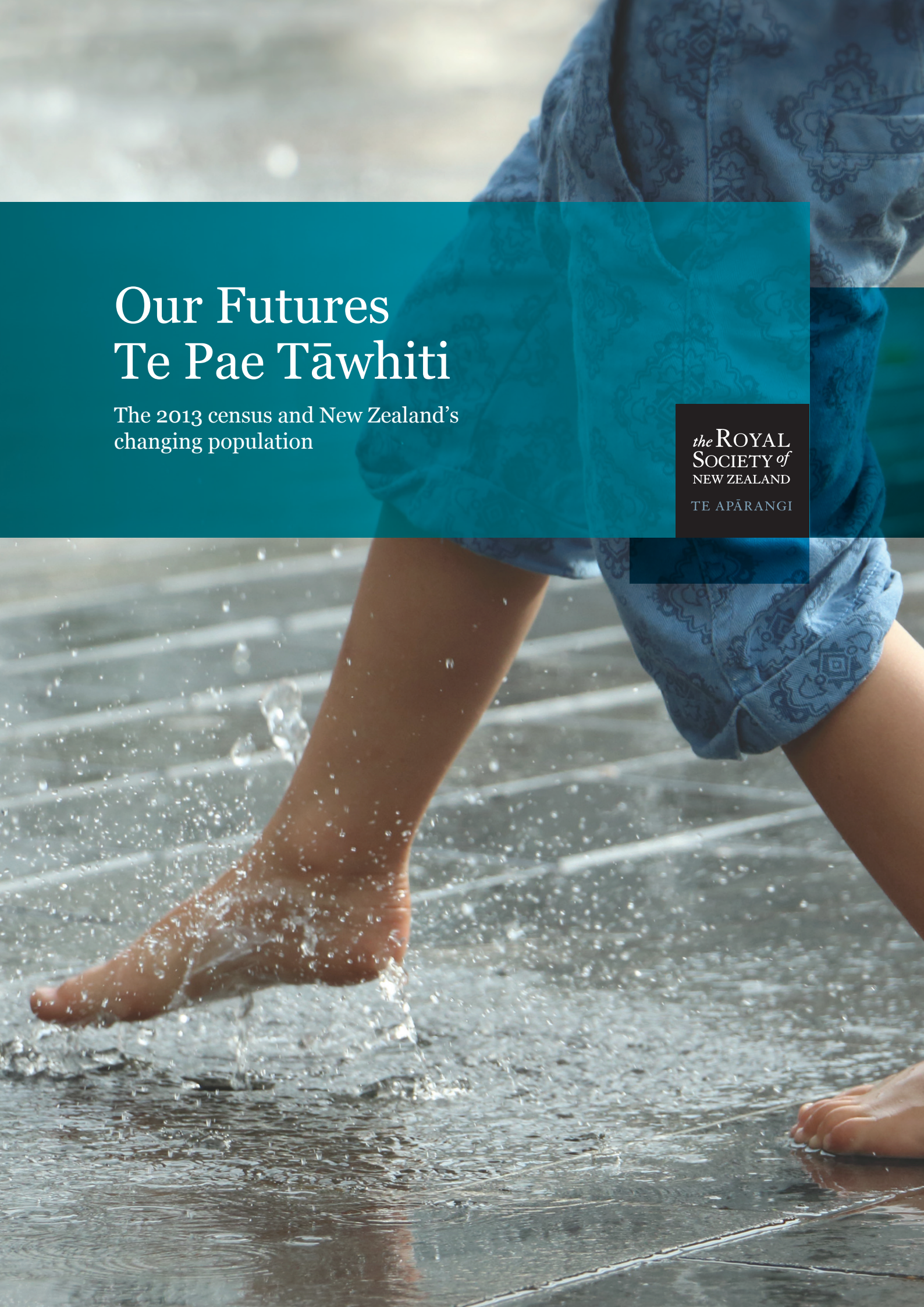




# Our Futures Te Pae Tāwhiti

The 2013 census and New Zealand's  
changing population

*the* ROYAL  
SOCIETY of  
NEW ZEALAND  
TE APĀRANGI

## Foreword

New Zealand's population is in a period of rapid change, with implications for the economy, social cohesion, the place of Māori, education, and health. Auckland is now one of the most diverse cities in the world, and there are features of our demography that are unique globally.

One of the Royal Society's functions is to promote informed discussion on topics of national significance. The 2013 census provides an ideal opportunity to achieve a better understanding of the changing nature of New Zealand society. A group of experts was therefore invited to produce an interdisciplinary review of the state of knowledge about New Zealand's changing population. This review has drawn upon a large network of scholars from throughout the country.

Underpinning the review have been the results of the 2013 census. There are many issues about management of the census, including how the cost of disseminating the available detail should be divided between cost-recovery charges and public expenditure funded by taxpayers. Statistics New Zealand has struck a balance by making data and expertise available and providing access to anonymised records in data laboratories (assuming plans to make these available to accredited researchers throughout the country are realised).

I would like to thank Professor Gary Hawke for so ably chairing the review, as well as the other authors for giving freely of their time and expertise. We also thank Professor Graham Hugo for his peer review. I believe this report will be of interest to anyone who cares about the future of New Zealand, and I would love to see it in the hands (or on the screens) not only of decision-makers but also of the Year 13 students who will be our future leaders.



**Sir David Skegg** FRSNZ  
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# Overview

## Diversity | PAGE 6

- New Zealand has always had minority communities – both ethnic and religious – but in the last twenty years, the country has become diverse in new ways: increasing migration from Asia and an increasing proportion of the population born overseas.
- The implication for New Zealand is that it is, increasingly, a country with multiple cultural identities and values.

## Population change | PAGE 9

- People are living and staying active longer, and the proportion of the population in the older age groups will increase.
- The implications for New Zealand are that people will need income for longer, and keeping the birth rate above replacement level will be a challenge.

## Tangata whenua | PAGE 14

- Māori have a distinctive but rapidly changing population structure with significant assets as well as labour.
- Māori culture and institutions continue to endure and evolve along with demographic change, but the maintenance of te reo Māori faces challenges.

## Migration | PAGE 17

- New Zealand's population is the product of two long-established migration flows: immigration and circulation of citizens of other countries, and emigration and circulation of New Zealanders.
- The implications for New Zealand could include immigration surges from the diaspora, such as the 650,000 New Zealanders who live in Australia, and from the 23 million Australians that have right of access to the New Zealand labour market and welfare.
- The contribution migration makes to population growth is likely to increase, relative to that from natural increase from the mid-2030's as the gap between births and deaths continues to shrink with rising numbers of deaths and falling birth rates.

## Households and families | PAGE 20

- Household patterns have changed little in the 21st century.
- There has been a rise in two-family households, and many children live in households which have limited income and assets.

## Regional variation | PAGE 23

- New Zealand is regionally diverse and interconnected, with Auckland accounting for over half the population growth between 2006 and 2013. Internal migration has decelerated between regions.
- The implication for New Zealand is a pattern of greater relative growth for Auckland, a few centres with slower growth, and population decline in much of rural New Zealand, with implications for maintaining service levels for an ageing and possibly dwindling population.

## Work | PAGE 25

- Employment is shifting in terms of location and the rise and fall of occupations and industries. This has been accompanied by changes in labour supply, resulting in part from the ageing of the population, the contraction in entry level cohorts and the reliance on immigrant labour.
- The implications for New Zealand are that the growing diversity of the nature of paid employment will continue, so that there will be less security and participation will be more precarious.



# Introduction

## Ko te pae tata, whakamaua, kia tīnā Ko te pae tāwhiti, whaia, kia tata.

This whakatauki, provided by Professor Sir Mason Durie, might be interpreted as “secure the horizons that are close to hand and pursue the more distant horizons so that they may become close”, or he suggests it can be put even more simply as “manage today and shape tomorrow”.

Census 2013 provides the occasion to reflect on the future implications of certain trends. Some of the striking findings from the 2013 census include:

- One in four people living in New Zealand in 2013 was born in another country<sup>1</sup>
- One in five people living in New Zealand in 2013 was born after 1999<sup>2</sup>
- Many children born in the 2010s can expect to live into the 22nd century<sup>3</sup>
- The population was 4.2 million<sup>4</sup> not the 4.4 million estimated by Statistics New Zealand in 2012<sup>5</sup>

A census generates a national stock-taking. The Council of the Royal Society of New Zealand recognised an opportunity for one of its “Major Issues” papers to facilitate informed discussion of the state and prospects of New Zealand society. The Council appointed a Steering Panel to draft this paper, and assemble a much greater array of information and analysis which is available on the Royal Society of New Zealand’s website. The paper seeks to promote public understanding by providing a basis for a more informed approach to both policy debate and political discussion.

Not all questions about the state and prospects of New Zealand can best be addressed with census data. Whenever our enquiries lead us to questions for which some other data source is more useful than the census, we have no hesitation in using it. But the census 2013 is central, and in a sidebar we reflect on the value of a national census.

Before Statistics New Zealand released results from the 2013 census, the Steering Panel drew on a large number of researchers and sources of information about New Zealand society. We asked them what they considered to be the main trends and challenges facing New Zealand and, as the census results appeared, we asked them how their views had been changed. We supplemented the electronic and postal communication with workshops in Wellington, Hamilton, Auckland and Christchurch. We invited participants to provide authored commentaries and memoranda to be included on the website supporting this paper. We drew on all this material along with published analyses of the census and related data and our own analyses in preparing this paper.

We do not purport to predict New Zealand’s future, or even to define distinct possible futures or scenarios. We seek to define key features of the evolving New Zealand society, the pressures for change generated either overseas or within New Zealand, and what challenges these pose. We therefore do not have a single horizon; rather, we look at what exists, what is causing change, and what responses are likely, all with variable time-scales.

The steering panel identified key themes emerging from the census data and analyses. They have many inter-connections but they provide a framework for our discussion.

- Diversity
- Population change
- Tangata whenua
- Migration
- Households and families
- Regional variation
- Work

A final section distils the findings from these seven themes.

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## One in four people living in New Zealand in 2013 was born in another country<sup>1</sup>

## The Census

*The 2013 interruption to the quinquennial (five-yearly) pattern provides an occasion to consider the UN standard of censuses every ten years alongside the particular characteristics of New Zealand which make a more frequent census desirable.*

Enumerating the people and other features of societies has a long history, but the modern census is usually traced to eighteenth century Europe and North America. Now there is an international standard: a decennial national census managed to a large extent according to a United Nations template.<sup>6</sup>

The census emerged in New Zealand in the nineteenth century.<sup>7</sup> After some irregularity from 1857 to 1878, from 1881 a pattern of quinquennial censuses was set, which was interrupted only by the Great Depression (no census in 1931), the Second World War (none in 1941), and the Canterbury earthquake in 2011. Less significantly, the '1946' census was carried out in 1945, to allow for an electoral redistribution before the 1946 election. The delayed timing of the 2013 census will bedevil analysts for many years although it is not difficult to allow for an inter-censal period of seven rather than five years.

It is not easy or cheap to ensure that a census is genuinely comprehensive. Statistics New Zealand has an enviable record of securing compliance with census requirements, but the coverage is never perfect. Moreover, there can be little direct checking for accuracy. Census information on incomes, for example, will never be as precise as Inland Revenue Department data. Finally, for the census form to be tolerable to most people, it cannot be long or complex.

There is always competition for 'space' in the census schedule. What for example is the optimal balance between continuity and change? Statisticians, economic historians and other social analysts are interested in the long run. On the other hand, lobbies – often vocal – call for more data on current issues

and for new data on emerging issues. All this has to be done within a schedule of acceptable length. Devising the wording of questions is a sophisticated art in itself.

Some countries now rely less or not at all on a census, reckoning that the information they require is more readily and economically available from customised surveys and administrative data. The tools of modern data management make administrative data far more competitive with a national census. The more immediate uses of data management tools will be in the development of an e-census. The 2018 New Zealand Census will aim for 70 percent of forms being completed online – twice the 2013 online rate.

It is unlikely that the census will become redundant in New Zealand. Firstly, it is an important 'anchor' for periodic assessment of the accuracy of other sources, such as population totals measured by births, deaths, and migration across the border. Unlike some countries, New Zealand does not have a system of civil registration which in part substitutes for census information. Secondly, New Zealand has a centralised system of government, and we use the national census for purposes which in other countries are the tasks of regional and local governments with their own information sources. Thirdly (in the course of preparing this paper, the panel became aware of this), for several issues the census is the only source of information. It is the only source of numerical information about iwi. Only the census provides information on places of residence, places of employment and means of travel. Assessing our transport options would be very difficult without a census. Linking the location of immigrants with their occupations and evolving skills would also be more difficult. In sum, the census will survive at least until there is a centralised system of accurate population and administrative data against which to pit the evolving range of research and policy questions.

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## One in five people living in New Zealand in 2013 was born after 1999<sup>2</sup>

# Diversity

**New Zealand has always had minority communities – both ethnic and religious – but in the last twenty years the country has become diverse in new ways. This has been underlined in the 2013 census.**

This diversity is reflected in the range and scale of ethnic diversity in twenty-first century New Zealand (Figure 1). The 2013 census confirms the still large proportion of New Zealanders who define themselves as 'European' (less than three-quarters). But there has been a rapid growth in the numbers who are Asian, and at just under 12 percent of the population, these communities are now significantly larger than Pasifika communities (7.4 percent).

This growth reflects the arrival of significant numbers from Asia, especially from India and China. Chinese migrants form the largest of these communities but the fastest growing in the 2006 to 2013 period were the Indian and Filipino communities.

