Stats NZ
Tatauranga Aotearoa

Auckland's future population under alternative migration scenarios


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Citation
Stats NZ (2017). *Auckland's future population under alternative migration scenarios*. Retrieved from www.stats.govt.nz.

ISBN 978-1-98-852813-7 (online)

Published in June 2017 by
Stats NZ
Tatauranga Aotearoa
Wellington, New Zealand

Contact
Stats NZ Information Centre: info@stats.govt.nz
Phone toll-free 0508 525 525
Phone international +64 4 931 4600

www.stats.govt.nz

Stats NZ's latest projections for Auckland indicate a population growing from 1.6 million in 2016 to 1.9–2.1 million in 2028 and to 2.0–2.6 million in 2043. These projections are based on assumptions about the three basic components of population change – births (fertility), deaths (mortality), and migration.

This report explores what Auckland might look like demographically under some alternative higher migration scenarios, then considers the resulting demand for housing.

Note: Stats NZ's projections are a guiding tool for analysts, planners, and decision-makers. No one is bound by Stats NZ projections – depending on the relative risks of under-projecting and over-projecting, customers may choose to use lower or higher projections for their specific purposes.

Summary of key points

Current Stats NZ projections indicate an Auckland population of roughly 2.5 million by the mid-2040s. For Auckland to reach a population of 3 million or more by then, it would need sustained fertility and/or net migration levels that are significantly higher than those experienced in recent decades.

Even a population of 2.5 million by the mid-2040s implies a demand for more dwelling stock to accommodate that population. A 'higher migration' or 'very high migration' scenario implies a demand for new dwellings well above the building levels that have occurred in recent decades.

Current Auckland projections

The 'medium' growth projection is Stats NZ's latest assessment of Auckland population trends consistent with national-level assumptions.

Subnational Population Projections: 2013(base)–2043 update (published February 2017) has more information about Auckland assumptions and projections.

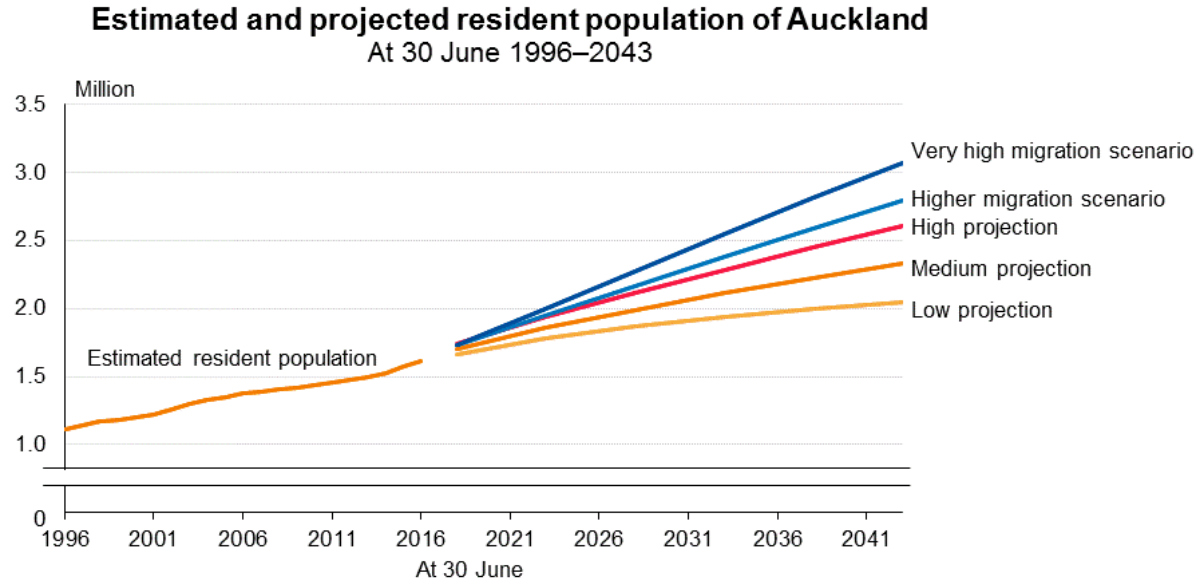
National Population Projections: 2016(base)–2068 (published October 2016) has more information about New Zealand assumptions and projections.

For Auckland the medium assumptions are:

- a total fertility rate of 1.75 births per woman in the long term, lower than the 2012–14 estimate of 1.99 births per woman and the New Zealand median assumption of 1.85 births per woman in the long term
- life expectancy at birth increasing to 87.7 years in 2043, higher than the 2012–14 estimate of 82.3 years and the New Zealand median assumption of 87.0 years in 2043
- net migration gain of 135,000 in 2014–18 but 42,500 every five years in the long term, compared with the New Zealand median assumptions of 277,000 and 75,000, respectively.

