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## National Ethnic Population Projections: 2006 (base) – 2026

### Highlights

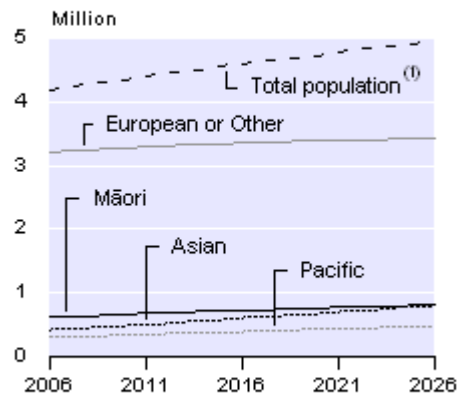
Under all projection series:

- New Zealand's Māori, Asian and Pacific populations will continue to grow.
- The 'European or Other (including New Zealander)', Māori, Asian and Pacific populations will all age, reflected in rising median ages and increasing proportions of people in the older ages.

Under mid-range projection series 6:

- New Zealand's 'European or Other' population is projected to reach 3.43 million by 2026, an increase of 220,000 (0.3 percent a year) over the estimated resident population at 30 June 2006 of 3.21 million.
- New Zealand's Māori population is projected to reach 820,000 by 2026, an increase of 190,000 (1.4 percent a year) over the 2006 estimate of 620,000.
- New Zealand's Asian population is projected to reach 790,000 by 2026, an increase of 380,000 (3.4 percent a year) over the 2006 estimate of 400,000.
- New Zealand's Pacific population is projected to reach 480,000 by 2026, an increase of 180,000 (2.4 percent a year) over the 2006 estimate of 300,000.

**Projected Ethnic Populations**  
2006–2026, series 6



(1) From 2006-base national population projections, series 5, released October 2007.

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There is a companion Media Release published – [National Ethnic Population Projections: 2006 \(base\) – 2026](#).

# Commentary

## Background

This release contains 2006-base population projections of four broad ethnic populations of New Zealand: 'European or Other (including New Zealander)', Māori, Asian and Pacific. These supersede the updated 2001-base projections released in April 2005. The new projections have the estimated resident population of each ethnic group at 30 June 2006 as a base, and cover the period to 2026 at one-year intervals. Detailed projection results, including projections for individual years and by single-year of age and sex, are available from [Table Builder](#) on the Statistics New Zealand website ([www.stats.govt.nz](http://www.stats.govt.nz)). Ethnic population projections for regional council and territorial authority areas will be available in late 2008.

Ethnic population projections are derived to provide information about New Zealand's changing demographic structure. They assist a variety of policy, planning and research purposes. In addition, the projections provide information for ethnic communities to understand changes in their population size and composition.

The projections are neither predictions nor forecasts. They provide an indication of possible future changes in the size and composition of the ethnic populations. While the projection assumptions are formulated from an assessment of short-term and long-term demographic trends, there is no certainty that any of the assumptions will be realised.

Each ethnic population consists of all people who identify with ethnicities within that ethnic group. It is important to note that these ethnic populations are not mutually exclusive because people can and do identify with more than one ethnicity. People who identify with more than one ethnicity have been included in each ethnic population that they identify with.

The Māori, Pacific and Asian ethnic groups are defined in Level One of the [Standard Classification of Ethnicity 2005](#). The estimates/projections for the 'European or Other (including New Zealander)' group include people who belong to the 'European' or 'Other Ethnicity' groups defined in Level One of the standard classification. If a person belongs to both the 'European' and 'Other Ethnicity' groups they have only been counted once. Almost all people in the 'Other Ethnicity' group belong to the 'New Zealander' sub-group.

## What has changed from the previous 2001-base projections?

These national ethnic population projections incorporate information from the [2006 Census of Population and Dwellings, ethnic population estimates](#) at 30 June 2006, the latest 2006-base [national population projections](#) (released 24 October 2007), and the latest demographic information including [birth and death registrations](#) to December 2007.

Compared with the previous 2004-base national population projections (released 16 December 2004), mid-range series 5 of the 2006-base national population projections assumes:

1. A base population at 30 June 2006 of 4.18 million. This is 58,000 or 1.4 percent higher than the 4.13 million projected from the 2004-base national population projections (series 5), mainly because observed net migration was higher than assumed. Net migration between 30 June 2001 and 2006 was an estimated 161,000, based on estimated population change less natural increase (births minus deaths), compared with the medium migration variant of 104,000 in the 2004-base projections.

2. An average total fertility rate of 2.09 births per woman during 2007–2011, dropping to 2.00 during 2012–2016, 1.94 during 2017–2021, 1.91 during 2022–2026, and 1.90 thereafter. By comparison, the previous 2004-base projections assumed the average total fertility rate dropped from 1.95 during 2007–2011 to 1.88 in 2012–2016 and 1.85 thereafter. These higher fertility levels incorporate the recent rise in the total fertility rate, from about 1.9 in the year ended June 2002, to 2.0 in the year ended June 2006, and to 2.1 in the year ended June 2007.

3. Net migration of 46,000 in the five years to 30 June 2011 and 50,000 in each subsequent five-year period. By comparison, the previous 2004-base projections assumed net migration of 38,000 in the five years to 30 June 2011, and 50,000 in each subsequent five-year period.

4. Life expectancy at birth will increase to 81.8 years for males and 85.5 years for females in 2026. By comparison, the previous 2004-base projections assumed life expectancy at birth of 81.5 years for males and 85.4 years for females in 2026.

The projection assumptions for the national ethnic population projections incorporate these changes. The combined effect of these changes is that in 2021 the new ethnic population projections have the 'European or Other' population at 3.40 million, the Māori population at 770,000, the Asian population at 690,000 and the Pacific population at 430,000 according to series 6. By comparison, the previous projections had the equivalent European population at 3.23 million, the Māori population at 760,000, the Asian population at 670,000 and the Pacific population at 420,000 in 2021.

## Which projection series should I use?

For each ethnic group ('European or Other', Māori, Asian and Pacific), eleven projection series have been produced to illustrate a range of possible scenarios using different combinations of fertility, mortality, migration and inter-ethnic mobility assumptions. Users can make their own judgement as to which projection series is/are most suitable for their purposes. However, at the time of release, Statistics New Zealand considers mid-range projection series 6 the most suitable for assessing future population changes. Series 6 is consistent with mid-range series 5 of the [national population projections](#) (2006-base, released October 2007).

Alternative Projection Series

Projection series	Fertility	Mortality	Migration	Inter-ethnic mobility
1	Low	High	Low	High
2	Low	Medium	Medium	Medium
3	Medium	High	Medium	Medium
4	Medium	Medium	Low	Medium
5	Medium	Medium	Medium	High
6	Medium	Medium	Medium	Medium
7	Medium	Medium	Medium	Low
8	Medium	Medium	High	Medium
9	Medium	Low	Medium	Medium
10	High	Medium	Medium	Medium
11	High	Low	High	Low

Series 6 assumes:

- Fertility: By 2026, the total fertility rate will be 1.75 births per woman for European or Other women, 2.50 for Māori women, 1.55 for Asian women, and 2.60 for Pacific women, while the total paternity rate will be 0.14 births per man for European or Other men (with non-European and non-Other women), 0.95 for Māori men (with non-Māori women), 0.22 for Asian men (with non-Asian women), and 1.05 for Pacific men (with non-Pacific women).
- Mortality: Life expectancy at birth will increase for the European or Other population to 82.6 years for males and 86.2 years for females by 2026, for the Māori population to 76.5 years for males and 80.6 years for females, for the Asian population to 85.4 years for males and 88.8 years for females, and for the Pacific population to 78.4 years for males and 82.3 years for females.
- Migration: There will be long-run annual net migration levels of -3,000 for the European or Other population (from 2010), -3,000 for the Māori population (from 2010), 12,000 for the Asian population (from 2010), and 500 for the Pacific population (from 2008).
- Inter-ethnic mobility: There will be a net change to the population due to people changing their ethnic identification of zero percent a year for the European or Other population, -0.3 percent for the Māori population, -0.2 percent for the Asian population, and -0.2 percent for the Pacific population.

Among the projections, series 1 uses low population growth assumptions and projects the lowest population throughout the projection period. In contrast, series 11 uses high population growth assumptions and projects the highest population throughout the projection period.

## Summary

The ethnic mosaic of New Zealand's population is changing with the Māori, Asian and Pacific populations making up a growing proportion of the overall New Zealand population. This reflects past and likely future differentials in fertility, as well as the impact of miscegenation (intermarriage) and changes in migration patterns.

In addition, the Māori, Asian and Pacific populations have a more youthful age structure and thus a greater built-in momentum for growth than the European or Other population. Combined with higher fertility for Māori and Pacific people, and the assumed net migration levels for Asian people, these ethnic populations are likely to grow at a much faster pace than their European or Other counterparts.

All ethnic groups will age in the coming decades, reflected in rising median ages and increasing proportions of people in the older ages. However, even two decades on, the Māori and Pacific populations will still have a younger age structure than the current total New Zealand population.

## Alternative projection series

The 'European or Other (including New Zealander)' population is projected to increase from 3.21 million at 30 June 2006 to 3.43 million in 2026 (according to series 6 which assumes medium fertility, medium mortality, medium migration and medium inter-ethnic mobility). Under series 1 (low fertility, high mortality, low migration and high inter-ethnic mobility), the European or Other population will be less in 2026 (3.06 million) than in 2006. All other series project higher European or Other populations in 2026 than in 2006, with series 11 (high fertility, low mortality, high migration and low inter-ethnic mobility) projecting the highest population in 2026 of 3.83 million.