This adds to the diversity provided by Pasifika communities. While the majority of Pacific peoples in New Zealand are now New Zealand-born, immigration continues to supplement these communities, and when combined with relatively high levels of fertility, they constitute an important feature of New Zealand, especially in places such as South Auckland and Porirua.

The number reporting Māori ethnicity in the census has grown more slowly in the 2006–2013 period than it did in the previous inter-censal period, but that still means that just under 15 percent of New Zealanders self-identify as Māori.

**New Zealand's diversity has been compounded by the increasing prevalence of multiple ethnic identifications. The change is very noticeable when older and younger age groups are compared.**

In 2013, 88 percent of the population 65 and over identified with European ethnicity, compared with just under 13 percent who identified with Māori, Pasifika or Asian ethnicity. But whereas 71 percent of the population who were 14 and under identified with European ethnicity, 24 percent identified with Māori, 13 percent with Pasifika, and 12 percent with Asian ethnicity.<sup>8</sup>

Subjective identity does not necessarily follow multiple pathways (ageing can involve settling on one rather than multiple identities), but the shift is still marked. For Pasifika populations, over 90 percent of those over 65 identify with a single ethnicity; for those 14 and under it is around half.<sup>9</sup> Given New Zealand's historically high rates of intermarriage across ethnic and religious boundaries this pattern is typical of a wider trend and will almost certainly continue.

Multiple ethnicities can also mean multiple birthplaces – and this is the case in New Zealand in 2013. The number who were born overseas now equate to one in every four New Zealand residents<sup>10</sup> (compared with one in five in 2001 and one in seven in 1961<sup>11</sup>). This reflects a scale of immigration over the last 25 years that has not been seen for a century.

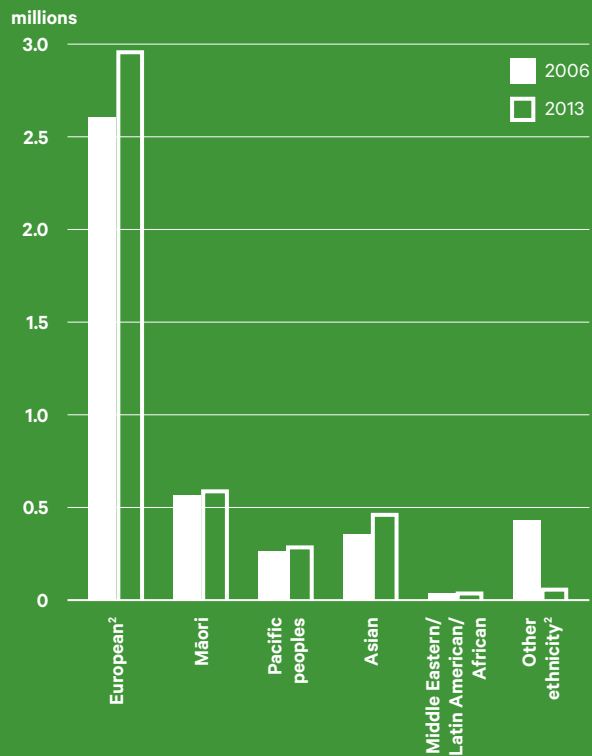
The 2013 census shows the diversity of these birthplaces and therefore the resulting range and size of ethnicities (and the size of these minority group ethnicities) in New Zealand (Figure 2). The overwhelming dominance of immigrants from the UK and Ireland is long gone. Since 2011 India and China have each provided about as many immigrants on an annual basis as Britain; although the British-born population in New Zealand remains the largest birthplace community.<sup>12</sup>

This diversity has a significant regional dimension. The growth of immigrant and ethnic communities is most apparent in Auckland. The key feature is the fact that the 2013 census shows that Asian communities now constitute almost a quarter (23 percent) of Auckland's population, much larger than the Māori population (11 percent) or Pasifika communities (15 percent).<sup>13</sup> These Asian communities will continue to grow and may constitute almost 30 percent of Auckland's population by 2021.<sup>14</sup> This is not too surprising given that Asia accounts for around 60 percent of the world's population and is the closest major continent to New Zealand.

The diversity of Auckland is further reinforced by the fact that 39 percent of Aucklanders were born overseas. This makes it one of the most immigrant-dependent cities in the world – not as high as Toronto (46 percent overseas born), but much higher than many other cities which are often cited as cities defined by immigration.

Figure 1: Population of major ethnic groups<sup>1</sup>

2006 and 2013 Census. Source: Statistics New Zealand

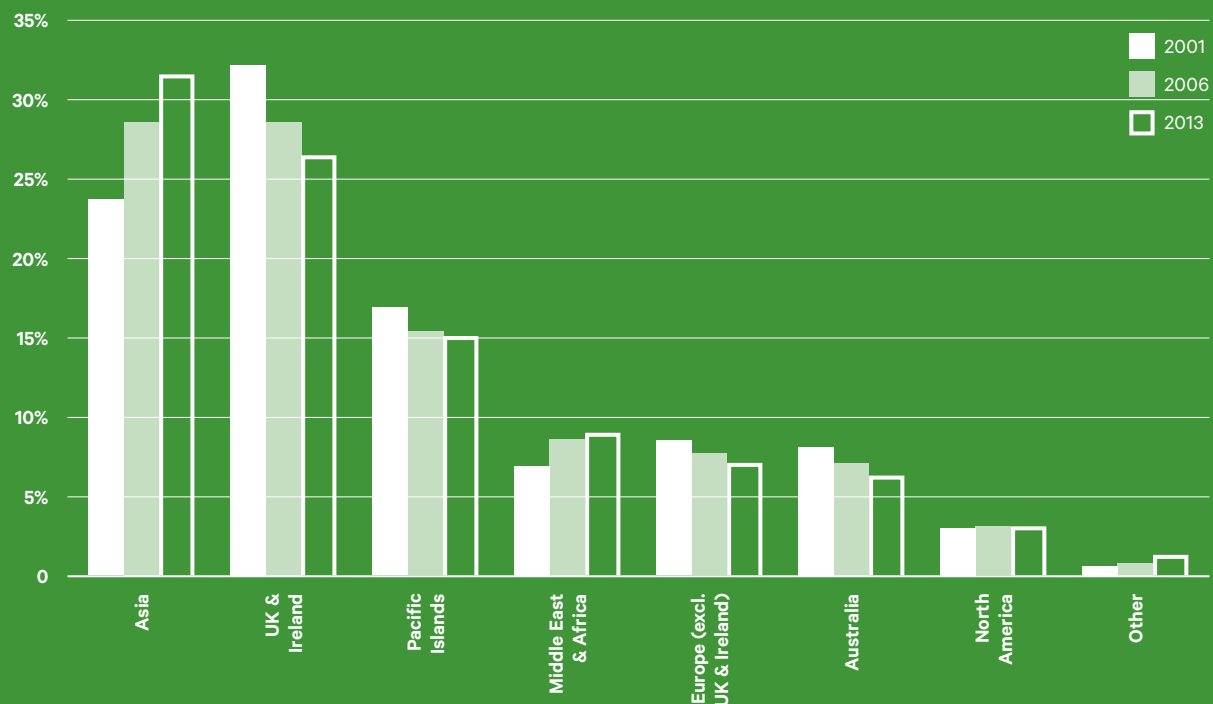


1. People were able to identify with more than one ethnic group.
2. Consists of responses for a number of small ethnic groups and for New Zealander. New Zealander was introduced as a sub-category in the 2006 census but it seems that a high proportion who identified as such in 2006 shifted to the European category in 2013

New Zealand has always been an ethnically diverse society, but in the last twenty years the country has become diverse in new ways: increasing migration from Asia and a growing proportion of the population born overseas.

Figure 2: Birthplace for the overseas born usually resident population

2001, 2006 and 2013 Census. Source: Statistics New Zealand



## New Zealand is, increasingly, a country with multiple ‘national’ identities and values.

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The other New Zealand city that is beginning to show the effects of significant immigrant arrivals, as its major rebuilding gets under way, is Christchurch. Almost 12 percent of Christchurch's overseas born population at the time of the 2013 census had arrived in the preceding two years, compared with a little over nine percent of Auckland's. On the other hand, the new immigrants are not as ethnically diverse as Auckland's – 28 percent of Christchurch's new migrants came from the United Kingdom and Ireland compared with just under 12 percent of Auckland's.<sup>15</sup>

The experience of Auckland is also quite different from many other regions where the levels of minority ethnic diversity or the presence of immigrants, especially from Asia, is modest. There are interesting exceptions, but the absolute numbers and proportions are still small. For instance, the census indicates that Southland has gained new communities, in this case from the Philippines, to work in the dairy industry. The Asian percentage in Southland almost doubled from 1.3 percent in 2006 (1,149 people) to 3.2 percent in 2013 (2,841 people).

Other sources of diversity persist; while they might not have many immigrants, regions like Northland and Gisborne do have significant Māori populations, providing a further contrast in terms of ethnic identification and locality.

The ethnic diversity of 21st century Aotearoa also provides a significant contrast with mid-twentieth century New Zealand. The racially discriminatory approach to immigration has been abandoned and the composition of immigrant flows reflects new connections and interests.

Has the thinking of those of European descent – long accustomed to being in the majority – kept pace? New Zealanders who grew to adulthood before 1990 grew up in a more ethnically homogeneous society than the New Zealand of 2013, let alone the likely New Zealand of 2030 or 2050. For many of those generations a ‘New Zealander’ is someone like them, ethnically speaking, or is of Māori or Pasifika descent. They now also share the country with New Zealanders of Latin American, Indian, East Asian or African origin, often with different cultural attitudes and preferences.

One sphere in which the new ethnic diversity has brought other forms of diversity in its wake is religion. Over the last 30 years the number of New Zealanders declaring religious affiliation in the census has fallen dramatically. In 2013, 42 percent of New Zealanders recorded no religion in the census.<sup>16</sup> The current situation is consistent with European countries, Australia and Canada (although not the United States).<sup>17</sup>

On the other hand there is a high proportion of practising Christians amongst the migrant population, which has contributed to the Catholic Church becoming the largest single denomination (11 percent). Muslim migrants are smaller in number, but retain a high incidence of religious adherence. Māori may have relatively low levels of religious adherence, but 66 percent in 2013 thought spirituality was important.<sup>18</sup>

What are the implications for national or ethnic identities in a more diverse country? Schools, workplaces, health services and government departments will all face challenges managing the ethnic and religious diversity of students, employees and clients respectively. Does the fragmentation of the media – which reflects the growing interests and experiences of diverse communities – make it more difficult to discuss matters of common interest, especially on highly contested issues?

### The most important example of ‘diversity’ may be in the range of ideas about what is important and what is valued.

A longstanding and deep-seated desire on the part of the majority community to identify all New Zealanders with a single set of values and practices will be even less apt than in the past.

New Zealand is a country of many landings – from the first waka and the first sailing ships to today's aeroplanes. That common experience of arrival, whether it be long in the past or only last week, links those with lengthy histories in Aotearoa to the newcomers. It tells of the scope for fruitful relationships amongst all the peoples for whom these islands are or have become home.

# Population change

The age structure of the population can be seen in age-sex pyramids. In the second half of the twentieth century the classic age-sex pyramid – lots of young people, fewer old people – became less triangular and more cylindrical.<sup>19</sup> The ‘bites’ in the age pyramid are due mainly to changes in fertility; the impacts of migration and mortality are spread out across the age ranges. But the ‘pyramids’ of the major ethnic groups in 2013 differ markedly one from another – Māori and Pasifika structures still resemble pyramids, but those for Asian and European ethnic groups do not (Figure 3).

The census showed a smaller rate of population growth than the previous inter-censal period. Slowing population growth is found in most parts of the world. It is a long-term trend, although it was interrupted in the mid-twentieth century in many European populations.<sup>20</sup>

## Longevity

Longevity is increasing. For a very long period – all of New Zealand’s experience up to about 1970 – few people exceeded the biblical span of ‘three score and ten’.<sup>21</sup> In 1950–52 life expectancy at birth was 67.2 years for men and 71.3 years for women.<sup>22</sup> Increased life expectancy resulted from more people living closer to that maximum. This was initially through fewer deaths in infancy but in recent decades, gains in life expectancy have come mainly from fewer people dying in their 50s and 60s.<sup>23</sup>

Girls born in 2010–12 can expect to live to 83 years old and boys to just over 79.<sup>24</sup> The implication is that there will be more centenarians in the future, and we have a category of ‘old old’ – those aged over 85 – contrasted with the ‘young old’, aged 65–84. This change owes a great deal to healthier life-styles.

Most experts predict that life expectancy at birth will not increase as much in the 21st century as it did in the 20th century. Rather, gains in life expectancy will continue to be at older ages (Table 1). The increase to date already presents challenges however. If people live longer than once was expected, it may frustrate plans to create a market in annuities – assured incomes for life. Furthermore, it complicates individual decisions over how to spread their earned income across their life, including an extended old age. Increased longevity therefore poses challenges to both institutions and individuals.

But while the last months of life incur a large fraction of the cost of health services, increased longevity seems to be delaying the incidence of that expense rather than extending its duration. Most people do not experience

long periods of ill-health. The main driver of health spending seems not to be the growth of the aged population, but the progress of medical technology which makes possible once unimaginable life-extending interventions. Some health specialists think obesity could shorten life expectancy, but most think countermeasures will be effective.<sup>25</sup>

Māori and non-Māori life expectancy has continued to converge. Māori male life expectancy increased by nearly 19 years between 1950 and 2010, and that for females by over 20 years.<sup>26</sup> The gap between Māori and non-Māori life expectancy at birth was 7.3 years based on death rates in 2010–12, compared with 8.2 years in 2005–07 and 8.5 years in 2000–02.<sup>27</sup>

Male and female life expectancy has also converged. The gap is about the same – four years in 1950–52 compared with 3.7 years in 2010–12 – but that is at a much higher age in the latter case.

