



Dwelling and Household Estimates

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Dwelling and Household Estimates

Abstract

Statistics New Zealand currently derives estimates of private dwellings and households at the national level. No subnational dwelling or household estimates are available, apart from the subnational household estimates at 30 June 1996, 2001 and 2006 derived for subnational family and household projections. Estimated private dwellings is a measure of the private dwelling stock in New Zealand and includes occupied and unoccupied dwellings. Estimated households is a measure of the number of households usually living in private dwellings in New Zealand.

Purpose

The Dwelling and Household estimates are used for many purposes including planning, policy formation, business decisions, and as 'bottom lines' in the calculation of market coverage rates .

Population

Dwelling and Household Estimates

Estimated private dwellings and households

Methodology

Estimated Private Dwellings

An estimate of all private dwellings in New Zealand at a given date.

This is a measure of the private dwelling stock in New Zealand and includes occupied and unoccupied dwellings. A private dwelling accommodates a person or a group of people, but is not available to the public. A private dwelling may be permanent or temporary. Permanent private dwellings include houses and flats; residences attached to a business or institution; and baches, cribs, and huts. Caravans, cabins, tents, and other makeshift dwellings that are the principal or usual residence of households are classified as temporary private dwellings.

This estimate includes permanent and temporary private occupied dwellings as well as unoccupied dwellings. The estimate excludes non-private dwellings and dwellings under construction. This estimate makes no adjustment for private dwellings missed or counted more than once by the census (net census undercount).

As there is no census information on whether unoccupied dwellings are private or non-private, these estimates assume that all unoccupied dwellings are private. The estimated private dwellings at a given date after a census also includes an adjustment for new dwellings, less an adjustment for dwellings that are demolished or destroyed.

Estimated private dwellings are available quarterly at the national level 'as at' each reference date (31 March, 30 June, 30 September, and 31 December) from 31 March 1991. Estimated private dwellings are also available quarterly for 'mean quarter ended' and 'mean year ended'.

Base

The base number of private dwellings are from the 1991, 1996, 2001, 2006 , and 2013 Censuses of Population and Dwellings. The estimated private dwellings within New Zealand is an estimate of all private dwellings in New Zealand at a given date.

- This estimate includes permanent and temporary private occupied dwellings.

•

This estimate excludes non-private dwellings and dwellings under construction.

•

As there is no census information on whether unoccupied dwellings are private or non-private dwellings, for these estimates the assumption is that all unoccupied dwellings are private and there is no net census undercount of private dwellings.

Method

The estimated private dwellings are based on information from the 1991, 1996, 2001 , 2006 , and 2013 Censuses of Population and Dwellings.

Building consents are used to indicate movements between quarters. The building consent data is lagged by six months to allow for buildings to be completed. The number of building consents issued for new residential dwellings (including conversion of non-residential buildings into private dwellings) was:

- about 98,500 from 1 September 1990 to 31 August 1995 (when lagged by six months, this equates roughly to the period from census date 1991 to census date 1996)

•

about 116,100 from 1 September 1995 to 31 August 2000

•

about 132,500 from 1 September 2000 to 31 August 2005

•

about 133,300 from 1 September 2005 to 31 August 2012.

The estimated increase in private dwelling numbers is calculated from building consents multiplied by a weighting factor. The weighting factor makes a net allowance for:

- building consents not fulfilled

•

new dwellings not registered

•

existing dwellings being demolished or destroyed

•

conversion between private and non-private dwellings

•

existing dwellings being subdivided into multiple dwellings

•

existing dwellings being amalgamated into fewer dwellings.

The estimated weighting factors are:

- 0.907 for 1991–1996

•

1.012 for 1996–2001

•

0.933 for 2001–2006

•

0.875 for 2006–2013.

As there is no information on how this weighting factor may have varied during each previous period, it is kept constant at the level implied by the estimates at census date. Similarly for 2013-base estimates, there is no information on how this weighting factor may vary in the future so it is kept constant at the factor implied by the change in estimates between 7 March 2006 and 5 March 2013.

In summary, the quarterly private dwelling estimates are calculated by taking the private dwelling estimate from the previous quarter and adding building consents for the quarter (lagged six months) multiplied by the weighting factor (WF):

$$EPD(qn) = EPD(qn-1) + BC(qn-2) \times WF$$

where:

EPD = estimated private dwellings

q = quarter

n = time period

BC = building consents

WF = weighting factor

Estimated Households

An estimate of all households usually living in New Zealand at a given date.

A household consists of one person usually residing alone, or two or more people usually residing together in a private dwelling, therefore visitors are excluded. Households whose members are all away temporarily elsewhere in New Zealand and/or temporarily overseas are included.