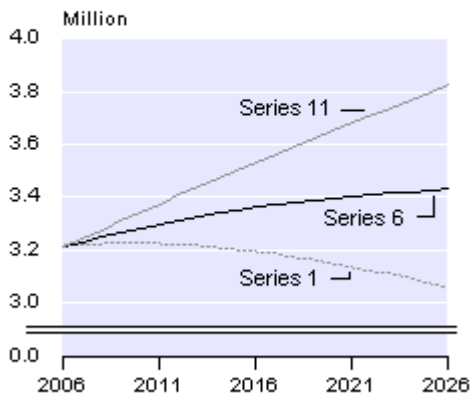
The Māori, Asian and Pacific populations are projected to increase during the projection period under all series:

- The Māori population is projected to increase from 620,000 at 30 June 2006 to 820,000 (series 6) in 2026, and range between 700,000 (series 1) and 940,000 (series 11) in 2026.
- The Asian population is projected to increase from 400,000 in 2006 to 790,000 (series 6) in 2026, and range between 600,000 (series 1) and 990,000 (series 11).
- The Pacific population is projected to increase from 300,000 in 2006 to 480,000 (series 6) in 2026, and range between 430,000 (series 1) and 540,000 (series 11).

The total New Zealand population is projected to grow from 4.18 million to 4.94 million in 2026 (assuming medium fertility, medium mortality and long-run annual net migration of 10,000 a year). Alternative projections give a range of 4.70 to 5.18 million in 2026.

### Projected European or Other Population

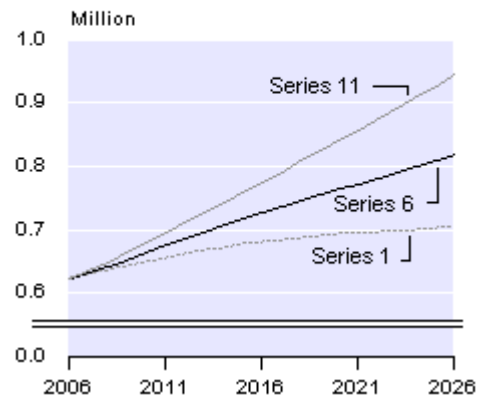
2006–2026, alternative series



(1) Including New Zealander.

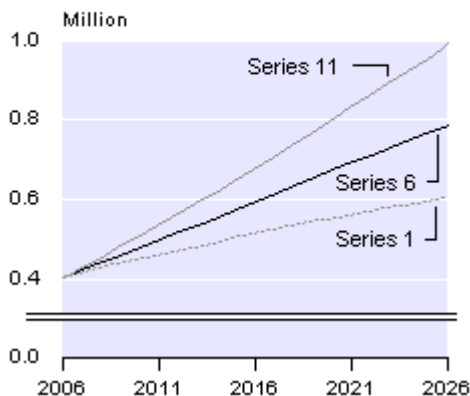
### Projected Māori Population

2006–2026, alternative series



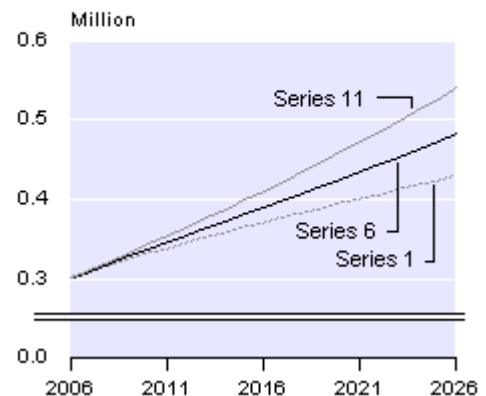
### Projected Asian Population

2006–2026, alternative series



### Projected Pacific Population

2006–2026, alternative series



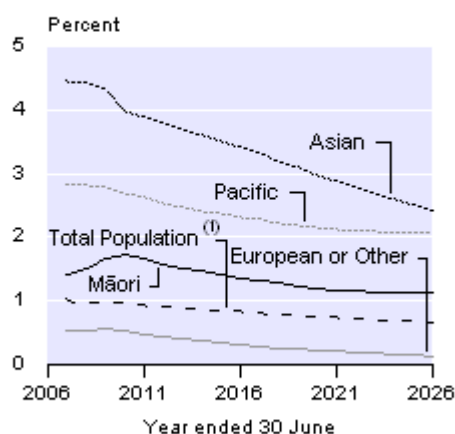
## Population growth

All four ethnic populations are projected to experience growth between 2006 and 2026 under projection series 6. The Asian population is projected to have the largest relative growth, averaging 3.4 percent a year. The Pacific and Māori populations will average annual growth of 2.4 and 1.4 percent, respectively. The 'European or Other' population will increase by an average of 0.3 percent a year. The total New Zealand population is projected to increase by an average of 0.8 percent a year between 2006 and 2026. Population growth is likely to slow for all populations, reflecting a gradual ageing of each population and lower rates of natural increase.

### Projected Annual Population Growth Rate

*By ethnic group*

2007–2026, series 6

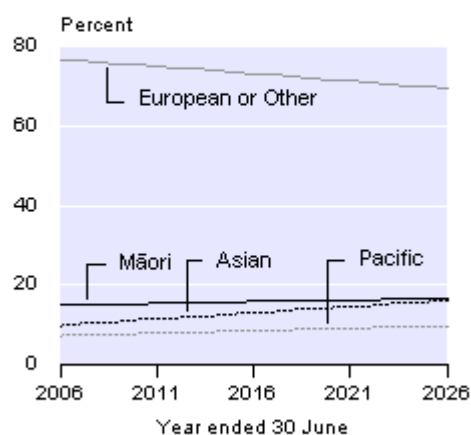


(1) From 2006-base national population projections, series 5, released October 2007.

### Projected Ethnic Share of New Zealand Population <sup>(1)</sup>

*By ethnic group*

2006–2026, series 6



(1) Derived from 2006-base national population projections, series 5, released October 2007.

The Māori, Asian and Pacific populations will all increase their share of the New Zealand population over the projection period because of their higher growth rates. The Māori population will make up 16.6 percent of the New Zealand population by 2026 compared with 14.9 percent in 2006. The Asian population will make up 16.0 percent of the New Zealand population by 2026 compared with 9.7 percent in 2006. The Pacific population will make up 9.8 percent of the New Zealand population by 2026 compared with 7.2 percent in 2006. These shares are all based on series 6 of the national ethnic population projections compared with series 5 of the national population projections. Other series cannot be directly compared because the projection assumptions are not necessarily compatible.

The increase in the Māori and Pacific population shares is mainly driven by their high rates of birth and natural increase. During 2005–2007, the Māori and Pacific total fertility rates were 2.8 and 3.0 births per woman, respectively. By comparison, the European or Other, Asian and total New Zealand levels were 1.9, 1.5 and 2.0 births per woman, respectively. Ethnic miscegenation (intermarriage) also makes an important contribution to growth. In about one-quarter of Māori births, the mother is non-Māori and the father is Māori. Similarly, in about one-quarter of Pacific births, the mother is non-Pacific and the father is Pacific. In addition, the Māori and Pacific populations have a much younger age structure, with relatively high proportions in the child and childbearing ages and low proportions at the older ages, which provides a built-in momentum for future growth.

The increase in the Asian population share is largely driven by the assumed levels of net migration, with a net inflow of about 240,000 migrants assumed over the 20-year period (series 6). Natural increase (births minus deaths) will account for about 160,000 of the projected Asian population growth.

The European or Other population will make up 69.4 percent of the New Zealand population by 2026 compared with 76.8 percent in 2006. The lower European or Other share is a result of the lower than average European or Other population growth rate. This reflects the combination of lower fertility rates, an assumed net migration outflow of about 60,000 over the 20-year projection period, and an older age structure. The increasingly older age structure of the European or Other population means fewer births (because of fewer women in the childbearing ages), more deaths, and lower momentum for future population growth compared with the Māori and Pacific populations.

About 1 percent of New Zealand's population identified with ethnicities outside of these four broad ethnic groups in 2006. That is, an estimated 39,000 people identified with a Middle Eastern/Latin American/African (MELAA) ethnicity at 30 June 2006.

### Ethnic Share of New Zealand Population

*By age group*  
2006 (base), 2016 and 2026

Age group (years)	Ethnic share of New Zealand population <sup>(1)(2)</sup> (percent)			
	European or Other <sup>(3)</sup>	Māori	Asian	Pacific
<b>2006 (base)</b>				
0–14	73	24	9	12
15–39	71	17	13	8
40–64	81	10	8	5
65 and over	91	5	4	2
All ages	77	15	10	7
<b>2016</b>				
0–14	70	28	14	16
15–39	66	17	17	10
40–64	76	12	11	5
65 and over	87	6	6	3
All ages	73	16	13	8
<b>2026</b>				
0–14	64	29	18	18
15–39	65	19	18	12
40–64	69	12	17	7
65 and over	82	7	10	3
All ages	69	17	16	10

(1) Ethnic population projections from series 6. New Zealand population from series 5 of 2006-base national population projections.

(2) People who identify with more than one ethnicity are included in each ethnic population that they identify with.

(3) Including New Zealander.