However, because the future is inherently uncertain, we also publish 'low' and 'high' growth projections to give a qualitative indication of uncertainty (figure 1). The low projection for Auckland assumes lower net migration gains than the medium projection, but also lower fertility and life expectancy assumptions. Similarly, the high projection for Auckland assumes higher net migration gains than the medium projection, but also higher fertility and life expectancy assumptions.

Figure 1



Source: Stats NZ

Alternative Auckland projections

At a time of high sustained net migration gains, as experienced in 2014–17, it is reasonable to consider whether a new migration regime may be unfolding. Beyond the short-term, will Auckland consistently gain 42,500 people every five years through net migration (medium assumption)? Or perhaps as many as 72,500 people every five years (high assumption)? Or possibly net migration gains similar to the current 2016–17 levels?

We consider two additional high migration scenarios for Auckland:

1. a 'higher migration' scenario of 125,000 every five years
2. a 'very high migration' scenario of 175,000 every five years.

Under both scenarios, fertility and mortality assumptions are assumed to be the same as the medium projection.

Unsurprisingly, under these scenarios, Auckland's population grows larger and more quickly (figure 1):

- surpassing 2.0 million in the early 2020s rather than the late 2020s
- reaching 3.0 million in the early 2040s under the 'very high migration scenario'.

New Zealand projections

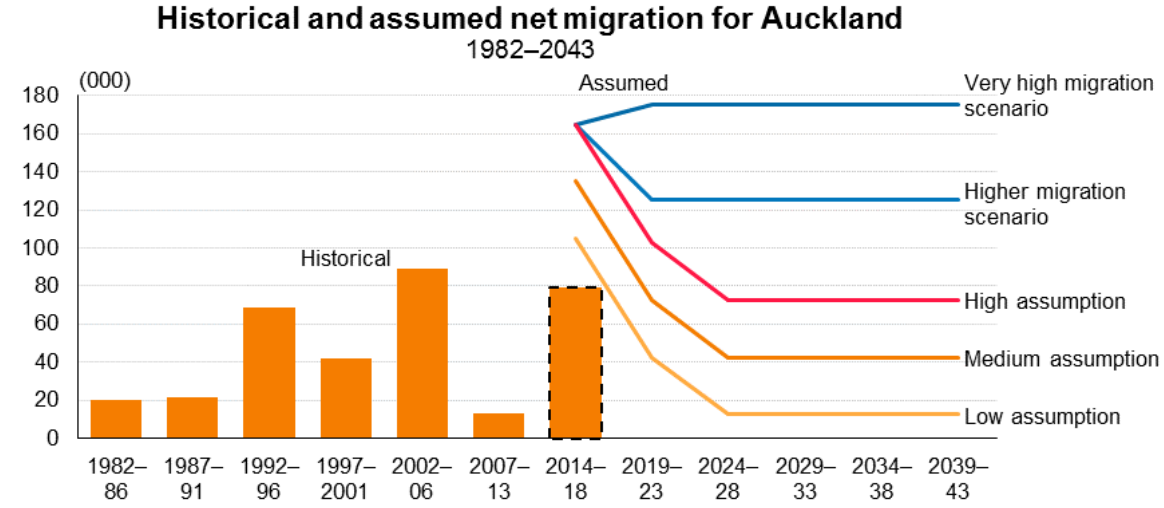
New Zealand's population would also have very different sizes corresponding to these scenarios:

- under current assumptions, the resident population grows from 4.7 million in 2016 to 5.1–5.7 million in 2028 and to 5.3–6.6 million in 2043
- with a 'higher migration' scenario, say 250,000 net migration every five years, the population reaches 5.7 million in 2028 and 7.0 million in 2043
- with a 'very high migration' scenario, say 350,000 net migration every five years, the population reaches 6.0 million in 2028 and 7.6 million in 2043.

Auckland migration assumptions

Published low, medium, and high projections give a plausible indication of future population changes, given current demographic trends and current policy settings. Those projections all incorporate relatively high net migration during the 2014–18 period before easing to lower net migration during 2019–23 and beyond (figure 2). Auckland's net migration during the three years ended June 2016 is estimated at 79,500 (see Subnational population component changes and median age).

Figure 2



Note: Net migration is for 5-year periods except for historical estimates for (a) 7-year 2007–13 period and (b) 3-year 2014–16 period.

Source: Stats NZ

The assumed easing of net migration in the longer term reflects a combination of these factors:

- more New Zealand citizens departing to Australia, and fewer returning from Australia, as economic conditions in Australia gradually improve
- fewer arrivals of non-New Zealand citizens, as immigration approvals ease
- more departures of non-New Zealand citizens, notably those who have been in New Zealand on temporary student and work visas.