Nonetheless, there are variations around the average. Ethnic differences in survivorship, particularly for Māori at middle age, and from causes that are largely preventable, persist.

Māori male life expectancy at birth in 2010–12 was 72.0 (non-Māori 80.2) and female 76.5 (non-Māori 83.7).<sup>28</sup> About 60 percent of the difference between Māori and non-Māori life expectancy comes from higher death rates at ages 50 to 79 years.<sup>29</sup> More generally, some people can remain active into old age, others experience debilitating illness and disability at relatively young ages. Collective policies and institutions will not find it easy to treat people equitably.

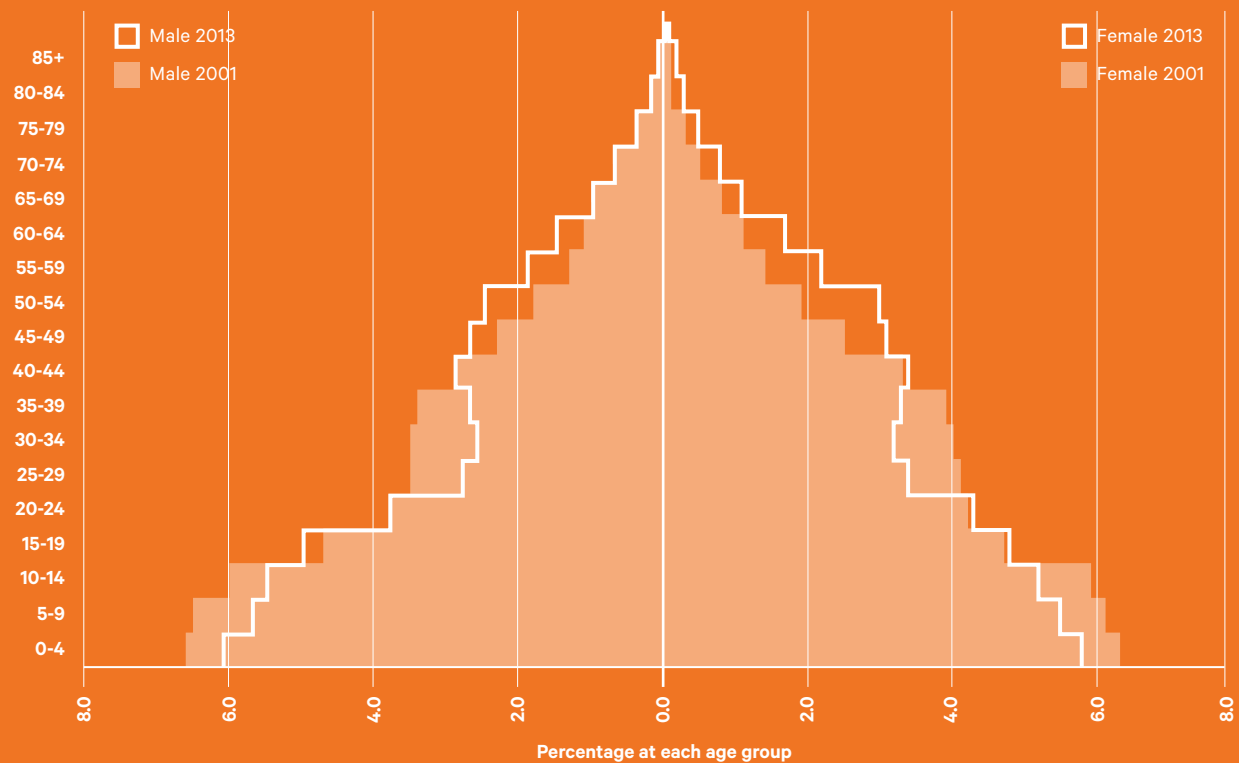
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**Longevity – people are staying active and well longer, so they are not costing the health system more; however, people will need income for longer.**

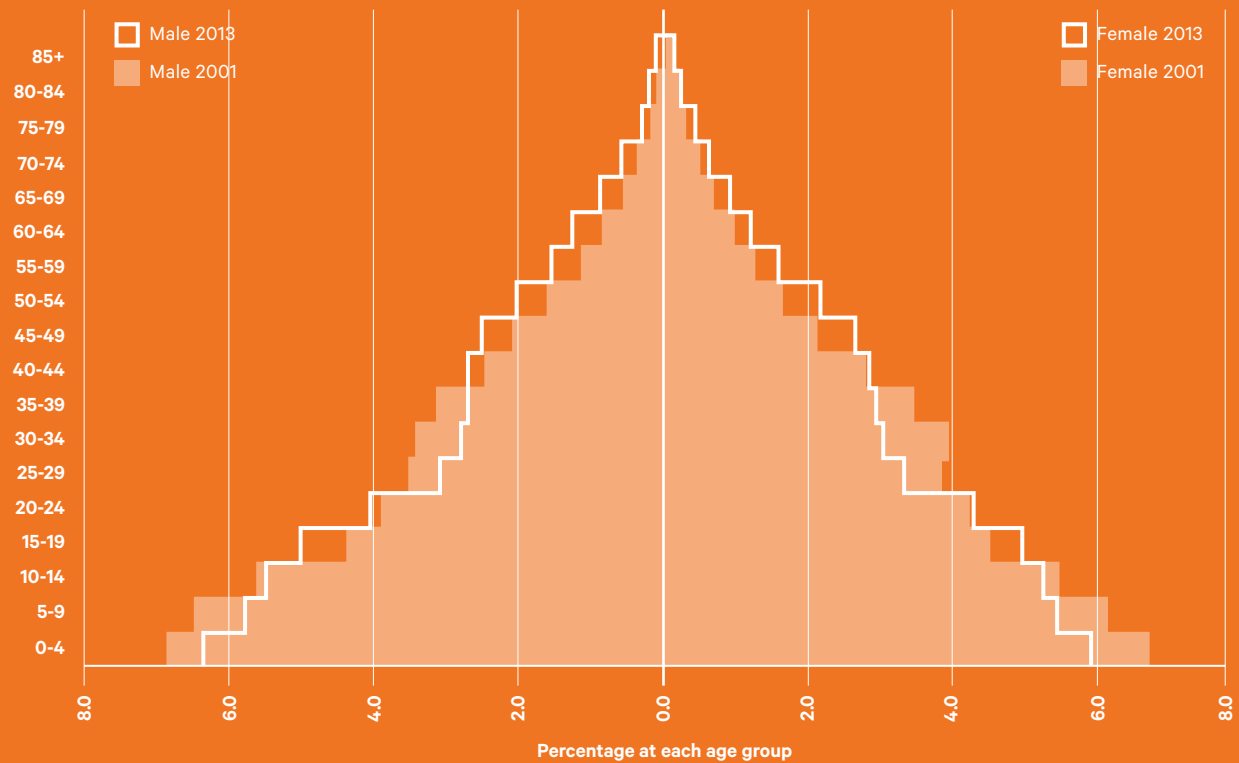
Figure 3: Age population pyramids by ethnicity

2001 and 2013 Census. Source: Statistics New Zealand

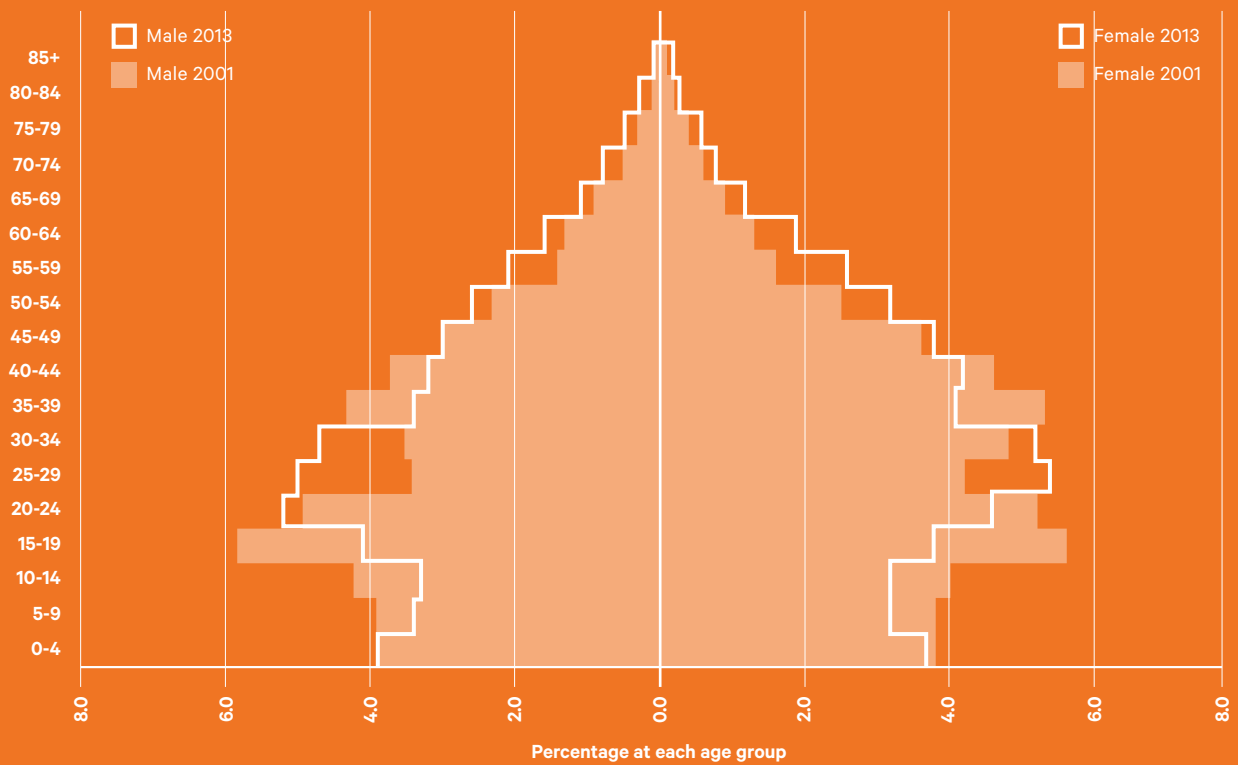
Māori



Pacific peoples



## Asian peoples



## European or other ethnicity (including New Zealander)

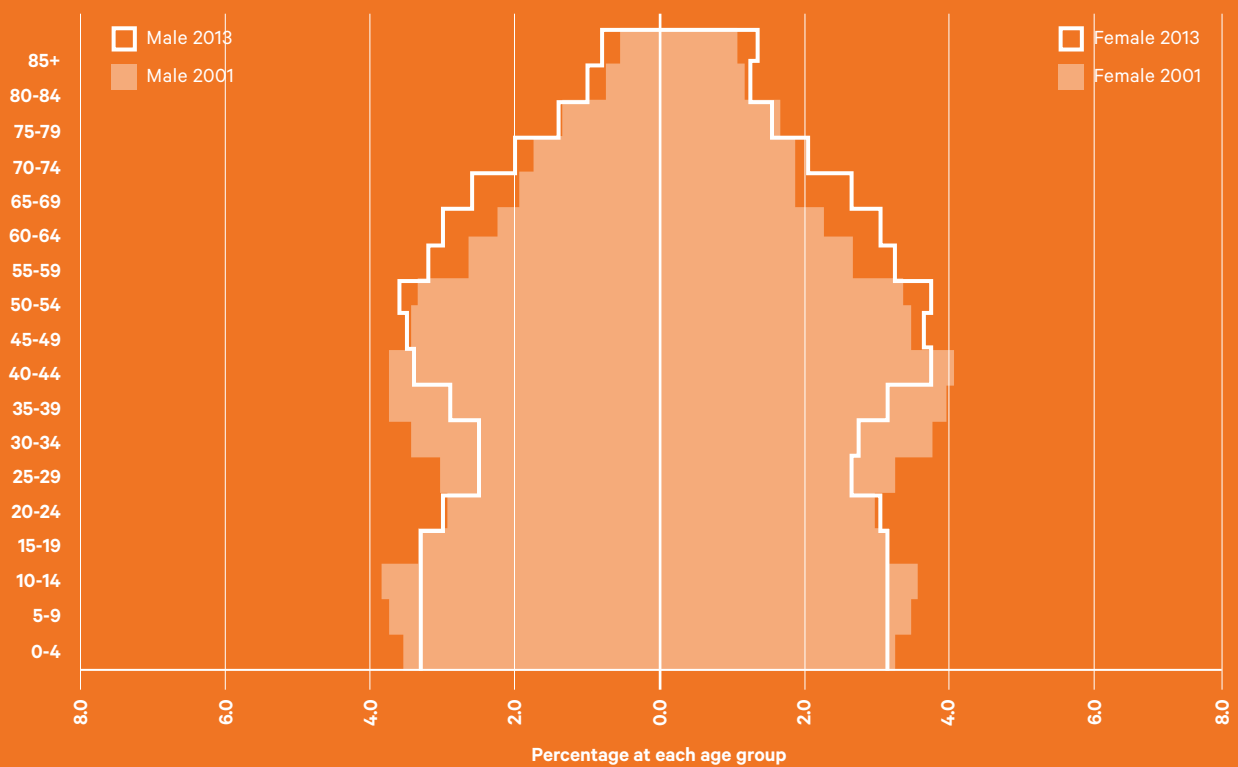
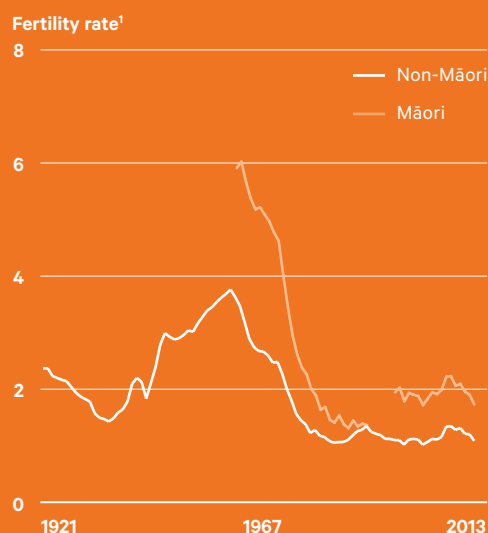


Figure 4: Total Fertility Rate (TFR) from 1921 to 2013 for Māori and non-Māori\*

Source: Statistics New Zealand



1. Fertility rate – the average number of live births that a woman would have during her life if she experienced the age-specific rates of a given period (usually a year). It excludes the effect of mortality.

