



2011 Census Content: Supporting Information

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Standards and further information

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1. Criteria for determining census content

Statistics New Zealand considers a range of factors when determining census content, including constraints on the census as a whole, and criteria for the inclusion of individual topics. These factors are described in detail below.

Please note that the census may not always be the best source of data to meet a particular information need. Statistics NZ is actively increasing its ability to fill information gaps that the census is unable to fill, through the Programme of Official Social Statistics and other data sources. Other sources of data for each census topic are listed at www.stats.govt.nz/census2011 and at www.statisphere.govt.nz/

Constraints on the census

The following factors place constraints on decisions relating to census content:

The collection and publishing of data must be cost-effective

The value of the information collected and the cost-effectiveness of the census as a source of information have to be fully demonstrated for each topic. In some cases, for example, it may be more cost-effective to collect the data using a sample survey. Any changes to current topics are also subject to budget considerations.

The length of the questionnaire is limited

The census cannot include all topics proposed due to space constraints. Factors which limit the length of the questionnaire are the time required to answer it, and the costs and practical issues associated with collecting, processing and disseminating the information. Consequently, the number of questions that can be included in the census is finite. In order to make the best use of limited space, each topic considered for inclusion must be evaluated against all other topics. This evaluation assists Statistics NZ to order the topics by how best they fit the criteria for inclusion. Statistics NZ's commitment to providing quality data necessitates a focus on improving existing topics, rather than adding new topics to the census. Cyclical topics can be used to maximise topic coverage but with lower frequency.

Respondent burden and resistance must be minimised

The census forms must be designed so that all people in New Zealand on census night are willing to complete them. This means that topics that offend or annoy, or are complex and difficult to answer, cannot be included in the census. It is also very important that respondents can complete the forms in a reasonable amount of time. For 2011, Statistics NZ has made a commitment that the time taken to answer the questionnaires will not increase from 2006.

Continuity and relevance need to be balanced

There is a need to strike a balance between the historical continuity of census data and current relevance. Users of census data require both. The census must retain its ability to monitor demographic, social and economic change over time, while being able to measure new phenomena as they arise.

The frequency with which a topic is included in the census is affected by the rate of change of the data being measured. If the rate of change is slow, it may not be necessary to include the topic in every census. Such topics are referred to as cyclical.

Data consistency is necessary

The census plays a central role in New Zealand's wider system of social and economic statistics. Data from the census is used together with data from other sources to calculate a wide range of measures. This means that the questions, concepts, definitions and classifications used in the census need to be consistent with those used in other data collections.

Criteria for inclusion of topics in the census

While the Government Statistician has decided there will be no new topics in the 2011 Census, the criteria for topic inclusion used in the 2006 Census are listed below as background information.

The census must be the most appropriate information source

The census should be the most appropriate source for the information. Important points to note about the census in this regard are:

- it is a survey of the entire population so topics need to have wide relevance;
- it can provide information on small areas and small population groups and allow comparisons with the total population where data of sufficiently robust quality is gathered to facilitate these comparisons;
- it is carried out once every five years;
- it has important core objectives, including definition of electoral boundaries and providing a basis for government funding;
- it allows analysis of trends over time if concepts and coverage are consistent;
- it may not provide timely information as there is a delay between data collection and output;
- it cannot provide information about underlying causes of a trend or event.

It is possible that information to meet a particular data requirement may already be available from an alternative source. New Zealand's official

statistics website Statsphere www.statisphere.govt.nz/ is a valuable resource for finding information about official statistics. An extensive list of other data sources for topics that have been included in recent population censuses is also available in this document.

There must be public acceptance of the topic

A topic should be widely accepted by the New Zealand public, as the success of a census depends on the cooperation of the whole population. Also, as completion of the census is mandatory, it is important that it excludes topics that may be perceived as intrusive or offensive and avoids complex questions.

The topic must produce quality information

When considering a proposed topic, it must be possible to formulate a question that will provide information of an acceptable quality. This needs to take account of the fact that the census is completed largely without assistance by the entire population of New Zealand.

It must be possible to formulate a question on the topic in simple language that is easily answered. There should be no dependence on respondent memory nor should respondents need to refer to documents.

When considering whether quality information can be produced, the complexity of the processing required also needs to be taken into account. If the information will be complex to process, it is likely to be more difficult to produce data of high quality.

The topic must have significant community value or be of major national importance

The Statistics Act 1975 requires that a census topic should provide information of "significant community value". Such statistics should be used "for the purpose of making policy decisions" and provide government departments, local authorities, businesses and the general public with an "appreciation of economic, social, demographic and other matters of interest".

Some topics are required by law

Under the Statistics Act 1975, certain topics must be collected in the census. These are:

- the name and address, sex, age and ethnic origin of every person
- the location, number of rooms, tenure and number of occupants on census night of every occupied dwelling.

Other legislation, such as the Electoral Act 1993, implicitly requires topics to be included in the census. Examples of these are Māori descent and the 'usually resident' population.

2. Topic discussions

The topic discussions listed below outline Statistics New Zealand's current view (as at 30 May 2008) on the topics to be included in the 2011 Census. They also cover known issues affecting each census topic, and note where further work may be required or changes needed. The topics have been grouped into broad areas, rather than being dealt with individually.

Statistics NZ seeks feedback from users on the proposed changes for the 2011 Census via the submission form available online.

Information about additional sources of data for each topic is available at the end of this document. The purpose of including this information is to raise awareness of these additional sources of data. In some instances, these additional data sources may meet users' needs better than the census. Some of these data sources are outside of Statistics NZ's administration. Enquiries about obtaining access to data that is not collected by Statistics New Zealand should be directed to the collection agency.

Please note that after consultation closes and further development work is undertaken, Statistics NZ's view of content may change. Final content of the census will be developed through 2008, and as the Government Statistician makes final decisions, these will be notified to users on the census website www.stats.govt.nz/census2011

Topic discussions

- Disability
- Education and training
- Ethnicity and culture
- Families and households
- Health
- Housing
- Income
- Location
- Population structure
- Work

Disability

Discussion of disability topic

2006 Census topics to be included in the 2011 Census	2006 Census topics to be excluded from the 2011 Census
Disability	

Statistics NZ's current view

The topic of disability will be included in the 2011 Census for the purpose of identifying a sample for a post-census disability survey. As with previous years, census disability data would not be output for the reasons discussed below. Statistics New Zealand would continue to produce disability data only from a post-census disability survey.

Information uses

Disability data is used by government agencies and community groups to monitor the New Zealand Disability Strategy and plan the delivery of services to people with disabilities. Service providers are interested in the geographic location of people with disabilities, the nature of their disabilities, participation of people with disability in different areas of New Zealand society and economy, and their need for services and assistance. With the development of the Carers Strategy (Ministry of Social Development and New Zealand Carers Alliance) during 2008, there will be a need for information about unpaid carers of people with disabilities.

Questions on disability were asked in the 1996, 2001 and 2006 Censuses. The census data has not been output, but has been used to identify individuals for post-censal disability surveys.

Key issues and emerging information needs

With the implementation of the New Zealand Disability Strategy (released in 2001), one of the objectives is to collect and use relevant information about disabled people and disability issues. This objective includes improving the quality of relevant disability information collected, analysed and used, including regular national surveys of activity limitation.

In October 2006, the last of the institutions for people with physical and intellectual disabilities was closed. This has resulted in changes for both people with disabilities and those who provide services for them, and increased the need for information about support services and housing. The International Convention on the Rights of People with Disability, which is expected to come into operation before the 2011 Census will increase the demand for information on the participation of people with disabilities in New Zealand economy and society.

Disability is a complex topic to measure and one that can not easily be measured in a short set of questions such as those available on a self-completed census form. A comprehensive interviewer-administered survey such as the Disability Survey can provide a much more accurate measure of disability. Therefore, although census data on disability may be used to select samples for post-censal disability surveys, testing has shown that the census itself is not a suitable vehicle for collecting and outputting data on disability.

Education and training

Discussion of education and training topics

2006 Census topics to be included in the 2011 Census	2006 Census topics to be excluded from the 2011 Census
Highest qualification*	
Secondary school qualification*	
Post-school qualification*	
Study participation	

* This topic may be changed if further research, including user consultation, determines that data quality would benefit significantly. See discussion below.

Statistics NZ's current view

The topics of highest qualification, post-school qualification, secondary school qualification and study participation will be included in the 2011 Census. There is high demand for information on qualifications for the total population aged 15 years and over.

The continued inclusion of study participation needs to be investigated for the future. Other surveys may be more appropriate for collecting information on study participation on an ongoing basis. For example, the quarterly Household Labour Force Survey includes a question on study. This topic may be impacted by the recent announcement on the raising of the school leaving age and the outcome of the Review of the Households and Families Classifications currently in progress.

Information uses

Census data on educational qualifications is used by central government agencies to measure highest qualifications and how these are broken down by population group. It is also used to measure change over time. In conjunction with other variables, educational qualifications are often used as a measure of socio-economic status.

More generally, data on educational qualifications is used to measure the impact of educational reforms; to examine the link between qualifications (level and field of study) and occupation, income, etc; to develop, implement and evaluate immigration policy; and to identify over- and under-supply in skill areas.

Post-school qualification field of study data is important in identifying skill shortages and over-supply, and mismatches between people's skills and occupations (eg the current occupation of those with teaching qualifications). It is also used in conjunction with level of attainment information for human capital analysis.

Participation in study data can be used to monitor changes in who is participating, as well as targeting at-risk groups.

There is no statutory requirement to collect data on education and training.

Key issues and emerging information needs

Statistics NZ is working with the Ministry of Education to update the New Zealand Standard Classification of Education – Field of Study (NZSCED.FIELD) at the detailed level of the classification. This update is due for completion by March 2009. More information on this update is available at www.stats.govt.nz/statistical-methods/classifications-standards.

In the past there has been support for retaining separate school and post-school qualifications questions. This allows for the identification of change in provision of secondary level education between schools and other institutions. The 2006 Census provided more detailed information about post-graduate qualifications than previous censuses.

A core module of questions on qualifications has recently been developed by Statistics New Zealand. While both Census and the core post-school qualification question use an output classification based on the New Zealand Register of Quality Assured Qualifications, coding of responses from the core post-school qualification question to this output classification is not consistent with census coding. The core questions are to be implemented in the General Social Survey (GSS), currently under development, and will be progressively introduced to other social surveys. This raises issues around the comparability of data between these surveys and the census.

In the longer term it could be useful to further investigate the use of administrative data. For example, Statistics NZ and the Ministry of Education are currently engaged in an Employment Outcomes of Tertiary Education (EOTE) Feasibility Study. This study explores the feasibility of integrating data on tertiary enrolments and completions with the Linked Employer-Employee Dataset (LEED). Should a recommendation be made to integrate the data and funding obtained, it would provide information on the labour market outcomes of those participating in tertiary education and the contribution of education and industry training to business performance and productivity.

