numerical growth is in the number of couple-without-children families and one-person households.

Of the two, the greatest projected increase is in the number of couple-without-children families. These are projected to become by far the most common family type.³² This category includes couples who will never have children, couples who plan to have children in the future, and couples whose children have left the parental home. It accounted for 40% of families in 2006, and is projected to rise to 50% by 2031. Most of this increase will be due to couples whose children have left home, as the large number of ‘baby boomers’ (the large cohort of the population born between 1946 and 1964) reach older age.³³

The next most significant projected increase is for one-person households. This is also attributed to the ageing population. In fact, of all people in one-person households, 68% will be 55 or older by 2031, compared with 59% in 2006.

Statistics New Zealand also projects that the number of people in non-private dwellings (such as retirement villages or aged care units), will increase from 86,000 to 125,000 between 2011 to 2031. This is smaller than might have been expected given the increased number of elderly persons, mainly

32. Statistics New Zealand, “National Population Projections: 2011 (base)–2061.”

33. Ibid.

because of their increased independence and capabilities due to improvements in health. Instead, Statistics New Zealand projects that the elderly people will commonly remain in their own homes and communities for longer.

By 2031, there will be 192,000 more couple-without-children families and 196,000 more one-person households than in 2011, making 388,000 in total. That accounts for 93% of the projected increase of 424,000 in the total number of households between 2011 and 2031.

These projections imply that dwelling demand will be mainly for smaller dwellings.

As shown in Table 2, Statistics New Zealand’s projections indicate that the population will increase by 16% between 2011 and 2031, but the number of households will increase by 25%, reducing the average household size from 2.65 to 2.46 people per household.

Table 2: Average household size

Year	Population ('000s)	Households ('000s)	Average household size
2011	4,405	1,662	2.65
2031	5,149	2,093	2.46

Statistics New Zealand, “National Family and Household Projections: 2006 (base)–2031 Update,” www.stats.govt.nz/browse_for_stats/population/estimates_and_projections/NationalFamilyAndHouseholdProjections_HOTP2006-2031update/Commentary.aspx, accessed January 8, 2014.

Statistics New Zealand provides two reasons for this projected decline in household size. First, because there is already a trend towards smaller households with an ageing population. By 2031, instead of having every 100 people spread over 38 houses, there may be 100 people spread over 42 houses. Second, demand for second homes, including second residences and holiday homes is likely to continue to rise.³⁴

Based on Statistics New Zealand’s household projections for 2031, population projections to 2061, coupled with international trends, it is reasonable to make some estimates about household size to 2061.

As mentioned previously, if the projected median age for New Zealand in 2061 is 44, then that is roughly similar to the median ages of Japan, Italy and Germany today. While household size is based on a number of assumptions, of which population age structure is but one, it is still an important factor.

In Germany, the current household size is 2.2, and 2.4 in Japan (as of 2010). However, all countries show a decrease in household size as the median age

34. Economic Commission for Europe, *The Relationship Between Population and Housing* (New York, Geneva: United Nations, 2009), 3.

increases. It is likely New Zealand will face a similar trend. By 2031, it is projected the average household size will be 2.4. It is likely that the average household size will continue to fall from 2031, as the median age increases by another four years between 2031 and 2061.

3.2 The relationship between demographic pressures and housing

Emerging changes in family size, household size, and household composition have implications for the future supply and demand of housing stock. It will affect the numbers of houses, as well as their size, quality and location (for instance, proximity to city centre).

Demographic changes are likely to sharply increase the demand for new dwellings, independently of migration levels. For example, even assuming low immigration of 5,000 net immigrants a year and lower fertility, nearly 424,000 additional households will form between 2011 and 2031, implying an average annual construction rate of 21,000 a year.

Moreover, while this demand would be mainly coming from households of single persons or ageing empty-nest couples, a variety of suitable housing options is needed.

A young, newly married family intent on having children will have different housing needs from an old retired couple. As advancements in health and medicine increase the independence and capabilities of older people, houses will also have to be well equipped and accessible for the elderly. If populations are ageing, demand may call for the development of lifetime-flexible housing (making houses easily adaptable over a lifetime), or special-needs housing with care and support.³⁵

The location of houses demanded will similarly be affected by demographic change, as a larger working-age population may demand houses closer to central business districts, while older populations may be content living in quieter towns and suburbs.