# Births and deaths

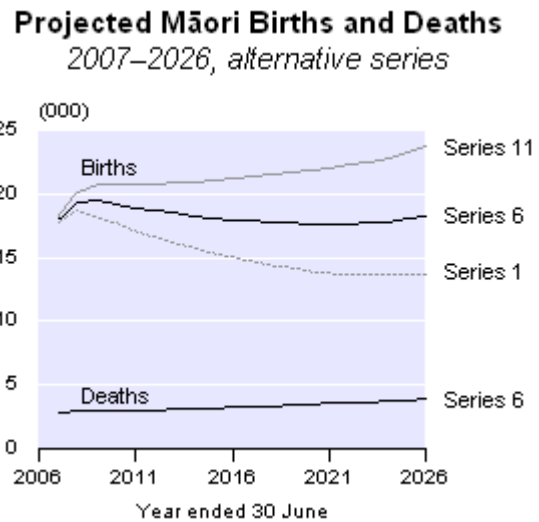
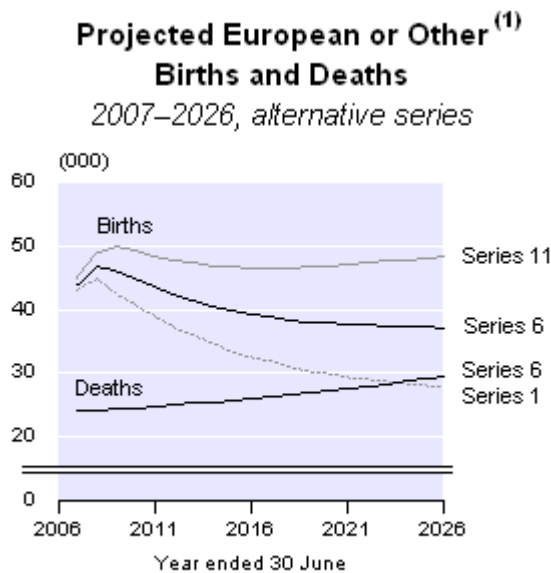
## European or Other

'European or Other' births are expected to increase from 44,000 in 2007 to 47,000 in 2008, and then decrease to 39,000 in 2016 and 37,000 in 2026 (series 6). The decrease in births is driven partly by the decline in the number of European or Other women in the childbearing ages, and partly by the assumed decline in European or Other total fertility rates from 2.00 births per woman in 2007 and 2.15 in 2008 to 1.89 in 2016 and 1.75 in 2026. Under the high growth scenario (series 11), European or Other births remain stable around 48,000 a year for most of the projection period. However, the low growth scenario (series 1) sees births dropping to 28,000 by 2026.

The contribution of ethnic paternity rates to European or Other births is relatively small with about 1 in 14 European or Other births contributed by non-European and non-Other mothers where the father is European or Other.

European or Other deaths are expected to increase steadily from 24,000 in 2007 to 30,000 in 2026 (series 6). This trend is due to more European or Other people in the older ages, where most deaths occur. In the low mortality (series 9) and high mortality (series 3) scenarios, European or Other deaths total 28,000 and 32,000, respectively, in 2026.

Natural increase (births minus deaths) is projected to initially increase, from 20,000 in 2007 to 23,000 in 2008, before shrinking to 13,000 in 2016 and 8,000 in 2026 (series 6). Under all scenarios European or Other natural increase declines after 2009, ranging in 2026 from a natural decrease of 3,000 (series 1) to a natural increase of 20,000 (series 11).



(1) Including New Zealander.

## **Māori**

Māori births are expected to increase from 18,000 in 2007 to over 19,000 a year in 2008–2010, and then decrease to about 18,000 a year from 2014 (series 6). The relatively stable number reflects more Māori in the childbearing ages which offsets the assumed decline in fertility rates. Under the high growth scenario (series 11), Māori births continue to rise to 21,000 in 2016 and nearly 24,000 in 2026. However, the low growth scenario (series 1) sees births dropping below 14,000 from 2021.

The contribution of ethnic paternity rates to Māori births is significant with about 1 in 4 Māori births contributed by non-Māori mothers where the father is Māori.

Māori deaths are expected to increase steadily from almost 3,000 in 2007 to nearly 4,000 in 2026 (series 6), due to more Māori at older ages where most deaths occur. There is relatively little variation in projected deaths over the 20-year projection period, with about 3,600 deaths expected in 2026 under the low mortality scenario (series 9) and 4,200 under the high mortality scenario (series 3).

Natural increase will rise from 15,000 in 2007 to over 16,000 in 2008–2010, and then decrease to under 15,000 from 2015 (series 6). Under all scenarios Māori natural increase remains significant, ranging between 10,000 (series 1) and 20,000 (series 11) in 2026.

## **Asian**

Asian births are expected to increase from 6,500 in 2007 to over 10,000 a year from 2017 (series 6). The increase in births is driven by more Asian women in the childbearing ages. However, there is a wide range in projected births depending on the combination of projection assumptions. Under series 1, annual births remain stable around 7,000 a year. Under series 11, annual births continue to increase reaching 15,500 in 2026.

About 1 in 9 Asian births are contributed by non-Asian mothers where the father is Asian.

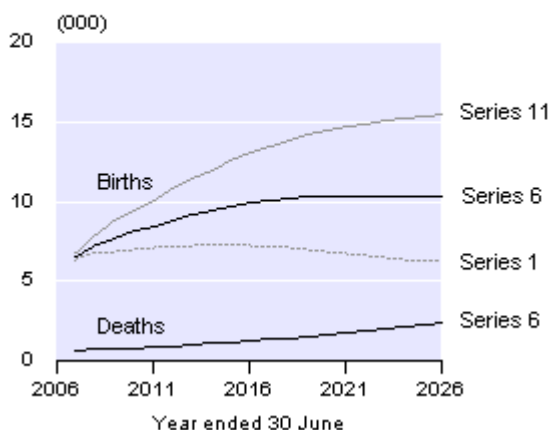
Asian deaths are expected to increase from 600 in 2007 to over 2,000 a year from 2024 (series 6), due to more Asian people at older ages where most deaths occur. There is relatively little variation in projected deaths over the projection period, with about 2,100 deaths expected in 2026 under the low mortality scenario (series 9) and 2,600 under the high mortality scenario (series 3).

Natural increase is projected to increase from 6,000 in 2007 to nearly 9,000 in 2018, but then ease to 8,000 in 2026 (series 6). Unlike the other ethnic groups, natural increase makes a smaller contribution than net migration to Asian population growth. Nevertheless, under all scenarios Asian natural increase remains positive, ranging between 4,000 (series 1) and 13,000 (series 11) in 2026.

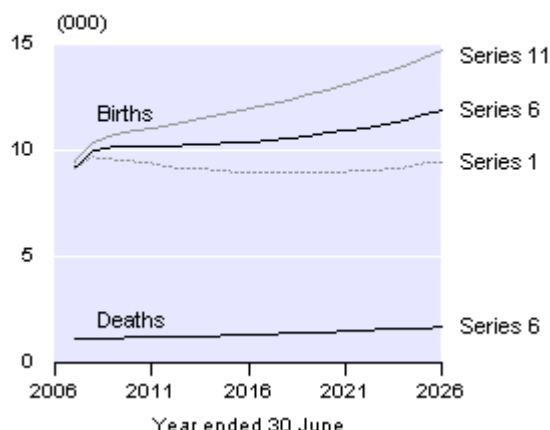
## **Pacific**

Pacific births are expected to increase from about 9,000 in 2007 to almost 12,000 in 2026 (series 6). This is due to more Pacific people in the childbearing ages, which more than offsets the assumed decline in fertility rates. Under the high growth scenario (series 11), Pacific births continue to rise to 12,000 in 2016 and nearly 15,000 in 2026. However, the low growth scenario (series 1) sees annual births remaining below 10,000.

**Projected Asian Births and Deaths**  
2007–2026, alternative series



**Projected Pacific Births and Deaths**  
2007–2026, alternative series



The contribution of ethnic paternity rates to Pacific births is significant with about 1 in 4 Pacific births contributed by non-Pacific mothers where the father is Pacific.

Pacific deaths are expected to increase from 1,100 in 2007 to 1,700 in 2026 (series 6), due to more Pacific people at older ages. There is relatively little variation in projected deaths over the 20-year projection period, with about 1,600 deaths expected in 2026 under the low mortality scenario (series 9) and 1,800 under the high mortality scenario (series 3).

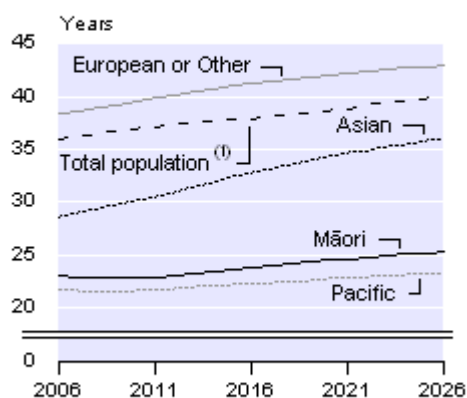
Natural increase will generally increase from about 8,000 in 2007 to 9,000 in 2016 and to over 10,000 by 2026 (series 6). Under all scenarios Pacific natural increase remains significant, ranging between 8,000 (series 1) and 13,000 (series 11) in 2026.

## Ageing population

All four ethnic populations are projected to age over the next two decades, regardless of which projection series is chosen, reflected in rising median ages and increasing proportions of people in the older ages.

