

2023 Census Update to Research Association of NZ

Les Greeff
25 August, 2022
Vs 1.0



- General introduction
- Key changes to 2023 Census content
- COVID and other social / political environmental challenges
- Key changes in the design and approach for the 2023 Census vs 2018
- General progress to date

General Introduction



- The 2018 Census followed a similar approach to the 2006 and 2013 Censuses, and was **based on a traditional survey approach**.
- Changes in approach were incorporated to combat the **increased costs of conducting a traditional census**, and in **response to pressure to improve the quality and timeliness of census outputs**. The **growing reluctance of citizens to participate** was evident in declining response rates over time, while the **availability and sharing of administrative data across government were ever-increasing**.
- Supported by a **much smaller field workforce**, the new model relied on **respondents understanding their role in completing the census questionnaires** (both dwelling and individual), **preferably online** and without the assistance of a census worker.
- To improve the quality of the census, it was understood that increased participation and better response rates for these special populations were important, with particular focus on Māori, Pasifika, homeless, and youth populations.

Response rates were universally poor in 2018 compared to previous censuses. There were many contributing factors to this.

Use of administrative data helped improve the overall coverage rates nationally as well among our priority response groups

Response Rates[^] (survey responses)	2006	2013	2018
National	95.1	93.2	85.8
Māori	93.7	89.7	73.4
Pacific	93.9	90.8	72.0
Asian	92.1	93.3	85.6
15-29 year-olds	92.8	90.3	79.5

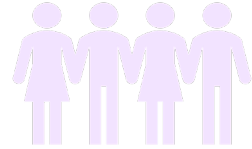
Source: 2018 Census Interim Report, 2018 Census Interim Report, PES 2018: p39

Coverage Rates (survey responses + admin data)	2006	2013	2018
National	98.0	97.6	97.4
Māori	96.9	93.9	95.6
Pacific	97.7	95.2	95.1
Asian	94.8	97.0	96.7
15-29 year-olds	95.9	95.2	95.3

Source: PES 2006: Table 1, PES 2013: Tables, PES 2018: p3

[^]New Method

The final 2018 Census dataset



Very high coverage of the population

4.7 million people in the dataset.

2.3 percent (or 58,000 people) less than our best estimate of the population on census night, 6 March 2018.



Was more comprehensive than 2013 for

Ethnicity, Māori descent, age, sex and geographic coverage (down to Territorial Authority and Auckland Local Board level).



There were issues with the quality of some variables, e.g.

Iwi counts were delayed and only released in June 2021.

Families and households data initially rated very poor but further work improved quality.

- The lower than expected response to the 2018 Census required the development of alternative methodologies in order to produce a census file that was fit for purpose. This resulted in:
 - A switch to a combined census methodology, with a full field enumeration supplemented by the use of administrative data.
 - A census dataset with usually resident population counts and electoral counts of acceptable quality.
 - Good coverage and overall accuracy for priority one variables.
 - For some variables there was no high quality alternative data sources and no feasible approach for statistical imputation. This resulted in high proportions of missing values for some variables than other variables in the dataset and with previous censuses.
 - The quality of some variables within the dataset was poor or very poor.
 - Iwi counts were not released as official statistics.
 - 2018 Census outputs were considerably delayed.

- The decision to partner with external vendors was a success as it allowed Stats NZ to focus on the critical elements that can only be delivered by a statistical agency.
- NZ Post was able to deliver invitation letters to almost 80% of households (up from the original target of 70%).
- In particular, the Internet Collection System was secure, stable, and easy to use with over 80% of forms (dwelling and individual) completed online.
- Although challenges and delays occurred in the development of the IT systems, these systems along with an address register are now built and with changes from lessons learned in 2018, the systems and registers can be improved and fully integrated for future censuses.
- The communications and marketing campaign exceeded all of its key performance indicators. Messages ensured the population, including targeted groups, was aware of the census and successfully encouraged online participation of the majority of the population.

Vision..

About Aotearoa, for Aotearoa

Data that improves lives today and for generations to come

Mission..

Re-build trust and confidence and deliver quality data to our customers

Strategic Initiatives.

Drive high response rates

Deliver quality data to meet customer needs

Build trust to gain commitment

Building trust and value for Māori through data equity

Drive high response rates

- Making it easy for people to participate.
- Making it relevant to people's everyday lives.
- Making legal obligations clear to people.

Deliver quality data to meet customer needs

- Clarity on customer needs.
- Quality by design.
- Independently verified.

Build trust to gain commitment

- Transparency about our approach.
- Proactive engagement with Treaty partners, stakeholders, and communities.
- Communications on our progress.