A lower ratio of workers could also see younger households bearing a higher burden, making it harder for them to afford quality housing.

Barring barriers to such mobility, housing and amenities should adjust accordingly and house builders would respond spontaneously to the evolving demand.

35. *Ibid.*, 1.

However, real barriers to mobility do currently exist, particularly – but not exclusively – in the form of the *Resource Management Act* and restrictive provisions in local authority plans. Preparation for changing demographics, therefore, needs to be considered in urban planning and infrastructure development, so that certain regions or cities do not become over- or under-populated.

The expected tendency for older people to live independently will also change the demand for private dwellings. Because older people are able to continue living in private dwellings for longer, there is likely to be strong demand for accessible, safe, warm and affordable housing. Older people are also likely to demand smaller houses if they are in one- or two-person households. The preference for such housing is likely to be in secure areas, with easy access to public transport, health and other services.

While incipient demographic change can drive housing demand, a failure of supply to respond to that demand may also affect the actual rates of household formation and composition. The affordability of housing can influence decisions about the timing of fertility and the number of children. After all, the addition of children affects the housing needs of families. The supply of housing will also affect certain lifecycle transitions, such as moving out of the parental home, or the preference for homeownership as opposed to renting. The availability and affordability of housing could even affect inwards and outwards migration decisions.

Of course, these are not the only factors that influence household formation. Others include income, land values and house construction costs, interest rates and mortgage availability, and tax considerations.³⁶ Cultural influences and policies that incentivise or discourage certain behaviour also play a part in determining household formation.

Finally, volatile rates of net immigration are potentially disruptive for the house building industry. It takes time to build new houses, meaning that unexpected increases in the population of a particular location (e.g. Auckland) must be largely squeezed into the existing housing stock for a transitional period.³⁷

The housing market is a complex outcome of laws and regulations involving legislators, local authorities, rural landowners, developers, landlords, owner-occupiers, real estate agents, risk certifiers, insurance companies, and financial institutions. Therefore, the ability of the building industry to respond flexibly is likely to be impeded by cumbersome and restrictive laws and regulations.

36. The New Zealand Initiative has published extensively on the housing affordability problem. Unnaturally high house prices relative to incomes are likely to see more low income occupants squeezing into a given size of house.

37. Economic Commission for Europe, *The Relationship Between Population and Housing*, op. cit. 2.

3.3 Department of Building and Housing projections

In 2010, a Department of Building and Housing (DBH) report projected the structure, pressures and issues of the New Zealand housing market up to 2031, using Statistics New Zealand's population and household projections. Table 3 summarises these projections.

The DBH has analysed the projected shortfall between housing supply and demand using the analysis of the shortfall between housing demand and supply. This has been done by using a 'flow' approach, which compares the increment in supply with the increment in demand over a given period, without referring to the level of 'stock' at the start of that period. The report estimated that projected housing demand will grow by more than 20,000 households a year nationwide (based on forecast population and household growth). This does not include the Christchurch rebuild.

This forecast rate of construction is driven by the projected future rate of economic growth. The projections incorporate the forecast numbers of new dwellings consents, with a discount of 20% to account for those that do not eventually translate into permanently occupied dwellings.³⁸ They also incorporate broad assumptions about the rate of demolition, replacement dwellings, and the incidence of holiday homes.³⁹ However, they do not take into account changes in fertility, mortality and migration – instead assuming that the rates remain static over the long term.

As a consequence, projected trends imply a growing shortfall in housing supply, perhaps reaching a gap of 14,054 dwellings by 2026 (not accumulated). However, the trend reverses between 2026 and 2031, resulting in a projected surplus of 2,322 dwellings by 2031.⁴⁰ This reversal probably reflects a slower projected rate of population growth.

Of course, these calculations are suggestive rather than definitive. Data limitations make it difficult to estimate current (net) housing supply, let alone project future housing supply accurately. Accurate data does not exist on demolition rates for dwellings, occupancy rates, and unexercised dwelling consents. Moreover, it is difficult to make precise forecasts of new dwelling consents independent of demand factors.⁴¹

38. Department of Building and Housing, "Structure, Pressures and Issues," *Ibid.*, 68.

39. *Ibid.*, 63.

40. *Ibid.*, 8.