Highest qualification

Highest qualification is a derived variable that provides a stock count for the total population. The census highest qualification data can be analysed with a wide variety of other census variables, such as occupation, income and work and labour force status.

The blurring of the division between school and post-school qualifications continues to be an issue. Census has typically asked separate questions on each. However, the New Zealand National Qualifications Framework (NQF)

offers a seamless transition that allows people to gain qualifications at the same level at both school and post-school institutions. In 2006, highest qualification has been output in two ways: one with categories that do not distinguish between qualifications gained at school and post-school and which are consistent with the new qualifications framework; and the other with categories that distinguish between qualifications gained at school and post-school. The latter allows comparison with output from previous censuses. The issues for post-school qualification level of attainment, outlined in the next section, have had an impact on time series for highest qualification.

Post-school qualification

There has been a reduction in time series comparability between 2001 and 2006 post-school qualification level and post-school qualification field of study at the most detailed level of the classifications. This is the result of a number of changes in 2006:

Post-school level and subject were processed separately in 2006; in 2001 they were processed together. Indications are that this has had an impact on time-series. Post-school qualification level and subject may be processed together in 2011, if resources allow.

Some qualifications were classified differently in 2006 to align them with the new qualifications framework. This has been a factor in the decrease in level 6 qualifications and increase in level 7 qualifications since 2001.

A different example of a qualification (Trade Certificate) was given as a guide on the questionnaire. This seems to be the main driver behind the increase in level 4 and 5 vocational qualifications between 2001 and 2006; previously, concerns had been raised about undercounts of trade qualifications. Statistics NZ is considering retaining this example in 2011 to allow further analysis of qualifications at these levels.

There may be other issues associated with post-school qualifications data that have not yet been identified.

Submissions on content for the 2006 Census included a request to reinstate the 1996 Census question. Asking respondents for their two highest post-school qualifications, the main subject of each, the name of the institution and country the qualification was received from, and the year the qualification was gained. However, respondents had difficulty remembering this amount of detail and consequently the data was of poor quality and not published. As the proportion of the population with more than one post-school qualification is small, it was recommended that this detailed information could be better collected in a specialist, interviewer-administered survey.

Secondary school qualification

The format for the secondary school qualifications question was changed in 2006. The number of tick boxes was reduced and NCEA levels 1, 2 and 3 were included in the list of possible qualifications for each tick box.

The quality of this variable was good. However, changes to secondary school qualifications over time have led to an expanding list of descriptors for each qualification level. To reduce the length of the highest secondary school qualification question, examples of qualifications at each level could be given, rather than an extensive list. Such a change may result in disruption to the historic time series.

Study

The strength of collecting information on participation in study in the census is the ability to provide indicative information for the total adult population, as well as foreign fee-paying students and at-risk groups. The census study data can be analysed with a wide variety of other census variables, such as income.

The continuity of information on participation in study continues to be an issue. Over the past four censuses there have been a number of changes in the question format, question wording and reference period. In 2001, participation in study was included within the unpaid activities question. In 2006, study participation was asked in a separate question. The timing of the census in relation to the return of students to universities has affected time series comparability and data quality. In 2001 the reference period for study was the previous four weeks; in 2006 the question asked for current participation.

The 2006 question format was the result of extensive questionnaire design work carried out in consultation with key stakeholders. The emphasis of this work was to improve the quality of the study data. In spite of this, non-response to the study question increased in 2006. This may indicate that study participation might not be suitable for inclusion in censuses beyond 2011.

During consultation on content for the 2006 Census, users requested the collection of additional information on study participation: where people are studying; the level of qualification they are studying for; whether they are taking a short term course or are engaged in long-term tertiary study (in the case of overseas students); participation in industry training, including on-the-job training and apprenticeships; informal and work-based learning; and information on continuing education courses required by professional organisations. These information needs could be considered through the Programme of Official Social Statistics. The Ministry of Education's annual study statistics may provide an alternative source of data on participation in study.

The recent government proposal to extend compulsory education or training to the age of 18 may impact on the collection of data on qualifications and study. Statistics New Zealand is reviewing the child dependency classification and investigating the inclusion of a new category of dependent adults aged 18 to 24 who are living with a parent or caregiver.

Ethnicity and culture

Discussion of ethnicity and culture topics

2006 Census topics to be included in the 2011 Census	2006 Census topics to be excluded from the 2011 Census
Birthplace	
Ethnicity*	
Iwi affiliation	
Language spoken	
Māori descent	
Religious affiliation	

* This topic may be changed if further research, including user consultation, determines that data quality would benefit significantly. See discussion below. For more information on user consultation go to www.stats.govt.nz/census2011

Statistics NZ's current view

The topics of ethnicity, Māori descent, iwi affiliation, religion, birthplace and years since arrival in New Zealand will be included in the 2011 Census. It is also intended that language spoken will be in the 2011 Census but further consideration will be given to the topic becoming a cyclical question asked every 10 years.

As the Government Statistician has decided there will be no new topics in the 2011 Census, sexual orientation, citizenship and generational attachment to New Zealand will not be included in the 2011 Census.

Information uses

Several topics are related to identity and culture: ethnicity, Māori descent, iwi affiliation, birthplace, years since arrival in New Zealand, language and religious affiliation.

Ethnicity is a socio-cultural indicator which is collected and used extensively by central government agencies, non-government organisations, local authorities and individual ethnic groups. It is used to compile a wide range of demographic estimates and projections, and to derive measures for monitoring the well being of ethnic groups. The census provides an important source of ethnicity data for small areas and small ethnic groups.

Māori descent data is used in conjunction with electoral registration data to calculate Māori electoral populations and districts. The census provides the most comprehensive source of information on the size and distribution of people with Māori descent and of iwi populations. Data is used to monitor

Treaty of Waitangi obligations, assist in allocating funds and resources to iwi, and assist with economic and social planning by iwi.

Data on birthplace, years since arrival in New Zealand, religious affiliation and language provide useful indicators of social-economic status of immigrants, cultural diversity within communities and aid in planning for services by local authorities. Information on birthplace and years since arrival in New Zealand is also used to develop, monitor and evaluate settlement programmes for immigrants.

Key issues and emerging information needs

Ethnicity

Ethnicity is the principal statistic used to measure cultural identity in New Zealand, not just in the census, but right across the Official Statistics System. The statistic is used to monitor the social conditions of the specific ethnic groupings contained in the classification: particularly, though not exclusively, Māori and Pacific peoples. Statistics NZ is planning to review the measure to determine if any revisions are needed to the official statistical standard prior to the census. The review will focus on the 'New Zealander' response category and how it is treated in the classification and census question. This category has been growing over the past two decades and at the 2006 Census increased fivefold, now representing 11 percent of the population. The review is expected to start in August. More information, including details on how to make a submission, will be posted at www.stats.govt.nz/about-us/consulting when the consultation process starts.

Statistics New Zealand is continuing to investigate the possibility of imputation for non-response for certain uses of ethnic data, such as ethnic projections, to improve the usefulness of the information. The level of non-response to this item in the 2006 Census was 4 percent.

Language

Language data is used to monitor Māori and Pacific language retention and for national service providers to understand their client base. Though Statistics NZ proposes no change to this topic for the 2011 Census, some users have proposed that language be a cyclical question from 2016. This could be done ten yearly as the language data shows less change over time than other key variables. A proposed post-censal survey of Māori (under development) may collect more detailed information on Māori language.

Religious affiliation

New Zealand has become increasingly secular and the growing number of 'no religion' responses combined with non-response and 'object to answering' continues to increase. Statistics NZ is reviewing the collection of statistics on cultural identity across the Official Statistics System in 2008-09, and this review will cover issues relating to religious identity. One such issue is

whether there is a need to provide more detail about those answering 'no religion', by disaggregating that category. Any classification review recommended by the cultural identity review would not be concluded in time to be incorporated in the 2011 Census.

Birthplace and years since arrival in New Zealand

The census is an important source of information about birthplace and years since arrival in New Zealand. With growth in global labour markets, interest in this topic is expected to increase in the future. New Zealand's growing cultural diversity reflects an immigration shift away from traditional European source countries toward countries in the Asia/Pacific region.

Iwi affiliation

A routine update to the iwi affiliation classification which will address spelling and grammatical changes to existing categories will be completed prior to the 2011 Census.

Generational attachment to New Zealand, citizenship, and sexual orientation

Statistics New Zealand has identified that users are interested in the following topics: generational attachment to New Zealand, citizenship and sexual orientation.

Researchers and data users interested in generational attachment to New Zealand often use ethnicity or country of birth as a proxy to understand migrant outcomes, but this is not satisfactory particularly given the increased global mobility of migrants. The settlement of migrants and their children impacts on labour markets and social services and is becoming a wider policy consideration in New Zealand and internationally. Capturing generational attachment to New Zealand is still in a developmental stage.

During 2006 consultation, citizenship and residency status were identified as key information needs for users analysing migrant outcomes. Following a workshop, which included attendees from the Labour Market Policy Group of the Department of Labour, New Zealand Immigration Service, Department of Internal Affairs, and Waikato University, Statistics New Zealand concluded that citizenship and residency were complex topics that could not adequately meet information needs with one census question.

Sexual orientation is emerging as a topic of increasing social interest. Statistics New Zealand is currently developing a paper that considers the collection of sexual orientation information in the wider context of the Programme of Official Social Statistics (POSS). This paper will inform the Review of the Cultural Identity Statistical Domain across 2008 and 2009.

2011 Census Content: Supporting Information

As the Government Statistician has decided there will be no new topics in the 2011 Census, sexual orientation, citizenship and generational attachment to New Zealand will not be included in the 2011 Census.

Families and households

Discussion of families and households topics

2006 Census topics to be included in the 2011 Census	2006 Census topics to be excluded from the 2011 Census
Extended families	
Family type	
Household composition	

Statistics NZ's current view

The topics of family type, extended families and household composition will be included in the 2011 Census as families and households is a key area of information with many uses.

Although there is clearly a requirement for more detailed information on families and households (eg people who reside in more than one household and the classification of step and blended families) as outlined in the recent review of official family statistics, whether this information can be obtained from the census needs to be explored. An interviewer-administered survey such as the proposed Family Survey (survey of the family circumstances of individuals in New Zealand), would be better suited to collect more detailed information more effectively and accurately.

It is important that users of family and household information from the census understand the data (including how it has been obtained) and recognise its limitations so that it can be used appropriately along with information collected from other data sources.

Information uses

Information on family type, extended families and household composition is produced from the census.

