



Māori Population Estimates

Table of Contents

Māori Population Estimates	3
Abstract	3
Purpose	3
Population	3
Māori Population Estimates	3
Methodology	3
Related Materials	5
Publication	5
Variables	5
Concepts	5
Māori Population Estimates	5
Population – concepts	6

Māori Population Estimates

Abstract

Māori population estimates are obtained by updating the base population of the Māori ethnic group for births, deaths, estimated net migration, and estimated inter-ethnic mobility during the ensuing period.

The estimated resident population of the Māori ethnic group is based on the census usually resident population count of the Māori ethnic group with adjustments for Māori residents missed or counted more than once by the census (net census undercount), for Māori residents temporarily overseas on census night and for non-response to the census ethnicity question.

Purpose

Māori population estimates (total, or subgroups defined by age and sex) are used for many purposes in all areas of society and the economy; including planning, policy formation, making business decisions and monitoring change in health and education.

They are also widely used in analysing changes in the demographic, economic and social structure of New Zealand, eg in the calculation of mortality rates, participation rates in education, per capita consumption of goods within New Zealand, electoral enrolment rates, and crime rates, etc.

Population

Māori Population Estimates Study Universe

Māori Population Estimates

Methodology

Component Methodology

All estimates of population undertaken by Stats NZ use the component methodology, where the components of population change (births, deaths and migration) are used to update a base population or a previous estimate of population.

Censuses of Population and Dwellings provide the starting point for deriving population estimates. Estimates are labelled 'provisional' if they are based on incomplete data. 'Final' estimates are based on complete data (i.e. when all data required by the estimation methodology is available).

The estimated resident population of the Māori ethnic group is based on the census usually resident population count of the Māori ethnic group. We adjust the count for Māori residents missed or counted more than once by the census (net census undercount), for Māori residents temporarily overseas on census night, and for non-response to the census ethnicity question.

We obtained Māori population estimates from 30 June each census year onwards by updating the base population of the Māori ethnic group (eg, 30 June 2018) for births, deaths, estimated net migration, and estimated interethnic mobility during the ensuing period.

Estimates of Māori international migration have been updated to use the more accurate outcomes-based migration measure ([Outcomes versus intentions: Measuring migration based on travel histories](#)) and ethnicity for migrants derived from other government data (linked administrative sources).

Previously, Māori population estimates from 30 June 2013 to 30 June 2018 assume net migration flows as a proportion of 20 percent of the net permanent and long-term migration of New Zealand citizens to Australia, with adjustments for interethnic mobility and Māori migrating to/from countries other than Australia. The assumed net migration flows are based on data obtained from censuses in other countries including Australia, the United Kingdom, and the United States of America.

Population estimates for the Māori ethnic group from 30 June 2001 to 30 June 2006 were revised using results from the 2001 and 2006 Censuses. Over this period, we assumed there was an annual population loss of 3,150 due to the combined effect of migration and interethnic mobility.

We produced estimates from 30 June 1991 to 30 June 2001 by updating the 2001 base for natural increase (births minus deaths) and assuming annual population loss of 800 over the period of 1991–2001, due to the combined effect of migration (no external migration information available for the Māori ethnic group) and interethnic mobility (change of ethnic identity). The net annual outflows assumed over the period 1991–2001 followed the pattern of arrival of Māori in Australia, as measured by Australia's 2001 Census.

We have not reconciled the population estimates of the Māori ethnic group for 1996 with the Māori population counted by the 1996 Census because of different ethnic questions asked in the 1996 and 2001 Censuses. The estimates of the Māori population at 30 June 1996 therefore differ from the estimates provided in the population base tables, which are based on results from the 1996 Census.

From 1 September 1995, new ethnicity questions were introduced to the birth and death registration forms. Māori ethnic group births and deaths for the December quarter 1995 onwards are based on births and deaths data compiled using the new questions.

Subjects	Ethnic Population, Māori Population
Keywords	Māori, Population, Estimates, Births, Deaths, Migration, Ethnic
Date	1991 -
Spatial Coverage	At national level only

Significant events impacting this study series

The definition of Māori used for population estimates has changed over the years.

Before 1986

Māori population estimates were based on people with half or more Māori blood.

1986-1991

The term 'sole Māori' was used between the 1986 Census and the 1991 Census to describe those census respondents who stated New Zealand Māori as their sole ethnic group. These estimates were of the de facto population.