Build trust and value for Māori through data equity

- Building capacity and capability for iwi/Māori.
- Collaborating with iwi/Māori to deliver quality data.
- Establishing co-design partnerships.

Key Changes in the Design and Approach for the 2023 Census vs 2018



- In response to low Response Rates in 2018, our **Field Collection model for 2023** has an increased focus on response groups who have historically been unresponsive to Census. These are our Priority Response Groups (PRGs).
- We have developed a hands-on field collection method for getting responses from PRGs called “**Assist**”.
- 14% of the country will receive the “Assist” treatment. The Assist stream seeks to give greater assistance and support to those communities in New Zealand who find it difficult to respond



More staff on the ground; increased 'patch ownership'

Multiple attempts at enable contact; more intensive follow up and follow up toolbox

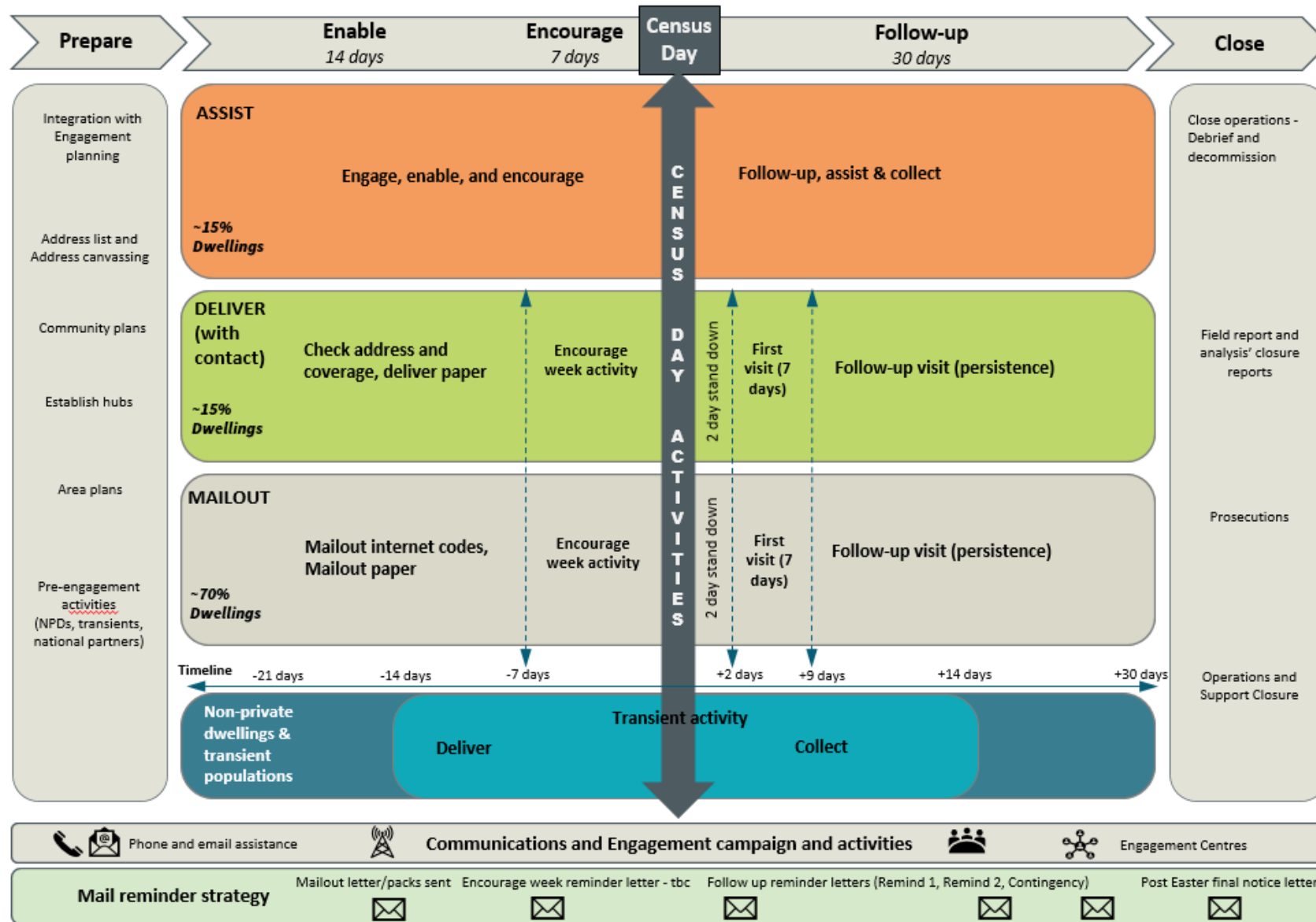
Engagement overlay

Local management and responsiveness; persistence

Enabled with paper



Key Changes in 2023 Census - 2023 Census Field Collection Model



Designed to improve response rates by enabling priority communities to participate in the census through contact, assistance, dedicated communications and community driven activity