\*gaps in graphs reflect gaps in data.

**Fertility –**  
New Zealand will adapt to an ageing population through innovation, and will benefit from youthful populations elsewhere in the world. Adapting to a population that will have more deaths than births will be more of a challenge.

## Fertility

A change in the rate of natural increase is the main driver of slowing population growth (Figure 4). Fewer women are having children, and women who have them are having fewer and at older ages. In the year ended December 2013 women aged 35–39 years had a higher fertility rate (71 births per 1000 women) than women aged 20–24 years (67 births per 1000). The highest fertility rate was for women aged 30–34 years (114 births per 100 women).<sup>30</sup>

Again, these are longstanding trends, and not peculiar to New Zealand. As incomes came to depend on skills rather than sheer effort, children required more investment.

The baby-boom from the mid-1940s to the mid-1960s was unusual. In the second half of the 20th century, women exercised a claim on full participation in all aspects of social and public life. In Italy, where social institutions and customs made it difficult for young women to have both a career and a family, they chose careers. In Sweden, where social institutions and customs facilitated both, fertility levels remained higher (although they still declined).<sup>31</sup>

New Zealand has retained relatively high fertility rates by comparison with other developed countries. For 2011 the OECD average was 1.7: Israel was highest amongst OECD countries with 3.00; New Zealand at 2.06, topped a cluster of other countries – Mexico, Ireland, Iceland, Turkey and France – which ranged from 2.04 to 2.00. In developing Asia, India had a rate of 2.59 and Indonesia 2.09.<sup>32</sup>

Māori fertility once followed a completely different pattern from Pākehā, with much earlier childbearing, shorter birth spacing and larger completed family size. Māori children became a larger proportion of the total. When the Māori fertility decline did eventually get under way in the late 1960s, it was among the most rapid and intense fertility transitions observed anywhere in the world.<sup>33</sup>

**Table 1: Lifespan after age 65**

Source: Commission for Financial Literacy and Retirement Income (2013) Longevity trends and their implications for the age of eligibility for New Zealand Superannuation. A paper prepared for the 2013 Review of Retirement Income Policy, by Alison O'Connell.

| Year of birth               | 1928 | 1938 | 1948 | 1958 | 1968 | 1978 | 1988 |
|-----------------------------|------|------|------|------|------|------|------|
| <b>Lifespan from age 65</b> |      |      |      |      |      |      |      |
| Male                        | 17.1 | 19.3 | 20.8 | 22.1 | 23.4 | 24.5 | 25.5 |
| Female                      | 20.4 | 21.9 | 23.3 | 24.6 | 25.7 | 26.7 | 27.6 |

## Adaptation not growth

It is hard to discern any likely reasons for changes in the underlying decline in fertility, although that was also said in the 1930s – no one predicted the baby boom.<sup>34</sup> The complexities of childbirth for women in their 30s may induce earlier families, but that is likely to have only marginal effects on completed family size.

Pro-natal policies such as direct subsidies to mothers have not been that effective where tried.<sup>35</sup> The strongest arguments for more children are that other challenges – for instance overcoming stagnant average incomes – are easier to manage if absolute numbers are increasing – and that a colourful youth culture is attractive. Others will prefer to emphasise a high productivity economy over a high birth rate.

More likely, New Zealand will adapt to lower population growth and a relative shortage of youth. There will be numerous challenges. The most obvious is in aged care, captured by a comment at a Hamilton workshop for this report: 'who will wipe your chin?'

Small communities face demographic 'scissors' – where net migration loss combines with fertility decline and longevity to generate structural ageing and population decline. Twenty out of 67 territorial authorities lost population between 2006 and 2013 (up from 15 between 2001 and 2006). Furthermore, 613 out of 1869 census area units (from fewer than 500 between 2001 and 2006) declined in the same period.<sup>36</sup> And at some future time, this pattern now found only in rural New Zealand, could be replicated nationally.

It makes sense to focus more on productivity than population totals. In the future, employers will need to look further than just at young employees for innovation. The growing cohort of 'active old' will also look for ways to continue to earn income or participate in community affairs. The advantages of investing

outside New Zealand can also be promoted: national income can be earned by investing in workers and businesses in other countries just as it can be by bringing migrant workers to New Zealand.

An ageing population shapes social and public institutions. It also shapes family dynamics, especially combining care for aged parents with continuing care for late-born children who face an economy in which it takes longer to get settled employment. Those facing this double-caring burden have been termed the 'sandwich' generation.<sup>37</sup>

These trends and consequent challenges have occurred in other countries before they have in New Zealand. We have an opportunity to learn from successful adaptation elsewhere. Equally, the demographic position we inherit provides us with a potential 'demographic dividend' in that we have a relatively large and youthful Māori and Pasifika population.<sup>38</sup> There are countries which look forward to even greater demographic dividends, but we can at least seek to make better use of our opportunity.<sup>39</sup>

# Tangata whenua

## Age structure and growth

Like other indigenous peoples in the settler states of North America and Australia, Māori occupy a unique position in the national polity of Aotearoa New Zealand. As tangata whenua and Treaty partners, Māori see themselves as distinct from the Pākehā majority and from new settler ethnic groups. The 2013 census recorded 598,600 ethnic Māori.<sup>40</sup> Overall, Māori comprised about 15 percent of the national population, a proportion similar to 2006, but much higher than the indigenous share in North America or Australia.<sup>41</sup> A larger category comprised the 668,724 who in 2013 reported being of Māori descent (though not necessarily of Māori ethnicity).<sup>42</sup> The gap between the two figures reveals subtle differences in how identity is understood and expressed.<sup>43</sup>

The age structure of the Māori population differs markedly from the national pattern, reflecting differences in past and present fertility behaviour and mortality experiences.<sup>44</sup> The youngest age cohorts are by far the largest, although the proportion of children (0–14 years) has been declining since at least 2001. The Māori median age of just under 24 years remains significantly younger than both the national and European median age (38 and 41 years). While structurally youthful, the number of older Māori at kaumātua age (65+ years) has grown rapidly over the last decade owing to improvements in survivorship, and will continue to increase at a faster rate than in other ethnic groups. Natural increase is the key driver of Māori population growth, whereas immigration also contributes significantly to Asian and Pasifika growth. Even with above replacement fertility, the growth potential of Māori is constrained and, in coming decades, is unlikely to keep pace with the growth of other minority groups. Projections suggest that by 2026 the number of Māori and people from Asian ethnic groups combined will reach parity at around 800,000 each.<sup>45</sup>

## Distribution and mobility

Māori are mostly an urban-dwelling people and this has been the case since the 1960s.<sup>46</sup> In 2013 Māori had nearly the same rate of urbanization (85 percent) as the population as a whole (86 percent), although the proportion living in main urban areas (at least 30,000 residents) was below the national average. Māori continue to be unevenly distributed across the country and demonstrate a great deal of regional diversity in terms of demographic visibility (Figure 5). Using Auckland as an example, in 2013 nearly one in four Māori lived there but because the region is also a major destination for migrants, the Māori population share was far below the national average. The regions with the highest Māori proportion in 2013 were Gisborne and Northland (45.1 and 29.6 percent respectively), which are also areas of high socio-economic deprivation.<sup>47</sup> In terms of cultural vitality, however, regions with a large Māori share also tend to have a higher proportion of te reo speakers.<sup>48</sup>

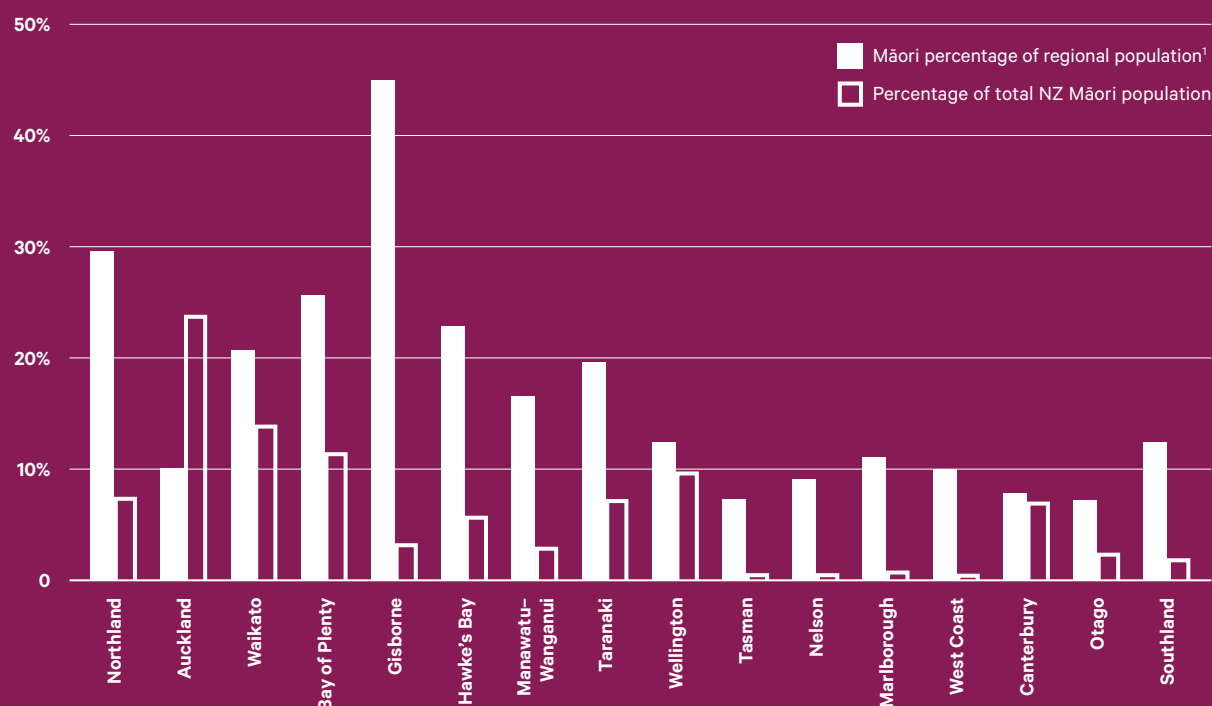
As with New Zealanders generally, there is a sizeable Māori diaspora. It is estimated that at least one in six Māori reside outside of New Zealand, with the majority living across the Tasman.<sup>49</sup> The 2011 Australian census recorded just over 128,000 usual residents of Māori ancestry.<sup>50</sup> One third were Australian-born and five percent were at least third generation migrants. Māori migrants face particular challenges around language retention, reflecting ongoing struggles to revitalise te reo in Aotearoa. The proportion of te reo Māori speakers in Australia is far lower than the share of speakers in Aotearoa, and the share of mother tongue speakers in other Australian-based migrant groups.<sup>51</sup> The extent to which Māori in Australia retain their connections to Māori culture, identity and institutions is an important question for Māori on both sides of the Tasman. The experience of the rapid and extensive Māori rural-urban migration suggests that the outcome is more likely to be oriented towards cultural adaptation and innovation, than to detachment or demise.