### Projected Median Age of Population

By ethnic group  
2006–2026, series 6



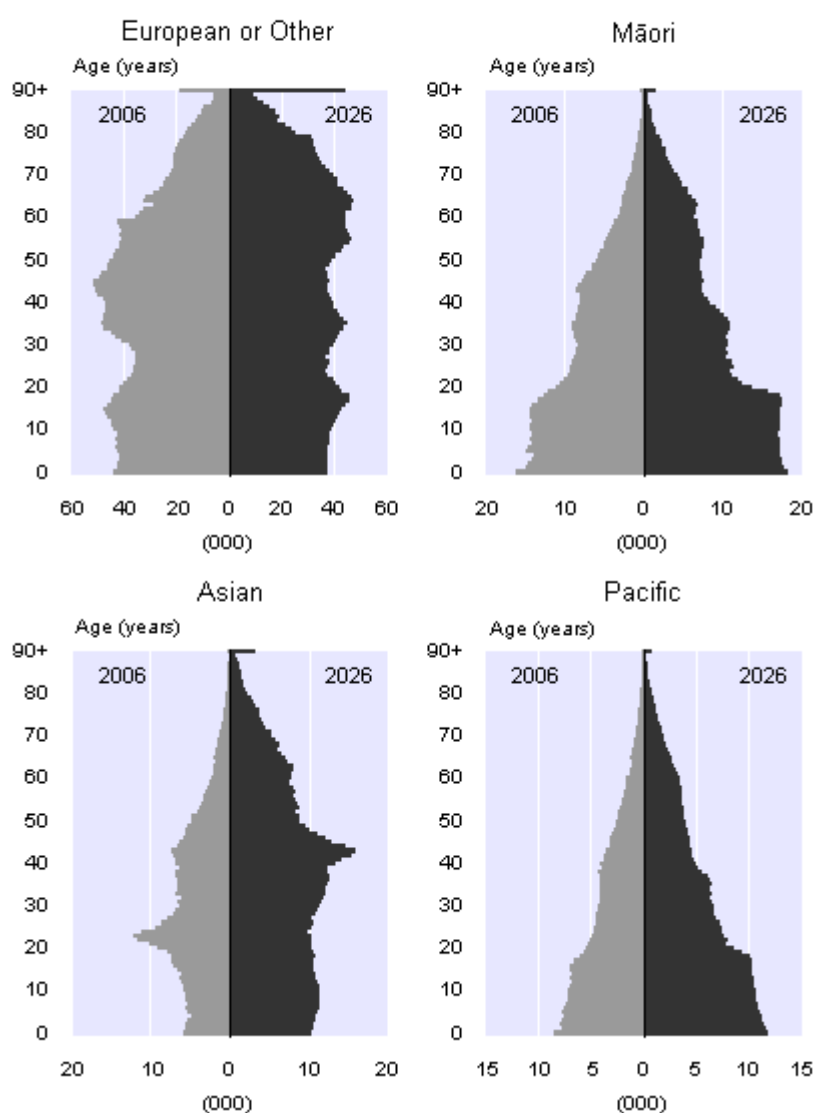
(1) From 2006-base national population projections, series 5, released October 2007.

The Māori and Pacific populations will continue to have a much younger age structure than the overall New Zealand population because of their higher birth rates. Half of the Māori population will be older than 25.3 years by 2026, compared with a median age of 22.9 years in 2006 (series 6). Half of the Pacific population will be older than 23.3 years by 2026, compared with a median age of 21.7 years in 2006.

The Asian population will continue to have a younger age structure than the overall New Zealand population, mainly because of immigration. Half of the Asian population will be older than 35.9 years by 2026, compared with a median age of 28.5 years in 2006 (series 6).

### Population Age Pyramids

*By ethnic group*  
2006 and 2026, series 6



### Children

The number of 'European or Other' children (aged 0–14 years) is projected to decrease by 11 percent during the projection period, from 645,000 in 2006 to 577,000 in 2026 (series 6). As a result, children will make up a smaller proportion of the European or Other population, dropping from 20 percent to 17 percent. This smaller proportion is due to the decrease in the number of births and the gradual ageing of the European or Other population. Only the high growth projection (series 11) indicates more European or Other children in 2026 than in 2006.

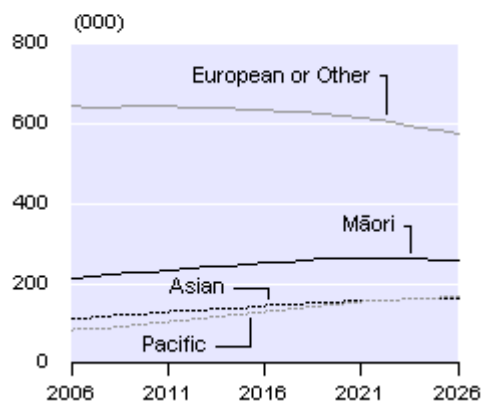
The number of Māori children is projected to increase 21 percent from 215,000 in 2006 to 260,000 in 2026 (series 6). However, children will make up a smaller proportion of the Māori population, dropping from 34 percent in 2006 to 32 percent in 2026. This is due to the projected decline in the Māori birth rate and the gradual ageing of the Māori population.

The number of Asian children is projected to roughly double from 84,000 in 2006 to 165,000 in 2026 (series 6). Children will make up a similar proportion of the Asian population in 2026 as in 2006 at 21 percent, although this proportion will vary between 20 and 22 percent during the projection period. All projection series indicate more Asian children in 2026.

The number of Pacific children is projected to rise steadily, increasing from 110,000 in 2006 to 164,000 in 2026 (series 6). Children will make up a smaller proportion of the Pacific population, dropping from 37 percent in 2006 to 34 percent in 2026. This is due to the projected decline in the Pacific birth rate and the gradual ageing of the Pacific population.

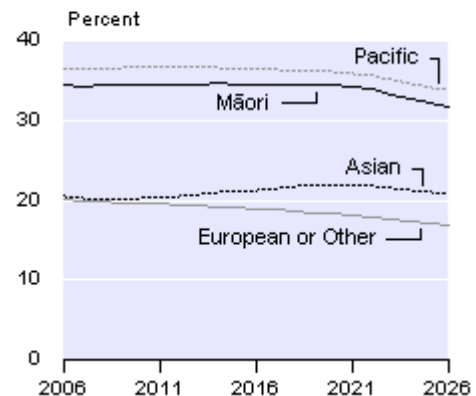
### Projected Population Aged 0–14 Years

*By ethnic group*  
2006–2026, series 6



### Projected Proportion of Ethnic Group Aged 0–14 Years

*By ethnic group*  
2006–2026, series 6



The ethnic composition of New Zealand children will change over the projection period. According to series 6:

- European or Other children will make up 64 percent of New Zealand children in 2026, compared with 73 percent in 2006.
- Māori children will make up about 29 percent in 2026, compared with 24 percent in 2006.
- Asian children will make up about 18 percent in 2026, compared with 9 percent in 2006.
- Pacific children will make up about 18 percent in 2026, compared with 12 percent in 2006.

The ethnic overlap is particularly significant among children reflecting the incidence of multiple ethnicities. At the 2006 Census, 20 percent of children (aged 0–14 years) identified with more than one ethnicity compared with 10 percent of the population overall.

## Working-age population

### European or Other

The 'European or Other' working-age population (those aged 15–64 years) is projected to increase initially, from 2.10 million in 2006 to 2.14 million in 2011, and then decline to 2.07 million in 2026 (series 6). People in the working ages will make up 60 percent of the European or Other population in 2026, down from 66 percent in 2006.

Within this broad group, however, there will be different trends. The population aged 15–39 years is expected to decrease from 1.04 million in 2006 to just under 1.00 million in 2016, but then increase to 1.02 million in 2026 (series 6). From 2014, just under 30 percent of the European or Other population will be aged 15–39 years, compared with 32 percent in 2006.

In contrast, the European or Other population aged 40–64 years is projected to increase from 1.06 million in 2006 to 1.13 million in 2014 (series 6). After 2014, their number will decline to 1.05 million in 2026. This age group accounted for 33 percent of the European or Other population in 2006, and is expected to increase to 34 percent in 2011 but then decrease to 30 percent in 2026. The contrasting trends of the 15–39 years and 40–64 years age groups mainly reflect the ageing of the large birth cohorts of the 1950s to early 1970s.

**Projected Age Group Distribution of Ethnic Populations**  
2006 (base), 2016 and 2026

Ethnic group <sup>(1)</sup>	Projected age group (years) distribution of ethnic populations (percent)					Median age (years)
	0–14	15–39	40–64	65+	All ages	
<b>2006 (base)</b>						
European or Other <sup>(2)</sup>	20	32	33	14	100	38.3
Māori	34	39	22	4	100	22.9
Asian	21	48	27	5	100	28.5
Pacific	37	40	20	4	100	21.7
Total New Zealand population	21	35	32	12	100	35.8
<b>2016</b>						
European or Other <sup>(2)</sup>	19	30	33	18	100	41.3
Māori	35	36	24	6	100	23.8
Asian	21	43	29	8	100	32.7
Pacific	37	38	21	5	100	22.2
Total New Zealand population	20	33	32	15	100	37.9
<b>2026</b>						
European or Other <sup>(2)</sup>	17	30	30	23	100	43.0
Māori	32	37	22	9	100	25.3
Asian	21	35	32	12	100	35.9
Pacific	34	39	20	7	100	23.3
Total New Zealand population	18	32	30	19	100	39.9

(1) Ethnic population projections from series 6. 'Total New Zealand population' from series 5 of 2006-base national population projections.

(2) Including New Zealander.

**Note:** Owing to rounding, individual figures may not sum to give the stated totals.

## Māori

The Māori working-age population is projected to increase from 380,000 in 2006 to 490,000 in 2026 (series 6). They will make up 60 percent of the Māori population in 2026, down slightly from 61 percent in 2006. Within this group, the population aged 15–39 years is projected to increase by 24 percent between 2006 and 2026, from 250,000 to 300,000 (series 6). This age group accounted for 39 percent of the Māori population in 2006, but is expected to drop to just above 35 percent in 2021 before the proportion increases to 37 percent in 2026.

The number of Māori people aged 40–64 years is expected to increase from 140,000 in 2006 to 180,000 in 2026. In 2026, 22 percent of the Māori population will be aged 40–64 years, the same as in 2006, although the proportion will be nearly 24 percent in 2015.

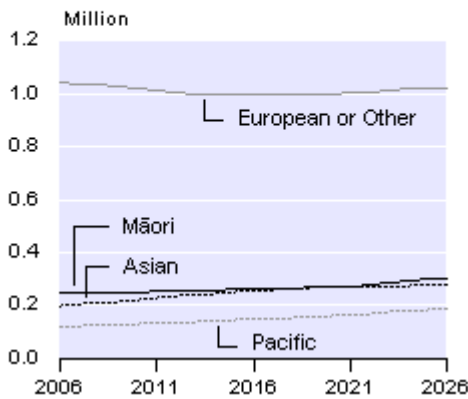
### Asian

The Asian working-age population is projected to increase significantly from 300,000 in 2006 to 530,000 in 2026 (series 6). They will make up 67 percent of the Asian population in 2026, down from 75 percent in 2006. Within this group, the Asian population aged 15–39 years is expected to increase from 190,000 in 2006 to 280,000 in 2026. In 2026, 35 percent of the Asian population will be aged 15–39 years, compared with 48 percent in 2006.