Māori births and deaths (defined as being with half or more of Māori blood) were used to update the base population at census. Māori net migration was assumed to follow the same pattern as applied over the period 1982–1986 (ethnicity information was not collected on external migration cards after 1986).

1991 Onwards

Māori population estimates refer to people belonging to the Māori ethnic group.

These estimates are based on the census usually resident population counts of the Māori ethnic group at the 2001, 2006, and 2018 Censuses, updated for:

- net census undercount
- the number of residents temporarily overseas on census night,
- births, deaths and net migration (excess of arrivals over departures) between census night and 30 June,
- reconciliation with demographic estimates at the youngest ages
- non-response to the census ethnicity question.

Sept 1995

Changes to the ethnic question on the birth and death registration forms means that the ethnic classification is not by degree of blood, but rather, self-identification. This also means that a greater range of ethnic groups can be identified and multi-ethnic responses can be generated. See Births and Deaths Profiles.

2001

The ethnic question in the 2001 Census of Population and Dwellings changed from that asked in 1996. (The 2001 question was very similar to that asked in 1991.) As a result, the ethnic data from the 2001 Census is not comparable with that from the 1996 Census.

This change means that 1996-base population estimates for the Māori ethnic group are not comparable with the 2001-base population estimates. Consequently, estimates for the Māori ethnic group were revised back to 1991, using results from the 2001 Census.

2002

The base populations for the Māori, Pacific, Asian, and European ethnic groups, at 30 June 2001 incorporate an adjustment for those people not specifying their ethnicity. This is the first time the base estimated resident populations have included such an adjustment.

A revision of the estimated resident populations for the period 1991-2001 was carried out in September 2002.

The revision was necessary for two reasons.

Firstly, the 2001 Census and the 2001 Post-enumeration Survey (PES) allowed a new base population for population estimates to be defined at 30 June 2001.

Secondly, a revision of population estimates based on the 1996 Census was necessary, as analysis of the 2001 PES results led to revised estimates of undercoverage in the 1996 Census, from 1.2% to 1.6% in total.

About 16,000 residents were added to the 1996-base population because of the revised undercoverage estimates. Population estimates for the period 1991-1996 use the revised 1996-base population.

2014

The estimated resident population of Maori ethnic group at 30 June 2013 (2013-base ERP of Maori) is based on the 2013 census usually resident population counts updated for:

- non-response to the census ethnicity question

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net census undercount(as measured by the 2013 post-enumeration survey)

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residents temporarily overseas on census night

•

births, deaths, and net migration between census night and 30 June

•

reconciliation with demographic estimates at the youngest ages.

The Māori population estimates between 30 June 2006 and 30 June 2013 have been revised to incorporate the 2013 census results, hence the 2013-base ERP of Maori. The revised estimates for 2006-13 supersede previously published estimates.

2020

The Māori population estimates between 30 June 2006 and 30 June 2018 have been revised to incorporate the 2018 census results. This is a longer revision period than the usual five-year period between each census due to the 2013 estimates now being deemed too low.

A methodological change has also been made to the international migration component of population change. This has been updated to use the more accurate outcomes-based migration measure and ethnicity for migrants derived from linked administrative sources.

See [Māori ethnic group population estimates 2006–18: Methods and results](#) paper for more detail.

Main users of the data

Statistics New Zealand, Ministry of Education, Ministry of Health, Government Planners/Local Body Planners, Researchers

Usage and limitations of the data

Usage

All estimates for the Māori ethnic group are supplied only as a guide for research and other analytical purposes.

Estimated resident populations (total, Māori ethnic group, or subgroups defined by age and sex) aid the decisions of government, business and community organisations.

They are also widely used in analysing changes in the demographic, economic and social structure of New Zealand, eg in the calculation of mortality rates, participation rates in education, per capita consumption of goods within New Zealand, etc.

For the calculation of rates when the numerators relate to data covering calendar years, mean year ended 31 December population estimates are appropriate as denominators.

For analysing data collected over a short time period (eg a month), estimates of the population at the end of the closest quarter are appropriate as the denominator.

Limitations

The accuracy of the estimates depends on the accuracy of the estimated base and estimated change in numbers. The accuracy of the base depends on the accuracy of the census and the estimated adjustments made to the base.

The estimated change in numbers is based on the births and deaths registrations figures, and the external migration figures.

Limitations are inherent in the data used to derive Māori population estimates for 1991 onwards. All estimates for the Māori ethnic group are supplied only as a guide for research and other analytical purposes.

