



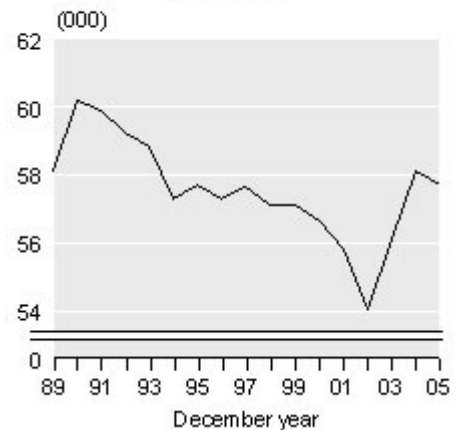
Embargoed until 10:45am – 17 February 2006

## Births and Deaths December 2005 quarter

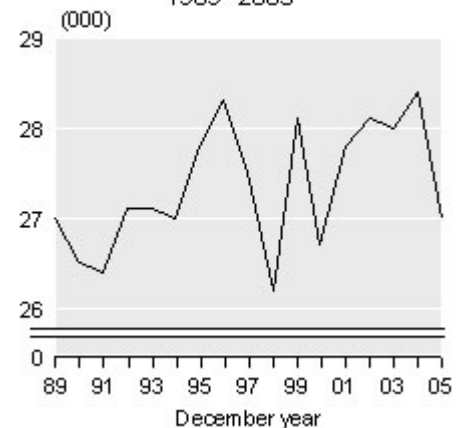
### Highlights

- There were **57,740 live births** registered in New Zealand in the December 2005 year.
- New Zealand women average **2.00 births** per woman.
- Women living in the **Gisborne Region** had the highest total fertility rate – 2.71 births per woman in 2005.
- The median age of women giving birth was **30.4 years** in the December 2005 year.
- The infant mortality rate was **5.1 deaths per 1,000 live births** in the December 2005 year.
- There were **27,030 deaths** registered during the December 2005 year.
- Births exceeded deaths by **30,710** in the December 2005 year.

Live Births  
1989–2005



Deaths  
1989–2005



Brian Pink  
Government Statistician

17 February 2006  
Cat 32.900 Set 05/06 – 132

There is a companion Media Release published – [Births and Deaths: December 2005 quarter](#).

# Commentary

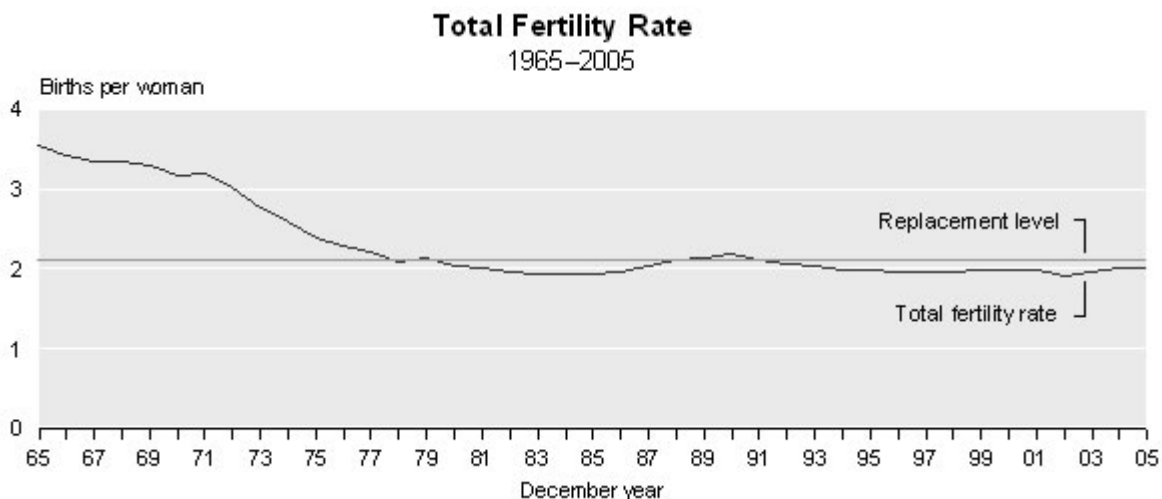
## Live births

There were 57,740 live births registered in New Zealand in the December 2005 year, 1.8 percent higher than the annual average over the last decade (56,740). During the December 2005 year, the births of 29,550 boys and 28,200 girls were registered to mothers resident in New Zealand.