The number of Asian people aged 40–64 years is projected to more than double between 2006 and 2026, from 110,000 to 250,000. This age group accounted for 27 percent of the Asian population in 2006, but is expected to increase to 32 percent in 2026.

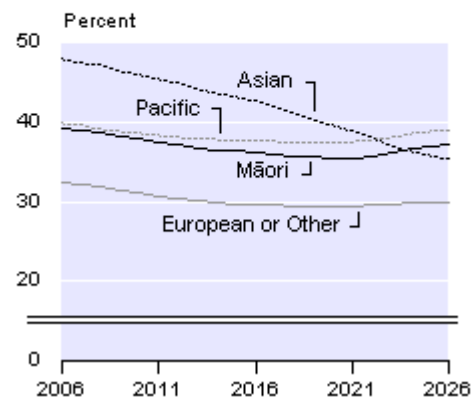
#### Projected Population Aged 15–39 Years

*By ethnic group*  
2006–2026, series 6



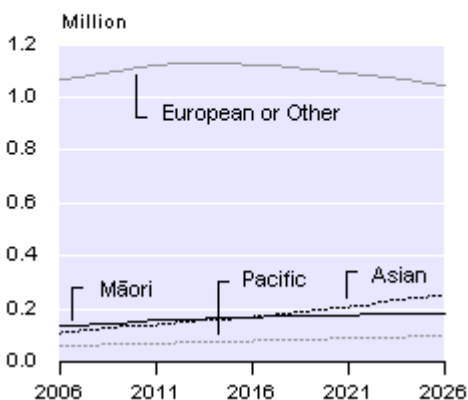
#### Projected Proportion of Ethnic Group Aged 15–39 Years

*By ethnic group*  
2006–2026, series 6



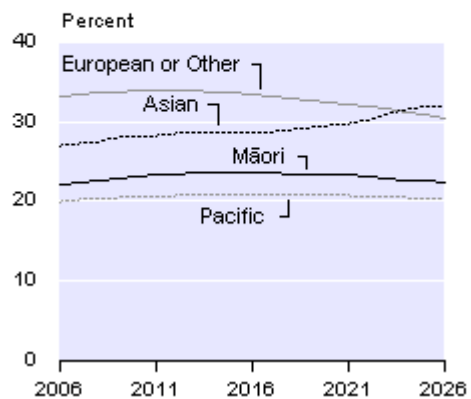
#### Projected Population Aged 40–64 Years

*By ethnic group*  
2006–2026, series 6



#### Projected Proportion of Ethnic Group Aged 40–64 Years

*By ethnic group*  
2006–2026, series 6



## **Pacific**

The Pacific working-age population is projected to increase from 180,000 in 2006 to 290,000 in 2026 (series 6). They will make up 59 percent of the Pacific population in 2026, down slightly from 60 percent in 2006. Within this group, the Pacific population aged 15–39 years is expected to increase from 120,000 in 2006 to 190,000 in 2026. In 2026, 39 percent of the Pacific population will be aged 15–39 years, down from 40 percent in 2006 but up from 37 percent in 2020.

The number of Pacific people aged 40–64 years is projected to increase from 60,000 in 2006 to 100,000 in 2026. This age group accounted for 20 percent of the Pacific population in 2006, and is expected to account for 21 percent in 2016 and 20 percent in 2026.

## **Ethnic proportions**

The ethnic composition of New Zealand's working-age population is projected to become increasingly diverse with a greater proportion identifying with Māori, Asian and Pacific ethnicities in the future. According to series 6, Māori will increase their share from 14 percent in 2006 to 16 percent in 2026, the Asian share will increase from 11 percent to 17 percent, while the Pacific share will increase from 6 percent to 9 percent. Over the same time the 'European or Other' share will drop from 76 percent to 67 percent.

Among the younger workers (aged 15–39 years), the Māori share is projected to be 19 percent in 2026, up from 17 percent in 2006; the Asian share 18 percent in 2026, up from 13 percent; and the Pacific share 12 percent in 2026, up from 8 percent. In contrast, the European or Other share will be 65 percent by 2026, compared with 71 percent in 2006.

A similar trend emerges for the older workers (aged 40–64 years). The Māori share is projected to be 12 percent in 2026, up from 10 percent in 2006; the Asian share 17 percent in 2026, up from 8 percent; and the Pacific share 7 percent in 2026, up from 5 percent. In contrast, the European or Other share will be 69 percent by 2026, compared with 81 percent in 2006.

## **Older people**

Older people in all ethnic groups are projected to increase significantly under all projection scenarios. The number of 'European or Other' people aged 65 years and over is projected to reach 780,000 by 2026, up from 460,000 in 2006 (series 6). In 2026 they will make up 23 percent of the European or Other population, compared with 14 percent in 2006. Under this scenario, the European or Other population aged 65 years and over will outnumber the European or Other population aged 0–14 years in 2018.

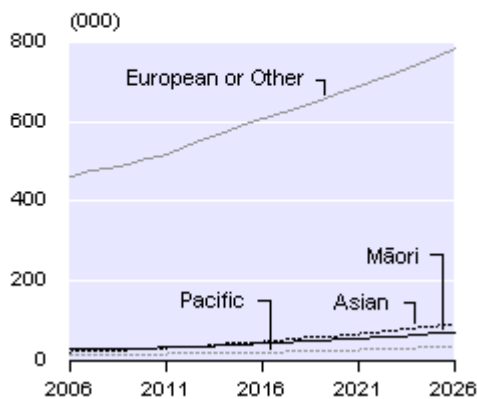
The number of Māori people aged 65 years and over is projected to reach 71,000 by 2026, almost three times the 2006 population of 26,000. In 2026, they will make up 9 percent of the Māori population, compared with 4 percent in 2006.

The number of Asian people aged 65 years and over is projected to reach 91,000 by 2026, almost five times the 2006 population of 19,000. In 2026, they will make up 12 percent of the Asian population, compared with 5 percent in 2006.

The number of Pacific people aged 65 years and over is projected to reach 33,000 by 2026, almost three times the 2006 population of 12,000. In 2026, they will make up 7 percent of the Pacific population, compared with 4 percent in 2006.

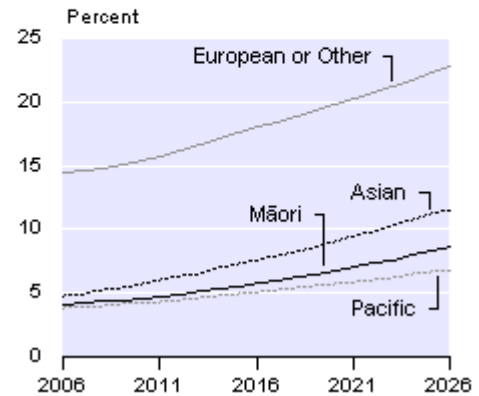
### Projected Population Aged 65+ Years

By ethnic group  
2006–2026, series 6



### Projected Proportion of Ethnic Group Aged 65+ Years

By ethnic group  
2006–2026, series 6



The New Zealand population aged 65 years and over is comprised mainly of European or Other people, partly due to their higher life expectancy. In 2006, the European or Other share was 91 percent. This is projected to drop to 82 percent in 2026 (series 6). In contrast, the Māori, Asian and Pacific shares are all projected to increase. By 2026, the Māori share will be 7 percent, up from 5 percent in 2006; the Asian share will be 10 percent, up from 4 percent; and the Pacific share will be 3 percent, up from 2 percent.

The ethnic overlap is less significant among older people although there is an increasing incidence of multiple ethnicities. At the 2006 Census, 4 percent of people aged 65 years and over identified with more than one ethnicity compared with 10 percent of the population overall.

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Christchurch 03 964 8700

**Email:** [demography@stats.govt.nz](mailto:demography@stats.govt.nz)

## Technical notes

### Latest projections

This release contains 2006-base projections of the populations of 'European or Other (including New Zealander)', Māori, Asian and Pacific ethnicities usually living in New Zealand. The projections supersede the 2001-base updated series released in April 2005. The new projections cover the period 2007–2026 at one-year intervals, by sex and single year of age (to 90+ years). The projection period is limited to 20 years because of the greater uncertainty of ethnic population projections as discussed in the Nature of projections section (below).

More detailed projection results, including projections for individual years and projections by age and sex, are available from [Table Builder](#). Special projections can also be produced for clients using their own assumptions. For more information and quotes, email [demography@stats.govt.nz](mailto:demography@stats.govt.nz) or phone toll-free 0508 525 525.

These ethnic population projections complement the projections of the New Zealand population ([National Population Projections, 2006 \(base\) – 2061](#)), released on 24 October 2007. However, only series 6 of the respective ethnic population projections and series 5 of the New Zealand population projections are designed to be directly comparable. Other series cannot be directly compared because the projection assumptions may be incompatible.

It is important to note that the ethnic populations discussed here are not mutually exclusive because people can and do identify with more than one ethnicity. People who identify with more than one ethnicity have been included in each ethnic population that they identify with.

### Ethnic concept

The ethnic concept used in these projections is the ethnic group or groups that people identify with or feel they belong to. Ethnicity is self-perceived and people can belong to more than one ethnic group. For example, people can identify with Māori ethnicity even though they may not be descended from a Māori ancestor. Conversely, people may choose to not identify with Māori ethnicity even though they are descended from a Māori ancestor. Ethnicity is not the same as birthplace.

For more information about ethnicity, refer to the [Review of the Measurement of Ethnicity](#) which includes information about the Statistical Standard for Ethnicity 2005.

### European or Other

Projections have been derived for the 'European or Other (including New Zealander)' ethnic group. Projections are not available for the European ethnic group, or for the Other (including New Zealander) ethnic group. This reflects that sufficient demographic data is available to enable projection assumptions to be derived for the combined ethnic grouping, but not for the separate ethnic groups. This approach is consistent with [Guidelines for Using Ethnicity Data: 2006 Census](#).

