



2013 Census collection methods



Crown copyright ©

This work is licensed under the [Creative Commons Attribution 3.0 New Zealand](#) licence. You are free to copy, distribute, and adapt the work, as long as you attribute the work to Statistics NZ and abide by the other licence terms. Please note you may not use any departmental or governmental emblem, logo, or coat of arms in any way that infringes any provision of the [Flags, Emblems, and Names Protection Act 1981](#). Use the wording 'Statistics New Zealand' in your attribution, not the Statistics NZ logo.

Liability

While all care and diligence has been used in processing, analysing, and extracting data and information in this publication, Statistics New Zealand gives no warranty it is error free and will not be liable for any loss or damage suffered by the use directly, or indirectly, of the information in this publication.

Citation

Statistics New Zealand (2014). *2013 Census collection methods*. Available from www.stats.govt.nz.

ISBN 978-0-478-40896-6 (online)

Published in May 2013 by

Statistics New Zealand
Tatauranga Aotearoa
Wellington, New Zealand

Contact

Statistics New Zealand Information Centre: info@stats.govt.nz

Phone toll-free 0508 525 525

Phone international +64 4 931 4610

www.stats.govt.nz



Contents

- List of figures 4**
- 1 Purpose..... 5**
- 2 Introduction to 2013 Census and our strategy..... 5**
 - 2013 Census strategy..... 5
- 3 2013 Census collections: Overview and structure 6**
 - Our mission: To achieve the best possible count..... 6
 - Key elements of census collection operations 6
- 4 Local collection strategies 10**
 - Apartment strategy 10
 - Canterbury strategy 11
 - South Island remote rural strategy 12
 - Mail-out district pilot run in Oamaru..... 13
 - Community liaison team targeted hard-to-reach groups..... 13
- 5 Special strategies: Measuring their success, and their use in the next census.. 14**
- Appendix 1: 2013 Census areas 15**



List of figures

- 1. Field management hierarchy for 2013 Census 7
- 2. 2013 Census field scheme – Area manager areas..... 16



1 Purpose

The purpose of this paper is to explain the collections process and the challenges faced when trying to count everyone in New Zealand in the 2013 Census. We describe the strategies we used to minimise the impact of these challenges and to reach particular audiences and areas.

2 Introduction to 2013 Census and our strategy

The Census of Population and Dwellings is the most authoritative source of the total number of people in New Zealand. It is important that as many people as possible are counted in the census.

The 2013 Census, conducted by Statistics New Zealand, was a snapshot of New Zealand as at 5 March 2013. Along with counting every dwelling in New Zealand, the census counted all people who were in New Zealand at midnight on census night.

Producing high-quality data from the census starts with an efficient and successful collection process. This paper describes the national and subnational collection strategies and processes used to conduct the 2013 Census.

2013 Census strategy

The strategy for the 2013 Census was to run a census similar to that planned for the cancelled 2011 Census, incorporating 'must do' changes and some selected 'should do' changes to improve cost-effectiveness and efficiency.

Key strategic goals for the 2013 Census can be grouped under content, field effectiveness and efficiency, and online response.

Content

- Include content that reflects user needs but with minimal change from the 2006 Census.

The 2013 Census forms were the same as the forms developed for the 2011 Census, with date changes only. There were no new topics or questions. The [2011 Census content report](#) outlines decisions on the content that was included in the 2011 Census of Population and Dwellings. The 2013 / 2011 Census forms were also very similar to those used in the 2006 Census.

Field effectiveness and efficiency

- Reuse field processes and systems from 2011, with changes to address some of the challenges experienced during 2011 field operations.

Online response

- Ensure high online response through effective promotion and a system that is accessible, easy to use, and secure. More information about the online response for the 2013 Census is available in the [Online response in the 2013 Census](#) report.



3 2013 Census collections: Overview and structure

Our mission: To achieve the best possible count

The mission statement for the 2013 Census collection operation was “to field the people, systems, processes, and tools to collect high-quality data in order for the best possible count of population and dwellings to be achieved.”

“Best possible count” means maximising the census coverage and response rate, while minimising variation in coverage and response rates across geographic areas and sub-population groups within the resource constraints of the programme. For the 2013 Census, we used the same targets as the 2006 Census of 98 percent coverage and 95 percent response.