Live births for the December 2005 quarter totalled 14,270, an increase of 130 compared with the December 2004 quarter.

## Annual fertility rates

The latest annual fertility rates indicate that New Zealand women average 2.00 births per woman. New Zealand's total fertility rate has been relatively stable over the last decade, averaging 1.97 births per woman. This figure is below the level required by a population to replace itself without migration (2.1 births per woman). Apart from a short period around 1990, fertility in New Zealand has been below the 'replacement level' since 1980.

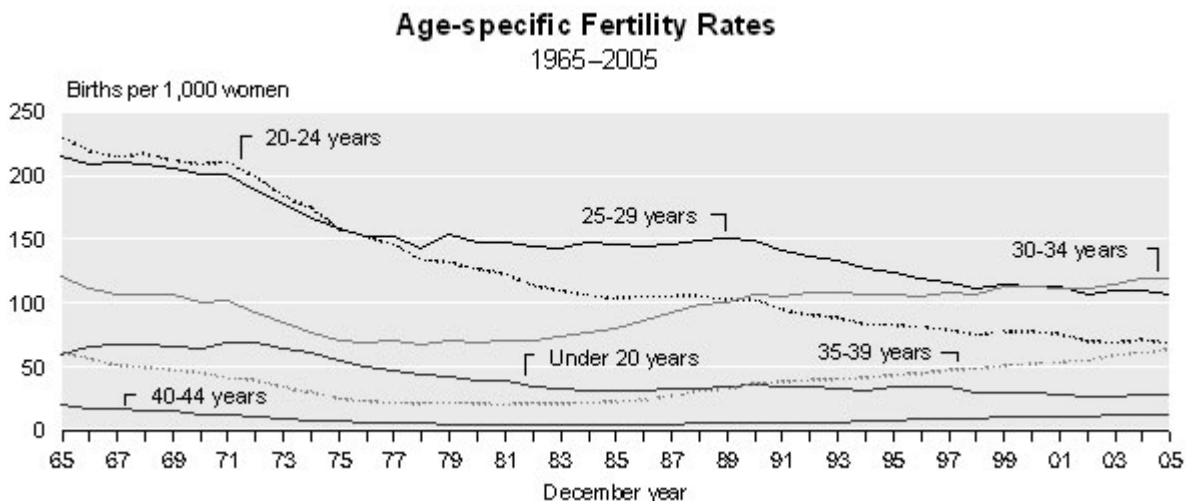


Sub-replacement fertility is a common demographic phenomenon among developed countries, including France (1.9 births per woman), Australia (1.8), the Netherlands, England and Wales, and Sweden (all 1.7). Some countries, notably Japan, Italy and Spain, have recorded very low fertility levels in recent years (fewer than 1.3 births per woman). The United States' total fertility rate has been similar to New Zealand's in recent years.

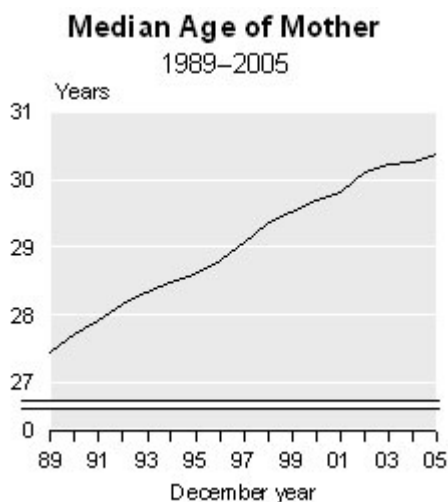
In New Zealand, the transition to sub-replacement fertility occurred later than in other developed countries. The transition occurred in Denmark and Sweden in the late 1960s; in Germany, the United States and Canada in the early 1970s; and in other developed countries, including Australia, in the mid-1970s. Sweden and New Zealand both experienced a brief recovery to replacement level around 1990.

## Trend toward later childbearing

While the total fertility rate has been relatively stable over the last two decades, there has been a significant shift in age-specific fertility rates. In the December 2005 year, women aged 30–34 years had the highest fertility rate (120 births per 1,000 women aged 30–34 years), followed by those aged 25–29 years (107 per 1,000). Conversely, in 1995 women aged 25–29 years had a higher fertility rate (123 per 1,000) than women aged 30–34 years (106 per 1,000). In 1975, the total fertility rate was 2.4 births per woman and women aged 20–24 years had the highest fertility rate (158 per 1,000).