## 2006 Census

The 2006 Census asked people "Which ethnic group do you belong to? Mark the space or spaces which apply to you." The census usually resident population count of 4,027,947 included 2,997,930 people who identified with a 'European or Other' ethnicity, 565,329 who identified with the Māori ethnicity, 354,552 who identified with an Asian ethnicity, 265,974 who identified with a Pacific ethnicity, 34,746 who identified with a Middle Eastern/Latin American/African (MELAA) ethnicity and 167,784 who gave no specific ethnic response.

At the 2006 Census, the number of people identifying with various European or Other ethnicities was: New Zealand European 2,381,076, New Zealander 429,429, English 44,202, Dutch 28,641, British not further defined 27,189, Australian 26,355, European not further defined 21,858, South African not elsewhere classified 21,609, Scottish 15,039, Irish 12,651, German 10,917, American 10,806 and other European or Other groups 55,260. There were 80,088 people who identified with more than one European or Other ethnicity (eg Irish and New Zealander). Of the 2,997,930 European or Other people, 10 percent (302,997) also identified with non-European and non-Other ethnicities. While 84 percent (2,500,047) of people who stated a birthplace were born in New Zealand, 11 percent (314,076) were born in Europe (including the United Kingdom).

Of the 565,329 people identifying with Māori ethnicity at the 2006 Census, 47 percent (266,934) also identified with non-Māori ethnicities. Of those respondents who stated a birthplace, 98 percent (547,302) were born in New Zealand.

At the 2006 Census, the number identifying with various Asian ethnicities was: Chinese (including Taiwanese, etc) 147,570, Indian (including Fijian Indian, etc) 104,583, Korean 30,792, Filipino 16,938, Japanese 11,910, Sri Lankan (including Sinhalese, etc) 8,310, Cambodian 6,918, Thai 6,057, Vietnamese 4,773, Malay 3,540, Indonesian 3,261 and other Asian groups 13,674. There were 3,867 people who identified with more than one Asian ethnicity (eg Chinese and Indian). Of the 354,552 Asian people, 9 percent (32,097) also identified with non-Asian ethnicities. While 20 percent (70,650) of people who stated a birthplace were born in New Zealand, 68 percent (240,537) were born in Asia.

At the 2006 Census, the number of people identifying with various Pacific ethnicities was: Samoan 131,103, Cook Islands Maori (including Rarotongan, etc) 58,008, Tongan 50,481, Niuean 22,476, Fijian 9,864, Tokelauan 6,819 and other Pacific groups 8,907. There were 19,890 people who identified with more than one Pacific ethnicity (eg Samoan and Tongan). Of the 265,974 Pacific people, 30 percent (79,596) also identified with non-Pacific ethnicities. While 60 percent (157,200) of people who stated a birthplace were born in New Zealand, 39 percent (103,176) were born elsewhere in Oceania (including Australia).

For more ethnicity information from the 2006 Census, refer to [QuickStats About Culture and Identity and classification counts for ethnic group](#).

## Base population

The **'European or Other (including New Zealander)'** population projections have as a base the estimated resident population of European or Other ethnicities of New Zealand at 30 June 2006. This population (3,213,000) was based on the census usually resident population count (2,997,930) at 7 March 2006 with adjustments for:

1. non-response to the census ethnicity question (+121,000)
2. net census undercount (+50,000)
3. residents temporarily overseas on census night (+41,000)
4. births, deaths and net migration between census night (7 March 2006) and 30 June 2006 (+2,000)
5. reconciliation with demographic estimates at ages 0–4 years (+2,000).

The **Māori** population projections have as a base the estimated resident population of Māori ethnicity of New Zealand at 30 June 2006. This population (624,000) was based on the census usually resident population count (565,329) at 7 March 2006 with adjustments for:

1. non-response to the census ethnicity question (+27,800)
2. net census undercount (+18,900)
3. residents temporarily overseas on census night (+7,000)
4. births, deaths and net migration between census night (7 March 2006) and 30 June 2006 (+4,500)
5. reconciliation with demographic estimates at ages 0–4 years (+800).

The **Asian** population projections have as a base the estimated resident population of Asian ethnicities of New Zealand at 30 June 2006. This population (404,400) was based on the census usually resident population count (354,552) at 7 March 2006 with adjustments for:

1. non-response to the census ethnicity question (+17,300)
2. net census undercount (+13,600)
3. residents temporarily overseas on census night (+14,900)
4. births, deaths and net migration between census night (7 March 2006) and 30 June 2006 (+3,700)
5. reconciliation with demographic estimates at ages 0–4 years (+300).

The **Pacific** population projections have as a base the estimated resident population of Pacific ethnicities of New Zealand at 30 June 2006. This population (301,600) was based on the census usually resident population count (265,974) at 7 March 2006 with adjustments for:

1. non-response to the census ethnicity question (+18,100)
2. net census undercount (+9,100)
3. residents temporarily overseas on census night (+4,900)
4. births, deaths and net migration between census night (7 March 2006) and 30 June 2006 (+3,000)
5. reconciliation with demographic estimates at ages 0–4 years (+500).

**The estimated and projected resident populations are not directly comparable with census counts because of these adjustments.** For more information about the base population, refer to [Information about the population estimates](#) on the Statistics New Zealand website ([www.stats.govt.nz](http://www.stats.govt.nz)).

## Alternative series

For each ethnic group, eleven alternative series have been produced using different combinations of fertility, mortality, migration and inter-ethnic mobility assumptions. At the time of release, projection series 6 is considered the most suitable for assessing future population changes. The other projection series allow users to assess the impact on population size and structure resulting from changes in the assumptions for each of the components of population change. Series 2, 6 and 10 can be used for assessing the effect of the different fertility assumptions; series 3, 6 and 9 allow for a comparative mortality analysis; series 4, 6 and 8 allow for alternative migration levels; and series 5, 6 and 7 allow for different inter-ethnic mobility rates.

Series 1 and 11 give the lowest and highest projected population, respectively, based on the adopted assumptions. Series 1 uses low fertility, high mortality, low migration and high inter-ethnic mobility. Series 11 uses high fertility, low mortality, high migration and low inter-ethnic mobility.

## Method

A special 'cohort component' method has been used to derive the population projections. In this method the base population is projected forward by calculating the effect of deaths, migration and inter-ethnic mobility within each age-sex group according to specified mortality, migration and inter-ethnic mobility assumptions. New birth cohorts are generated by applying specified fertility assumptions to the female population of childbearing age, and specified paternity assumptions to the male population.

The method differs from the conventional cohort component method in two respects:

1. For each ethnic group, births are projected separately for women, and for men where the mother is not of that ethnic group.
2. The projections allow for population change due to inter-ethnic mobility (ie people changing their ethnic identification over time).

## Projection assumptions

Projection assumptions are formulated after analysis of short-term and long-term historical trends, recent trends and patterns observed in other countries, government policy, and other relevant information.

### Fertility

A sex ratio at birth of 105.5 males per 100 females is assumed, based on the historical annual average of the total population.

#### European or Other

There are three alternative fertility variants – designated low, medium and high – which assume that fertility rates for 'European or Other' women will vary until the year 2026 when the total fertility rate will reach 1.55, 1.75 and 1.95 births per woman, respectively. The corresponding total paternity rate of European or Other men (with non-European and non-Other women) is assumed to reach 0.09, 0.14 and 0.19 births per man in 2026. The estimated rates in 2005–2007 were 1.92 births per European or Other woman and 0.14 births per European or Other' man (with non-European and non-Other women).

The medium fertility variant assumes fertility rates of European or Other women aged under 33 years will generally decline between 2007 and 2026, with rates increasing for women aged 33 years and over. The low fertility variant assumes fertility rates of women aged under 39 years will generally decline between 2007 and 2026, with rates increasing for women aged 39 years and over. The high fertility variant assumes fertility rates of women aged under 31 years will generally decline between 2007 and 2026, but the rates for women aged 31 years and over will increase.

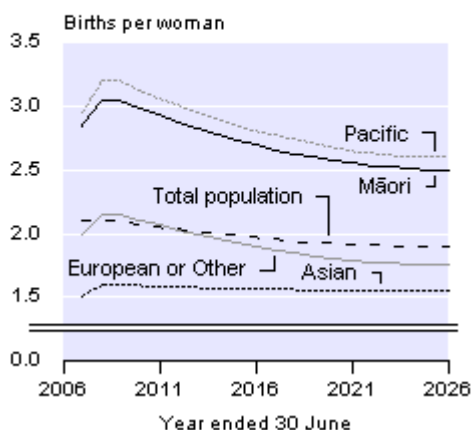
The medium paternity variant assumes paternity rates of European or Other men aged under 34 years will generally decline between 2007 and 2026, with rates increasing for men aged 34 years and over. The low paternity variant assumes paternity rates of men of all ages will decline between 2007 and 2026. By comparison, the high paternity variant assumes paternity rates of men aged under 29 years will generally decline between 2007 and 2026, but the rates for men aged 29 years and over will increase.

Projected births are reduced to allow for births to European or Other parent(s) that are not registered as European or Other children. The low, medium and high variants assume that 1.7, 2.2 and 2.7 percent, respectively, of births to European or Other parent(s) are non-European and non-Other children.