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**Māori culture and institutions continue to endure and evolve along with demographic change, but the maintenance of te reo Māori faces challenges.**

Figure 5: Māori population by region

2013 Census. Source: Statistics New Zealand

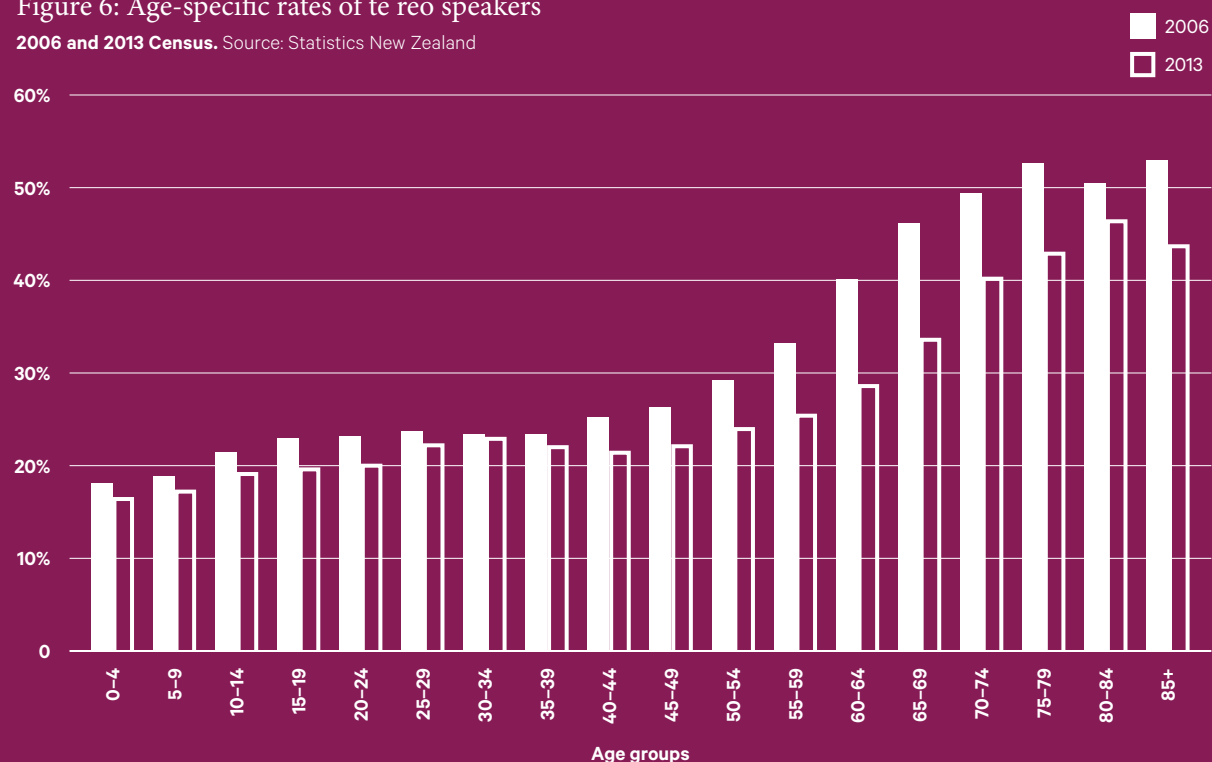


1. Total regional population includes those not stating ethnicity.

A youthful age structure but with a rapidly growing number of kaumātua.

Figure 6: Age-specific rates of te reo speakers

2006 and 2013 Census. Source: Statistics New Zealand



# Māori participation in the economy is now underpinned by significant assets as well as labour.

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## Cultural Identity and wellbeing

Many Māori live, work and raise their families in diverse cultural contexts.<sup>52</sup> About half of Māori adults are either married to or living with a non-Māori partner,<sup>53</sup> and more than half of Māori in the 2013 census identified with at least one other ethnic group. By contrast, only a relatively small proportion of Pākehā partner with Māori, largely reflecting differences in group size. This unevenness means that at a population level, Māori engage with biculturalism in ways that simply do not come into play for many other ethnic groups.

Notwithstanding a long history of intermarriage and more than a century of policies promoting cultural assimilation, Māori have actively sought to retain their distinctive identities, customs and institutions. In the inaugural Māori Social Survey, Te Kupenga,<sup>54</sup> 70 percent of Māori adults said it was at least somewhat important for them to be involved in things to do with Māori culture; just over 70 percent knew their marae tipuna (ancestral marae); and 62 percent had visited their ancestral marae at some stage.<sup>55</sup>

Whānau is grounded in the concept of whakapapa and extends far beyond the census-defined household.<sup>56</sup> Expressions of whānau have expanded in recent times to include relationships based on common interests and activities (e.g. kapa haka and kohanga reo whānau). Subjective evaluations of whānau wellbeing reported in Te Kupenga are also far more positive than the findings derived from material measures of wellbeing.<sup>57</sup>

The revitalisation of te reo Māori, however, remains an ongoing concern. The 2013 census recorded an absolute fall in the number of te reo speakers for the first time since the language question was introduced in 1996. In 2013 the number decreased to nearly 125,400 from just over 131,600 in 2006.<sup>58</sup> The proportion speaking te reo was also smaller in both 2006 and 2013 compared to previous censuses. The decline may reflect a number of factors including losses through emigration, the passing of older cohorts of native speakers and a slowing down in the rate of te reo acquisition through kōhanga and kura. As figure 6 shows, the decline in the share of te reo speakers has been especially marked at older ages.

## Treaty relations and iwi

Māori have always sought to maintain their own culture and autonomy as well as to participate in the political entity which developed in New Zealand after European settlement.<sup>59</sup> Since the 1980s, Māori-Pākehā political interactions have largely focused on the Treaty settlement process. Ngāi Tahu and Waikato-Tainui were among the first iwi to reach settlements with the Crown, along with other iwi and Māori authorities, and have become significant players in their regional economies, and in the 'Māori economy'.<sup>60</sup> While the census has long documented Māori employment, occupational spread and incomes, the rise of the Māori economy has engendered new ways of thinking about Māori economic activities and wealth creation.

The heightened public profile of iwi has been accompanied by a growing willingness by individuals to express an iwi affiliation. At the 1991 census, 77 percent of Māori descendants reported at least one iwi, increasing to 83 percent by 2006. In 2013 the share remained unchanged as did the proportion reporting at least two iwi (nearly 40 percent of those stated). As with most social phenomena, aggregate patterns mask a great deal of internal variation and growth patterns vary tremendously between iwi. Ngāi Tahu, for example, nearly doubled in size between 1991 and 2001; Waikato iwi experienced a small decline between 2001 and 2006, but increased between 2006 and 2013; and some other iwi had modest or stagnant growth. The subjective nature of identification means that non-demographic factors are important to understand when projecting and planning for future iwi population growth.<sup>61</sup>

As highlighted elsewhere in this report, Māori record poorer outcomes than Pākehā and Asian peoples on a variety of population and economic indicators. Nonetheless, in recent decades the emphasis in Māori life has shifted from seeking redress for historical wrongdoings towards autonomous leadership and participation in public life in ways that reflect Māori values and aspirations. New Zealand's public life must evolve to take account of these changes. Issues relating to political representation and participation in decision-making on issues of national importance, such as immigration, will continue to be keenly debated.

# Migration

## Visitors and tourists

On any given day in 2013 around 140,000 people who usually live overseas were in New Zealand and around 115,000 New Zealand residents were outside the country.<sup>62</sup> The 140,000 visitors are not counted in the resident population of New Zealand, but they represent the equivalent of the population of a city the size of Hamilton drawing on services and facilities in the country every day.

These daily visitor figures are small relative to New Zealand's population of 4.2 million, but over a whole year it meant that in 2013, for instance, around 2.7 million overseas people made short-term journeys to New Zealand and a little over two million New Zealanders did the same from New Zealand.<sup>63</sup> In other words, more than the entire New Zealand population entered and left the country in a given year.

Fifty years ago, before the advent of long-haul aircraft, the figure for overseas visitors was approximately a quarter of a million (compared with a total population of 2.6 million) and over half of that number were ship passengers and crews. Even twenty years ago, long after the advent of long-haul aircraft, the number of international visitors was less than half the 2013 total – at around 1.1 million.<sup>64</sup>

What will happen in the next twenty to thirty years? It is estimated that around 80 million Chinese tourists travelled overseas in 2012.<sup>65</sup> This equates to almost four times the population of Australia, New Zealand's biggest source of tourists.<sup>66</sup> We may see massive growth in tourist numbers from China and India as their middle classes seek out 'clean and green' places for their holidays. On the other hand, extrapolation is not fact. Japanese tourist numbers to New Zealand quadrupled in the 1980s, but in 2013 they were not much more than half the 1993-94 level.<sup>67</sup>

## Long-term migration

In 2013 New Zealand had a net permanent and long-term (PLT) migrant gain of 22,468. Seventy five percent of this was accounted for by roughly equal numbers from China, India and the United Kingdom, and another 20 percent by approximately equal numbers from Germany and the Philippines.<sup>68</sup>

In 2013, 3,000 more men than women arrived, while 500 more women left for 12 months or more. New Zealand is following global trends with regard to the feminisation of migration, and women have become as mobile as men when it comes to movement across New Zealand's international border, even though men still seem to dominate some of the longer-term temporary flows.<sup>69</sup>

In 2013 total PLT arrivals were around 94,000, and total PLT departures around 71,500, thus giving a net overall inflow of 22,500. Taking just the movement back and forth across the Tasman, however, there was a net outflow of nearly 20,000 to Australia.<sup>70</sup>

This pattern of a select number of countries being net providers of most new immigrants and Australia being a net receiver of emigrants from New Zealand has been characteristic since the mid-1960s.

The flows can change in scale and direction very quickly. In 2002 and 2003 there were net migration gains of well over 30,000, but in 2011 and 2012 there were small net migration losses.<sup>71</sup>

Changes are driven as much by decisions by New Zealanders and Australians (not subject to regulation) as by other nationalities or by New Zealand immigration policy.<sup>72</sup> This is because of the large New Zealand expatriate population (estimated to be somewhere between 750,000 and one million depending how you classify 'New Zealanders') and the right of Australians to unrestricted access to New Zealand.

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As many people enter and leave New Zealand each year as the country's total population (4.2 million).

Permanent and long-term net migration is significantly influenced by the movement of New Zealanders, making it very difficult to control net flows by immigration policy.

Taking a lower estimate of the expatriate population, at least 780,000 people born in New Zealand lived overseas in 2013, of whom at least 75 percent lived in Australia.<sup>73</sup> Australia's total population in 2013 was 23 million – over five times that of New Zealand.

In 2013, of 94,000 PLT arrivals, 31,000 were either New Zealanders or Australians.<sup>74</sup> Of 71,500 PLT departures in 2013, just over 50,000 were New Zealand or Australian citizens.<sup>75</sup>

When so many migration decisions – to leave, to come, to come back – cannot be regulated, it is very difficult to set migration targets. This has long been the case in New Zealand and will continue to be so in coming decades.

New Zealand has also accepted responsibilities to selected Pacific countries. While current migrant numbers are relatively small (a net migration gain of less than 1,000 in 2013) a major environmental or other crisis could have a significant effect on the total.<sup>76</sup> The same is true in respect of New Zealand's refugee intake policy.

Immigration has made a contribution to population increase in most years in the 21st century. The population increased by an average of 30,000 annually between 2001 and 2013; over those years net migration averaged just under 14,000.<sup>77</sup> (Figure 7)

## New immigrants

The principal vehicle for new migrants (as against returning New Zealanders) is a scheme which emphasises work skills and the economic value of migration. Priority is given to migrants who already have a job offer in New Zealand and the great majority of people admitted in the skilled migrant category (86 percent in the year ended June 2013) have already had a temporary work, study or visitor visa in New Zealand.<sup>78</sup> When they apply for residence they are not strangers to New Zealand.

Migration likely creates valuable links between New Zealand and international markets. Entrepreneurial potential, skill acquisition, and having a good job guaranteed on arrival remain the best criteria for selection. The argument that migrants are over-concentrated in activities less productive than agriculture is not entirely out of date, but construction has replaced manufacturing in this category.

Temporary residents provide an important short-term work force, especially in horticulture and hospitality. The total numbers granted temporary work and study visas in the year ended June 2013 were, respectively,

144,978 and 64,233. The number of temporary work permits in 2012-13 was the largest ever, while study visa numbers were well down on the record 87,800 a decade earlier.<sup>79</sup>

Temporary residents are an important source of long-term migrants. Of the 38,961 approvals for residence (all categories) in the year ended June 2013, 63 percent had had work visas, 11 percent study visas and 26 percent visitor visas.<sup>80</sup> In total, 83 percent of all residence approvals had held a temporary visa at some point since 1997/98.<sup>81</sup> These numbers can rise and fall very sharply. Foreign language students in New Zealand increased sharply in the early 2000s, but halved between 2002 and 2005.<sup>82</sup>

## Circular migration

Many countries, like New Zealand, have large inward and outward migrant flows relative to the net gain or loss. This will continue.

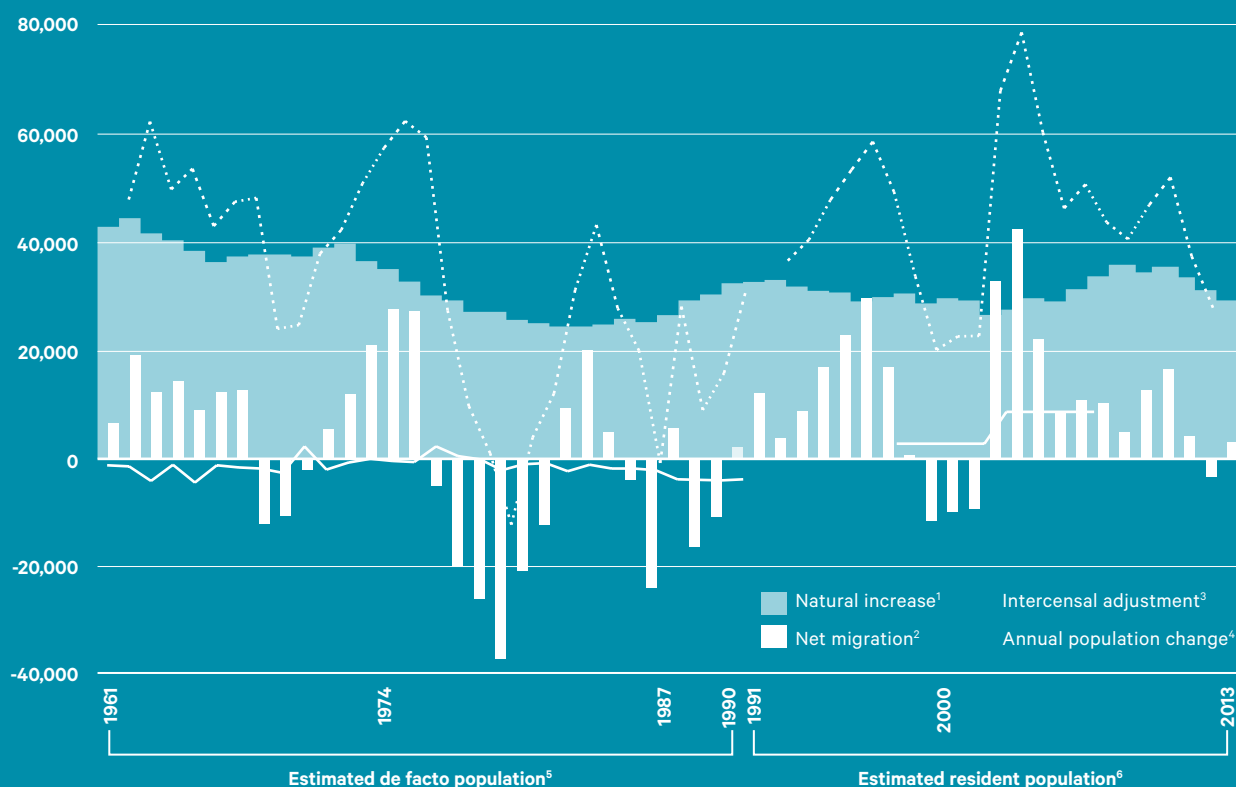
Policy makers need to understand the decision-making of both groups. Emigrants and immigrants both compare expected well-being in two feasible locations, taking into account job prospects, personal ties, and welfare entitlements. Both groups will seek trustworthy informants – often relatives and friends. Both groups will spend a lot of money to migrate. Should they also be assisted? New migrants can pose particular challenges for the health system, especially if their immunization records are incomplete.