Between the 1995 and 2005 December years, fertility rates for women aged under 30 years dropped. The largest decreases occurred among women aged under 20 and 20–24 years; down 18 and 17 percent, respectively. In contrast, fertility rates for women aged 30 years and over have increased over the last decade (up 13 and 46 percent for women aged 30–34 and 35–39 years, respectively).



On average, New Zealand women now have children about five years later than their counterparts in the early 1970s. The median age (half are younger, and half older, than this age) of New Zealand women giving birth is now 30.4 years, compared with 28.6 years in 1995, and 25.1 years in 1975.

The median age of women giving birth to their first child (based on children in the current relationship only) was 28.5 years in the year ended December 2005.

## **Births by ethnicity**

During the December 2005 year, 13,090 Māori mothers registered a birth and 16,440 Māori babies were registered. The total fertility rate for Māori women in 2005 was 2.62 births per woman, well above the rate for the total population (2.00 births per woman). Māori mothers also tend to be younger; their median age at birth was 26.0 years in the December 2005 year.

## **Regional births**

The Auckland Region (20,750) had the highest number of births in the December 2005 year, accounting for 36 percent of all live births registered in New Zealand. This was followed by Canterbury (6,600), Wellington (6,230) and Waikato (5,670). Together, these four regions accounted for about two-thirds of all live births registered in 2005.

## **Regional fertility rates**

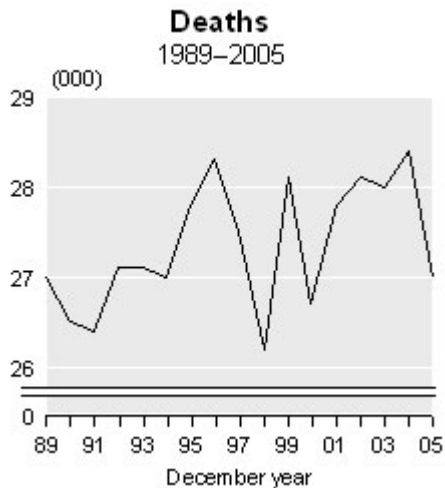
Regional variations in fertility are marked. In 2003–2005, Gisborne had the highest total fertility rate (2.71 births per woman). This is 36 percent above the average rate for New Zealand during 2003–2005 (1.99). Ten other regions, Northland (2.67), Hawke's Bay (2.48), Bay of Plenty (2.45), West Coast (2.28), Taranaki and Southland (both 2.25), Waikato (2.19), Marlborough (2.14), Manawatu-Wanganui (2.03) and Tasman (2.02) had total fertility rates above the national average. The five remaining regions, Auckland (1.97), Nelson (1.85), Canterbury (1.77), Wellington (1.76) and Otago (1.64), fell below the national rate.

Regional fertility rates reflect the socio-economic characteristics of the area. For example, the low rate in Otago reflects the high number of young women studying in Dunedin. These young women tend to delay childbirth until they have completed their studies, by which time they are likely to have moved to other regions. The fertility rates for women aged under 20 years and 20–24 years living in Otago (11 and 30 per 1,000, respectively) are less than half the national rates (27 and 69 per 1,000, respectively). In contrast, the high fertility rate in Gisborne reflects the high proportion of Māori in the region. Women belonging to the Māori ethnic group have higher fertility rates than the total population. At 30 June 2001, 47 percent of the Gisborne population belonged to the Māori ethnic group.

Regional fertility rates are based on three years of data to minimise annual fluctuations.

## **Deaths and longevity**

Deaths registered during the December 2005 year totalled 27,030, compared with 28,420 in the December 2004 year. There were 6,520 deaths in the December 2005 quarter, a decrease of 690 compared with the December 2004 quarter.



The median age at death in the December 2005 year was 75.8 years for males and 82.0 years for females. There were 13,430 male deaths and 13,600 female deaths. Just over three-quarters of the deceased were aged 65 years or over, while only 6 percent were aged under 40 years.

The crude death rate (deaths per 1,000 mean estimated resident population) was 6.6 in the December 2005 year, down from 7.6 in 1995. Because the crude death rate is influenced by the age structure of the population, it does not provide a true measure of the trends in mortality. Life tables are used to give a more accurate description of the mortality experience.