41. *Ibid.*, 40.

The DBH does clarify that to some extent, the shortfall between households and housing stock as at 2009 can be explained by accommodation in non-private dwellings (such as hospitals, prisons, hotels/motels, and boarding houses). Some of the shortfall can also be accounted for by the stock of unoccupied dwellings, especially unoccupied dwellings where the occupants were away on Census night (which will adjust the assumed discount rate used to estimate new dwellings supplied).

Given the DBH's projections do not account for changes in fertility, mortality and migration, it is likely that its household formation projections are underestimations. As discussed earlier in the chapter, it is expected that under a range of scenarios, New Zealand's future demographics will lead to an increase in the number of households.

Table 3: Current and projected national housing shortfall/surplus

Period	Projected increase in population size	Projected increase in the number of households	Annual net addition rate of new dwellings	Projected increase in the number of new dwellings that would add to supply in five year period	Shortfall/surplus
2011–16	181,000	112,800	19,605	98,028	-14,772
2016–21	211,800	108,000	19,479	97,397	-10,603
2021–26	206,400	104,000	17,989	89,946	-14,054
2026–31	190,200	99,000	20,264	101,322	2,322

Source: Department of Building and Housing. "Structure, Pressures and Issues," New Zealand Housing Report 2009/2010 (New Zealand Government, 2010), 64; (using data from Statistics New Zealand and Infometrics)

It is notable that these projections are based on an average rate of around 19,000 annually. This rate assumes pre-housing crisis levels from before the global financial crisis and the demands of the Christchurch rebuild. This forecast of around 19,000 is well above the current level of new housing construction, which the DBH forecasts independently at around 15,500 dwellings annually. If construction volumes do not increase dramatically, the housing shortage will be even worse (see Table 4).

Table 4: Current and projected national housing shortfall/surplus based on current rate of new construction

Period	Projected increase in population size	Projected increase in the number of households	Annual net addition rate of new dwellings	Projected increase in the number of new dwellings that would add to supply in five year period	Shortfall/surplus
2011–16	181,000	112,800	15,500	77,500	-35,300
2016–21	211,800	108,000	15,500	77,500	-30,500
2021–26	206,400	104,000	15,500	77,500	-26,500
2026–31	190,200	99,000	15,500	77,500	-21,500

Source: Department of Building and Housing and author's own calculations

While the DBH's original housing projections suggest new dwellings will be in surplus between 2026 and 2031, if the housing construction rate remains the same, there will still be a shortfall, despite the slowing growth in the number of households. Furthermore, if housing construction remains stagnant, New Zealand could face an accumulated shortfall of around 113,800 in 2021–26, even though housing demand ought to decrease based on a decreasing number of new households.

To ensure such housing shortages do not occur, new housing construction would have to increase from the current rate by an average of 5,700 dwellings annually, or about 27%. Even based on the DBH's more generous projections, new housing construction would have to increase by an average of 10% annually to ensure supply meets demand.

3.4 General policy implications

It is, of course, unreasonable to assume that with these projected housing shortfalls, there could be up to 113,800 households without shelter. The market would need to adjust, on either the supply side or the demand side. On the demand side, such adjustments could be that immigration flows are restricted, couples delay forming families, offspring stay in their family home for longer, or multiple families may share the same home.

These solutions, however, are suboptimal. By suppressing family formation or migration flows, the dependency ratio would be even greater, with even more older people dependent on the productive labour force. Many of the adjustments that must occur to decrease housing demand would also exacerbate the problems associated with supporting an ageing population.

To ensure supply meets changing demand, the construction sector needs to be able to respond and adapt to changing circumstances. It must be able to adjust quickly to the projected shortfalls and surpluses, particularly addressing the size of houses demanded, rather than just the quantity of housing.

Policies dealing with the state housing stock naturally need to be similarly responsive.