More staff on the ground; increased 'patch ownership'



Multiple attempts at enable contact; more intensive follow up and follow up toolbox



Engagement overlay



Local management and responsiveness; persistence



Enabled with paper

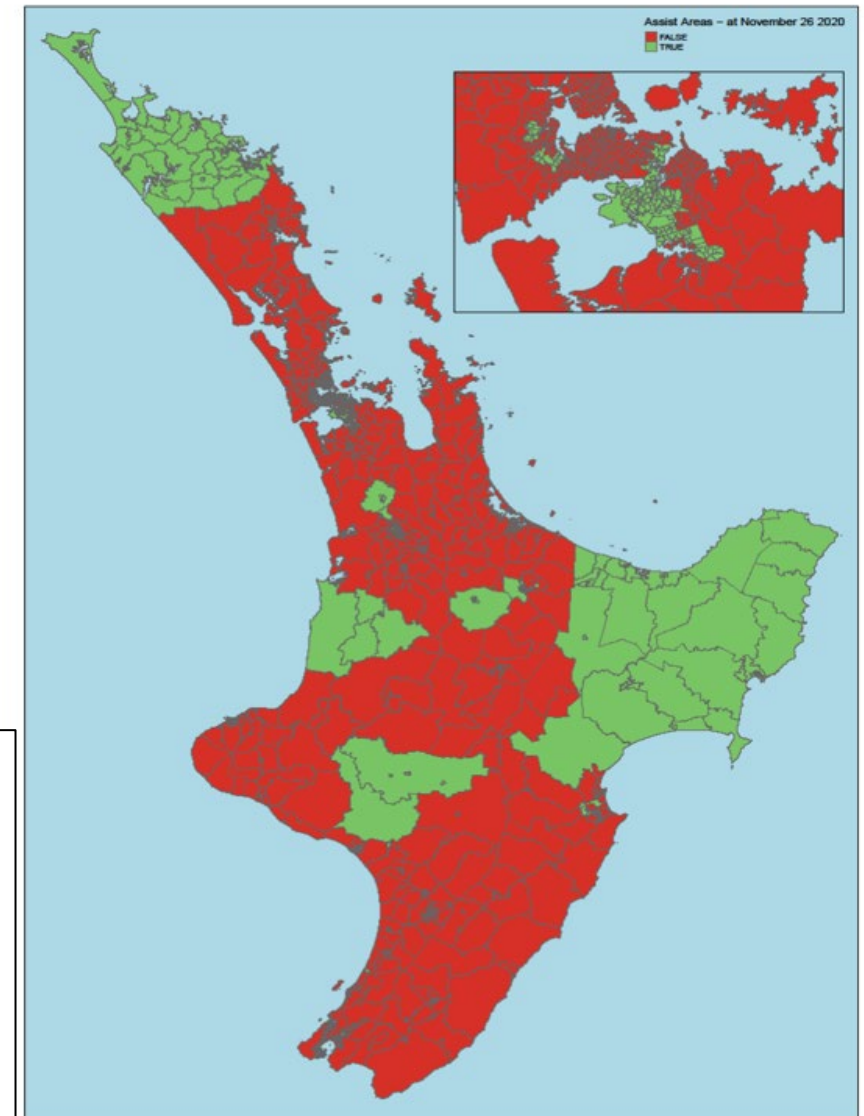
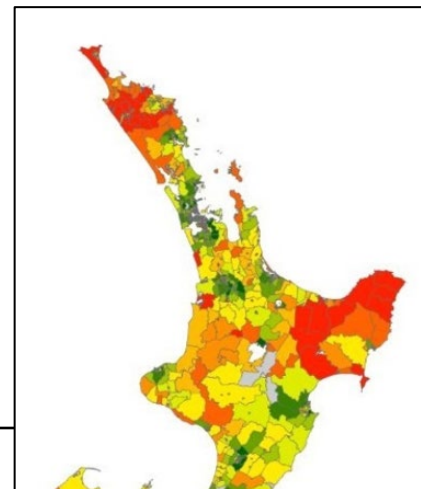
Benefits to participants: Increased respondent choice for participation, active assistance available, get to interact with a single person

Benefits to StatsNZ: Focused on data and participation shortfalls from 2018 particularly for Māori and Pacific populations, Address Validation, Community Engagement, building trust and confidence

The assist stream is the areas in Green.