Family and household statistics are used extensively for formulating social policy, planning, monitoring programmes and research. Users of this data include central government agencies, local authorities, private organisations and researchers. Statistics New Zealand uses household and family data to derive household and family projections. Census information about families is also used in the New Zealand Deprivation Index.

Data on families and households is derived from information about relationship to reference person (including that of absentees), living arrangements and usual residence indicator (the relationship between a respondent's usual residence and their census night address). The production of information on family type and household composition is not a statutory requirement. However, the inclusion of usual residence and census night

address is a statutory requirement along with information about the names of people in a dwelling – although names do not appear in published data – and this information is used to help produce family and household data.

Key issues and emerging information needs

Issues with this topic stem from the nature of the census and the complexities of families and households.

A limitation of measuring families in the census is that the definition of a family is household-based, so the family data produced relates to families within households and does not provide an indication of family connections that extend beyond households. The same is true of extended families data produced from the census – it relates to extended families within households. The definitions are household-based because the census is a household-based survey – it counts each person within one household (or dwelling).

In broad terms, the major issue surrounding this topic is that the statistics from the census do not reflect the complex realities of contemporary families. A specific issue to come out of this is that the census does not capture people who reside in more than one household. One example of this is the scenario of people living-apart-together, that is, couples living together some of the time but also maintaining separate residences or couples not living in the same household.

Another situation is the misrepresentation of two-household children (ie children who have two active parents living in separate households and spending time living with each parent). Some of these children will be classified as being in one-parent families even though they have two active parents, which is contrary to the common understanding of what it means to be in a one-parent family and may lead to misinterpretation by data users. There are also circumstances where children are classified as belonging to one-parent families when one of their parents is temporarily living away from the family home and the parent who is present with the children may not list their partner/spouse as usually living in the same household. Examples may include spouses/partners who are overseas for extended business, armed forces personnel, oil rig workers, prisoners, and other couples temporarily separated for work, family, housing or immigration reasons. The classification of one-parent families affects the household composition classification as well as the family type classification because both classifications use the same definition of family.

The concepts of 'children in shared care' and 'second residence' have been identified as areas to be investigated within Statistics New Zealand. Outcomes of investigations relating to these concepts will need to be assessed to see whether the census is suitable for collecting this type of information. An interviewer-administered survey may be another option for obtaining the information on two-household children.

Another area of families and households where there are key information needs are situations in which social and economic support is given/received from family members within and across households. Users are also interested in the identification of step-families within the range of family types and to distinguish these situations from those in which all family members are biologically related. Currently in New Zealand there is very little information and no national estimates available on step and blended families.

An existing data need is information about grandparents raising grandchildren. Some information on grandparents in a parental role is available from the 2001 Census, although a limitation of this data is that it excludes situations in which the parent(s) of the child are living in the household. Due to quality issues, this data is not available from the 2006 Census. If these quality issues are resolved, it is intended that this information will be available from the 2011 Census.

Although the census has quite a comprehensive coverage of people within families and households, there are some families and households which are missed in the census. There is no information about those in non-private dwellings or those where all the household members were away from home on census night and the dwelling was empty. Repatriation of people who complete a census form elsewhere in New Zealand may address this problem, but will not be implemented for 2011. See the location topic discussion for further information.

Statistics New Zealand has recently led a review of official family statistics with the findings and recommendations included in the Report of the Review of Official Family Statistics, published in March 2007. The report identifies information needs about family statistics and determines to what extent official statistics are adequate for current and future needs of users, and gives recommendations about addressing information gaps.

As an outcome of the review, Statistics NZ is currently undertaking a review of key classifications and standards within the families and households topic. It is envisaged that this classification review will lead to a more detailed range of family-related classifications and standards that will reflect the increased diversity of family types, support and living arrangements. The census area is contributing to this classification review and will take into consideration classification developments that are aligned with the overall direction of the 2011 Census.

Health

Discussion of health topics

2006 Census topics to be included in the 2011 Census	2006 Census topics to be excluded from the 2011 Census
	Cigarette smoking+

+ Subject to the outcome of census content development, including user consultation.

For more information on user consultation go to

www.stats.govt.nz/census2011

Statistics NZ's current view

The topic of cigarette smoking will not be included in the 2011 Census. Consideration will be given to including this in a future census and the information needs and uses for this will be re-evaluated closer to the 2016 Census.

Information uses

Data on smoking prevalence is used by those working in the health sector. Information on current and ex-smokers is used to:

- monitor changes in smoking prevalence amongst the population of New Zealand
- understand the characteristics and profile of smokers, to better target at-risk groups in the community with future health education programmes and evaluate the success of those programmes
- monitor changes in smoking prevalence among high risk groups in New Zealand
- examine the relationship between smoking and other socio-economic variables and how these change over time.

A question on cigarette smoking status was first asked in the 1976 Census, and has been repeated in the 1981, 1996 and 2006 Censuses.

Key issues and emerging information needs

There will always be a demand for the topic of cigarette smoking as long as the prevalence of smoking is considered a public health problem. However, because of the rate of change it is not a question that needs to be asked at every census. A 10-yearly cycle of inclusion is considered adequate, and as this topic was included in the 2006 Census, it will not be included in the 2011 Census. Survey data are available to measure change in the intervening years, and the census can be used as an occasional benchmark. The value of including this topic in the census on a cyclical basis is that the census is able

to monitor the smoking behaviour of at risk sub-groups, which cannot be easily monitored through sample surveys.

Some respondents may regard a question on this topic as intrusive, as it is related to a personal habit rather than a characteristic. In addition, the under-enumeration of young people (those in their late teens and early 20s), especially among Māori and Pacific peoples, may affect the quality of the data. Young people may also be reluctant to answer the smoking question because in New Zealand it is illegal to sell tobacco products to anyone aged under 18. (Past censuses have asked the question of people aged 15 and over).

Between the 2006 and 2011 Censuses, new and more regularly-collected data sources on cigarette smoking have been established. For example, the New Zealand Tobacco Use Survey (NZTUS), conducted for the first time in 2006, is a sample survey that will be repeated two out of every three years. The survey can produce national estimates for the key demographics of interest – age, sex, and ethnic group. The Action on Smoking and Health (ASH) Year 10 Smoking Survey collects data annually from year 10 students. Information on cigarette smoking is also collected in the New Zealand Health Survey and the General Social Survey.

Housing

Discussion of housing topics

2006 Census topics to be included in the 2011 Census	2006 Census topics to be excluded from the 2011 Census
Dwelling counts (includes dwelling location)	
Dwelling type	
Number of rooms and number of bedrooms	
Tenure of household	
Tenure holder	
Sector of landlord	
Weekly rent paid by households	
Access to telecommunication systems*	
Fuel types used to heat dwelling*	
Number of motor vehicles*	

* This topic may be changed if further research, including user consultation, determines that data quality would benefit significantly. See discussion below. For more information on user consultation go to www.stats.govt.nz/census2011

Statistics NZ's current view

The topics dwelling location, number of rooms and tenure of household must be included in the 2011 Census as inclusion of these topics is a legal requirement under the Statistics Act 1975.

The topics dwelling counts, dwelling type, number of bedrooms, tenure holder, sector of landlord, weekly rent paid by households, access to telecommunication systems, fuel types used to heat dwelling, and number of motor vehicles will also be included in the 2011 Census.

The classifications for dwelling type, tenure of household, access to telecommunication systems, and fuel types used to heat dwelling are scheduled for review by June 2009. The content of some of these topics may change in the future as a result of these reviews, however some changes may not come into effect for the 2011 Census.

The type of information users would require on mortgages and the suitability of the census as a collection vehicle for this topic may be investigated for future censuses or Statistics NZ surveys.

Information uses

Information collected in the census that relates to housing includes: dwelling counts (occupied and unoccupied), dwelling type, number of rooms and number of bedrooms, tenure of household, tenure holder, sector of landlord, weekly rent paid by households, access to telecommunication systems, fuel types used to heat dwellings, and number of motor vehicles.

Most of the housing topics have a long history of inclusion in the census, some dating back to before 1916. Tenure holder was first included in the 2001 Census, and was also included in the 2006 Census.

Housing statistics help central and regional government formulate and evaluate housing policy and legislation relating to the Housing Statistics Strategy's six dimensions of housing adequacy: affordability, suitability, habitability, tenure security, freedom from crowding and freedom from discrimination. Census data on housing could potentially be used to provide a framework and supplementary data for housing surveys, but currently there are no plans to conduct a housing survey within the next few years. Users of housing data include central government agencies, local authorities, private organisations, housing providers, policy analysts and researchers.

The census is the only source of a complete count of dwellings in New Zealand. Counting dwellings in the census provides an overview of New Zealand's housing stock at the national and local levels.

One major reason that the census is an appropriate collection vehicle is that the data on these topics is required at a small area and small population group level. For example, regional information on dwelling type is required so users can monitor housing trends at a local level, such as dwelling density patterns. Small area data on bedroom occupancy is required for constructing the New Zealand Deprivation Index, and is also important for analysing household crowding. The uses of motor vehicle data, such as in planning transport services, mean that small area data is needed. Data on heating fuels and access to telecommunication systems is also required at the small area level. Users of tenure data are interested in looking at trends among different population groups.

Other reasons for the census being an appropriate collection vehicle include the need for time series information and the national significance of some of these topics. Having time series information on dwelling counts is important for measuring changes in New Zealand's housing stock over time. Time series data is also very important for the tenure topic, as there is interest in measuring changes in home ownership levels over time. Data on rent helps to provide information on housing affordability, which is a key policy concern, and there is national interest in the home ownership information that is contained in the tenure data. Collecting data in the census also enables cross-classification with other census variables, which is important for some housing topics. For example, collecting rent data in the census means that it can be cross-tabulated with sector of landlord and household income data.

A review of housing statistics is currently under way. It is expected that this review will identify gaps and deficiencies in existing official housing statistics and establish priorities for statistical developments over the next five to ten years.

Key issues and emerging information needs

Access to telecommunication systems

This census topic provides information on whether households have access to a telephone, cellphone, the Internet and/or a fax in their home.

The question of whether telecommunication access should be measured at the individual level has been raised previously. Telecommunication access can be seen as a characteristic of individuals rather than households, particularly in relation to cellphone access. Currently, however, there are no plans to introduce this for the 2011 Census. Information on Internet and cellphone use at the individual level is now available through the Household Use of Information and Communication Technology (ICT) Survey. Users have also expressed interest in expanding this topic to differentiate between broadband and dial-up Internet access, and to include access to the Internet in other locations, such as in the workplace and Internet cafes. This information is now available from the ICT Survey.

Statistics New Zealand is seeking feedback on how the access to telecommunications systems data is used, in particular fax access data and whether this should continue to be collected in the census. The classification for access to telecommunication systems is scheduled to be reviewed in 2008, and user comment in this consultation will be taken into consideration in that review.