Census coverage relates the number of people who were counted in the census to the number who should have been counted. It is usually expressed as a percentage of what should have been the complete count (eg the expected number of New Zealand residents in New Zealand on census night).

Census response relates the number of people who completed and returned forms to the number who should have been counted. It is usually expressed as a percentage of what should have been the complete count (eg the expected number of New Zealand residents in New Zealand on census night).

Key elements of census collection operations

Field organisation

We established a temporary field organisation for the census, to manage delivery and collection of census forms.

New Zealand was divided into four regions, each managed by a regional manager. The four regions were divided into 23 areas, each managed by an area manager. Each area was divided into a number of districts, each managed by a district supervisor. Each district was made up of several subdistricts, each of which was assigned to a collector.

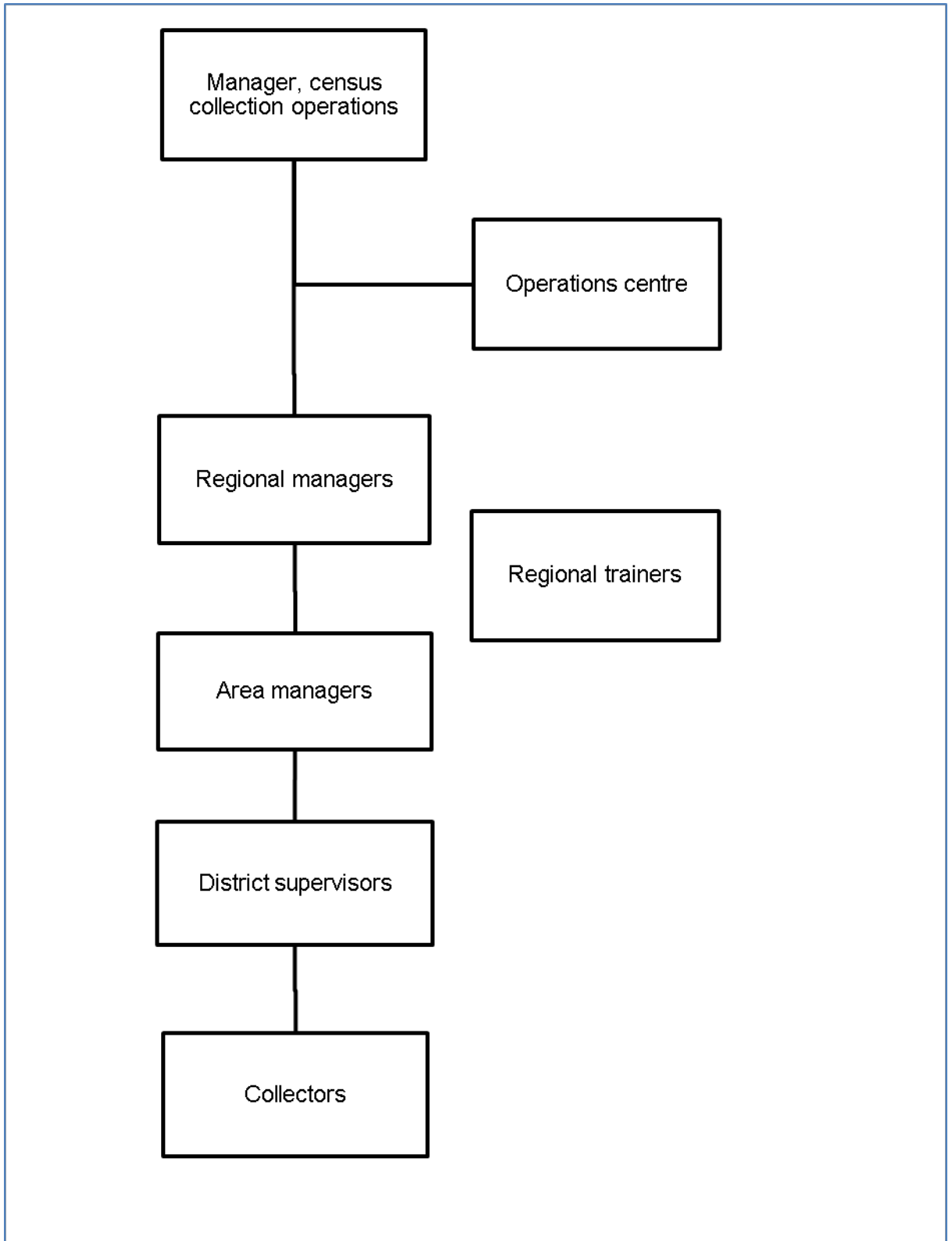
Managing field staff

To count everyone in New Zealand on census night in 2013, we needed to deliver and collect census forms for approximately 4.6 million people and 1.8 million dwellings. This makes the census one of the largest logistical exercises undertaken in New Zealand.