### Assumed Total Fertility Rates

*By ethnic group*

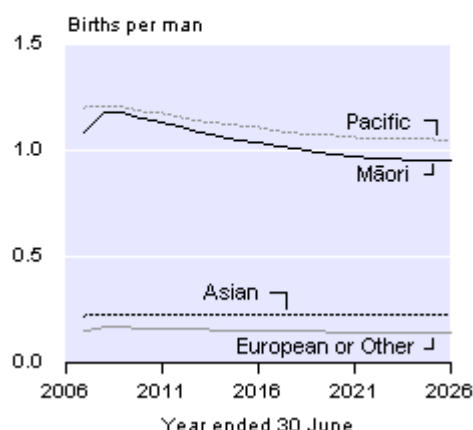
2007–2026, medium variant



### Assumed Total Paternity Rates

*By ethnic group*

2007–2026, medium variant



### Māori

There are three alternative fertility variants – designated low, medium and high – which assume that fertility rates for Māori women will vary until the year 2026 when the total fertility rate will reach 2.20, 2.50 and 2.80 births per woman, respectively. The corresponding total paternity rate of Māori men (with non-Māori women) is assumed to reach 0.80, 0.95 and 1.10 births per man in 2026. The estimated rates in 2005–2007 were 2.78 births per Māori woman and 0.97 births per Māori man (with non-Māori women).

The medium fertility variant assumes fertility rates of Māori women aged under 31 years will generally decline between 2007 and 2026, with rates increasing for women aged 31 years and over. The low fertility variant assumes fertility rates of women aged under 34 years will generally decline between 2007 and 2026, with rates increasing for women aged 34 years and over. The high fertility variant assumes fertility rates of women aged under 29 years will generally decline between 2007 and 2026, but the rates for women aged 29 years and over will increase.

The medium paternity variant assumes paternity rates of Māori men aged under 35 years will generally decline between 2007 and 2026, with rates increasing for men aged 35 years and over. The low paternity variant assumes paternity rates of men of all ages will decline between 2007 and 2026. By comparison, the high paternity variant assumes paternity rates of men aged under 32 years will generally decline between 2007 and 2026, but the rates for men aged 32 years and over will increase.

Projected births are reduced to allow for births to Māori parent(s) that are not registered as Māori children. The low, medium and high variants assume that 3.5, 4.0 and 4.5 percent, respectively, of births to Māori parent(s) are non-Māori children.

### **Asian**

There are three alternative fertility variants – designated low, medium and high – which assume that fertility rates for Asian women will vary until the year 2026 when the total fertility rate will reach 1.35, 1.55 and 1.75 births per Asian woman, respectively. The corresponding total paternity rate of Asian men (with non-Asian women) is assumed to reach 0.17, 0.22 and 0.27 births per man in 2026. The estimated rates in 2005–2007 were 1.52 births per Asian woman and 0.20 births per Asian man (with non-Asian women).

The medium fertility variant assumes fertility rates of Asian women aged under 30 years will generally decline between 2007 and 2026, with rates increasing for women aged 30 years and over. The low fertility variant assumes fertility rates of women aged under 34 years will generally decline between 2007 and 2026, with rates increasing for women aged 34 years and over. The high fertility variant assumes fertility rates of women aged under 27 years will generally decline between 2007 and 2026, but the rates for women aged 27 years and over will increase.

The medium paternity variant assumes paternity rates of Asian men aged under 32 years will generally decline between 2007 and 2026, with rates increasing for men aged 32 years and over. The low paternity variant assumes paternity rates of men aged under 38 years will generally decline between 2007 and 2026, but the rates for men aged 38 years and over will increase. The high paternity variant assumes paternity rates of men aged under 27 years will generally decline between 2007 and 2026, but the rates for men aged 27 years and over will increase.

Projected births are reduced to allow for births to Asian parent(s) which are not registered as Asian children. The low, medium and high variants assume that 3.1, 3.6 and 4.1 percent, respectively, of births to Asian parent(s) are non-Asian children.

### **Pacific**

There are three alternative fertility variants – designated low, medium and high – which assume that fertility rates for Pacific women will vary until the year 2026 when the total fertility rate will reach 2.30, 2.60 and 2.90 births per Pacific woman, respectively. The corresponding total paternity rate of Pacific men (with non-Pacific women) is assumed to reach 0.90, 1.05 and 1.20 births per man in 2026. The estimated rates in 2005–2007 were 2.95 births per Pacific woman and 1.05 births per Pacific man (with non-Pacific women).

The medium fertility variant assumes fertility rates of Pacific women aged under 32 years will generally decline between 2007 and 2026, with rates increasing for women aged 32 years and over. By comparison, the low fertility variant assumes fertility rates of women of most ages will generally decline between 2007 and 2026. The high fertility variant assumes fertility rates of women aged under 30 years will generally decline between 2007 and 2026, but the rates for women aged 30 years and over will increase.

The medium paternity variant assumes paternity rates of Pacific men aged under 34 years will generally decline between 2007 and 2026, with rates increasing slightly for men aged 34 years and over. The low paternity variant assumes paternity rates of men aged under 46 years will generally decline between 2007 and 2026, but the rates for men aged 46 years and over will increase. The high paternity variant assumes paternity rates of men aged under 31 years will generally decline between 2007 and 2026, but the rates for men aged 31 years and over will increase.

Projected births are reduced to allow for births to Pacific parent(s) that are not registered as Pacific children. The low, medium and high variants assume that 2.8, 3.3 and 3.8 percent, respectively, of births to Pacific parent(s) are non-Pacific children.

## Mortality

The assumed ethnic life expectancies should not be used as a precise measure of ethnic mortality or of mortality differentials between ethnic groups. It is important to note that the objective of population projections is not to specifically measure or project the life expectancy of the population. For projection purposes it is more important to have a realistic yet tractable model for projecting mortality trends (and death numbers) into the future.

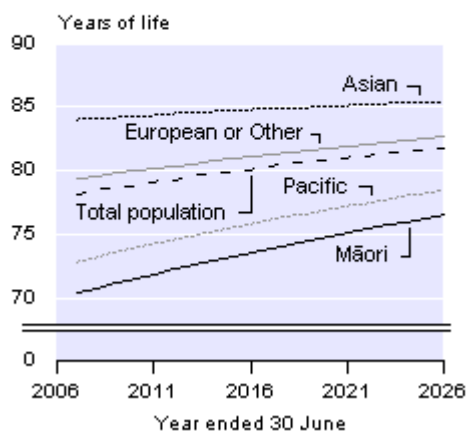
### European or Other

There are three alternative mortality variants – designated low, medium and high – which assume that mortality rates will continue to drop so that the life expectancy at birth for 'European or Other' males will increase to 84.1, 82.6 and 81.1 years, respectively, by 2026. The corresponding life expectancies at birth for European or Other females will be 87.4, 86.2 and 85.0 years in 2026. The medium mortality variant assumes life expectancy at birth in 2007 was 79.4 years for European or Other males and 83.2 years for European or Other females.

Mortality rates are assumed to decrease at the same rate at all ages. Between 2007 and 2026, European or Other male mortality rates are assumed to decrease by about 37, 27 and 16 percent for the low, medium and high mortality variants, respectively. By comparison, European or Other female mortality rates are assumed to decrease by about 37, 29 and 19 percent for the low, medium and high mortality variants, respectively.

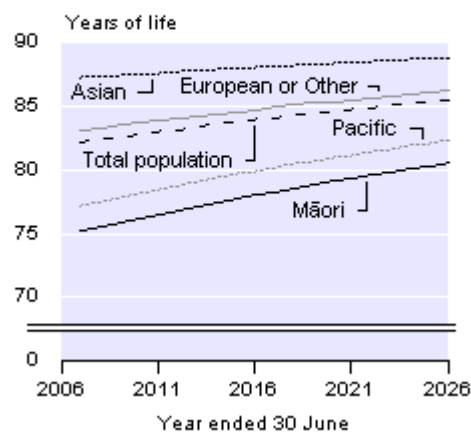
### Assumed Male Life Expectancy at Birth

*By ethnic group*  
2007–2026, medium variant



### Assumed Female Life Expectancy at Birth

*By ethnic group*  
2007–2026, medium variant



## **Māori**

There are three alternative mortality variants – designated low, medium and high – which assume that mortality rates will continue to drop so that the life expectancy at birth for Māori males will increase to 78.0, 76.5 and 75.0 years, respectively, by 2026. The corresponding life expectancies at birth for Māori females will be 81.7, 80.6 and 79.4 years in 2026. The medium mortality variant assumes life expectancy at birth in 2007 was 70.4 years for Māori males and 75.2 years for Māori females.

Mortality rates are assumed to decrease at the same rate at all ages. Between 2007 and 2026, Māori male mortality rates are assumed to decrease by about 45, 39 and 31 percent for the low, medium and high mortality variants, respectively. By comparison, Māori female mortality rates are assumed to decrease by about 43, 37 and 31 percent for the low, medium and high mortality variants, respectively.

## **Asian**

There are three alternative mortality variants – designated low, medium and high – which assume that mortality rates will continue to drop so that the life expectancy at birth for Asian males will increase to 86.9, 85.4 and 84.0 years, respectively, by 2026. The corresponding life expectancies at birth for Asian females will be 90.0, 88.8 and 87.6 years in 2026. The medium mortality variant assumes life expectancy at birth in 2007 was 84.0 years for Asian males and 87.2 years for Asian females.

Mortality rates are assumed to decrease at the same rate at all ages. Between 2007 and 2026, Asian male mortality rates are assumed to decrease by about 25, 14 and 1 percent for the low, medium and high mortality variants, respectively. By comparison, Asian female mortality rates are assumed to decrease by about 26, 16 and 5 percent for the low, medium and high mortality variants, respectively.

## **Pacific**

There are three alternative mortality variants – designated low, medium and high – which assume that mortality rates will continue to drop so that the life expectancy at birth for Pacific males will increase to 79.9, 78.4 and 76.9 years, respectively, by 2026. The corresponding life expectancies at birth for Pacific females will be 83.5, 82.3 and 81.1 years in 2026. The medium mortality variant assumes life expectancy at birth in 2007 was 72.8 years for Pacific males and 77.2 years for Pacific females.

Mortality rates are assumed to decrease at the same rate at all ages. Between 2007 and 2026, Pacific male mortality rates are assumed to decrease by about 44, 37 and 29 percent for the low, medium and high mortality variants, respectively. By comparison, Pacific female mortality rates are assumed to decrease by about 43, 37 and 30 percent for the low, medium and high mortality variants, respectively.