Fuel types used to heat dwelling

The fuel type classification is scheduled for review before June 2009. Whether additional categories for other fuel types (eg pellets, home heating oil, biofuel) are needed is being considered.

Currently the fuel use data from the census has separate categories for mains gas and bottled gas. However, respondents are often not aware of which type of gas they use, and may incorrectly indicate mains gas in situations where gas is supplied from a cylinder for an entire street but is piped underground. One possible solution to this problem that is being considered for 2011 is to aggregate the mains and bottled gas categories together to form one gas category. Whether this should be done, however, depends on whether distinguishing between mains gas and bottled gas is important for users of this data. Statistics NZ is seeking feedback on this.

Number of motor vehicles

It has been suggested that the top output category for this topic should be raised from three or more motor vehicles to five or more motor vehicles. Whether this extra information would be of value to users will be investigated during consultation.

There has been interest in expanding the number of motor vehicles topic to include a wider range of vehicles such as motorbikes, motor scooters and bicycles, but previous investigations have showed that this would have some drawbacks. Including a wider range of vehicles would make the topic more complex and increase respondent burden, and this would be a potential risk to data quality and time series comparability.

Dwelling counts (includes dwelling location)

The dwelling count information produced from the census comprises counts of occupied dwellings, unoccupied dwellings and dwellings under construction. Unoccupied dwellings are classified as 'residents away' or 'empty' by census collectors. Sometimes it is difficult for collectors to determine which category an unoccupied dwelling should be assigned to. For apartments in high rise blocks, it can be difficult to determine not only whether those that are unoccupied should be classified as 'residents away' or 'empty', but whether such apartments are occupied or unoccupied. Collection procedures are being re-examined to help address this issue for the 2011 Census.

There is interest in expanding the information collected on unoccupied dwellings to include characteristics such as tenure and the reasons why these dwellings are unoccupied. There is also interest in the collection of information on whether people have another residence in addition to their usual residence. If second residence information was available it might help to meet the need for more information on unoccupied dwellings. Refer to the location topic discussion for more information.

Dwelling type

Dwelling type provides information on the characteristics of private and non-private dwellings, including whether private dwellings are separate or joined to others and how many storeys they have.

Dwelling type is a complex topic. There are issues in distinguishing between private and non-private dwellings and, more specifically, in how to define certain types of dwellings such as bed and breakfasts, boarding houses and residential care facilities. In the 2006 Census, thresholds relating to the number of people in a dwelling were used to determine whether it should be classified as private, or as a bed and breakfast, boarding house or residential care facility.

An issue which has arisen recently is the need for information about homelessness. Currently in New Zealand, there is no agreed definition of homelessness. Development of a definition and classification of

homelessness is scheduled for completion in 2009.

Number of rooms and number of bedrooms

In addition to the collection of number of rooms and bedrooms, the collection of information such as room and bedroom size would be also be useful. However, this would increase respondent burden and make it difficult to produce quality data.

Tenure of household

Tenure of household data provides information on whether members of households own their home (with or without a mortgage) or not.

In the 2006 Census, information about whether people's homes were in a family trust was collected for the first time. The number of people putting their home into a family trust is believed to be increasing. Although there has been concern about inconsistencies in how this topic has been asked in previous censuses, Statistics New Zealand's current view is that it is important to retain this topic in the same form for the 2011 Census as in the 2006 Census so that time series data showing trends in home ownership levels is available. The tenure of household classification is currently being reviewed, however it is expected that the content of this topic will not change from the 2006 Census.

Tenure holder

Tenure holder provides information on whether individuals own the home they live in.

One issue with tenure holder data is that the non-response rates are high for Pacific peoples, Asian, and the Middle Eastern/Latin American/African ethnic groups. This limits the amount of analysis that can be done on these ethnic groups. Another issue is that it is difficult to compare tenure holder data with tenure of household data because tenure holder relates to individuals whereas tenure of household relates to households.

There is interest in obtaining information on ownership of other dwellings at the individual level, and the location and use made of these dwellings – whether they are rented out, used as a second home, or as a holiday home. This information would be helpful in developing a better understanding of changes in home ownership rates and assessing the extent to which dwellings are under-utilised.

Sector of landlord

Sector of landlord data indicates whether a household rents their home through the private sector, Housing New Zealand Corporation, a local authority or city council, or another agency.

Previously there has been an issue with respondents being unsure whether the dwelling they rent is owned by a private person, trust or business. This

issue was addressed for the 2006 Census by merging these three response categories into one response category.

The 2006 Census data on sector of landlord showed an undercount of households renting from Housing New Zealand Corporation and other agencies, in comparison with administrative data sources. This was due to respondent error and a high non-response rate for these households and is a trade-off of using a self-administered survey to collect this information.

Weekly rent paid by households

As for sector of landlord, the weekly rent paid data has been affected by an undercount of households renting from Housing New Zealand Corporation and other agencies, in comparison with administrative data sources.

Mortgages

The provision of information on mortgages is an emerging area of interest. Collecting information on this topic would improve the range of information available for assessing patterns in housing affordability and assist in monitoring and developing policy responses. Currently the only information on mortgages available from the census is whether households who own their home have a mortgage or not.

Information on this topic is available through the Household Economic Survey (HES). This is a better source of information on affordability than the census because the HES income data can be run through Treasury's tax model to provide values for disposable income, which is the preferred measure for analysing affordability and is too complex to be collected through the census. Another advantage of the HES is that this survey is now annual, so new information is available every year. New information from the census would only be available once every five years, which may not be frequent enough for the analysis of housing affordability trends.

Income

Discussion of income topics

2006 Census topics to be included in the 2011 Census	2006 Census topics to be excluded from the 2011 Census
Total annual income*	
Sources of income	

* This topic may be changed if further research, including user consultation, determines that data quality would benefit significantly. See discussion below. For more information on user consultation go to www.stats.govt.nz/census2011

Statistics NZ's current view

The annual income and sources of income topics will be included in the census. The general format of the questions should remain the same so that comparability with previous data is maintained.

As part of the classification review process, Statistics New Zealand is currently considering the disaggregation of the \$50,001–\$70,000 category into two bands (\$50,001–\$60,000 and \$60,001–\$70,000) and reviewing income bands above \$100,001. To make either of these changes possible it may be necessary to consider aggregating the \$1–\$5,000 and \$5,001–\$10,000 into one band (\$1–\$10,000).

There will be no new source of income categories collected in 2011, although this is subject to changes in government policy. Any addition to the number of income sources in the future would be limited by available space on the census questionnaire. Space constraints could also require the combining of some source categories.

Information uses

Information on annual income and sources of income are used extensively in formulating social and economic policy, planning, monitoring programmes and research, mainly as an explanatory variable. Users of this data include central government agencies, local authorities, private organisations and researchers. An example is the Ministry of Education's decile school funding system. Census information about family income is also used in calculating the New Zealand Deprivation Index.

Key issues and emerging information needs

Total personal income

The census is self-administered and, as such, is subject to misunderstandings and non-response by the public. In 2006, non-response for personal income was 10.2%, the highest non-response of all questions in the census. Poor response rates to personal income and sources of income for Māori, Pacific

peoples, Asian and the older population groups make it difficult to gather the accurate information required to assist these groups.

Non-response to the personal income question also affects the information that is available on family and household income. The effects of non-response at the individual level are compounded when family and household income are calculated. This can result in income levels being unknown for a significant proportion of families and households.

Data users have previously indicated that exact income amounts would be useful. The broad bands are not ideal for complex analysis, limit the usefulness of income data and introduce a degree of inaccuracy. However, asking respondents to write down their actual income would lead to higher non-response and data capture problems. This has not been considered as suitable for the census as respondents may not know their exact gross dollar income, or they may consider this question to be too sensitive or intrusive. Income bands make it easier for respondents to answer the income question and strike the best balance between privacy and accuracy. As income levels rise over time, it is necessary to review the income bands, including the possible splitting of the \$50,001–\$70,000 band (to \$50,001–\$60,000 and \$60,001–\$70,000) and the option of providing bands beyond \$100,001. To give more space on the census questionnaire to allow for either of these changes, the lower bands \$1–\$5,000 and \$5,001–\$10,000 may need to be combined.

The census collects gross annual income. There is evidence from previous censuses that some people – particularly beneficiaries – only know what their current net payment is, and this leads to income levels being understated. The census guidenotes and helpline provide a guide for converting weekly incomes (gross and net) to gross annual incomes, but this relies on respondents consulting these sources.

Sources of income

While information on sources of income was originally collected to focus respondents on providing accurate total income information, it has since become a useful source of data for researchers. The key limitation is the inability to determine how much income has been received from each source or at which period during the year. As the list of potential income sources increases over time, space on the questionnaire will become an issue. It may be possible to reduce the length of the question by combining some of the response options, for example the benefits options, though this is unlikely to be necessary for 2011.

During consultation for the previous census, users identified several additional sources of income including child maintenance, international transfers of money, remittances and irregular cash income. This detailed and complex information is not suitable for collection in the census, or is already collected in other surveys. For example, the Household Economic Survey collects information on irregular income.

Location

Discussion of location topics

2006 Census topics to be included in the 2011 Census	2006 Census topics to be excluded from the 2011 Census
Census night address	
Dwelling address	
Usual residence	
Years at usual residence	
Usual residence 5 years ago	

Statistics NZ's current view

Information on census night address and dwelling address are a legal requirement under the Statistics Act 1975 and so must be collected in the 2011 Census.

The 2011 Census will continue to collect information on usual residence, years at usual residence and usual residence five years ago. This information is used in the preparation of population estimates and projections. It provides information about internal migration which is an important component of regional population growth.

Information uses

The census is New Zealand's most valuable resource for providing information about the varying characteristics of New Zealand's population at a subnational level. The location information collected in the census enables us to better understand and appreciate the variances within our communities, and to target resources where they are needed.

Location information is used to formulate, monitor and evaluate central and local government policy. It is a critical input to population estimates and projections, providing information on how communities are changing. Users of location data include central government agencies, local authorities, private organisations and businesses, researchers, communities and individuals.

While there is no legal requirement under the Statistics Act 1975 to collect usual residence data, the Electoral Act 1993 does require the derivation of census-based usually resident electoral populations for the revision of electoral boundaries. Similarly, local authorities, the Local Government and Higher Salaries Commissions and health authorities have specific legal requirements for census populations or census-based population estimates at the local level. This topic also provides the only means of distinguishing between those usually living in New Zealand and overseas visitors, and those usually living in an area or just present there on census night.

Internal migration is becoming an increasingly important factor in regional growth and is of particular importance to local authorities for planning and

development. An understanding of population movement is also critical to the preparation of post-censal population estimates and projections. These in turn have a number of administrative, legal and research applications.