Estimated households are available quarterly at the national level 'as at' each reference date (31 March, 30 June, 30 September, and 31 December) from 30 June 1991. Estimated households are also available quarterly for 'mean quarter ended' and 'mean year ended'.

Base

The base number of households is derived indirectly from the estimated resident population and the estimated living arrangement type rates for each age-sex group (derived for the Family and Household Projections). The estimated number of households at 30 June of the census year is equivalent to the census household count with adjustments for:

- households temporarily absent within New Zealand

•

net census undercount

•

households temporarily overseas on census night

•

household change between census night and 30 June of the census year.

For more information about the base number of households, refer to Demographic Projections.

Method

In deriving the Family and Household Projections, the number of households at 30 June 1991, 1996, 2001, 2006 and 2013 has been estimated. These estimates represent the start and end points for intermediate household estimates.

Building consents are used to indicate movements between quarters. The building consent data is lagged by six months to allow for buildings to be completed and become inhabited by households. The number of building consents issued for new residential dwellings (including conversion of non-residential buildings into private dwellings) was:

- about 98,200 from 1 January 1991 to 31 December 1995 (when lagged by six months, this equates to the period from 1 July 1991 to 30 June 1996)

•

about 115,200 from 1 January 1996 to 31 December 2000

•

about 135,100 from 1 January 2001 to 31 December 2005

•

about 130,600 from 1 January 2006 to 31 December 2012 (this time series is irregular, being a 7-year rather than the usual five year gap. Be careful when comparing trends).

The estimated increase in household numbers is calculated from building consents multiplied by a weighting factor. The weighting factor makes a net allowance for:

- building consents not fulfilled

•

new dwellings not registered

•

existing dwellings being demolished or destroyed

•

existing dwellings becoming uninhabitable (e.g. fire damaged)

•

for changes in the ratio of occupied to unoccupied dwellings (e.g. caused by changes in the number of second homes or holiday homes).

The estimated weighting factors are:

- 0.892 for 1991–1996

•

0.738 for 1996–2001

•

0.943 for 2001–2006

•

0.734 for 2006–2013.

As there is no information on how this weighting factor may have varied during each period, it is kept constant at the level implied by the estimates at 30 June of each census year. Similarly for 2013-base estimates, there is no information on how this weighting factor may vary in the future so it is kept constant at the factor implied by the change in estimates between 30 June 2006 and 30 June 2013.

In summary, the quarterly household estimates are calculated by taking the household estimate from the previous quarter and adding building consents for the quarter (lagged six months) multiplied by the weighting factor (WF):

$$EH(qn) = EH(qn-1) + BC(qn-2) \times WF$$

where:

EH = estimated households

q = quarter

n = time period

BC = building consents

WF = weighting factor

Tenure

Tenure of household refers to the nature of the occupancy of a private household in a dwelling at a given time. Tenure of household seeks to ascertain if the household rents or owns the dwelling and whether payment is made by the household for that right. It does not refer to the tenure of the land on which the dwelling is situated.

The estimated number of private dwellings and households by tenure is available quarterly from 1991 for three broad types:

- owner-occupied (with or without a mortgage)
-

rented

•

provided free.

From 2006, owner-occupied includes dwellings held in family trusts.

The proportion of households in each tenure type was calculated from tenure of households in occupied private dwellings (excluding visitor-only dwellings) at the 1991, 1996, 2001, 2006, and 2013 Censuses of Population and Dwellings. The tenure proportions for each quarter were calculated by linearly interpolating between the census tenure proportions.

The proportion of owner-occupied has been declining since 1991, while its counterpart the proportion not-owned has been increasing. Looking at the subcomponents (rented, provided free) of not-owned, the proportion rented makes up almost 90 percent of the not-owned. The proportion rented shows an inverse relationship (increase) to the owner-occupied decrease.

After 5 March 2013, the owner-occupied proportion applied to the estimates is reduced each quarter, while the proportion rented is increased. This increase/decrease is the average quarterly change in the proportion owner-occupied from 1991-2013. Provided free proportion is held constant at the 2013 Census tenure proportion.

The tenure of private dwellings is assumed to have the same distribution as the tenure of households in occupied private dwellings (excluding visitor-only households). No information on the tenure of unoccupied dwellings is available.

Estimates of private dwellings and households by tenure have been derived by applying tenure proportions to the respective estimates.

Tenure is influenced by a number of factors:

- lifestyle
-

investment

•

economy

•

interest rates

•

patterns of family and household formation

•

job security

•

stage in life-cycle

•

cohort effects and population ageing

•

income and wealth distribution

•

social security and income support.