Frequency

11 Other

Related Materials

Publication

- [Māori Population Estimates](#)
- [Māori ethnic group population estimates 2006–18: Methods and results](#)

Variables

Concepts

Māori Population Estimates

Name	Description
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Māori Ethnicity	<p>Māori ethnic population is the population who identify themselves with the Māori ethnicity with or without other ethnicities.</p> <p>Because ethnicity is self-perceived, people can identify with Māori ethnicity even though they are not descended from a Māori ancestor. Conversely, people may choose to not identify with Māori ethnicity even though they are descended from a Māori ancestor. It is a measure of cultural affiliation (in contrast to race, ancestry, nationality, or citizenship).</p>
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Population – concepts

Name	Description
Population Concepts	<p>Base Population</p> <p>The starting population, usually distributed by age and sex, from which population estimates and projections are derived. The base population for all 2018-base national and subnational population estimates and projections is the estimated resident population at 30 June 2018.</p>
Population Concepts	<p>De Facto Population Concept</p> <p>A statistical basis for a population in terms of those present in a given area at a given time. The census night population count is a census measure of the de facto population concept, and the estimated de facto population is a demographic measure of the de facto population concept.</p>
Population Concepts	<p>Density (of population)</p> <p>The average number of people per square kilometre (or hectare) in a given area.</p>
Population Concepts	<p>Estimated de facto population</p> <p>An estimate of all people present in a given area at a given date.</p> <p>The estimated de facto population of New Zealand includes all people present in New Zealand and counted by the census (census night population count). This estimate includes visitors from overseas who are counted on census night, but excludes New Zealand residents who are temporarily overseas.</p> <p>For a subnational area, the estimate includes visitors from overseas and elsewhere in New Zealand (people who do not usually live in that area), but excludes residents of that area who are temporarily elsewhere on census night (people who usually live in that area but are absent).</p> <p>The estimated de facto population at a given date after census includes births, deaths and net migration (arrivals less departures) of people during the period between census night and the given date.</p> <p>De facto population estimates are no longer produced. National population estimates were produced annually (reference date at 31 December) from 1926 to 1950 and quarterly (reference dates at 31 March, 30 June, 30 September and 31 December) from March 1951 to June 1997. Subnational population estimates were produced annually (reference date at 31 March) from 1981 to 1995.</p>

Population Concepts	<p>Estimate (population) Population estimates are produced using data from the most recent Census of Population and Dwellings, updated for estimates of the components of demographic change (births, deaths and net migration) since that last census.</p> <p>Population estimates based on the resident population concept (the estimated resident population) include adjustments for net census undercount and residents temporarily overseas. National population estimates are produced quarterly (reference dates at 31 March, 30 June, 30 September and 31 December) from 1991 and subnational population estimates are produced annually (reference date at 30 June) from 1996.</p> <p>Population estimates based on the de facto population concept (the estimated de facto population) are no longer produced and made no adjustments for net census undercount or residents temporarily overseas. National population estimates were produced annually (reference date at 31 December) from 1926 to 1950 and quarterly (reference dates at 31 March, 30 June, 30 September and 31 December) from March 1951 to June 1997. Subnational population estimates were produced annually (reference date at 31 March) from 1981 to 1995.</p>
Population Concepts	<p>Mean Population The average number of people in an area during a given period, usually a year. This measure may be estimated in terms of a simple or weighted arithmetic mean of monthly or quarterly population during the reference period.</p>
Population Concepts	<p>Population Estimates An estimate of people on a given date.</p>
Population Concepts	<p>Population Projections Indication of the future characteristics of a population based on an assessment of past trends and assumptions about the future course of demographic behaviour (e.g. fertility, mortality, migration).</p>
Population Concepts	<p>Resident Population Concept A statistical basis for a population in terms of those who usually live in a given area at a given time. For example, the 'estimated resident population' of New Zealand is an estimate of all people who usually live in New Zealand at a given date, including New Zealand residents who are temporarily overseas, but excluding visitors from overseas.</p>
Population Concepts	<p>Target Population The entire group of units about which information is desired – e.g. a target population for ice cream sales.</p>

Population concept

Census night population count

The census night population count of New Zealand is a count of all people enumerated by census, who were present in New Zealand on census night.

A person is considered 'present in New Zealand' if on census night, they were:

- on New Zealand soil
- on a vessel in New Zealand waters
- travelling between New Zealand ports.