A team of around 7,400 field staff were recruited, trained, and managed so that consistent, effective data collection approaches were used across the country.

The field management hierarchy shown in figure 1 was fundamental to the success of this large logistical operation.

Figure 1
Field management hierarchy for 2013 Census



Regional managers were responsible for managing field operations locally. They created regional plans and identified regional characteristics and hotspots requiring special attention. Collection strategies were developed centrally for areas or groups where we anticipated unique collection challenges. Regional managers adopted these strategies where appropriate. We discuss these strategies later in the paper.

Recruitment and training

All staff were trained extensively. We used prescriptive cascade-style training to train over 7,000 field staff in a short time. We provided field staff with a training 'script' and sets of training resources including lesson plans, posters, and sample/real field materials to make sure everyone got the same training. Sixteen specialist regional trainers worked with area managers to train district supervisors, who in turn trained collectors.

Operations centre

We established an operations centre for the period of August 2012 to April 2013. Operations centre staff supported field operations (including a field staff helpline), coordinated field activities with operational functions and monitored progress and issues across the country.

Offices

The 2013 field staff worked from 126 temporary field and home offices. These offices were situated around the country, including in remote locations such as the Chatham Islands and Great Barrier Island. Field offices were set up prior to field staff recruitment so that telephone and computer equipment was ready when staff began.

Quality assurance

We focused on quality assurance in the field to make sure we got an accurate count of dwellings and people. This included:

- providing tested training, instructions, and ongoing support to field staff
- monitoring operational progress during delivery and collection
- regularly checking field staff performance, for example, observing collectors at the doorstep.

Online and paper forms offered to respondents

Respondents could complete census forms in one of two ways: an online form or a traditional paper form.

We received almost 2 million dwelling and individual forms online for the 2013 Census, giving a total online response rate of 34 percent. This comes very close to our target of 35 percent.

Of the paper forms, 56 percent were picked up by collectors and the remaining 9 percent were posted by respondents using pre-paid envelopes.

- Collectors promoted the online option at each household they made contact with. All of our respondent communications, including the national advertising campaign, reinforced this message. More information about the online response received for the 2013 Census is available in the [Online response in the 2013 Census](#) report.
- Mailing back the paper form was also an option and was encouraged where online was not possible, if efficiencies could be realised (eg in rural areas where collector mileage could be minimised – see South Island remote rural strategy below).

Hand delivery of census forms

Collectors delivered Internet Access Codes and paper forms to all households nationwide.

The doorstep approach was critical. It was intended to be as simple as possible to help collectors facilitate the best possible count of dwellings and people and give respondents a positive experience. We complemented and reinforced the doorstep approach with messages communicated through printed materials, online help, and a national communications campaign including television and radio.

Collectors were required to make up to three delivery visits to each household to attempt to make contact. If they hadn't been able to talk to anybody by the third visit, they left forms and other materials in a safe place.

English and Māori forms offered

English and Māori language options were available for both the online and paper forms. We targeted our approach in Northland and Whakatane/Gisborne, where respondents were given a Māori/English paper form as the standard form of delivery. In other areas, the Māori/English paper form was available on request.

Toll-free helpline

A toll-free public helpline was available for respondents who had questions about the census or about filling in their census forms, and for those who did not receive forms or needed to request more. The helpline team mailed new forms or Internet Access Codes to respondents directly, or asked collectors to deliver them.

Collecting completed forms

The online form was submitted via the Internet. If everyone in a household completed their census forms online, the collector did not need to return to that household.

The paper form was collected by census collectors or returned by mail. Again, three attempts to make contact were required if we did not receive forms online or by mail. A quality check was carried out on forms to ensure that respondents had answered the core census questions. The [2013 Census data user guide](#) provides information about the core census variables.

Non-response follow-up

At the end of the collection phase, we followed up with people who hadn't responded in areas that had not met the target response rate of 95 percent. Collectors attempted to make face-to-face contact and/or delivered reminder letters to give respondents every opportunity to complete their census forms.