Many migrants leave after a relatively brief period in New Zealand.<sup>83</sup> In the year ended June 2013, just under 40,000 (14 percent) of the 287,700 people approved for residence between 2005-06 and 2011-13, who actually arrived in New Zealand, had been absent for six months or more continuously.<sup>84</sup> The incidence of long-term absenteeism was highest amongst US nationals, followed by Canadians (26 percent) and citizens of Singapore (25 percent).<sup>85</sup> Pasifika populations display high levels of mobility between New Zealand, Australia and Pacific Island countries.<sup>86</sup>

Welfare entitlements do not migrate automatically with migrants nor meet them on arrival. Australia significantly restricted New Zealanders' entitlement to Australian welfare in 2001. The current debate about this is not incidental, but the forerunner of many such issues. New Zealand must respond carefully rather than in 'tit for tat' fashion; a significant share of 'Australians' resident in New Zealand are after all the families and children of New Zealanders who have returned from Australia.

Figure 7: Population changes between 1961-2013 by natural increase and migration

Source: Statistics New Zealand



1. For the estimated de facto population, excess of registered births over registered deaths. For the estimated resident population, excess of estimated births over estimated deaths (both by date of occurrence).
2. For the estimated de facto population, excess of total arrivals over total departures. Excludes armed forces before 1987. For the estimated resident population, excess of permanent and long-term arrivals over permanent and long-term departures. A minus sign denotes an excess of departures over arrivals.
3. The difference between two population estimates that arises from errors in the census-based estimates and/or components of change. The adjustment is calculated at the end of each intercensal period.
4. From population estimates. Population change for the June 1991 year is not available, as resident population estimates have only been revised back to 31 March 1991.

5. The estimated de facto population is based on the census night population count, updated for births, deaths, and net migration between census night and the date of the estimate. De facto population estimates include visitors from overseas, but exclude New Zealand residents who are temporarily overseas.
6. The estimated resident population is based on the census usually resident population count, updated for: residents missed or counted more than once by the census (net census undercount); residents temporarily overseas on census night; and births, deaths, and net migration between census night and the date of the estimate. Resident population estimates exclude visitors from overseas, but include New Zealand residents who are temporarily overseas.

Temporary workers and those on study visas have become a much more prominent part of migration to New Zealand in the past decade, including as an important source of permanent residents.

New (non-New Zealand) migrants are primarily recruited for their skills; they also provide links with their home countries that are valuable for New Zealand as a whole.

# Households and families

In 2013, New Zealanders lived in 1.55 million separate households. Overwhelmingly, these were couple (with or without children) or single parent households.

These categories accounted for 68 percent (the first three rows in Table 2) with almost another quarter in single person households, leaving just over eight percent for all other formations – two or more families living together, or multi-person households. About half the couple households included children and about half did not. These patterns have been stable since 2001 – remarkably so, as Table 2 indicates.<sup>87</sup>

There are regional variations. Auckland had significantly fewer households without children than New Zealand as a whole – 24 percent being couples without children households (with possibly an unrelated adult) and 19 percent single person households. In the South Island no less than 46 percent of households were couples without children.<sup>88</sup> Wellington stood out for the number of single person (25 percent) and car-less households (Table 3).<sup>89</sup> In all regions the percentage of couple households without children had risen since 2006, but the trend was modest.

There was a marked difference in median household income between Auckland and Wellington on the one hand and the other regions (with the partial exception of Canterbury) on the other. The three main regions were the only three in which over one third of households had incomes of more than \$100,000 annually (Table 4).<sup>90</sup>

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Many children live in households which have limited income and assets. Many of those households are headed by women.

## Unequal households?

The percentage of dwellings owned or partly owned (that is, via a mortgage) fell from 68 percent in 2001 to 65 percent in 2013 (this latter figure includes dwellings held in a family trust, a census category that did not exist in 2001). That meant that rented accommodation increased from 32 percent to 35 percent of all dwellings.<sup>91</sup>

The number of households living in disadvantaged circumstances was fewer than the number in rented accommodation. The findings of the NZ General Social Survey (NZGSS), conducted biennially over the years 2008-2013, suggest that around 15 percent of households lived in difficult circumstances with the percentage varying depending on the measure used. Six percent of households reported overcrowding.<sup>92</sup> Ten percent reported two or more problems with their house. Using a standard of living index, seven percent of surveyed households judged their circumstances to be 'restricted' or 'very restricted' and another six percent 'somewhat restricted'. Responses on a subjective standard of living index were similar: five percent considered their standard of living low or very low; seven percent were 'dissatisfied' or 'very dissatisfied' with their standard of living and 15 percent felt they did not have enough money to get by on.<sup>93</sup>

Some other data supported these findings. The number of two-family households in Auckland rose from 3.5 percent to 5.4 percent, which translated (owing to the effect of population increase) to there having been nearly twice as many such households in Auckland in 2013 as in 2001 (24,615/13,257).<sup>94</sup> The fact that this trend was marked in Auckland (although the rise is consistent throughout the country) suggests it might be linked in part with internal and international migration into the region. It might also be linked to the ethnic composition of Auckland's population. Multi-family households (where family is defined as couples or sole parent with or without children) are common amongst the Pasifika population where parents often live with their adult children and their grandchildren.<sup>95</sup> Māori conceptions of whānau are more expansive and multi-faceted than can readily be captured by census household data.

Table 2: Percentages of total households stated by household type

2001, 2006 and 2013 Census. Source: Statistics New Zealand

| Household type         | 2001 | 2006 | 2013 |
|------------------------|------|------|------|
| Couple, no children*   | 27.1 | 27.7 | 28.1 |
| Couple, children*      | 29.7 | 29.7 | 28.9 |
| One parent, children*  | 12.3 | 11.7 | 11.2 |
| Two families           | 2.0  | 2.6  | 3.1  |
| Unrelated ('flatting') | 4.3  | 4.1  | 3.9  |
| Single person          | 23.4 | 23.0 | 23.5 |
| All other              | 1.1  | 1.2  | 1.2  |

\*can include an unrelated individual

There has been a rise in two family households.

Table 3: Percentages of total households stated by number of cars

2013 Census. Source: Statistics New Zealand

|                    | Auckland | Wellington | Canterbury | New Zealand |
|--------------------|----------|------------|------------|-------------|
| No car             | 7.5      | 11.6       | 6.5        | 7.9         |
| One car            | 34.2     | 44.0       | 34.7       | 37.6        |
| Two cars           | 39.9     | 33.3       | 39.6       | 38.4        |
| Three or more cars | 18.4     | 11.1       | 19.1       | 16.1        |

Table 4: Household income by region

2013 Census. Source: Statistics New Zealand

|                                   | Auckland | Wellington | Canterbury | All other regions                                     | New Zealand |
|-----------------------------------|----------|------------|------------|-------------------------------------------------------|-------------|
| Median household income per annum | \$76,500 | \$74,300   | \$65,000   | Range from \$46,900 (Northland) to \$59,600 (Waikato) | \$63,800    |

# Household patterns have changed little in the 21st century.

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## Households, children and poverty

Can a profile be created of the 15 percent of households in difficult circumstances (assuming that there was a high correlation between the responses cited above)? When adjusted for the number of earners, household income was influenced by family type (categorized by the number of dependents) and occupation. Household overcrowding was influenced by family type and household size.<sup>96</sup>

Ethnicity bore a much less predictable relationship to indices of household disadvantage, possibly because many households were comprised of members with different ethnic affiliations.

Families with a large number of dependents are particularly likely to be disadvantaged, irrespective of the kind of household they live in.<sup>97</sup> It follows that relatively large numbers of children may be affected. These may be either children in large families or children with only a single parent. While just over 11 percent of households were single parent families, around 30 percent of children lived in those households.<sup>98</sup>

According to the Ministry of Social Development's 2014 figures, some 285,000 children (or 27 percent of all children) lived in households where the total income was less than 60 percent of the contemporary median household income (after housing costs). Some 60 percent of these children were expected to live in poverty for at least their first seven years.<sup>99</sup>

Within Auckland, poverty is concentrated in parts of the city. For example the latest census figures show that the median incomes of people living in Mangere and St Heliers have diverged; the median incomes of persons living in Mangere have actually fallen since the last census in 2006.<sup>100</sup> The occurrence of so-called 'third-world' diseases such as rheumatic fever and whooping cough indicates that New Zealand faces a problem that is most unusual for a developed country and demands urgent attention.

How much of this disadvantage is inherited? Evidence from international analyses of intergenerational income mobility – using income from work, assets

and welfare – indicates that the 'extent of transmission of family income across generations is large and even larger than that of earnings'.<sup>101</sup> In the last generation the transmission of wealth has also become a significant source of on-going inequality. The 2013 household incomes report suggests that wealth inequality is about two to three times higher than income inequality.<sup>102</sup>

One study based on the uptake of the unemployment and domestic purposes benefit estimated an intergenerational correlation of 0.37 for the entire sample, and higher than that for females, Māori, and individuals without educational qualifications. In other words, the educational attainments of both parents and the proportion of years spent in a single-parent household explained nearly two-thirds of the effect. The remaining third reflected the lower educational attainments of children raised in households dependent on welfare for their income.<sup>103</sup>

Gender shapes sole parent families and households. Such families and households can be under greater economic pressure than two-parent families or households irrespective of the sex of the parent; if the parent is female that can compound the economic or financial disadvantage. In 2013, of just over 200,000 sole parent families, 82 percent were headed by a female.<sup>104</sup>

Until the 1970s social policy assumed that a 'breadwinner' wage for adult males coupled with some assistance from the state would enable all families to participate fully in the life of the community. Households and families were seen to roughly equate. In 2013, households comprise many different kinds of families. This stems in part from the diversity of ethnic groups, the recognition of same-sex relationships (with or without children), the number of single parent families, and the number of multi-generation families. These complexities will continue to challenge the formulation of social policy in the 21st century.

# Regional variation

Regions are not discrete units – they are also defined by their interconnections, including those that all regions have with Auckland.

## Features

New Zealand's population was 85 percent urban in 1986; the proportion has barely changed since then but the proportion living in Auckland has risen from one quarter to one-third between 1986 and 2013.<sup>105</sup> Auckland's size makes it important for many businesses and individuals in other regions.<sup>106</sup> Equally, materials and products can move between regions before being exported, perhaps far from where they originated. Regional variation needs to be set in the context of such integration.

Auckland accounted for just over half of the population growth in New Zealand between 2006 and 2013. In the rest of the North Island, growth was mainly confined to major centres – Hamilton, Tauranga, Napier-Hastings, Palmerston North, and greater Wellington (including Kapiti) – with New Plymouth notable amongst smaller cities and zones of population growth elsewhere.

In the South Island both Canterbury and Southland gained population, a result in part of the turn to dairying. Central Otago (including Queenstown) and Nelson-Tasman grew, but at a slightly slower rate than between 2001 and 2006. Marlborough, West Coast, and coastal Otago grew slowly or not at all, as in 2001–2006, although there were pockets of growth in all areas in both periods.

In the South Island only Southland had a Māori population close to the national average, and Pasifika populations were small. Populations of Asian origin were far more significant in Auckland than anywhere else in the country.

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**Auckland is very distinctive in respect of both rate of growth and the composition of its population.**

## Challenges

The ongoing growth of Auckland, both economically and in terms of population size, highlights the significance of urban economies, especially in terms of the co-location of firms and the concentration of skills, but this is complicated for New Zealand by location choices that have increasingly included an Australian city, or one elsewhere in the world.

Recent censuses have shown that Auckland sometimes experiences small net losses of population through migration in both directions with all other regions of New Zealand. It is overseas migration, rather than internal mobility, that makes migration a net contributor to the growth of Auckland's population.<sup>107</sup>

That is reflected in Auckland's high (39 percent) proportion of overseas-born. The regions with the next-highest proportion of overseas-born people in 2013 were Wellington (25 percent), Nelson (21 percent), and Canterbury (20 percent).