14.7% of New Zealand's population.

Biggest issue will be recruitment.

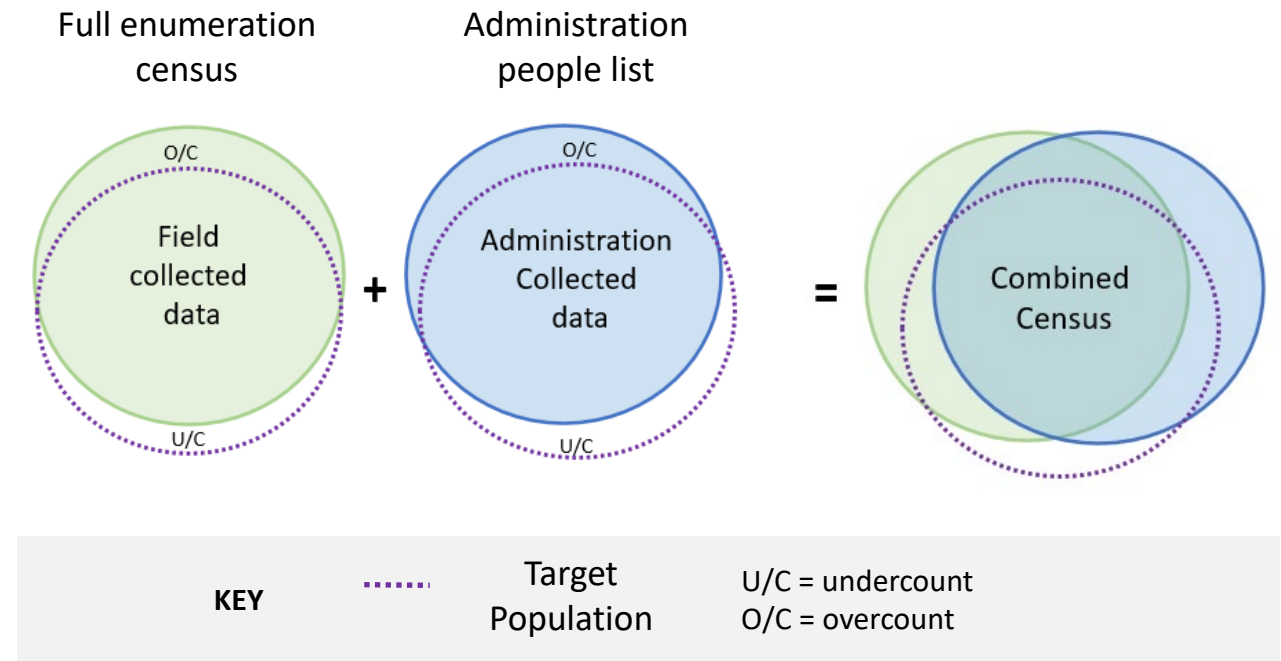


Combined census 'by design'

- Full enumeration census – count all people (via dwelling frame).
- Administration data – all people in NZ on census night.
- Linking – link census responses to their administration data record.
- Fill missing people gaps – enumerate admin people into the census dataset.
- Fill missing attribute gaps – use admin data, historical data and statistical imputation.

Major assumption:

- Full field enumeration meets target collection response rates.



Field Collection

Key Change	2018 Census	2023 Census
Change in Field Collection model that shifts our focus to priority audiences	<ul style="list-style-type: none"> Focus on mainstream self-completers enabled with internet access codes via the mail. 	<ul style="list-style-type: none"> Focus on priority response groups.
Change in how we enable and encourage participation	<ul style="list-style-type: none"> 3% Targeted Response (extra contact and/or paper forms). 17% List Leave (field staff deliver internet access code). 80% Mailout (internet access codes). 	<ul style="list-style-type: none"> 14% Assist Stream (internet codes and paper forms). 16% Deliver with Contact (internet codes and paper forms). 70% Mailed out (internet codes and 20% paper forms).
Paper form provision	<ul style="list-style-type: none"> 3% enabled with paper forms prior to census day. 	<ul style="list-style-type: none"> 44% enabled with paper forms prior to census day.
Assistance with participation	<ul style="list-style-type: none"> Little meaningful mechanisms to assist participants. 	<ul style="list-style-type: none"> Ability to assist through-out the collections model.
Increased Field Staff	<ul style="list-style-type: none"> Lean operation; 1800 Field Staff. 	<ul style="list-style-type: none"> Increased number of staff; c3,500; addition of new roles.