4 Local collection strategies

Apartment strategy

Need for special strategy

During the 2006 Census, we identified an issue referred to as 'no signs of life' (NSL). In many cases, collectors could not contact apartment dwellers – which also made it difficult to determine the occupancy status of the apartments. These issues had significant potential to negatively affect the quality of census data.

For the 2013 Census, the challenges when collecting data for apartments were:

- correctly identifying the address and the individual dwellings within the address
- determining whether dwellings were private or non-private
- making contact with occupants and soliciting a response
- establishing whether a dwelling was occupied or unoccupied.

We developed an apartment strategy to improve the response rates and data quality from apartment buildings in specific parts of Auckland and Wellington (areas with many apartments).

Key elements of the apartment strategy

Coverage

The apartment strategy covered the following areas:

- Area 03 – Waitemata
- Area 17 – Wellington

See Appendix 1 for information about census collection areas.

It covered all dwellings within the designated apartment areas, including apartments, non-private dwellings (such as hotels and motels), and other private dwellings.

Networking with organisations and people associated with apartments

To eliminate or minimise the cold-call effect of collection, field staff were required to network with associations and building managers – to gain cooperation and access to apartments – and language schools and universities, as many apartment dwellers attend these institutions.

Special delivery and collection process

Special collectors did not use the standard delivery and collection methods for private dwellings (including regular dwellings within the apartment district).

Instead, they did a 'delivery drop' at each dwelling, which included recording the address of the dwelling, attempting to make contact with the occupant(s), and leaving census forms, an Internet Access Code, a freepost envelope, guide notes, and a letter to apartment dwellers.

Collection commenced on 8 March 2013 after a lag of two days post-census. This was to allow respondents to complete their forms online or to mail them back.

Collection visits continued until a minimum response rate of 90 percent per subdistrict was achieved, or until 24 March 2013.

Collectors left reminder cards that asked people to complete their census forms at dwellings where they could not make contact.

Collectors were trained and given tools to establish an 'occupancy status' for all apartments they could not make contact with. The occupancy status categories were: away, empty, under construction, and occupied on census night. Occupancy status is important as it is used (along with census forms) to determine the final count of dwellings in New Zealand.

Extra resources available for apartment dwellers

To increase awareness of census among apartment dwellers, extra resources were available. These included advertising material, targeted media releases, community stories, language brochures, and a letter to apartment dwellers explaining that the census is coming and how census information is used.

Internet and mail encouraged as primary response modes

Completing forms online or mailing back forms were encouraged as primary response modes. The two-day collection lag allowed willing and able respondents to complete their census forms without intervention.

Canterbury strategy

Need for special strategy

As a result of the 22 February 2011 earthquake in Canterbury, processes such as identifying whether dwellings were occupied or not, the safety of field staff, and respondent and public reactions or queries became more challenging than usual.

We created a strategy for Canterbury to overcome these challenges in earthquake-affected zones by collaborating with the Canterbury Earthquake Recovery Authority (CERA), providing appropriate support for field staff and respondents, and developing processes to enable field staff to meet delivery and collection deadlines.

Key elements of the Canterbury strategy

Coverage

An additional area (Area 23) made up of earthquake-affected zones was added to the Canterbury region. The Canterbury strategy was implemented for Area 23. We provided additional information about inaccessible properties, personal safety, and recording earthquake-damaged dwellings to field staff in the bordering areas (Areas 19 and 20).

Differences in staffing

We recruited the area manager for Area 23 before other area managers so they had time to plan staffing requirements.

A community engagement manager was employed in Christchurch to work closely with the regional and area managers to develop networks and establish community buy-in for the census among respondents.

Collection process and field staff training

Efforts were made to follow normal field processes as closely as possible. However, field staff got extra training and guidance to assist with potential objections or increased respondent reluctance to participate.

Collectors were given specific instructions about Crown-owned properties – properties the Government has purchased and the owners have moved out. These were treated and

recorded as vacant unless collectors made contact during the first delivery or collection visit.

Extra help offered

We created a separate queue on the field staff helpline to give extra guidance on field operational matters about Canterbury.

