

## Mapping Trends in the Auckland Region

# Population growth

## Commentary

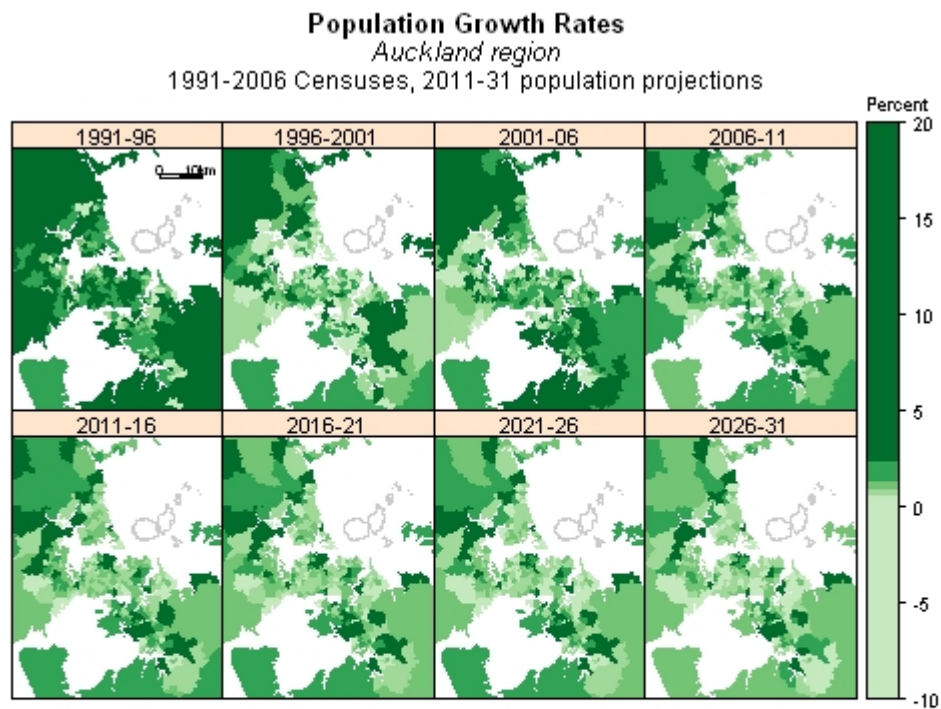
### Overview

Most parts of the Auckland region experienced population growth between 1991 and 2006. Local growth rates varied markedly between censuses.

### Mapping the population growth rates

The population growth rate is the annual percentage change in the size of a population. Darker shades indicate higher population growth rates. The maps pull together information about historical and projected populations. The maps for 2006–31 are based on current population projections (2006-base medium series) and show one possible future scenario.

Figure 3.1



**Note:** More information about interpreting the maps is in the [Interpreting the maps](#) chapter.



Downloadable version of figure 3.1 (PDF, 6.1MB)

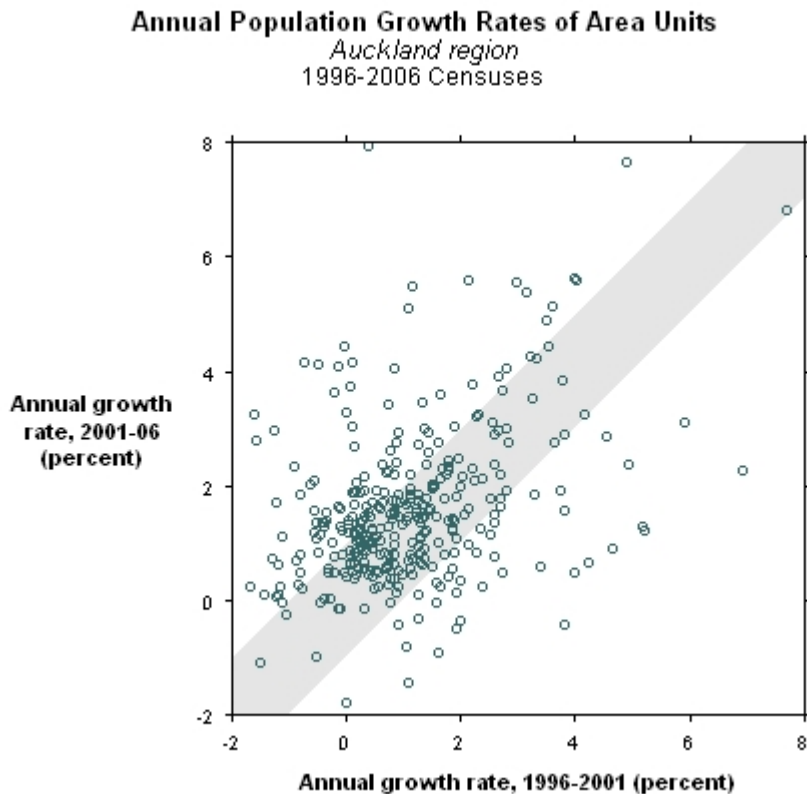
If you do not have Adobe Acrobat Reader, download [Adobe Reader](#) for PDFs to view or print this file.

Although there is substantial variation in growth rates over time, no clear pattern emerges.

## Historical population growth rates

Do some areas have consistently high or consistently low growth rates? One way to measure this is to compare growth rates in successive census intervals. Figure 3.2 does this. Each dot in the figure represents an area unit. The further to the right a dot is, the higher the area unit's population growth rate in 1996–2001; the closer to the top a dot is, the higher the growth rate in 2001–06. If each area unit's growth rate remained the same between census intervals, the points would lie on a straight line. If each area unit's growth rate was always within 1 percentage point of its previous growth rate, the points would all fall within the grey diagonal band.