There is no statutory requirement to collect information on years at usual residence or usual residence five years ago. However, this data directly contributes to the quality of population estimates and projections. A number of democratic, funding and research processes depend on these estimates and projections. Data about these topics also contributes to a more general understanding of community dynamics.

Key issues and emerging information needs

Over recent decades New Zealand society has become increasingly mobile. More New Zealanders are away from home within New Zealand, or temporarily overseas on census night. In addition, there are more New Zealanders with multiple residences or seasonal lifestyles, reflecting movement for work, study, holidays and family reasons. These situations present challenges for the way we define usual residence.

Statistics NZ has reviewed the repatriation of people away from home on census night. This review weighed the benefits of improved data quality against census processing system redevelopment costs and impacts on data continuity. Due to resource constraints, repatriation will not be implemented for the 2011 Census.

The growing geographic mobility of people has also led to a demand for second residence or supplementary address information in the census to better understand where people spend their time. Usual residence questions can prove difficult for those with multiple residences or seasonal lifestyles to answer. Students whose term-time address differs from their home address, people whose working week address differs from their home address, children whose week is split between separate parental homes, and long-term visitors to New Zealand, are among those for whom some judgement decisions are required when completing the usual residence question.

Supplementary address information has the potential to help compile population data that better suits different user requirements. By understanding fluctuations in populations between weekdays and weekends, or between different times of the year, issues such as housing demand and weekly commuting can be identified, while improving the relevance of the census for many people. User need for this information may be further researched as part of Statistics NZ's normal business activities.

Collecting internal migration data in the census also has limitations. The usual residence five years ago and years at usual residence questions both rely on the respondent's memory. Some may not remember previous addresses and the timing of moves, and multiple or return migration goes unrecorded. Moreover, the census cannot provide information on intermediate moves or the reasons why people move or choose not to move. Despite these limitations the census remains the best source of data on internal migration.

Population structure

Discussion of population structure topics

2006 Census topics to be included in the 2011 Census	2006 Census topics to be excluded from the 2011 Census
Name	Number of children born+
Age (date of birth)	
Sex	
Absentees	
Marital/relationship status*	

* This topic may be changed if further research, including user consultation, determines that data quality would benefit significantly. See discussion below.

+ Subject to the outcome of census content development, including user consultation. For more information on user consultation go to www.stats.govt.nz/census2011

Statistics NZ's current view

There is a legal requirement under the Statistics Act 1975 for the census to include the topics of name, age (date of birth) and sex. Collection of data about absentees is essential for coding family and household structures and will therefore be included in the 2011 Census.

Marital/relationship status will continue to be included in the 2011 Census. The marital/relationship status topic provides information on the current marital/relationship status of individuals and is a key topic for determining the demographic characteristics of a population. There is also considerable public interest and research value in marital/relationship status.

Statistics NZ is proposing to exclude the topic number of children born (sometimes referred to as fertility) from the 2011 Census. Number of children born is expected to be included in the 2016 Census and until then, the 2006 Census data will provide an adequate basis for users of this topic.

Information uses

All social sciences and services are influenced at the most basic levels by demographic change. An informed society must monitor basic changes in population structure and composition. Virtually all users of census data seek some information on population structure. Age and sex are two of the most commonly used census variables, regularly used to assist with analysis of all other census variables. Census age and sex data also provides (either directly or indirectly via population estimates) the base population for many derived series, including fertility, mortality, morbidity, suicide, accident and crime statistics.

Names are used during processing to help establish family and household structures. The datasets that are produced do not contain the names of respondents.

Information on absentees is needed for collection purposes, and working out family and household composition. It is also an important input to population estimates methodology.

The topic of marital/relationship status provides valuable information on how society is structured and allows analysis and understanding of family size and changes in family structure. This information contributes to our understanding of present and future society.

Number of children born is used to help build accurate models of population structure and change that inform a wide variety of other research and policy uses. Combined with other census variables, it can provide valuable insight into different population profiles between groups and small areas in New Zealand.

Users of population structure data include central government agencies, local authorities, private organisations and businesses, researchers, communities and individuals.

Key issues and emerging information needs

Marital/relationship status

Census data on marital/relationship status relates to a person's current legal and social marital/relationship status. It does not include any information about the formation and duration of partnerships or the number of relationships an individual has had.

The 2006 Census was the first census to collect information on civil unions. This reflected the expansion of recognised legal relationships in New Zealand with the introduction of the Civil Union Act 2004 which came into effect in April 2005. There are significant data quality issues regarding the civil unions data from the 2006 Census. Civil unions data for marital/relationship status from the 2006 Census is not fit for use. The figures for civil unions from the census are significantly higher than civil union registrations in New Zealand and are believed to be due to respondent misinterpretation regarding what a civil union is. The rest of the marital/relationship status data is not affected by this quality problem and shows the expected distributions.

The move away from legal marriage altogether is continuing with growth in other types of partnerships. A wide variety of relationships exist in our society and interest remains in how people are partnered. In relation to this, the distinction between legal and social marital/relationship status is becoming more blurred. For example, people living in de facto relationships are treated the same as couples who are married or in a civil union under the Relationships (Statutory Reference) Act 2005. In contrast, a husband and wife

living together in the same dwelling may not consider themselves as still being married (ie they are living as flatmates), so their social marital/relationship status may appear to contradict their legal marital/relationship status. Alternatively, a couple need not be living in the same dwelling but can still have a very strong partnership.

Statistics New Zealand is proposing to change the legal marital/relationship status question in the 2011 Census to address issues with the quality of civil unions data. This might be accomplished by combining the 'I am legally married' and 'I am legally joined in a civil union' categories on the individual questionnaire, though any change would be subject to extensive testing. Further work is also required in the long term in regards to addressing the increasing complexities of marital/relationship status.

A review of the classifications and standards for marital/relationship status is currently underway and this will be taken into consideration in the development of the 2011 Census.

Number of children born

The topic 'number of children born', also sometimes called 'fertility', is cyclical and was included in the 1981, 1996 and 2006 Censuses. Statistics NZ is proposing to exclude this topic from the 2011 Census.

Cyclical topics typically show less variation over a five-year cycle, but still have clearly demonstrated uses and are unable to be collected accurately elsewhere. However, current fertility trends, alongside trends in childlessness, mean that there is potential for quite rapid change in fertility patterns in New Zealand in the near future. This may indicate a need to consider this as a five-yearly topic in the future.

Name

Concerns for personal security and privacy can lead to reluctance to supply name information for fear of identification or sharing of personal details. The information respondents provide in the census is protected by the Statistics Act 1975, and must only be used for statistical purposes. The names of people are not part of information that is published. When results are published, Statistics New Zealand also makes sure no individual can ever be identified from the data. For more information on confidentiality in the census, see the discussion of confidentiality and methodology at www.stats.govt.nz/census/about-2011-census/topic-discussions/confidentiality-and-methodology.htm.

Age and sex

Age and sex are both foremost census variables, therefore the quality of data collected about these topics is very important.

Discussion and debate on population ageing has continued to focus on population age structure and changing sex ratios. The issue of males missing from the census data has been discussed in recent times and will be reviewed further during the planning for the 2011 Census.

Absentees

Absentees are people listed on a census dwelling form as being temporarily absent from their usual residence at the time of the census. A person listed as being absent elsewhere in New Zealand on a census dwelling form may complete a census individual form elsewhere in New Zealand. Absentees include people such as children away at boarding school, people away on business or holiday. Long-term hospital patients and tertiary students are excluded.

Changes in travel patterns have affected the ability of the census to accurately measure the usually resident population. An increase in international travel has resulted in a rise in the number of New Zealand residents who are temporarily absent overseas on census night, affecting the total count of the New Zealand usually resident population. Increased domestic travel similarly affects the reliability of subnational figures.

With smaller households, it is likely that entire families and households are away from home, either in New Zealand or overseas. This means that while absentees are recorded in dwellings with at least one person present (who may be a visitor), there are none recorded in dwellings where everyone is away. This is because no household form is completed. While the timing of the census is designed to minimise this, it is not known how many families and households are missed by the census because they were absent within New Zealand or overseas.

Work

Discussion of work topics

2006 Census topics to be included in the 2011 Census	2006 Census topics to be excluded from the 2011 Census
Labour force status	
Occupation	
Industry	
Status in employment	
Sector of ownership	
Workplace address	
Hours worked	
Travel to work	
Unpaid activities	

Statistics NZ's current view

The labour force status, occupation, industry, status in employment, sector of ownership, workplace address, hours worked, travel to work and unpaid activities topics will be included in the 2011 Census. The general format of these questions should remain the same so that comparability with previous data is maintained.

No change to the travel to work topic is currently proposed, but further research is required to determine whether collecting travel to work data for a single day and for only paid employment is an adequate measure of transport modes and meets users' needs.

Statistics NZ currently views the topic of travel to study, proposed for previous censuses, as unsuitable for collection in the census. Capturing detailed information would require several additional contextual questions, which would be better collected in localised transport surveys.

Information uses

The census collects information on several topics relating to paid work and unpaid activities.

Paid work information from the census is used extensively by central and local government, academics, researchers and community groups, to analyse the labour market position of population groups and small geographic areas. The data can be used to analyse occupation and industry composition, the size and characteristics of the labour market and the links between income and qualifications. Labour force status is also used as a broad indicator of socio-economic status.

Workplace address and travel to work information is used to measure traffic flows for those who are employed, and to assess daytime populations in specific areas for town and traffic planning and civil defence purposes.

Unpaid activities complements the topics relating to paid work as it allows people to record the work they do for their own households, relatives, friends, neighbours and the community in general. Unpaid work has value in measuring economic status, particularly in estimating the extent to which unpaid work underpins total economic activity (gross domestic product). For some ethnic groups unpaid work is an indicator of their social and cultural capital.

Key issues and emerging information needs

The information collected on travel to work is subject to inconsistent factors each census as it relates to a single day only (that can be affected by weather or one-off events), and is limited to people who traveled to paid employment on that day. In previous submissions the collection of travel to study had been proposed to better analyse traffic flow and mobile populations. However the resulting complexity and loss of time series comparability was considered to introduce more issues so was not included in past censuses.

For the topic of unpaid activities, a major limitation is that information on hours spent in various activities is not collected, which in turn reduces the value of this data. While recent investigations indicate that the census significantly under-reports the actual number of individuals participating in unpaid activities, this topic is still considered to be an important part of census. It has important value in measuring social capital, providing recognition of the importance of this work, and in allowing people who do not undertake paid work to record their participation in unpaid activities. In the future it may prove more suitable to collect unpaid activities in a more specialist survey such as The Time Use Survey, which includes hours in unpaid activities. The biennial General Social Survey (GSS) also collects data on the number of people doing formal unpaid work, and can be used to interpolate the Time Use Survey data for production of the Non-Profit Satellite Account.