As those other percentages indicate, not all migrants go to Auckland but the proportion varies markedly depending on the source country. Of recent (since 2008) overseas migrants just over half were living in other parts of New Zealand. For those born in English-speaking countries and Germany that figure was around two-thirds. But for those from India the figure was only just over 43 percent, for Samoa, Tonga and Fiji it averaged around 33 percent and for China just under 30 percent.<sup>108</sup>

New Zealand has always had very high levels of migration from district to district, suburb to suburb, and even street to street. For the twentieth century these rates were between two and three times as high as those of Western Europe, and vastly higher than those for most other regions in the world. New Zealand's rates were always among the highest, and in some decades were the highest. In the 1970s, the period for which the most robust comparative data exist, Westland, which had the lowest rate of residential mobility of any province, still exceeded the moving rate in 'low-mobility nations'.<sup>109</sup>

In respect of internal migration, Waikato saw the biggest net gain between 2006 and 2013; it came from both the working age and the youthful and aged population (15 and under, and 65 and over). Wellington and Otago also saw net gains from internal migration; in Wellington's case this was predominantly from the working age

Table 5: Projected percentage of population growth at 65+ years 2011–2031, medium projection

Source: Statistics New Zealand, N.O. Jackson (2013)

| Districts                                                     | Percentage |
|---------------------------------------------------------------|------------|
| Auckland, Hamilton City, Queenstown-Lakes District            | 36 – 37%   |
| Tauranga City, Wellington City, Selwyn District               | 44 – 46%   |
| Waikato District, Palmerston North City, Waimakariri District | 60 – 63%   |
| Whangārei District, Christchurch City                         | 95%        |
| The other 56 Territorial Authority areas                      | 100%       |

Many districts outside Auckland face the challenge of matching ongoing responsibilities with fewer resources to discharge them.

Canterbury has been distinctive in the last inter-censal period on account of the 2010/11 earthquakes.

population. Bay of Plenty had a net migration gain predominantly of the non-working age population.<sup>110</sup>

Overall, however, internal migration, measured by changes of residence between the two censuses, decelerated. Whether this can be explained simply by the increased concentration of population in the Auckland region, or is an impact of general ageing, remains to be determined. A similar trend in interstate migration in the US seems to be related to labour market conditions.<sup>111</sup>

## Implications

The principal implication of these reflections is that we should not too readily project the current situation into the future. On the other hand demographic trends suggest that ‘no growth’ will become more rather than less common. On the other hand, districts currently experiencing slow population growth should reflect that a few years ago Tauranga was expected to become essentially a retirement location, not a major port and service centre. Havelock North and Ashburton were regarded similarly, but the wine industry and dairying respectively have changed their current circumstances dramatically. Dairying has similarly changed Southland’s prospects.

Some territorial local authorities will have increasing difficulty in maintaining service levels for an ageing and possibly dwindling population, not to mention burgeoning numbers of visitors and tourists (Table 5). Reluctance to accept withdrawal of local infrastructure, whether post offices, schools, medical services or other amenities will be more intense rather than less. In the three years ended December 2013, deaths exceeded births in Thames-Coromandel, Kapiti Coast, Horowhenua, and Timaru districts. Should the central government plan ‘red zones’ for local authorities unable to meet their responsibilities? In some rural areas roads are already too costly for locals to maintain, even though they are essential to their present-day economies. Queenstown-Lakes has canvassed the possibility of a local tourist or bed tax to pay for infrastructure; an indication of the challenges faced, rather than a simple solution.<sup>102</sup>

Christchurch is a special case. The earthquakes have resulted in significant population shifts within as well as out of Christchurch and Canterbury. Just beyond the Christchurch urban area, Waimakariri and Selwyn districts have been among the fastest growing in the country. While Christchurch city’s population fell from 348,459 to 341,472 between 2001 and 2006, the two neighbouring districts increased from 76,476 to 94,584. The extent to which this reflects temporary features and the extent to which it is a variant on the national picture is uncertain.

# Work

## Long-term trends

The majority of the working age population is involved in some form of paid work, but the nature of that work continues to change.

The changing nature of demand – the shift in employment by industries, in terms of location and the rise and fall of occupations – is accompanied by changes in labour supply, including the ageing of the population, the contraction in entry level cohorts and the reliance on immigrant labour.

Primary and secondary industries were historically major employers. The former was not only important economically but until the 1920s was relatively labour-intensive. Secondary industry grew during and after the Second World War and peaked at 36 percent of the workforce in 1966.<sup>113</sup> Since 1940, service industries have grown dramatically and the 2013 census confirms this.

## Sector growth

The fastest-growing ‘industry’ sector (there are eighteen in total covering the whole economy) between 2006 and 2013 was health and social assistance (growth of just under 20 percent); it is now the largest employer of New Zealanders (191,694 people; ten percent of the workforce). By contrast 29,472 fewer people were employed in the manufacturing sector in 2013 than in 2006<sup>114</sup> (Figure 8).

The move to sectors with a higher proportion of skilled labour is also apparent in the growth of the professional, scientific and technical services sector (plus ten percent and comprising just under nine percent of those employed and with 46 percent women) and the education and training sector (plus 12.5 percent).<sup>115</sup>

The decline or disappearance of industries that employed significant numbers in the decades after the war has impacted especially on the new arrivals from the regional and rural hinterland of New Zealand. The concentration of Māori and Pasifika in these low-skilled occupations has meant those communities have been hard hit by the shrinkage in those industries.

## Occupational change

The occupational structure of the workforce shifted to the disadvantage of the less skilled between 2006 and 2013, although not markedly. Professionals increased from 20 to 22.5 percent of the workforce and managers from just over 18 to just under 19 percent of the workforce. Almost all the less skilled occupations (including clerical, sales work and labouring) employed fewer people than in 2006 (Figure 9).

## Agglomeration

There are important regional differences in terms of employment, especially in relation to the mix of industries, but also in terms of other attributes of the local labour market. Auckland benefits from agglomeration – that is, it has grown faster than average on account of gains, to both employment and productivity, that arise from the clustering of economic activity.<sup>116</sup>

In the 12 months to December 2013, Auckland gained 48,000 jobs (growth of just under seven percent), while unemployment fell. The largest number of new jobs (21,000) were in the professional, scientific and technical services sector, followed by retail, accommodation and food (+14,200 jobs), confirming the dominance of service sector growth.<sup>117</sup>

The second and third largest cities, Christchurch and Wellington, suffered shocks, in the first case due to earthquakes (although the rebuild should restore jobs). Wellington saw an increase in jobs in the public administration, health care and education sectors but a decrease in manufacturing between 2006 and 2013.<sup>118</sup>

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**Auckland had the greatest absolute and proportionate growth in jobs of any region.**

**Pākehā, Māori and Pasifika have different employment patterns.**

**Unemployment has increased since 2006.**

**The employment experience of men and women differs in several respects.**

# Young Māori and Pasifika women have very high rates of unemployment.

## Gender and employment

Employment remains highly differentiated by gender. The 2013 census showed that the manufacturing and transport sectors were just under 30 percent female, but the education and health sectors were 74 percent and 82 percent respectively.

Women remain less likely to maintain work continuity and their salary/wage levels were on average below those of men (Figure 10). The employment rate for women was 57 percent, but for men 68 percent. In contrast, whereas only nine percent of women reported no unpaid activities, 15 percent of men did.<sup>119</sup>

The full impact of the feminisation of the paid workforce, especially in the service and retail sectors, has operated in ways not fully understood. Since the 1970s:

- the two-income household has become increasingly common.
- males with tertiary qualifications have tended to be pushed up the occupational ladder, while those with low educational qualifications find it increasingly hard to find work.
- women in part-time and low-paid jobs adversely affect median pay for the workforce as a whole (although they themselves are often better off than their mothers, let alone their grandmothers).

## Work rich, work poor

Long-term exclusive employment in one job, for one employer or in a particular occupation or industry is now less common than 30 years ago.<sup>120</sup> Fewer New Zealanders are involved in full-time, ongoing employment and a variety of non-standard forms of employment are now much more apparent amongst the paid workforce. This is likely to continue, and to continue to have variable impacts on individuals and households.

The 2013 census indicated that only about 15,000 more people were in employment than in 2006 (the definition of employed is anyone who has worked one hour or more for pay or profit) and the increase was entirely in female employment. But the female unemployment rate was higher – it rose from 5.8 percent in 2006 to eight percent in 2013, compared with a rise in male unemployment from 4.5 percent to 6.3 percent.<sup>121</sup>

A labour market core continued to experience employment stability and decent salaries/wages, but others were in work with limited job security. The growing significance of part-time work was marked for males. Thirteen percent of the male workforce was in part-time employment in both 2006 and 2013 compared with only four percent in 1981. The change has not been as marked for women, for whom part-time work has always been more significant; it accounted for 31.5 percent of the female workforce in 1981 and 33.9 percent in 2013.<sup>122</sup>

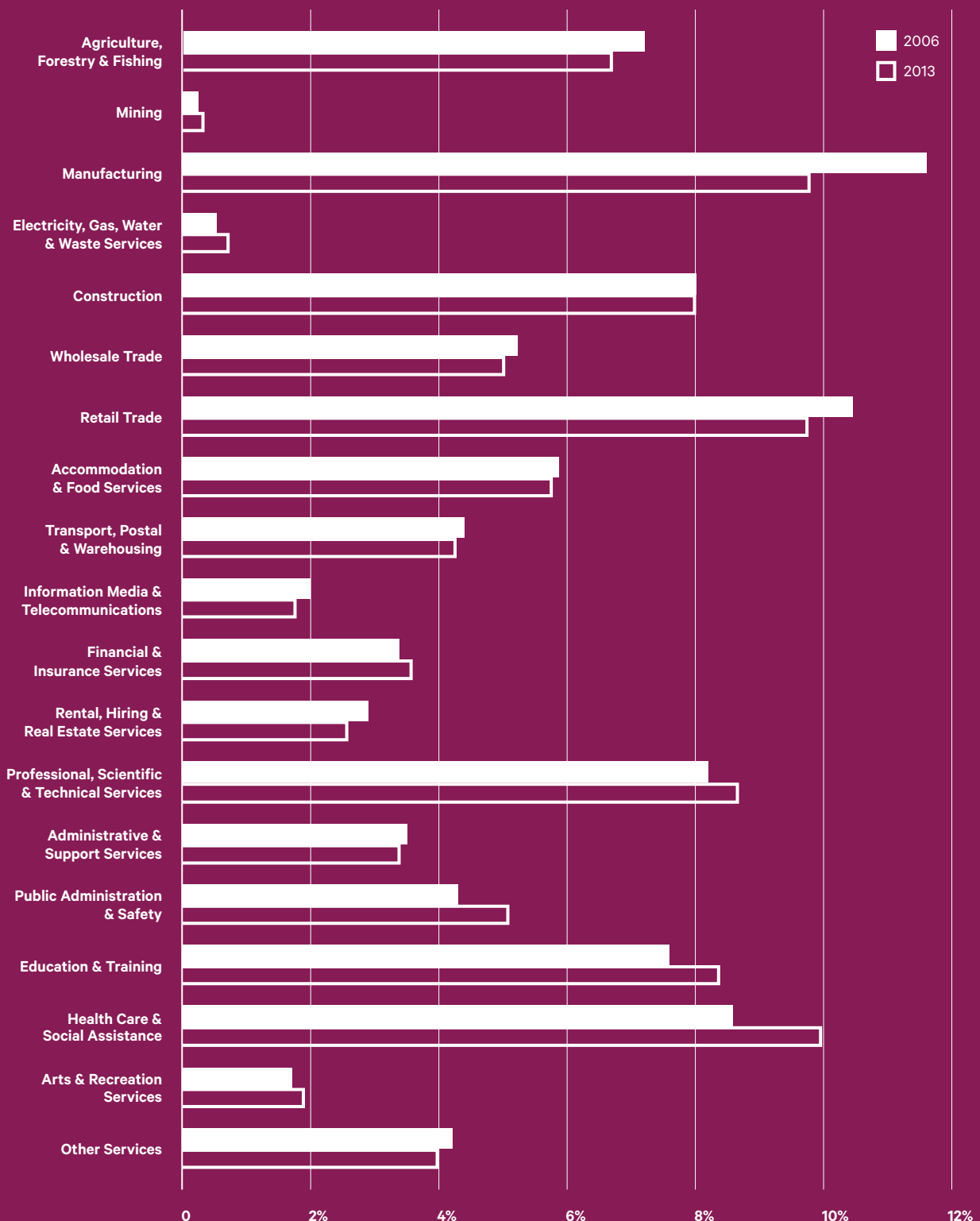
Work-rich households contrast with work-poor ones. Those in the former have invested in post-secondary qualifications while those in the latter either have qualifications inappropriate to a changed labour market or lack advanced credentials altogether.

Māori and Pasifika are more likely to be in work-poor households or have more precarious employment. In 2013 the unemployment rate for the European ethnic group was 4.4 percent whereas for the Māori and Pasifika groups it was 14.3 percent and 14.9 percent respectively.<sup>123</sup>

More recently, new entrants to the labour market have struggled, whether they are school leavers, graduates or immigrants. Since the onset of the global financial crisis in 2008 the numbers categorized as NEET (Not in Employment, Education or Training) increased significantly. The numbers of unemployed in their late teens and early twenties has grown accordingly (the unemployed in the 15-24 age groups grew from 48,000 in 2006 to 61,000 in 2013). For young Māori and Pasifika the rates are particularly severe. Māori and Pasifika males aged 20-29 had unemployment rates of 17 and 16 percent respectively and 25 percent of Māori and Pasifika females in the same age group were also unemployed.<sup>124</sup> At the other end of a working life, the numbers over the age of 65 who were employed in paid work grew significantly, from 81,000 in 2006 to 129,500 in 2013.