To meet the needs of a future growing population, New Zealand will need to either release new supplies of residential land or use existing residential land more intensively.⁴²

The responsiveness of housing supply (quantity) to the price elasticity of housing is therefore a significant factor affecting the housing market. The availability of land supply for housing is also an important factor. While productivity growth reduces per unit construction costs, reducing the cost of land requires greater political will. The more quickly land supply responds to higher demand, the less house prices will rise and the easier it will be for first home buyers.⁴³

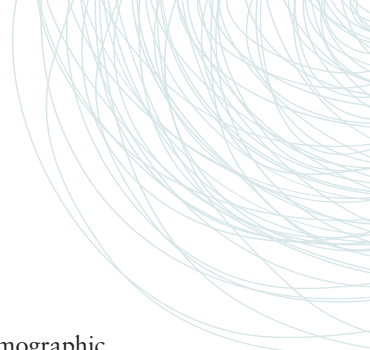
Artificially high land values can also contribute to a mismatch between the type of new houses built and the incipient demand. For some years now, new residential building consent plans have tended towards larger more costly houses on expensive land, despite the trend towards fewer people per household.⁴⁴ If this trend continues, it is possible houses may be under-occupied, with many one- or two-person households living in homes larger than their occupants require or prefer.

42. Ibid.

43. Andrew Coleman, *Squeezed In and Squeezed Out: The Effects of Population Ageing on the Demand for Housing*, Ibid., 24

44. Department of Building and Housing, "Structure, Pressures and Issues," Ibid., 7





Conclusion: Lessons for New Zealand

Increased life expectancy and declining fertility rates driving demographic trends in New Zealand will result in a population with a greater ratio of older people and a slower rate of population growth, as there will be fewer people born every generation to reproduce and replenish the population.

Contrary to popular understanding, population ageing is not simply due to the retirement of the baby boomers, although this will magnify the underlying change. The average age of New Zealanders will increase under all plausible fertility projections, and population growth will slow even after the baby-boomer generation passes.

Given the existing shortage of housing, this report has focused on the potential effects of demographic change on the future demand for housing.

Slowing population growth would reduce the needed rate of dwelling construction, were it not for the effect of an ageing population on the rate of household formation.

Unless the building industry can substantially increase the rate of construction activity, housing could become increasingly unaffordable. Supply must be able to respond to changes in demand flexibly and efficiently, but this will not occur if policy rules and regulations are unduly restrictive. This consideration applies especially to regulations affecting land supply, transport, infrastructure and housing.

Of course, New Zealand is not alone in its ageing population structure. Germany has already experienced significant ageing, while Australia and the United Kingdom are expected to in the future.

International experience supports the view that supply-side responses are more effective than demand-side measures. The latter seldom work. To ensure mobility between houses, a variety of housing solutions must exist in the first place. The debate in the United Kingdom illustrates the entrenched nature of the regulatory problems.

In New Zealand, the projections reviewed in this report raise real concerns about future housing affordability if existing supply-side constraints are not radically eased. In its three-part report series on housing affordability, The New Zealand Initiative put forward three proposals to deal with housing affordability:

- Community Development Districts (CDDs): Create development structures that can privately finance debt to build new infrastructure by issuing bonds and charging residents a mandatory levy to repay the debt. These could be used by developers, landowners or councils to spur large-scale developments beyond town boundaries aimed at first-home buyers.
- Financial incentives for local councils: Local government needs a structure to share the proceeds of population and housing growth that are almost exclusively paid to central government. Councils must be entitled to a Housing Encouragement Grant for every new house built in their area, provided the house meets minimum delivery deadlines from application to completion, benchmarked on the GST levied on the house.
- Reform water provision: Encourage local councils to cede control of their water networks to regional monopoly water providers, with ownership still held by participating local government bodies. These water companies can use network pricing to create quality water infrastructure and make long-term infrastructure decisions free from political or electoral considerations.

In the future, housing demand will rise and change due to demographic changes. These changes are virtually unavoidable, as they are programmed into our society. The only sure-fire thing we can do to ensure we meet the challenges resulting from an ageing, growing society is to build more houses. The longer we wait, the more dramatic the policy changes have to be. To ensure there is enough room for our future population, and that housing affordability in New Zealand does not continue to spiral out of control, we need to build more. A lot more. And we need to build now.

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Extract from the foreword

“This new report by Jenesa Jeram continues our previous work on housing affordability by asking what would happen if current undersupply trends continue into the future.

Jenesa’s report argues that this demographic-induced extra housing demand needs to be taken seriously. She makes a convincing case that combined with an already inadequate housing supply and simultaneous population increases, New Zealand’s housing affordability problems could get a lot worse in the coming years.”

Dr Oliver Hartwich
Executive Director
The New Zealand Initiative

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