While information on the hours individuals work remains important, the wording of the 'other hours' question adds confusion and may be changed if further research indicates possible quality improvements. Some respondents incorrectly record time doing unpaid activities or hours worked on a family business/farm as 'other hours', or misunderstand the 'other jobs' question and record their cumulative hours in all jobs. These issues contributed to high numbers of hours in other jobs in 2006, compared with 1991 and 1996 when the question was worded differently.

3. Methodology and confidentiality

Confidentiality

Confidentiality is crucial to ensuring continued public confidence in the census. If the public has assurance of the confidentiality of their information, they are more willing to participate and provide accurate information. The success of the census is determined by the public's acceptance of its necessity and their willingness to provide the requested information. Although the public are legally obliged to provide information in a census, their willingness to do so is directly attributed to the trust they have that their information will remain confidential. Statistics New Zealand, acknowledging the private and personal nature of the information that is collected, has a reputation for integrity with regard to the security of census records and, consequently, has been very successful at census-taking.

There is a requirement under the Statistics Act 1975 that data must not be released where characteristics of individuals can identify a particular individual. As one of the key strengths of the the census is to provide information about small areas and small population groups, topics included should not be such that they risk the identification of individuals.

Following a review of the confidentiality rules for the 2001 Census data, new rules were implemented for the 2006 Census. Because of technological advances in computing in recent years there was concern that rules and legislation to protect confidentiality had become outdated. Users were also becoming more sophisticated in data manipulation and therefore had greater potential to "break" data than ever before. The 2006 rules were developed in consultation with a range of data users. These rules will again be reviewed before the 2011 Census to establish how successful they have been and decide if any changes should be made.

There are currently five confidentiality rules, supported by an overarching confidentiality principle. Each rule and the confidentiality principle is explained on the Statistics New Zealand website. The explanations include comparisons with the rules used in 2001, with examples of situations that would pass and fail the 2006 rule.

www.stats.govt.nz/census/about-2006-census/methodology-papers/

Methodology

A minimal change approach to the 2011 Census of Population and Dwellings is being taken, therefore methodological changes to reflect real-world change and improve data quality will be made only where absolutely necessary.

When considering whether quality information can be produced for a particular topic, the complexity of the methodology behind data processing is taken into account.

The cost of changing the current methodology and systems we use to code and derive data also influences what we are able to collect and release from the census.

For example, in previous censuses family data has been derived from a number of questions on the census questionnaires. A complex computer program within the census processing system was developed to code the majority of family relationships automatically. For the 2006 Census, 82 percent of private households went through automatic family coding. Subtle changes to this method of family coding would require significant additional work to be undertaken to revise the methodology before updating and testing the automatic family coding program. Significant changes to the manner in which we collect family data would require a major overhaul of methodology and systems used to undertake both automatic and manual family coding.

4. Other sources of data tables

Information about additional sources of data is available for each topic listed below:

- Disability
- Education and training
- Ethnicity and culture
- Families and households
- Health
- Housing
- Income
- Location
- Population structure
- Work

The purpose of including this information is to raise awareness of these additional sources of data. In some instances, these additional data sources may meet users' needs better than the census. Some of these data sources are outside of Statistics NZ's administration. Enquiries about obtaining access to data that is not collected by Statistics New Zealand should be directed to the collection agency.

Disability

Topic	Data source	Limitations
Disability	Quarterly data on receipt of government benefits (Ministry of Social Development)	<ul style="list-style-type: none"> • Not all people with disabilities receive one of these benefits. • Insufficient to produce reliable data for small groups and by characteristics such as age and ethnicity.
	Disability Survey of Residential Facilities (1996, 2001 and 2006)	<ul style="list-style-type: none"> • Subject to sampling error
	Household Disability Survey (1996, 2001 and 2006)	<ul style="list-style-type: none"> • Subject to sampling error
	Disability Stocktake Report (Statistics New Zealand)	<ul style="list-style-type: none"> • This report describes a selection of significant administrative data of possible relevance to those interested in disability in New Zealand. The contents of the dataset are briefly described, together with the eligibility criteria for inclusion. The eligibility criteria offer a look at the potential population covered by the dataset.

Education and training

Topic	Data Source	Limitations
Highest qualification	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly
	General Social Survey (GSS)	<ul style="list-style-type: none"> • First release due late 2009 • Two year cycle
	Household Economic Survey (HES)	<ul style="list-style-type: none"> • Three year cycle • Survey confined to private households • Small sample size • No geographic breakdown below national level
	Household Saving Survey (HSS)	<ul style="list-style-type: none"> • One-off survey (2001) • Only one individual per household was surveyed • If individual part of a couple, data from second member of couple given weight of first member • Target population aged 18 years and over
	Survey of Family, Income and Employment (SoFIE)	<ul style="list-style-type: none"> • Less representative sample of population as time goes on due to sample loss (because survey is longitudinal rather than cross-sectional)
Post-school qualification	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly • Level and subject were separated in 2006
	Household Labour Force Survey (HLFS)	<ul style="list-style-type: none"> • Subject to non-response • Sampling errors high for certain small population groups • Non-standard classification used that mixes level and field • More than one response possible per person - hierarchy of responses gives highest obtained
	Ministry of Education	<ul style="list-style-type: none"> • Tertiary only • Relates only to ministry-funded outputs • Private tertiary only from 2000 • Annual
	Student loans and allowances integrated data	<ul style="list-style-type: none"> • Financial information for student loan holders and allowance recipients • NZ enrolment and qualification information for all students from

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		1997 onwards
	Survey of Family, Income and Employment (SoFIE)	<ul style="list-style-type: none"> • Less representative sample of population as time goes on due to sample loss (because survey is longitudinal rather than cross-sectional)
Highest secondary school qualification	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly
	Household Labour Force Survey (HLFS)	<ul style="list-style-type: none"> • Subject to non-response • Sampling errors high for certain small population groups • Non-standard classification used - outdated descriptors
	Ministry of Education	<ul style="list-style-type: none"> • Annual snapshot • Not possible to identify individuals • Limited information on how data collected • <i>NCEA Fact Sheet 2004-2006</i>
	New Zealand Qualifications Authority (NZQA)	<ul style="list-style-type: none"> • Secondary Qualification Statistics • Published annually
	Student loans and allowances integrated data	<ul style="list-style-type: none"> • Highest secondary school qualification as at time of enrolment in a NZ tertiary institution • For all students from 1997 onwards
Study	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly • Changes in question over time • Stand alone question in 2006; asked as part of activities question in 2001
	Household Economic Survey (HES)	<ul style="list-style-type: none"> • Three year cycle • Survey confined to private households • Small sample size • No geographic breakdown below national level
	Household Labour Force Survey (HLFS)	<ul style="list-style-type: none"> • Subject to non-response • Sampling errors high for certain small population groups • Non-standard classification used
	Ministry of Education	<ul style="list-style-type: none"> • Now covers private providers of education, but only if course is eligible to be covered by a student loan
	Student loans and allowances integrated	<ul style="list-style-type: none"> • Financial information for student loan holders and allowance

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	data	<p>recipients</p> <ul style="list-style-type: none"> • NZ enrolment and qualification information for all students from 1997 onwards
	Survey of Family, Income and Employment (SoFIE)	<ul style="list-style-type: none"> • Less representative sample of population as time goes on due to sample loss (because survey is longitudinal rather than cross-sectional)
	Education and Training Survey	<ul style="list-style-type: none"> • Supplement to the HLFS September 1996 quarter • One-off • Data losing relevance over time • Survey confined to private households only but weighted for non-private dwellings
	Time Use Survey	<ul style="list-style-type: none"> • Survey confined to private households only • Data collected 1998/1999 - losing relevance • High sample errors for some data • 08/09 survey in development

Ethnicity and culture

Topic	Data Source	Limitations
Birthplace	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly
	Household Labour Force Survey (HLFS)	<ul style="list-style-type: none"> • Data collected for major groups only (detailed information cannot be provided) • Non-standard classification used • Subject to non-response • Sampling errors high for certain subgroups
	General Social Survey (GSS)	<ul style="list-style-type: none"> • First release due late 2009 • Two year cycle
	Migration Data	<ul style="list-style-type: none"> • Only captures data on arrivals and departures to and from New Zealand (includes visitors and short stays) • Sampling error high for other than permanent long-term migrants
Ethnicity	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly
	Household Economic Survey (HES)	<ul style="list-style-type: none"> • Small sample size • No geographic breakdown below national level
	Household Labour Force Survey (HLFS)	<ul style="list-style-type: none"> • Outputs are prioritised ethnicity • Subject to non-response • Sampling errors high for certain subgroups • Non-standard classification used - outdated descriptors
	Survey of Family, Income and Employment (SoFIE)	<ul style="list-style-type: none"> • Less representative sample of population as time goes on due to sample loss (because survey is longitudinal rather than cross-sectional)
	General Social Survey (GSS)	<ul style="list-style-type: none"> • First release due late 2009 • Two year cycle
Iwi affiliation	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly
Language	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly • Based on spoken language and is not a measure of proficiency
	Māori Language Survey	<ul style="list-style-type: none"> • One-off • Provides data on Māori language only, not other languages

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Māori descent	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly
	General Social Survey (GSS)	<ul style="list-style-type: none"> • First release due late 2009 • Two year cycle
Religious affiliation	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly • Does not measure participation/strength of belonging
Years since arrival in New Zealand	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly
	External Migration Card	<ul style="list-style-type: none"> • Collects travel intentions (12 months or more) • It is not possible to track individuals and thus monitor actual years in NZ
	Household Labour Force Survey (HLFS)	<ul style="list-style-type: none"> • Subject to non-response • Sampling errors high for certain subgroups
	Residence Approvals / Student Permits / Work Permits	<ul style="list-style-type: none"> • These approvals are a statement of intent and do not always translate into actual immigration • The duration of a permit may not reflect the length of stay
	General Social Survey (GSS)	<ul style="list-style-type: none"> • First release due late 2009 • Two year cycle