This easing of net migration also reflects the historical experience of volatility. However, the migration assumptions should not be misinterpreted as indicating stable net migration gains in future. More likely, future net migration will continue to be volatile. The migration assumptions simply indicate long-run averages.

The migration assumption is arguably the most contentious because of its historical variability and future uncertainty. The relative simplicity of the net migration assumption belies the complexity of the numerous migration sub-flows. For example, Auckland's net migration includes both internal migration (movement between areas of New Zealand) and external migration (movement between countries). Internal and external migration flows are not necessarily correlated. Indeed, while Auckland has gained migrants through external migration, since the late 1990s it has lost more migrants than it gained through internal migration.

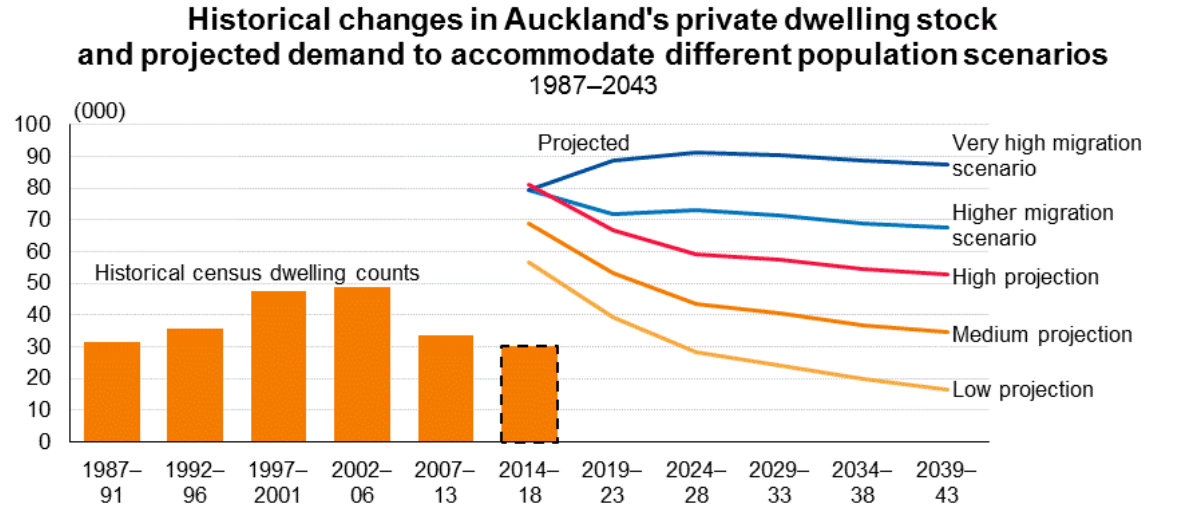
International travel and migration releases indicate the contribution of external migration to Auckland's population.

Internal migration indicates the movement between New Zealand's regions from 1976 to 2013.

What this might mean for Auckland's housing demand

Auckland had an average of about 2.9 people per household (private dwelling) in 2001, 2006, and 2013. Applying this simple ratio to the population projections indicates how many more dwellings need to be built to accommodate the population (figure 3). For the purposes of this illustration, we assume 3.3 percent of Auckland's population lives in non-private dwellings (eg retirement homes, hospitals, prisons) and does not require a private dwelling.

Figure 3



Note: Changes are for 5-year periods except for historical counts for (a) 7-year 2007–13 period and (b) 3½-year 2014–16 period based on new residential dwelling consents.

Source: Stats NZ

The projections indicate many more dwellings need to be built in Auckland than was done historically, to accommodate a 'high' population projection – an average of 60,000 more dwellings every five years between 2013 and 2043. Under the 'higher migration scenario', the average needs to be at least 70,000 new dwellings every five years. And under the 'very high migration scenario', the average is closer to 90,000 new dwellings every five years.

There are two reasons why these simple illustrative dwelling figures might under-estimate the demand for housing for any given population projection.

First, Stats NZ's family and household projections have a more sophisticated methodology than simply assuming a constant average household size. They indicate average household size is likely to decrease slightly with an ageing population. This means more dwellings need to be built to accommodate the same population.

Subnational family and household projections information releases have more information.

Second, the 'resident population' definition excludes visitors to Auckland, either from overseas or elsewhere in New Zealand. Some visitors, such as students and working holiday-makers, may be in

Auckland for several months. Therefore, they may have a need for private dwelling accommodation.

Seasonal fluctuations in short-term traveller numbers describes how the number of overseas visitors in New Zealand peaked at 350,000 in the last week of December 2016, a peak that has been steadily rising year to year.

In addition, the number of new dwellings actually needed will depend on the changing balance of private, non-private, and unoccupied dwellings.