Admin Data Sourcing and Data Processing

Key Change	2018 Census	2023 Census
Combined model by design	<ul style="list-style-type: none">• Combined model changes added after census.	<ul style="list-style-type: none">• Combined model implemented by design.
Faster processing of data to support earlier release of data	<ul style="list-style-type: none">• With the change in model, there was 18 months between collections and first release.	<ul style="list-style-type: none">• Established Data Delivery project to enable a coordinated approach to planning and delivery.• Optimised the processing phase to ensure faster Clean Unit Record File (CURF) production.

Analysis and Outputs

Key Change	2018 Census	2023 Census
Combined census model by design	<ul style="list-style-type: none"> • Combined census model was a late mitigation to low response rates and was therefore not built into approaches or processes. 	<ul style="list-style-type: none"> • Data quality, analysis and dissemination approaches have been designed on a combined census model.
Limited change to output	<ul style="list-style-type: none"> • Several products and services intended for 2018 were not delivered due to either time or data quality constraints. 	<ul style="list-style-type: none"> • Products and services will be delivered as intended for 2018 using enterprise output tools and dissemination channels. • Māori products that meet Māori needs. • Use of new enterprise output tools and dissemination channels.

Communication and Engagement

Key Change	2018 Census	2023 Census
Rebuild trust and confidence in census	<ul style="list-style-type: none"> Integration of Stats NZ brand with the census identity and campaign. 	<ul style="list-style-type: none"> An early start to an ongoing message of the ‘story of data’ and its impact and relevance to everyone in Aotearoa/New Zealand, including its relevance to Māori, Pacific people and other priority groups. Pro-active media strategy and earlier, wider stakeholder engagement to build trust and gain support/advocacy.
Communications – how to participate	<ul style="list-style-type: none"> A phased campaign taking audiences through the phases of awareness / understanding through to participation and follow up. 	<ul style="list-style-type: none"> More communication on how to participate and close integration with collections and engagement activities.
Communications - trusted voices	<ul style="list-style-type: none"> Marketing campaign led communications with management of messaging to stay ‘on message’. 	<ul style="list-style-type: none"> More localised messaging for use within communities. Increased focus and support for organic and new media opportunities, especially to leverage stakeholder, customer and advocate networks.
Compliance messaging	<ul style="list-style-type: none"> Stronger compliance messaging in later reminder letters. 	<ul style="list-style-type: none"> Increased compliance messaging throughout the campaign, building understanding of compliance from the start.
Community engagement	<ul style="list-style-type: none"> Community engagement introduced as a channel in Target Response group areas, 2017/18. 	<ul style="list-style-type: none"> Earlier, wider and permanent engagement with communities including Māori, Pacific people and other priority groups. Community-led solutions.