We developed additional resources and information for Canterbury respondents, such as the '2013 Census – information for people in Canterbury' leaflet. Collectors issued this on doorsteps in some parts of Areas 19 and 20 and all of Area 23. For more information, and a PDF of the leaflet, see [Counting everyone in Canterbury](#).

Addressing specific health and safety concerns

The area manager worked closely with CERA and the Christchurch City Council to decide which areas were unsafe for field staff to enter.

Field staff were given information and instructions about demolition zones, cordoned-off properties, and other hazardous areas.

South Island remote rural strategy

Need for special strategy

In the past, making up to three delivery visits to try to make contact in remote rural subdistricts cost field staff a lot of time and mileage. The remote nature and challenging geography of many parts of the South Island meant collectors had to travel large distances, resulting in extra mileage costs at the end of the collections stage.

The strategy was developed to establish criteria and processes for collections in selected remote rural subdistricts in the South Island. It created a simple variation to standard collection procedures without additional costs.

Key elements of the remote rural strategy

Coverage

We implemented the strategy in designated South Island remote rural subdistricts that led to collectors having very high mileages and where standard collection processes had been previously modified in an ad hoc manner, or had created excess mileage costs.

Selected parts of the following areas were included:

- Area 18 – West Coast / Nelson / Marlborough
- Area 19 – Christchurch / North Canterbury / West Coast
- Area 20 – Christchurch / Mid Canterbury
- Area 21 – South Canterbury / Otago
- Area 22 – Southland / Central Otago

These made up approximately 6 percent of the South Island's estimated population.

See Appendix 1 for information about census collection areas.

Special delivery and collection process

Only one delivery visit was required to remote rural subdistricts. Collectors could request phone numbers from households when they delivered the forms, so they could phone respondents to arrange a suitable collection time.

Collection visits were delayed by 24 to 48 hours after census day to allow for field staff to be advised of Internet responses and forms that had been mailed back. A freepost envelope and a letter requesting respondents to complete their census forms were left at the first collection visit if no contact was made.

Mail-out district pilot run in Oamaru

Statistics NZ has been investigating options for how censuses will be carried out in the future. As part of this work, we ran a unique data collection pilot, commonly known as a 'mail-out district', in Oamaru during the 2013 Census.

We mailed people in Oamaru a letter with a census web address and an Internet Access Code so they could choose to complete the census online. Paper forms were only provided when requested.

As a result, 64.5 percent of census forms from Oamaru were submitted online, compared with 34 percent for the whole of New Zealand.

The [2013 Census mail-out district: A census data collection pilot](#) provides more information about the pilot.

Community liaison team targeted hard-to-reach groups

A community liaison team was established with the objective of targeting 'hard-to-reach' groups, which are traditionally over-represented in the census undercount statistics. The team targeted areas and small populations and was informed by the [2006 Post-enumeration Survey report](#), which contains information on the census undercount.

The community liaison team's strategy was to "influence influencers" in these communities to educate and encourage participation.

The 'hard-to-reach' groups include:

- Māori
- Pacific peoples
- Asian peoples
- youth
- English as a second language (ESOL) and migrant peoples.

Twenty-four community liaison staff were recruited from around New Zealand. Most focused on reaching and influencing Māori, Pacific, and Asian communities. For other targeted ethnic groups, relationships were developed using a contract-for-services model with existing providers of information services, such as Migrant Services Trust and NZ Indian Central Association.



5 Special strategies: Measuring their success, and their use in the next census

We used a range of strategies for the 2013 Census collection operations to ensure the best possible count of population and dwellings. We implemented regional, local, and special strategies to overcome the challenges of collecting data for particular subgroups of the population, such as apartment dwellers and people in Canterbury. As each strategy required analysing expected collection difficulties, we tailored solutions to maximise success.

[The 2013 Post-enumeration Survey](#) measures the quantitative success of the strategies.

Lessons learned discussed from the regional and special strategies will be considered as part of the development for the next census – although the date of the next census has not yet been confirmed. The number of special strategies is likely to increase as we target changing social, demographic, and geographic trends in New Zealand.



Appendix 1: 2013 Census areas

For the collection operations phase of the 2013 Census, New Zealand was divided into four regions, each managed by a regional manager. The four regions were divided into 23 areas, each managed by an area manager.

It is important to note that these geographies are for administrative purposes – to manage the collection operation. They are different from the geographies we use when releasing census data.

Figure 2 shows the 2013 Census areas.

Figure 2