According to the New Zealand abridged life table for 2002–2004, a newborn girl can expect to live, on average, 81.3 years, and a newborn boy 77.0 years. These levels represent longevity gains since 1995–1997 of 1.7 years for females and 2.6 years for males. These gains were due largely to the reduction in mortality rates at late-working and retirement ages (50–89 years). Since 1975–1977, life expectancy at birth has increased by 5.8 years for females and 8.0 years for males. While differences in mortality between males and females still remain, their longevity gap has narrowed. Newborn females in 2002–2004 can expect to outlive newborn males by 4.3 years, down from a peak of 6.4 years in 1975–1977.

Abridged life tables are produced annually for the total population only. Complete life tables are produced for the Māori, non-Māori and total populations every five years. The latest complete life tables available cover the period 2000–2002. Māori life expectancy is significantly lower than life expectancy for the total population. Life expectancy at birth for females of Māori ethnicity in 2000–2002 was 73.2 years, while for Māori males it was 69.0 years. The difference of about 7.6 years between Māori and the total population is slightly less than the estimated difference of 8.1 years in 1995–1997.

Life tables for other ethnicities, such as the broad Pacific and Asian ethnic groups, have not been produced because of the small number of death registrations and the uncertainty associated with ethnic identification and measurement.

## Infant mortality

During the December 2005 year, the number of infant deaths (under one year of age) registered in New Zealand totalled 300. The infant mortality rate (infant deaths per 1,000 live births) has dropped over the last thirty years. In the December 2005 year, the infant mortality rate was 5.1 per 1,000, down from 6.7 per 1,000 in the December 1995 year and 16.0 per 1,000 in 1975.

## Regional deaths

There were 6,870 deaths of residents in the Auckland Region during the December 2005 year. This accounts for about one-quarter of all New Zealand deaths, while the Auckland Region is home to approximately one-third of New Zealand's population. The number of deaths in each region is influenced by the size and age structure of the population. The proportion of deaths in the Auckland Region is lower than expected because it has a relatively young population. Only 9 percent of Auckland Region's population is aged 65 years and over, compared with 12 percent for the national population.

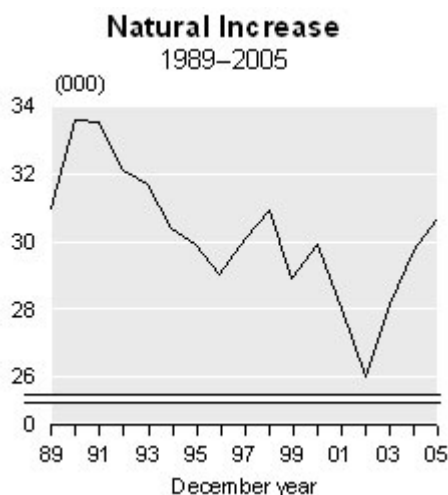
According to the 2000–2002 abridged life tables for regions, life expectancy at birth ranged from 72.6 to 77.5 years for males and 78.9 to 82.2 years for females. The reasons for subnational differences in longevity and mortality are difficult to identify precisely and are probably due to a combination of interrelated factors including the proportion of the population who are Māori, the proportion of the population who smoke (or have smoked), the proximity to health and hospital services, the degree of urbanisation and socio-economic factors. More information about regional mortality can be found in Statistics New Zealand's report *New Zealand Life Tables 2000–2002*.

## Natural increase of population

Natural increase of population represents the excess of births over deaths. Births outnumbered deaths by 30,710 in the December 2005 year. The natural increase was 29,860 in the December 1995 year.

During the December 2005 year, New Zealand's population increased by 37,000 (0.9 percent). Natural increase contributed roughly four-fifths to this population growth, and net migration the remaining one-fifth. These proportions have varied in recent years, because of significant shifts in the migration balance. During the 1998–2000 December years, population growth was due solely to natural increase, as net migration was negative.

The rates of natural increase in the December 2005 and 2004 years were 7.5 and 7.3 per 1,000 mean population, respectively. This compares with 8.1 per 1,000 mean population in the December 1995 year.



All regions in New Zealand had more births than deaths in 2005. Auckland's natural increase (13,870) made up 45 percent of the national natural increase. Auckland's large share of New Zealand's natural increase is due to the small number of deaths relative to the number of births and the size of its population.