Families and households

Topic	Data Source	Limitations
Family type /extended families	Census of Population and Dwellings	<ul style="list-style-type: none"> Limited to families and extended families within households Doesn't capture the situation of children of separated parents who spend time living with each parent Doesn't capture step-family information
	Christchurch Health and Development Study	<ul style="list-style-type: none"> Small sample size Biased sample attribution
	Family and Whanau Well-being Project (Social Statistics Research Group, The University of Auckland)	<ul style="list-style-type: none"> Dataset derived from census data, so similar limitations Changes to questions between censuses affect comparability over time Uses proxy measures for some indicators
	New Zealand Health Survey 1996/97, 2002/03, 2006/07	<ul style="list-style-type: none"> Similar limitations as census Irregular Subject to sample and non-sample error
	Survey of Family, Income and Employment (SoFIE)	<ul style="list-style-type: none"> Small sample size Will lose children who move and are no longer with an original sample member eg children who move into foster care arrangements
	Family Survey 2009	<ul style="list-style-type: none"> Currently under development Ten-yearly Small sample size Outputs for small populations are unlikely
Household composition	Census of Population and Dwellings	<ul style="list-style-type: none"> Doesn't capture the situation of two-household children Children who spend time living in different households are counted as living in one household only
	Family and Whanau Well-being Project (Social Statistics Research Group, The University of Auckland)	<ul style="list-style-type: none"> Dataset derived from census data, so similar limitations Changes to questions between censuses affect comparability over time Uses proxy measures for some indicators
	Household Economic Survey (HES)	<ul style="list-style-type: none"> Three-yearly Household based Small sample size

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Household Labour Force Survey (HLFS) - and annual NZ Income Survey supplement	<ul style="list-style-type: none"> • Similar limitations as census • Excludes households where all members are outside the ages of 18–64 years • Categories not the same as census
New Zealand Health Survey 1996/97, 2002/03, 2006/07	<ul style="list-style-type: none"> • Similar limitations as census • Irregular • Subject to sample and non-sample error
Survey of Family, Income and Employment (SoFIE)	<ul style="list-style-type: none"> • Small sample size • Will lose children who move and are no longer with an original sample member eg children who move into foster care arrangements
Survey of Older People (2000)	<ul style="list-style-type: none"> • Restricted to people aged 65 and over • Subject to sample and non-sample error • One-off
Time Use Survey 1998/99, 2008/09	<ul style="list-style-type: none"> • Small sample size • Eight-yearly
Longitudinal Immigration Survey New Zealand (LisNZ)	<ul style="list-style-type: none"> • Small sample size • Only includes migrants who received immigration approval in a specified period
NZ Childcare Survey 1998	<ul style="list-style-type: none"> • Small sample size • One-off
General Social Survey 2008	<ul style="list-style-type: none"> • Similar limitations as census • Small sample size
Family Survey 2009	<ul style="list-style-type: none"> • Currently under development • Ten-yearly • Small sample size • Unlikely to output household composition in much detail

Health

Topic	Data source	Limitations
Cigarette smoking	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly and at irregular intervals
	New Zealand Tobacco Use Survey (Ministry of Health), held for the first time in 2006	<ul style="list-style-type: none"> • Held two out of every three years, with the New Zealand Health Survey supplying core tobacco use data for the 'third' year. • Subject to sampling error.
	New Zealand Health Survey (Ministry of Health), held approximately every 3 years (1996/97, 2002/03, 2006)	<ul style="list-style-type: none"> • Subject to non-response and sample error • Sample size insufficient to produce reliable data for small groups and by characteristics such as age and ethnicity
	ASH Year 10 Smoking Survey (held 1999 - 2005)	<ul style="list-style-type: none"> • Subject to non-response and sample error • Sample size restrict to year 10 students (14 and 15 year olds) in New Zealand schools • Sample size insufficient to produce reliable data for small groups and by characteristics such as age and ethnicity
	A range of data on the production and trade of tobacco products is also available from the following surveys: <ul style="list-style-type: none"> • Consumers Price Index • Retail Trade Survey • Wholesale Trade Survey • Household Economic Survey 	<ul style="list-style-type: none"> • Cigarette and tobacco consumption can only be inferred from the data.

Housing

Topic	Data source	Limitations
Access to Telecommunication Systems	Census of Population and Dwellings, Statistics New Zealand	<ul style="list-style-type: none"> • five-yearly
	Household Use of Information and Communication Technology (ICT) Survey, Statistics New Zealand	<ul style="list-style-type: none"> • data not available for small areas • covers people aged 15 and over only
Dwelling counts (occupied and unoccupied)	Census of Population and Dwellings, Statistics New Zealand	<ul style="list-style-type: none"> • five-yearly
Dwelling Type	Accommodation Supplement, Ministry of Social Development	<ul style="list-style-type: none"> • Non-standard • Only selected dwelling types are identified to screen people for the Accommodation Supplement • Covers Accommodation Supplement applicants only • No regional breakdown
	Census of Population and Dwellings, Statistics New Zealand	<ul style="list-style-type: none"> • five-yearly
	Household Economic Survey, Statistics New Zealand	<ul style="list-style-type: none"> • limited to private permanent dwellings. Excludes non-private dwellings and other types of private dwellings such as improvised dwellings. • limited regional breakdown
Fuel Types used to Heat Dwelling	Census of Population and Dwellings, Statistics New Zealand	<ul style="list-style-type: none"> • five-yearly
	Domestic Heating Survey, Digipoll October 2004, on behalf of the Ministry for the Environment	<ul style="list-style-type: none"> • one-off survey – no time series data • data relates to fuel use in main living area only
	Household Energy End-use Project (HEEP), Building and	<ul style="list-style-type: none"> • finite project • small sample size • small area data not available

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	Research Association of New Zealand (BRANZ) Ltd	
Number of Bedrooms and Number of Rooms	Census of Population and Dwellings, Statistics New Zealand	<ul style="list-style-type: none"> • five-yearly
	General Social Survey, Statistics New Zealand	<ul style="list-style-type: none"> • first release due late 2009 • two-year cycle • limited regional breakdowns • limited population group breakdowns • does not collect number of rooms
	Household Economic Survey, Statistics New Zealand	<ul style="list-style-type: none"> • limited to permanent private dwellings. Excludes other types of private dwellings such as improvised dwellings. • limited regional breakdown
	Tenancy Bonds Data, Department of Building and Housing (administrative data)	<ul style="list-style-type: none"> • data not generalisable to all dwellings – only reflects those that are rented and for which a bond has been lodged • does not collect number of rooms
Number of Motor Vehicles	Census of Population and Dwellings, Statistics New Zealand	<ul style="list-style-type: none"> • five-yearly
	New Zealand Household Travel Survey, Ministry of Transport (ongoing from March 2003)	<ul style="list-style-type: none"> • output limited to published reports and fact sheets • number of motor vehicles data collected but not available in output • small sample size so no small area or small population group data
Sector of Landlord	Census of Population and Dwellings, Statistics New Zealand	<ul style="list-style-type: none"> • five-yearly
	General Social Survey, Statistics New Zealand	<ul style="list-style-type: none"> • first release due late 2009 • two-year cycle • limited regional breakdowns • limited population group breakdowns
	Household Economic Survey, Statistics New Zealand	<ul style="list-style-type: none"> • limited regional breakdown • subject to sample error

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	New Zealand Living Standards Survey, Ministry of Social Development	<ul style="list-style-type: none"> • four-yearly • limited regional breakdown
	Tenancy Bonds Data, Department of Building and Housing (administrative data)	<ul style="list-style-type: none"> • data not generalisable to all households who rent – only reflects those households for whom a bond has been lodged • no population group breakdowns
Tenure Holder	Census of Population and Dwellings, Statistics New Zealand	<ul style="list-style-type: none"> • five-yearly
Tenure of Household	Census of Population and Dwellings, Statistics New Zealand	<ul style="list-style-type: none"> • five-yearly
	General Social Survey, Statistics New Zealand	<ul style="list-style-type: none"> • first release due late 2009 • two-year cycle • limited regional breakdowns • limited population group breakdowns
	Household Economic Survey, Statistics New Zealand	<ul style="list-style-type: none"> • limited to permanent private dwellings. Excludes other types of private dwellings such as improvised dwellings. • limited regional breakdown
	Market Rent Information – administrative data from bonds lodged at the Department of Building and Housing	<ul style="list-style-type: none"> • limited coverage – only covers non-government owned properties for which a bond has been lodged • no population group breakdowns
	New Zealand Living Standards Survey, Ministry of Social Development	<ul style="list-style-type: none"> • four-yearly • limited regional breakdown
Weekly Rent Paid by Households	Census of Population and Dwellings, Statistics New Zealand	<ul style="list-style-type: none"> • five-yearly
	Household Economic Survey, Statistics New Zealand	<ul style="list-style-type: none"> • data limited to summary statistics eg average weekly rent • no regional or population group breakdowns
	Market Rent Information – administrative data	<ul style="list-style-type: none"> • data not generalisable to all households who rent – only covers non-government owned

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	from bonds lodged at the Department of Building and Housing	<p>properties for which a bond has been lodged</p> <ul style="list-style-type: none"> • summary statistics only (averages, medians, quartiles) • no population group breakdowns
	New Zealand Living Standards Survey, Ministry of Social Development	<ul style="list-style-type: none"> • four-yearly • limited regional breakdown
	New Zealand Residential Rental Market Survey, Massey University Real Estate Analysis Unit	<ul style="list-style-type: none"> • summary statistics only (median rent) • limited regional breakdown • no population group breakdowns
	Residential Rental Review, Real Estate Institute of New Zealand Inc (sourced from Tenancy Services Bond Centre)	<ul style="list-style-type: none"> • data not generalisable to all households who rent – only reflects those households for whom a bond has been lodged • summary statistics only (median rent, lower and upper quartile rent) • no population group breakdowns
	Tenancy Bonds Data, Department of Building and Housing (administrative data)	<ul style="list-style-type: none"> • data not generalisable to all households who rent – only reflects those households for whom a bond has been lodged • no population group breakdowns • no updating when rents increase, so median rents are likely to be lower than the true median value

Income

Topic	Data Source	Limitations
Annual Income	New Zealand Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly
	General Social Survey (GSS)	<ul style="list-style-type: none"> • First release due late 2009 • Two year cycle
	Household Economic Survey (HES) HES Income only (2007-2009)	<ul style="list-style-type: none"> • Confined to private households • Can not provide family income • Small sample size • Broad geographic breakdown below a national level only
	New Zealand Income Survey	<ul style="list-style-type: none"> • Run annually • Collects weekly income only • A supplement to the Household Labour Force Survey (HLFS) • Can not provide family income
	Survey of Family, Income and Employment (SoFIE)	<ul style="list-style-type: none"> • Sample becomes less representative as times goes on due to sample loss. This is because the survey is longitudinal (rather than cross-sectional)
	Linked Employer Employee Database (LEED)	<ul style="list-style-type: none"> • Non-tax payers not included • Investment income not included
Sources of Income	New Zealand Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly
	General Social Survey (GSS)	<ul style="list-style-type: none"> • First release due late 2009 • Two year cycle
	Household Economic Survey (HES) HES Income only (2007-2009)	<ul style="list-style-type: none"> • Confined to private households • Small sample size • Broad geographic breakdown below a national level only
	New Zealand Income Survey	<ul style="list-style-type: none"> • Run annually • A supplement to the Household Labour Force Survey (HLFS)
	Survey of Family, Income and Employment (SoFIE)	<ul style="list-style-type: none"> • Sample becomes less representative as times goes on due to sample loss. This is because the survey is longitudinal (rather than cross-sectional)