Notes

In the 2001 Census, a family trust was officially treated as 'not owned' and the help notes instructed respondents to mark 'no' to the ownership questions. However respondents may have indicated 'owned' because they did not read the help notes or still thought of themselves as owning the dwelling.

In the 2006 Census, the first tenure question was 'Do you, or anyone else who lives here, hold this dwelling in a family trust'. The family trust question then routed the respondent to further relevant tenure questions. From 2006, the dwelling and household estimates combines owner-occupied and dwellings held in family trusts to form tenure rates.

Although a dwelling held in a family trust is owned by the family trust, for the purposes of calculating owner-occupied levels within New Zealand, it is usual to combine households that own their dwelling with those that hold it in a family trust, as a percentage of all households in private dwellings.

Private dwellings that are 'provided free' to households include dwellings owned by individuals, private trusts, businesses and government. Some people may therefore be living in private dwellings which they own but are classified as 'provided free' because they are owned by a private trust and/or provided free to some or all household members.

Usage and limitations of the data

Use of estimates

The estimates are used for many purposes including planning, policy formation, business decisions, and as 'bottom lines' in the calculation of market coverage or penetration rates, for example.

Limitations of estimates

The accuracy of the estimates depends on the accuracy of both the estimated base and estimated quarterly change in numbers.

The accuracy of the base is dependent on the accuracy of the census and the estimated adjustments made to the base.

The estimated quarterly change in numbers is based on the building consents (lagged six months to allow for completion) multiplied by a weighting factor. The weighting factor is a net adjustment factor to allow for building consents not fulfilled, new dwellings not registered, and other changes in the nature of the dwelling. There is no information on how this weighting factor may vary between quarters, so it is kept constant during each intercensal period. The latest estimates use the weighting factor derived for the latest available intercensal period.

The accuracy of the estimates by tenure depends on the accuracy of both the estimates and estimated tenure proportions applied to those estimates. Tenure is influenced by a number of factors: lifestyle, investment, economy, interest rates, patterns of family and household formation, job security, stage in life-cycle, cohort effects and population ageing, income and wealth distribution, social security and income support. Given the uncertainty of how these various factors inter-relate and in future trends in tenure, the latest estimates use the tenure proportions from the latest available census.

Household estimates are not directly comparable with census counts. Census counts give a snapshot of the population at that time but make no allowance for net census undercount or households temporarily elsewhere in New Zealand or temporarily overseas.

Main users of the data

- Statistics New Zealand – National Accounts
- Market research companies (eg AC Nielsen)
- Consultants
- Researchers

Significant events impacting this study series

1996

First post-enumeration survey held in New Zealand following the 1996 Census of Population and Dwellings.

1997

Revision of the dwelling estimates 1991–96, based on the results from the 1996 Census.

1998

The base for the dwelling estimates included, for the first time, adjustments for:

- the estimated net census undercount of occupied permanent private dwellings
- the estimated number of households temporarily absent overseas.

Dwellings occupied solely by overseas residents were excluded.

1998

Second revision of the dwelling estimates 1991–1997. This revision was required due to the published figure for unoccupied permanent private dwelling in 1996 Census, Population and Dwelling Statistics being incorrect.

The figure for unoccupied permanent private dwellings was overstated by about 10,000. This caused the figure for total permanent private dwellings to be also overstated by about 10,000.

2001

Second Post-enumeration Survey carried out in New Zealand following the 2001 Census of Population and Dwellings.

2002

Interim revision of the 1996–2002 dwelling estimates incorporating tenure proportions from the 2001 Census.

2003

The 2001-base Family and Household Projections derived base household estimates at 30 June 1991, 1996 and 2001.

2004

The estimated households derived for 2001-base Family and Household Projections is adopted by Statistics New Zealand for quarterly household estimates series.

2009

The estimated households derived for 2006-base Family and Household Projections is adopted by Statistics New Zealand for quarterly household estimates series. The estimated households 2001-base were revised.

Dwelling estimates from 2001 to 2008 revised based on tenure from the 2006 Census. Household estimates from 1996 to 2008 revised based on tenure from the 2006 Census and the revised estimate of the number of households at 30 June 2001.

2014

Dwelling estimates 2006–13 revised based on enumerated dwelling counts and tenure proportions from the 2013 Census of Population and Dwellings. Interim revision of household estimates incorporating tenure proportions from the 2013 Census of Population and Dwellings.

2015

Household estimates 2006–14 revised based on estimated household 2013-base (30 June 2013) and tenure proportions from the 2013 Census of Population and Dwellings.

Related Materials

Publication

- [Dwelling and Household Estimates](#)