## **Final figures**

The vital statistics and infant mortality rates for the December 2005 year quoted above, and contained in the appended tables, are final. Fertility rates, crude death rates and rate of natural increase for the December 2005 quarter and year are provisional. Final demographic indices will be released in May 2006.

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## **Technical notes**

### **Births**

Birth data for the March, June, September and December quarters of 1998 are based on the number of notifications received by the Department of Internal Affairs. All other birth data are based on live births registered in New Zealand to mothers resident in New Zealand by date of registration. Birth data exclude late registrations under section 14 of the Births, Deaths, and Marriages Registration Act 1995. Section 14 births are those which were not registered in the ordinary way at the time the birth occurred. Such registrations can occur as late as retirement age.

### **Deaths**

Death data are based on deaths registered in New Zealand of New Zealand residents by date of registration.

### **Replacement level fertility**

Replacement level fertility is the average number of children a woman needs to have to produce one daughter who survives to childbearing age. Replacement level fertility is also described as the total fertility rate required for the population to replace itself, without migration.

The internationally accepted replacement level is 2.1 births per woman. Replacement level fertility allows for child mortality (children who die before reaching reproductive age) and the birth of more boys than girls. On average, throughout the world 105 boys are born for every 100 girls. The actual replacement level will vary slightly from country to country, depending on child mortality rates. In countries with high child mortality, the total fertility rate will need to be higher than 2.1 births per woman to achieve replacement level.

### **Total fertility rate**

The total fertility rate is 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). It excludes the effect of mortality.

### **Children of this relationship**

The birth registration forms ask whether there are any other children of this relationship. However, it is possible that children from previous relationships are included. Unfortunately, this question does not produce an accurate measure of all live births to a woman (needed for accurate measures of birth parity). For privacy reasons it is deemed unacceptable to ask women about children outside their current relationship.

## Life tables

A life table is a standard demographic device that provides a detailed description of the mortality experience prevailing in a population during a given period. It comprises an array of measures, including probabilities of death, probabilities of survival and life expectancies at various ages. The 2000–2002 life tables relating to New Zealand Māori, non-Māori and total populations were released by Statistics New Zealand on 30 March 2004. These are available on the Statistics New Zealand website ([www.stats.govt.nz](http://www.stats.govt.nz)). More details on life table methodology and results are included in the publication *New Zealand Life Tables 2000–2002*.

The 1995–1997 life tables for the total New Zealand, Māori and non-Māori populations published in July 1998 have been revised. For all populations, the revision incorporates updated population estimates (at 30 June 1996) and a revised method of estimating death rates at the oldest ages. For the Māori life table, smooth adjustment factors have also been applied to Māori deaths, by age, to allow for under-reporting of Māori deaths (relative to the Māori population). For the non-Māori life table, corresponding adjustments have been applied to non-Māori deaths, by age. These adjustment factors lower Māori life expectancy at birth by about 0.7 years and raise non-Māori life expectancy at birth by about 0.1 years. Revised figures for 1995–1997 are included in the publication entitled *New Zealand Life Tables 2000–2002*.

## Resident population concept

Unless otherwise stated, this release refers to vital events (births and deaths) registered in New Zealand by date of registration. It excludes births to women who normally reside overseas, and deaths of people who normally reside overseas. Demographic rates are calculated using the mean estimated resident population.

## Rounding

Birth and death figures contained in the tables attached to this release are unrounded. All other figures have been rounded. This may result in a total differing slightly from the sum of its components. Derived figures (for example, percentage annual increase) have been calculated using unrounded data.

## More information

For more information on [births](#) or [deaths](#), follow the links from the Technical Notes of this release on the Statistics New Zealand website.

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Timed statistical releases are delivered using postal and electronic services provided by third parties. Delivery of these releases may be delayed by circumstances outside the control of Statistics New Zealand. Statistics New Zealand accepts no responsibility for any such delays.

### **Next release ...**

*Births and Deaths: March 2006 quarter* will be released on 18 May 2006.

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# Tables

The following tables can be downloaded from the Statistics New Zealand website in Excel 97 format. If you do not have access to Excel 97 or higher, you may use the [Excel file viewer](#) to view, print and export the contents of the file.

## List of tables

Table 1 Births, deaths and selected rates, 1991-2005

Table 2 Live births by regional council, 1992-2005

Table 3 Deaths by regional council, 1992-2005

Table 4 Age-specific fertility rates, 1995-2005

Table 5 Total fertility rate by regional council, 1996-2004