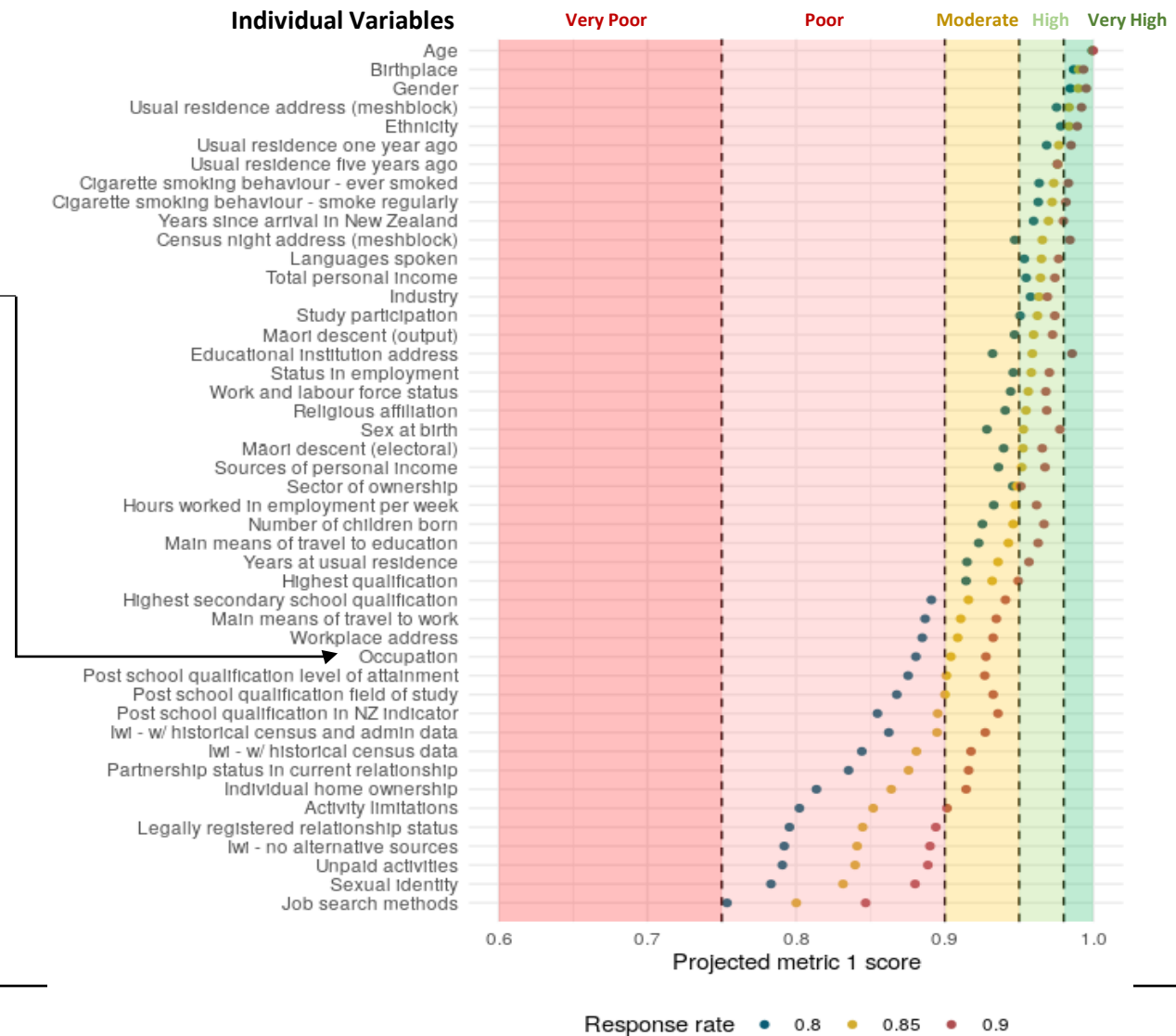
- Low response rates will have a negative impact on data quality.
- Different types of low response can occur in the census, including:
 - Dwelling under-coverage – dwellings missed completely,
 - Dwelling non-response – when we know there is a dwelling, but we do not receive a census response from the people at that dwelling,
 - Individual non-response within a dwelling – when we receive some response from a dwelling, but miss an individual.
- Non-response may also differ across sub-populations. For example, results from previous censuses have suggested that response rates tend to be lower for people of Māori and Pacific ethnicity, and young adults.
- **One of our highest priorities is to do what we can to improve response rates.** For example, dwelling under-coverage can lead directly to lower response and therefore quality.

Data Quality Projections
(Metric 1)

The chart to the right shows projected data quality (metric 1) ratings under different response rate scenarios.

- Eg we project **Occupation** to have a 'moderate' metric 1 rating at a 90% response rate, but a 'poor' metric 1 rating at a 80% response rate.

- Response rates affect some variables more than others, for example iwi.



Key changes to 2023 Census Content



The [2023 Census: Final content report](#) was published in October 2021

The key content changes for the 2018 Census are:

- **The collection of new information on gender, variations of sex characteristics and sexual identity.**
 - Gender will be the primary demographic variable, replacing the use of the sex variable and output data will use gender by default. Output data on sex will still be available.
 - Inclusion of gender and variations of sex characteristics reflects the updated [Statistical standard for gender, sex and variations of sex characteristics](#).
 - Sexual identity will help to establish a baseline population for the wide range of sexual identities across NZ, enabling better understanding of service provision requirements for these groups. It will also allow analysis and comparison of outcomes across the range of sexual identities.
- **Changes for sex, and for activity limitations / disability.**
 - For 2023 we will collect information on sex at birth. Previously we collected information on sex with no further clarification of what that meant.
 - The information on activity limitations is not changing, but we will also collect additional information to capture disabled people who may be missed in the existing question set. This information is required for selecting the sample for the 2023 post-censal New Zealand Disability Survey.
- **Reinstating the questions for number of census night occupants and phone number.**
 - Number of census night occupants is used to ensure that the correct number of individual forms are received from each household.
 - Phone number is included to enable us to contact people by phone to participate in the post-censal Disability Survey.