Location

Topic	Data Source	Limitations
Census night address/usual residence address	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly
Population measures	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly • Census night and Usual residence counts available to meshblock level.
	National and Subnational Population Estimates	<ul style="list-style-type: none"> • Based on census and administrative data (births, deaths and migration). • Over the post-censal estimation cycle, estimation uncertainties increase. • Available to area unit.
	National and Subnational Demographic Projections	<ul style="list-style-type: none"> • Based on census and administrative data (births, deaths and migration). • Provide an indication of future changes and are inherently uncertain. • Available to area unit.
Usual residence five years ago	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly
	Survey of Dynamics and Motivations for Migration in New Zealand	<ul style="list-style-type: none"> • Small sample size • Pilot survey - continuation and potential frequency not yet determined • Shorter reference period - currently usual residence 2 years ago
Years at usual residence	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly
	Household Economic Survey (HES)	<ul style="list-style-type: none"> • Households living in permanent private dwellings only • No regional breakdown

Population structure

Topic	Data Source	Limitations
Absentees	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly
Age	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly
	Demographic Projections	<ul style="list-style-type: none"> • Census-based (ie not an alternative data source)
	National Population Estimates	<ul style="list-style-type: none"> • Census-based – accuracy deteriorates over five-year post-censal estimation cycle
	Subnational Population Estimates	<ul style="list-style-type: none"> • Populations based on birth data are only accurate for ages 0-5 years
	Vital Statistics (Birth and Death Registrations)	<ul style="list-style-type: none"> • Cohort size can only be calculated when a cohort has completely died (eg in 10 years time we will know how many 100 year-olds were alive today)
	General Social Survey (GSS)	<ul style="list-style-type: none"> • First release due late 2009 • Two year cycle
Marital/ relationship status (legal and social)	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly • No information on formation and duration of relationships, nor number per person
	Divorce (marriage dissolutions)	<ul style="list-style-type: none"> • Only provides information on divorces occurring in that year • Incomplete picture of the marital status of the whole population as does not include de facto
	Household Labour Force Survey (HLFS)	<ul style="list-style-type: none"> • Subject to non-response • Sampling errors high for certain subgroups • Non-standard classification used • Classification mixes legal marital status and social marital status
	Marriage and Civil Union Registration	<ul style="list-style-type: none"> • Only provides information on marriages and civil unions occurring in that year • Incomplete picture of the marital status of the whole population as does not include de facto

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	General Social Survey (GSS)	<ul style="list-style-type: none"> • First release due late 2009 • Two year cycle • No information on formation and duration of relationships, nor number per person
Sex	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly
	Demographic Projections	<ul style="list-style-type: none"> • Census-based (ie not an alternative data source)
	National Population Estimates	<ul style="list-style-type: none"> • Census-based - accuracy deteriorates over five-year post-censal estimation cycle
	Subnational Population Estimates	<ul style="list-style-type: none"> • Census-based - accuracy deteriorates over five-year post-censal estimation cycle
	Vital Statistics (Birth and Death Registrations)	<ul style="list-style-type: none"> • Populations based on birth data are only accurate for ages 0-5 years • Cohort size can only be calculated when a cohort has completely died
	General Social Survey (GSS)	<ul style="list-style-type: none"> • First release due late 2009 • Two year cycle
	Census of Population and Dwellings	<ul style="list-style-type: none"> • Ten-yearly (cyclical topic)
	Vital Statistics (Birth Registration)	<ul style="list-style-type: none"> • Only provides information on women giving birth in that year (eg no information on childlessness, etc) • Cannot be cross-classified by social or economic variables

Work

Topic	Data source	Limitations
Unpaid Activities	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly • Target population aged 15 years and over
	General Social Survey (GSS)	<ul style="list-style-type: none"> • First release due late 2009 • Two year cycle • Looking at including a question on Voluntary Work
	Household Economic Survey (HES)	<ul style="list-style-type: none"> • Three-yearly • Small sample size • No geographic breakdown below national level
	Household Labour Force Survey (HLFS)	<ul style="list-style-type: none"> • Sampling errors high for certain small population groups • Only asked of those not in the labour force and not employed
	Survey of Family, Income and Employment (SoFIE)	<ul style="list-style-type: none"> • Less representative sample of population as time goes on due to sample loss (because survey is longitudinal rather than cross-sectional)
	Time Use Survey	<ul style="list-style-type: none"> • eight-yearly (possibly to move to five-yearly) • Survey confined to private households only • Data losing relevance over time • High sample errors for some data • Uses diaries which can be used to pick up extra unpaid activities
Hours Worked	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly • Target population aged 15 years and over
	General Social Survey (GSS)	<ul style="list-style-type: none"> • First release due late 2009 • Two year cycle
	Household Economic Survey (HES)	<ul style="list-style-type: none"> • Three-yearly • Small sample size • No geographic breakdown below national level • Usual hours rather than actual • Includes Overtime
	Household Labour Force Survey (HLFS)	<ul style="list-style-type: none"> • Sampling errors high for certain small population groups • Only asked of those not in the labour force and not employed

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	Quarterly Employment Survey (QES)	<ul style="list-style-type: none"> • Only hours paid for • Sample errors may be large for some breakdowns • Incomplete industrial coverage
Industry	ACC	<ul style="list-style-type: none"> • 70% match with Business Frame • Firm-only industry
	Business Frame (Business Demography)	<ul style="list-style-type: none"> • Industry of multi-geographic enterprises derived from employee counts
	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly • Target population aged 15 years and over
	Household Economic Survey (HES)	<ul style="list-style-type: none"> • Three-yearly • Small sample size • No geographic breakdown below national level • Coded from response - no question on workplace address allowing link to Business Frame
	Household Labour Force Survey (HLFS)	<ul style="list-style-type: none"> • Sampling errors high for certain small population groups • NZSIC coding converted to ANZSIC • Industry not always accurate - rarely coded to Business Frame • Self-complete response of lower quality • Only for main job
	IRD data	<ul style="list-style-type: none"> • Industry can be derived from coding of text field on main activity which could result in a possible difference between industry derived from this means and Business Frame industry. • May not be robust for owner operated businesses
	Labour Cost Index	<ul style="list-style-type: none"> • Purposively selected sample • No regional or gender breakdowns
	Linked Employer-Employee Data (LEED)	<ul style="list-style-type: none"> • Releases include: Quarterly Hot of the Press and two major annual statistics releases. • Target population is all workers 15 years and over • Uses IRD administrative Data • Very Detailed and Accurate • Time lag of 14 months

2011 Census Content: Supporting Information

	Quarterly Employment Survey (QES)	<ul style="list-style-type: none"> • Does not identify individuals • Counts jobs rather than people (ie possible that a person is counted twice) • Uses ancillary geographical unit classification from Business Frame which could be different to Enterprise industry classification used in census
	Survey of Family, Income and Employment (SoFIE)	<ul style="list-style-type: none"> • Less representative sample of population as time goes on due to sample loss (because survey is longitudinal rather than cross-sectional)
Labour Force Status	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly • Target population aged 15 years and over
	General Social Survey (GSS)	<ul style="list-style-type: none"> • First release due late 2009 • Two year cycle
	Household Economic Survey (HES)	<ul style="list-style-type: none"> • Three-yearly • Small sample size • No geographic breakdown below national level
	Household Labour Force Survey (HLFS)	<ul style="list-style-type: none"> • Sampling errors high for certain small population groups • Only asked of those not in the labour force and not employed
	Quarterly Employment Survey (QES)	<ul style="list-style-type: none"> • Working proprietors only those employing staff • Coverage across industries not complete • Does not identify individuals • Counts jobs rather than people (ie possible that a person is counted twice)
	Survey of Family, Income and Employment (SoFIE)	<ul style="list-style-type: none"> • Less representative sample of population as time goes on due to sample loss (because survey is longitudinal rather than cross-sectional)
Main means of travel to work	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly • Only covers travel to work, not travel for other reasons (eg study)
	Land Transport Safety Authority New Zealand (LTSA) Travel Survey	<ul style="list-style-type: none"> • Infrequent

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Occupation	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly • Target population aged 15 years and over
	General Social Survey (GSS)	<ul style="list-style-type: none"> • First release due late 2009 • Two year cycle
	Household Economic Survey (HES)	<ul style="list-style-type: none"> • Three-yearly • Small sample size • No geographic breakdown below national level
	Household Labour Force Survey (HLFS)	<ul style="list-style-type: none"> • Sampling errors high for certain small population groups • Some inconsistency across time in occupation at unit level • Self complete responses of lower quality
	Labour Cost Index	<ul style="list-style-type: none"> • Purposively selected sample • No regional or gender breakdowns
	Survey of Family, Income and Employment (SoFIE)	<ul style="list-style-type: none"> • Less representative sample of population as time goes on due to sample loss (because survey is longitudinal rather than cross-sectional)
Sector of employment	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly • Target population aged 15 years and over
	Labour Cost Index	<ul style="list-style-type: none"> • Purposively selected sample • No regional or gender breakdowns
	Quarterly Employment Survey (QES)	<ul style="list-style-type: none"> • Sample errors may be large for some breakdowns • Incomplete industry coverage
Status in employment	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly • Target population aged 15 years and over
	Household Economic Survey (HES)	<ul style="list-style-type: none"> • Three-yearly • Small sample size • No geographic breakdown below national level
	Household Labour Force Survey (HLFS)	<ul style="list-style-type: none"> • Sampling errors high for certain small population groups • Only asked of those not in the labour force and not employed
	Survey of Family, Income and Employment (SoFIE)	<ul style="list-style-type: none"> • Less representative sample of population as time goes on due to sample loss (because survey is longitudinal rather than cross-sectional)

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Workplace Address	Census of Population and Dwellings	<ul style="list-style-type: none"> • Five-yearly • Target population aged 15 years and over • Only relates to main job
	Household Labour Force Survey (HLFS)	<ul style="list-style-type: none"> • Sampling errors high for certain small population groups • Only asked for main job for employed • Only matched to Business Frame where Industry cannot be coded from code file
	Land Transport Safety Authority New Zealand (LTSA) Travel Survey	<ul style="list-style-type: none"> • Infrequent
	Survey of Family, Income and Employment (SoFIE)	<ul style="list-style-type: none"> • Less representative sample of population as time goes on due to sample loss (because survey is longitudinal rather than cross-sectional)