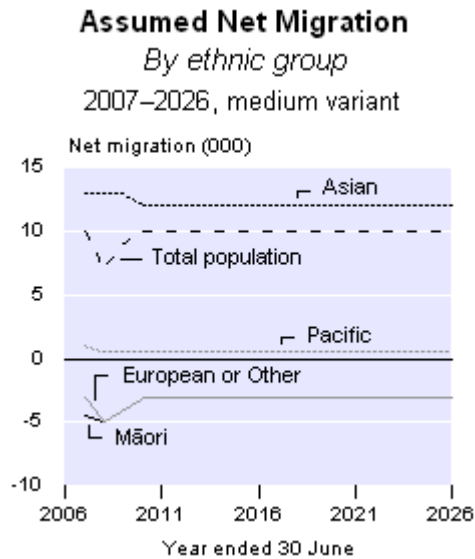
## **Migration**

Ethnicity is not collected in external migration data, but the migration assumptions are based on an assessment of recent and expected trends of arrivals and departures of New Zealand citizens and non-New Zealand citizens by birthplace, as well as observed intercensal ethnic population change.

### European or Other

There are three alternative migration variants – designated low, medium and high – which assume long-run annual net migration of 'European or Other' people of -8,000, -3,000 and 2,000, respectively. The medium migration variant assumes net migration of European or Other people of -3,000 in 2007, -5,000 in 2008, and -4,000 in 2009. The low and high migration variants are 5,000 lower and higher, respectively, than the medium variant for each year.

The age-sex patterns of net migration assume the highest net outflows at ages 20–25 years, associated with New Zealanders embarking on overseas travel. The highest net inflows are assumed at ages 28–33 years associated with returning New Zealanders.



### Māori

There are three alternative migration variants – designated low, medium and high – which assume long-run annual net migration of Māori people of -4,000, -3,000 and -2,000, respectively. The medium migration variant assumes net migration of Māori people of -4,500 in 2007, -5,000 in 2008, and -4,000 in 2009. The low and high variants are 1,000 lower and higher, respectively, than the medium variant for each year.

The age-sex patterns of net migration assume net outflows at all ages, with the highest net outflows at ages 19–26 years.

### Asian

There are three alternative migration variants – designated low, medium and high – which assume long-run annual net migration of Asian people of 6,000, 12,000 and 18,000, respectively. The medium migration variant assumes net migration of Asian people of 13,000 in 2007, 2008 and 2009. The low and high variants are 6,000 lower and higher, respectively, than the medium variant for each year.

The age-sex patterns of net migration assume net inflows at most ages, with the highest net inflows at ages 15–21 years partly associated with students arriving for educational purposes.

### **Pacific**

There are three alternative migration variants – designated low, medium and high – which assume long-run annual net migration of Pacific people of 0, 500 and 1,000, respectively. The medium migration variant assumes net migration of Pacific people of 1,000 in 2007. The low and high migration variants are 500 lower and higher, respectively, than the medium variant for each year.

The age-sex patterns of net migration assume the highest net inflows at ages under 20 years and the highest net outflows at ages 22–25 years.

### **Inter-ethnic mobility**

The projections make an allowance for people changing their ethnic identification over time. Comparisons of demographic estimates and census populations during 1966–2006 suggest that inter-ethnic mobility generally resulted in a loss from the Māori population of between 0.3 and 0.9 percent per year. However, changes in census questionnaire design, ethnicity classification and coding make it difficult to measure inter-ethnic mobility, especially as there are no explicit estimates of ethnic migration. In some periods there has been greater awareness of Māori issues which may have increased the propensity of people to identify with Māori ethnicity. The 2006-base medium variant assume inter-ethnic mobility loss from the Māori population, with lower rates of loss from the Asian and Pacific populations, and no loss from the 'European or Other' population.

### **European or Other**

There are three alternative inter-ethnic mobility variants – designated low, medium and high – which assume a net change to the European or Other population due to people changing their ethnic identification at an average annual rate (in 2007) of 0.2, 0 and -0.2 percent, respectively. The age pattern of inter-ethnic mobility is applied to each sex and assumes the highest net mobility at ages 12–26 years.

### **Māori**

There are three alternative inter-ethnic mobility variants – designated low, medium and high – which assume a net change to the Māori population due to people changing their ethnic identification at an average annual rate (in 2007) of 0, -0.3 and -0.6 percent, respectively. The age pattern of inter-ethnic mobility is applied to each sex and assumes the highest net mobility at ages 12–26 years.

### **Asian**

There are three alternative inter-ethnic mobility variants – designated low, medium and high – which assume a net change to the Asian population due to people changing their ethnic identification at an average annual rate (in 2007) of 0, -0.2 and -0.4 percent, respectively. The age pattern of inter-ethnic mobility is applied to each sex and assumes the highest net mobility at ages 12–26 years.

### **Pacific**

There are three alternative inter-ethnic mobility variants – designated low, medium and high – which assume a net change to the Pacific population due to people changing their ethnic identification at an average annual rate (in 2007) of 0, -0.2 and -0.4 percent, respectively. The age pattern of inter-ethnic mobility is applied to each sex and assumes the highest net mobility at ages 12–26 years.

## Nature of projections

Demographic projections are designed to meet both short-term and long-term planning needs, but are not designed to be exact forecasts or to project specific annual variation. These population projections are based on assumptions made about future fertility, mortality, migration and inter-ethnic mobility patterns of the population. Although the assumptions are carefully formulated to represent future trends, they are subject to uncertainty. Therefore, the projections should be used as guidelines and an indication of the overall trend, rather than as exact forecasts.

The projections do not take into account non-demographic factors (eg war, catastrophes, major government and business decisions) which may invalidate the projections. Demographic trends are monitored regularly and, when it is necessary, the projections are revised to reflect new trends and to maintain their relevance and usefulness.

Projections of ethnic populations are more uncertain than projections of the total population for several reasons:

1. Unlike other demographic characteristics such as age and sex, ethnicity can change over time. This may occur because of different people responding to the ethnicity question. For example, the ethnicity of babies and young children is usually identified initially by their parents. However, in a later census when these children are old enough to complete their own forms, they will decide for themselves which ethnicity they identify with. This may differ from the original ethnicity identified by their parents.
2. There are greater difficulties in establishing past trends in fertility, mortality and migration. Different ethnicities can be reported in different collections (eg birth registration form, death registration form, census form), which makes the derivation of ethnic-specific fertility and mortality rates problematic. Furthermore, the measurement of ethnicity has changed over time in many collections, while it is not captured at all in some collections (eg external migration data).
3. Ethnic populations are not mutually exclusive because people can and do identify with more than one ethnicity. People are not asked to prioritise their ethnic responses. Hence, Statistics New Zealand includes people in each of their reported ethnic groups.
4. There is the added complication of births to parents of different ethnicities. The child may be considered by the parents to belong to one or more of their ethnicities, or indeed to another ethnicity.
5. There is greater future uncertainty about the components of population change. For example, it is uncertain whether the fertility and mortality of different ethnicities will converge, and if so, at what pace. Assumptions about future migration, notably for people of Asian and Pacific ethnicities, are particularly susceptible to changes in migration patterns.

Statistics New Zealand incorporates these issues into its methodology for ethnic population projections and develops alternative projection scenarios to illustrate uncertainty. However, it is because of these issues that ethnic population projections are limited to broad ethnic groups and the given projection period. For smaller ethnic populations it is difficult to derive robust measures of fertility and mortality and the other components of ethnic population change to enable projections to be readily produced.

For more information about the projections, refer to [Information about the demographic projections](http://www.stats.govt.nz) on the Statistics New Zealand website ([www.stats.govt.nz](http://www.stats.govt.nz)).

## Definitions

**Estimated resident population:** an estimate of all people who usually live in a given area at a given date. It includes all residents present in New Zealand and counted by the census (census usually resident population count), residents who are temporarily overseas (who are not included in the census), and an adjustment for residents missed or counted more than once by the census (net census undercount). Visitors from overseas are excluded.

**Ethnicity:** the ethnic group or groups that people identify with or feel they belong to. Ethnicity is a measure of cultural affiliation, as opposed to race, ancestry, nationality or citizenship. Ethnicity is self-perceived and people can belong to more than one ethnic group.

**Inter-ethnic mobility:** people changing their ethnic identification over time. Inter-ethnic mobility can occur when different people respond to the ethnicity question for a person. For example, the ethnicity of babies and young children is usually identified by their parents. However, in a later census when these children are old enough to complete their own forms, they will decide for themselves which ethnicity they identify with. This may differ from the ethnicity initially identified by their parents. Inter-ethnic mobility can also occur when different ethnicities are reported in different collections (eg birth registration form, death registration form, census form) for a person.

**Life expectancy:** the average length of life remaining at a given age. As derived from a period life table, it assumes that a person experiences the age-specific mortality rates of a given period from the given age onwards. It represents the average longevity of the whole population and does not necessarily reflect the longevity of an individual.

**Resident population concept:** a statistical basis for a population in terms of those who usually live in a given area at a given time. The census usually resident population count is a census measure of the resident population concept, and the estimated resident population is a demographic measure of the resident population concept. In terms of vital statistics, the resident population concept refers to events that relate to residents of New Zealand only.

**Total fertility rate:** the average number of live births that a woman would have during her life if she experienced the age-specific fertility rates of a given period (usually a year).

**Total paternity rate:** as used in the Māori population projections, for example, it is the average number of live births that a Māori man would have with non-Māori women during his life if he experienced the age-specific paternity rates of a given period (usually a year).

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## Tables

The following tables can be downloaded from the Statistics New Zealand website as an Excel spreadsheet. If you do not have access to Excel, you may use the [Excel file viewer](#) to view, print and export the contents of the file.

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