**Figure 3.2**



**Note:** 9 percent of area units are excluded, due to the axes being truncated at -2 and 8. More information is in [Notes and sources](#) section.

There is some tendency for area units that grow fast in one period to grow fast in the next period, but there are many exceptions. Only half the points fall within the grey band.

## **Regional Growth Strategy**

The Auckland Regional Growth Strategy was adopted by the region's councils in 1999. The main points of the strategy were for most population growth to be within existing metropolitan areas, and to be around existing town centres and major transport routes. More emphasis was to be placed on redevelopment and intensification as opposed to infill and urban sprawl. Some growth was to be allowed in greenfield areas, while the region's rural population was anticipated to double by 2050 (Regional Growth Forum, 1999).

The strategy has not been strictly adhered to in the 10 years since its implementation. There has been some, but not significant, population growth in town centres or near transport corridors. Takapuna, Newmarket, and New Lynn are areas where redevelopment has started and is likely to continue for years to come. Also, there has been considerable growth in the number of apartment buildings, particularly in the Auckland central business district (CBD). By contrast, infill and greenfield development have been the most popular methods to facilitate population growth. The greenfield areas of Manukau city saw huge population growth between 2001 and 2006, and will continue to do so. Also, living in rural and coastal areas has become more popular than was anticipated – the population living in rural areas grew 50 percent between the 1991 and 2006 Censuses.

## **Population projections**

2006-base population projections for all area units were produced by Statistics NZ in 2008. These projections took into account the principles of the Regional Growth Strategy as well as information on population and housing capacities and the timing of known and possible future housing developments. The maps in figure 3.1 show that projected population growth to 2031 will generally be at a slightly slower rate than in the past, and that major growth areas will either be in greenfield areas or around the state highways in the Auckland region.

Natural increase (births minus deaths) is projected to decline over time for the majority of area units. Combine this with constant net migration levels and the result is declining population growth (and population growth rates) in the future for most area units. However, the major growth areas will not necessarily have stable or declining population growth rates. Growth rates for these areas will continually change as areas are redeveloped. Greenfield areas will see growth rates increase as housing developments take place but the rates will dramatically slow as areas become fully developed.

While population growth is projected to be slower, growth in the Auckland region as a whole will be higher than in other regions. The current medium-series projections show the Auckland region having the highest annual growth rate of all regions between 2006 and 2031. Annual population growth will average 1.4 percent between 2006 and 2031. This compares with annual average population growth of 0.8 percent for New Zealand as a whole.

## Implications

There are a number of implications about population growth in the Auckland region:

- Population growth does not always occur where and when anticipated. Users of population projections should always consider the low- and high-variant series, as well as the medium-variant series, before making any judgement as to which projection series is/are most suitable for their purposes.
- Economic conditions will have a major impact on the timing of future housing developments. The slowdown of the economy in 2008–09 may mean that in the short term the low-variant population projections are possibly the best indicator of future population growth. Alternatively, if there is a significant decrease in the number of New Zealand residents leaving the country permanently or on a long-term trip, then the medium-variant, or even the high-variant, population projections could be the best.

## Related chapters

- [Commuting](#)
- [Households and families](#)
- [Population density](#)

## Further information

This page is part of [Mapping Trends in the Auckland Region](#), available on [www.stats.govt.nz](http://www.stats.govt.nz).

## Notes and sources

### Definitions

The population growth rate is the average annual growth rate of the population during a five-year period. These rates have been derived for all the area units in the Auckland region.

### Data sources

The historical data are based on the census usually resident population count from the 1991, 1996, 2001, and 2006 Censuses.

The projected data comes from the 2006-base population projections released in December 2007. Projections are based on assumptions about future fertility, mortality, and migration. There are three alternative series produced (low, medium, and high) using different assumptions. The population projections have as a base the estimated resident population at 30 June 2006, and extend to 2031. More information about population projections is on the Subnational Population Projections page, available on [www.stats.govt.nz](http://www.stats.govt.nz).

The maps display data at area unit level. Area units are non-administrative areas that are in between meshblocks and territorial authorities in size. They generally coincide with suburbs (in urban areas) and rural neighbourhoods. The Auckland region is made up of 399 area units, while there are 1,927 area units throughout New Zealand. Digital boundary files, used for constructing the maps, can be downloaded from Digital Boundaries, available on [www.stats.govt.nz](http://www.stats.govt.nz).

The Auckland region is one of 16 regions, which are aggregations of area units governed by regional councils. More information about the geographical hierarchy of areas and the maps is in the Interpreting the maps chapter.

### Scale bar and axis truncation

The scale bar in figure 3.1 is truncated so the range for the middle three colours can be seen – it would have been impossible to determine each colour's range if the scale bar had the true range for all areas. The actual population growth rates range between -100 percent and 98 percent. Just 1 percent of all population growth rates between 1991 and 2031 are either less than -10 percent or greater than 20 percent. The truncation of the scale bar has no effect on the maps of the area units.

The axes in figure 3.2 have been truncated at -2 percent and 8 percent. The figure would have been too large without limits being put on the range of the axes. Nine percent of the area units have population growth rates outside this range. Excluding these area units has a minimal effect on the strength of the association between growth rates in successive periods.

## References and further reading

### References

Regional Growth Forum (1999). Regional Growth Strategy Auckland Regional Council.

## **Further reading**

Auckland Regional Council (2007). Growth of Auckland region – Dynamics of Population Change 2001–2006 Auckland Regional Council, 2006 Census series.

Statistics New Zealand (2007). Subnational Population Projections: 2006 (base) – 2031.