COVID and other social / political environmental Challenges

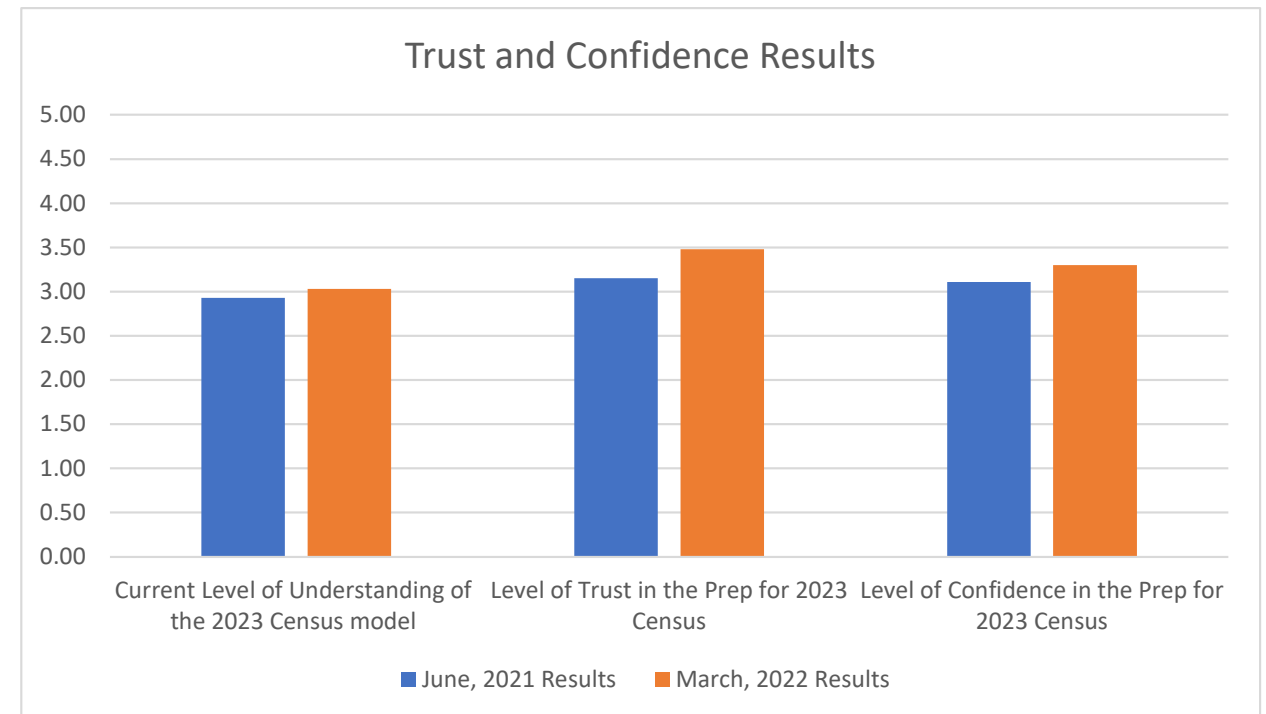


- **Covid-19 has been a significant challenge.** We endured a number of lock-downs (the longest being over 4 months), and had to plan, re-plan, and manage all programme activity, the Field Test, and the Dress Rehearsal, under very challenging conditions.
- **We coped with lock-downs very well,** and used remote working via Teams very effectively – we did not cancel any major governance and/or programme management meetings. However we did experience an impact on some of our engagement activities.
- **We had to amend our Field Test execution in March/April, 2021** in the Huntly area to take account of Level 2/3 conditions.
- **Following feedback from the community we removed South Auckland and the Eastern Bay of Plenty from the scope of Dress Rehearsal in March/April, 2022.** As a result we had to undertake a rigorous set of activities to provide for alternative testing of our Assist Design.
- **These events allowed us to thoroughly test our Covid response decision making and replanning arrangements** – which have been invaluable in preparing for potential Covid impacts during the Census.
- **As a result we now have a tested step-down response framework** which we will include in our Covid-response contingency plans



At this stage the biggest concern that we have are the waves of anti-Government sentiment and activism that has and is occurring, and the potential impact that this may have on the Trust and Confidence of the population in Stats NZ, and the 2023 Census Programme.

In addition there have been considerable challenges raised by members of the opposition, supported by some members of the press, that have implied that the 2023 Census will be delayed. This has been unhelpful and very distracting.