Figure 8: Major industry groups for employed people aged 15 years and over

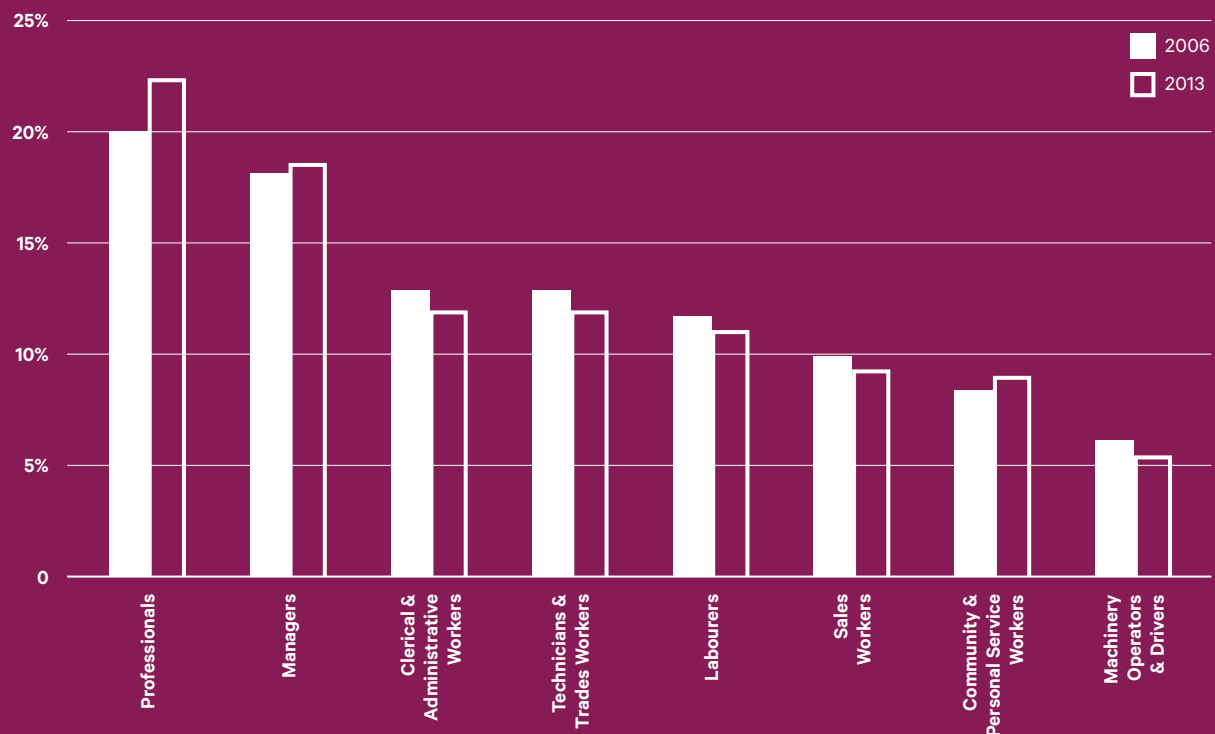
2006 and 2013 Census. Source: Statistics New Zealand



The health sector is the biggest employer of any sector.

Figure 9: Major occupational groups for employed people aged 15 years and over

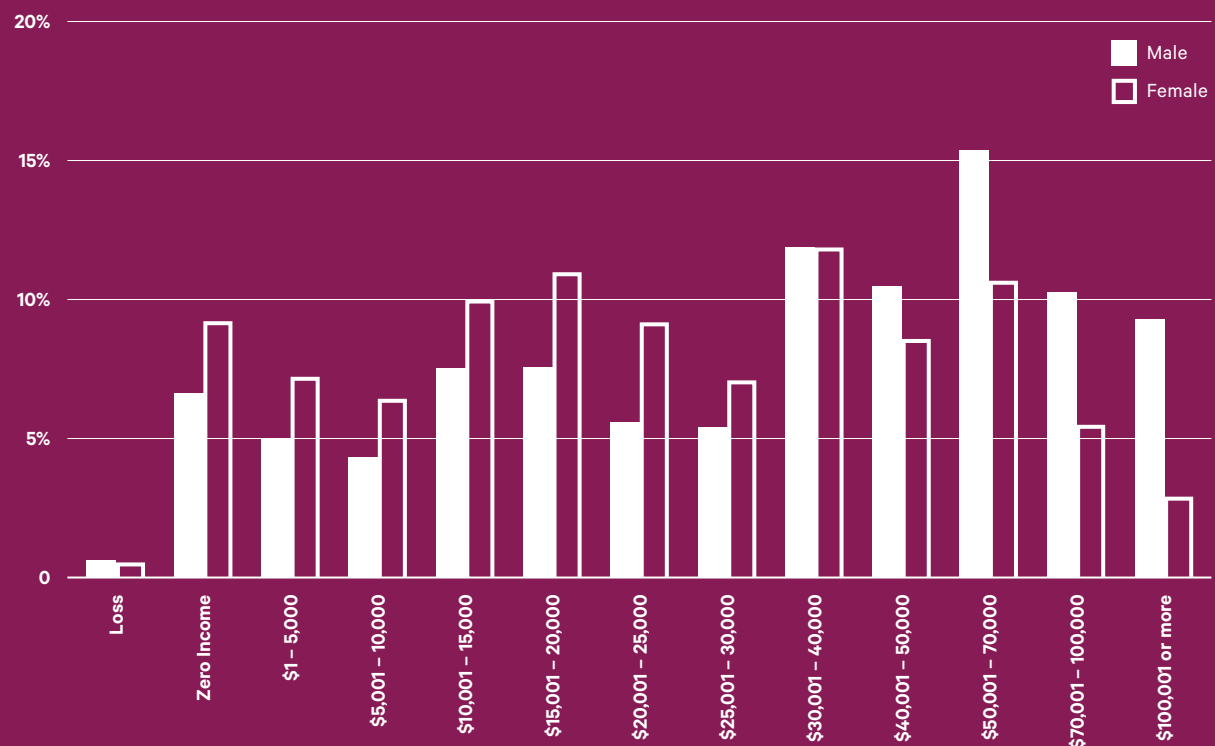
2006 and 2013 Census. Source: Statistics New Zealand



Part-time work has not increased as a proportion of total employment since 2006.

Figure 10: Total personal income for people aged 15 years and over (by sex)

2013 Census. Source: Statistics New Zealand



# Our futures

On 25 May 2014 Peg Griffin of the Kapiti Coast celebrated her 110th birthday.<sup>125</sup> The older cohort of today's population may readily comprehend the early 20th century (within the lifetime of their parents) or even the late 19th century (the youthful years of their grandparents).

Many of the 865,000 New Zealanders born since 1999 can expect to live to 2090 and many of the 292,000 born since 2008 can expect to live into the 22nd century, with a few, matching Peg, alive in 2118.<sup>126</sup>

It is difficult to look forward to this extent. In 2014 it is rare to attempt forecasts beyond 2050 and forecasts often reach only to 2035 – the equivalent of looking *back* no further than to 1980 or to 1995.

The caution is not misplaced of course. It is possible to extrapolate but the results can be misleading. The 1946 population committee was not sure the population growth rate would rise above its 1944 level. The unanticipated growth over the next two decades led the forecasters of the 1960s to overestimate growth – a 2001 population of five million was expected.<sup>127</sup>

What are today's orthodoxies and how robust are they?

## Diversity

The census confirmed New Zealand's increasingly diverse population – not something new, but something that is assuming new dimensions and meanings. The diversity is the product of two long-established migration flows: immigration and circulation of citizens of other countries, and emigration and circulation of New Zealanders. Both will persist. An overlap in ethnic affiliation, already a marked feature of younger age groups, and a secular majority living alongside adherents of a variety of faiths and cultural practices, will both characterize the 21st century.

## Population change

The trend of an ageing population is unlikely to be reversed. But consider the following possibilities which could intensify the ageing process:

- The ageing population is supplemented by an older migrant group which after a couple of decades join the aged population, increasing their proportion in the total population.
- The 'demographic dividend' of a youthful Māori and Pasifika population evaporates because of substantial migration (and relative absence of remittances) to Australia.

On the other hand in the long, long term, the baby boom 'pig in the python' will pass. While in 2026 there will be more people over 65 than under 14, between 2060 and 2070 the last 'baby boomers', those born in 1964, will be over 100. What will the population pyramid look like then?

## Tangata whenua

Māori have a long history of adaptation, beginning with their settling of Aotearoa around 750 years ago, through colonisation and the post-WWII rural-urban migration. The changes foreshadowed by the 2013 census present new but not unprecedented opportunities and challenges.

Ongoing ethnic diversification means that the old idea of 'two peoples, one nation' will be less relevant. The relationship between Māori and Pākehā may come to matter less than those forged with more recent settler groups, particularly from Asian countries.

Like other New Zealanders, Māori will become more transnational, with family and financial roots in multiple places. Collective institutions will need to be supple to take account of these diverse realities and to maintain connections between the Māori diaspora and their homeland communities.

The growth of Māori-owned assets alongside persisting socio-economic inequality challenges Māori and the nation as a whole to minimize the distance between the 'haves' and 'have nots' by expanding the Māori middle-class and reducing the number in poor circumstances.

## Migration

Many people assume that when New Zealanders leave they will not return. But overall this is not the case – there are always New Zealanders returning after a lengthy absence overseas. In the year ended March 2014, for example, 27,345 New Zealand citizens arrived in the country who had been away for 12 months or more – the largest number since the year ended March 1991 (29,575).<sup>128</sup>

Given the 650,000 or so New Zealanders in Australia in 2013 (15 percent of the New Zealand-residing population) the implications for the persistence of such return migration are immense. And that does not take account of the fact that 23 million Australians have unrestricted right of access to the New Zealand labour market and New Zealand welfare entitlements.

Even without surges from such sources, net migration will likely continue to make a contribution to population growth. Indeed, this contribution is likely to increase, relative to the contribution from natural increase from the mid-2030s, as the gap between births and deaths shrinks with rising numbers of deaths and falling birth rates.<sup>129</sup>

New Zealand is firmly on the horizon of increasing numbers of relatively wealthy migrants from Asian countries, even though the United States, Canada and Australia are preferred destinations. Those migrants look for quality of life, not income earning opportunities. This will continue to be the case well into the 21st century.

## Households and families

Household living arrangements will be sensitive to changes in age structure. Projections of household types in ageing populations show increases in couples without children households and single person households. In Tauranga City, for example, household projections based on 2001 census data for couple only and single person households showed increases of 183 percent and 205 percent respectively between 2001 and 2051, compared with an overall increase in number of households of 155 percent.<sup>130</sup> Households comprising couples with children and sole parent households increased by only 105 percent by comparison. The 'stability' in types of household living arrangements between 2001 and 2013 will not necessarily continue, especially not at the regional level.

## Regional variation

New Zealand was 86 percent urban at the 2013 census, a proportion that has increased only slightly since 1981. We assume that level of urbanisation will persist, possibly even increase. But the Canterbury earthquakes showed that urban areas are very susceptible to environmental shocks – and almost all New Zealand's towns and cities are in high hazard areas (whether the hazard be earthquake, flood, tsunami or volcanic activity). The Canterbury quakes produced significant population movements – within Canterbury in particular, but also beyond.

Other environmental shocks could have the same effect, not just in New Zealand. The tsunami in Samoa in 2011 is one such instance. A long-term effect of changes in atoll environments in Kiribati (current population around 100,000) and Tuvalu (current population around 10,000), countries which already have some privileged access to New Zealand residence through small Pacific

Access Category (PAC) quotas, could be accelerated emigration to New Zealand. Most of the new migrants from these countries end up in New Zealand's urban centres.

## Work

Ongoing changes both to where people work (location, industry and profession) and how they work (a range of employment contracts and circumstances) reflect global dynamics as industrial production moves to new sites or technology redefines the nature of work. There are also local drivers, such as the growing significance of the service industries for employment. Work remains an important influence on identity, income and options for individuals and families and there are very different outcomes depending on ethnicity, education and location.

Melanesians – NiVanuatu, Solomon Islander, Papua New Guinean – may be a significant new source of migrants. Since 2007 Vanuatu has been the largest supplier of Pacific seasonal workers for the horticulture and viticulture industries. There will be one million more young Melanesian workers aged 15–24 years in 2050 than in 2013; New Zealand will have 20,000 fewer workers in that age group in 2050.<sup>131</sup>

## Haere ra

New Zealand may be a quintessential 21st century society: more open than most to flows of goods, capital, information and labour across our international border. Moreover, today's New Zealanders inherit strong traditions of freedom and self-government. We are a fortunate country, with a reasonable natural resource endowment, a small, well-educated, reasonably well-off population (by global standards), an increasingly diverse society that is endeavouring to accommodate that diversity, and a society better adjusted to environmental variability than some other societies in more stable natural environments.

This audit, coming on the back of the latest census, is intended to contribute to that 'fortune' by making us mindful of the opportunities and challenges we face over the next decades.

Ko te pae tata  
whakamaia, kia tinā  
Ko te pae tāwhiti  
whaia, kia tata

"Secure the horizons that are close to hand and pursue the more distant horizons so that they may become close".

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Ko te pae tata  
whakamaua, kia tīnā  
Ko te pae tāwhiti  
whaia, kia tata

Secure the horizons that  
are close to hand and pursue  
the more distant horizons so  
that they may become close.