The census night population count is as at midnight on census night.

****Subnational counts****

The census night population count of an area in New Zealand is a count of all people enumerated by census, who were present in that area on census night.

For example, a Christchurch city resident visiting Wellington city on census night is included in the census night population count of Wellington city.

****Included****

Residents in New Zealand.

Visitors from overseas, including:

- People in diplomatic residences in New Zealand
- Foreign military personnel and their families in New Zealand.
- Visitors from elsewhere in New Zealand (for subnational counts only).

****Excluded****

Residents temporarily overseas.

Residents temporarily elsewhere in New Zealand (for subnational counts only).

Population concept

Census usually resident population

The census usually resident population count of New Zealand is a count of all people enumerated by census, who usually live in New Zealand, and were present in New Zealand on census night.

A person is considered 'present in New Zealand' if on census night, they were:

- on New Zealand soil
- on a vessel in New Zealand waters
- travelling between New Zealand ports.

The census usually resident population count is as at midnight on census night.

****Subnational counts****

The census usually resident population count of an area in New Zealand is a count of all people enumerated by census, who usually live in that area, and were present in New Zealand on census night.

For example, a Christchurch city resident visiting Wellington city on census night is included in the census usually resident population count of Christchurch city.

****Included****

Residents in New Zealand.

Residents temporarily elsewhere in New Zealand are included at their usual address (for subnational counts only).

****Excluded****

Residents temporarily overseas.

Visitors from overseas.

Visitors from elsewhere in New Zealand (for subnational counts only).

Population concept	<p>Estimated resident population The estimated resident population of New Zealand is an estimate of all people who usually live in New Zealand at a given date.</p> <p>The estimated resident population of New Zealand at a given date after census night is derived by updating the census usually resident population count for:</p> <ul style="list-style-type: none"> - estimated net census undercount - the estimated number of residents temporarily overseas on census night - natural increase (births less deaths) between census night and the given date - net migration (arrivals less departures) between census night and the given date. <p>The estimated resident population is as at midnight of the reference date.</p> <p>**Subnational estimates**</p> <p>The estimated resident population of an area in New Zealand is an estimate of all people who usually live in that area at a given date. The estimated resident population for each area at a given date after census night is derived in the same way as described above.</p> <p>**Included**</p> <p>Residents in New Zealand.</p> <p>Residents temporarily overseas.</p> <p>Residents temporarily elsewhere in New Zealand are included at their usual address (for subnational counts only).</p> <p>**Excluded**</p> <p>Visitors from overseas.</p> <p>Visitors from elsewhere in New Zealand (for subnational counts only).</p>
Cohort	A group of people sharing a common demographic experience. For example, the 1900 birth cohort refers to the people who were born in the year 1900.
Baby boomer	usually someone born in the years 1946–65, a period of high fertility rates and high numbers of births, although the definition of the baby boom period varies between sources and between countries. New Zealand's period total fertility rate was at least 3.5 births per woman during 1946–65, and at least 3.0 births per woman during 1945–72.
Median Age	Half the population is younger, and half older, than this age.
Natural increase or decrease	Natural increase or decrease Natural increase is an excess of births over deaths. Natural decrease is an excess of deaths over births.
Family and household concepts	Average family size the mean number of people per family. It is calculated by dividing the number of people in families by the number of families.
Family and household concepts	Average household size the mean number of people per household. It is calculated by dividing the number of people in households by the number of households.
Family and household concept	Child a person of any age usually living with one or two natural, step-, or adopted parents, but not usually living with a partner or child of their own.
Family and household concept	Couple two people aged 15 years and over usually living together in a registered marriage or consensual union. Couples can be opposite-sex or same-sex.

Family and household
concept

Dependent child

a child in a family who is aged under 18 years and not in full-time employment (regularly working for 30 hours or more per week).

Family and household
concept

Dwelling

a structure, part of a structure, or group of structures that is used, or intended to be used, as a place where people reside

- **Non-private dwelling:** provides short- or long-term communal or transitory type accommodation. Non-private dwellings are generally available to the public by virtue of employment, study, special need, legal requirement, or recreation. They include institutions and group-living quarters such as hotels, motels, hospitals, retirement homes, prisons, hostels, motor camps, boarding houses, defence barracks, ships, and trains.

- **Private dwelling:** accommodates a person or group of people and is generally unavailable for public use. The main purpose of a private dwelling is as a place of habitation for residents who usually live independently within the community.