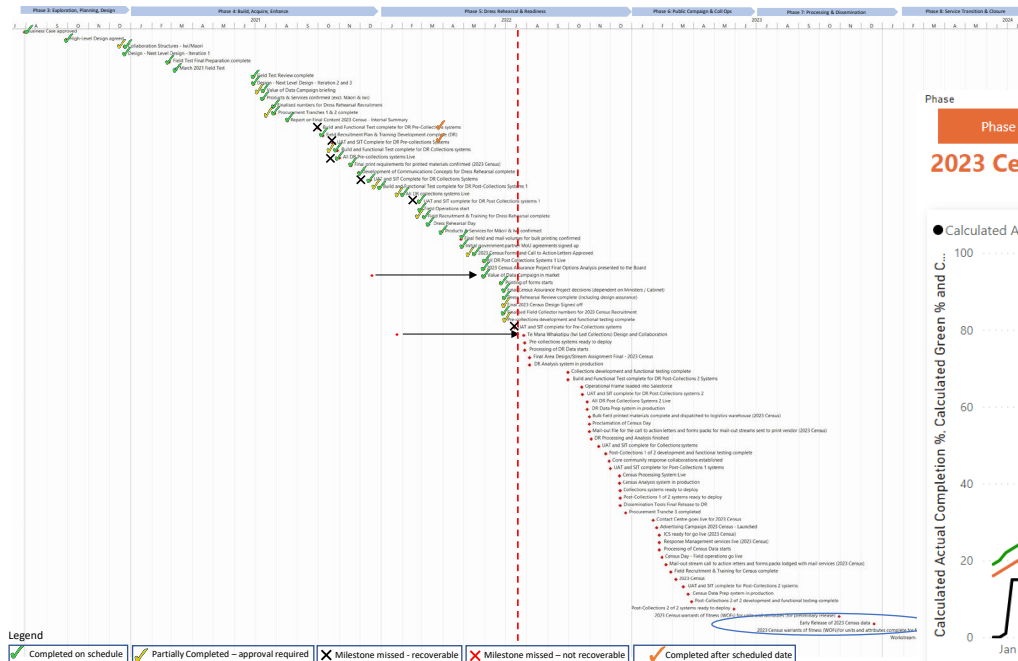
General Progress to Date



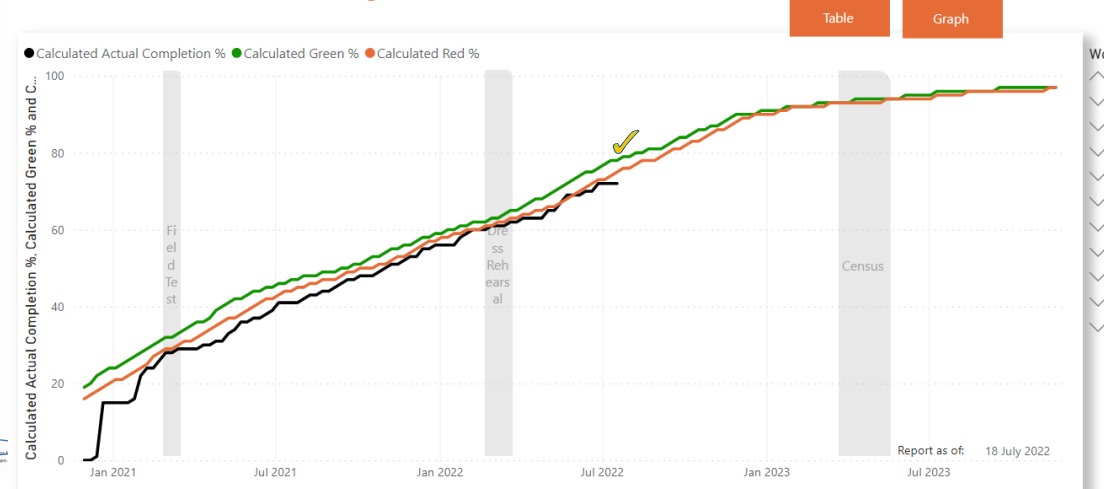
The 2023 Census Programme is currently on track for the Census to proceed in March, 2023, as planned. To date we have met all of our major milestones.

We have had a number of independent reviews completed over the past year (including IQA NZ and Gateway, and more recently DPMC), and none of these have indicated that there are any major concerns that will impact our plans.

As is expected with any large and complex programme we do have a number of risks and issues that are being actively managed.



2023 Census - Earned Value Register



Actual Completion %	Green Forecast %	Green Variance %	Red Forecast %	Red Variance %	On Track Count	Red Count	Amber Start Count	Amber End Count
72	78	-6	75	-3	351	18	14	12

We are generally on track but still have a few more key milestones

