

13 October 2023

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Tēnā koe Jason Esler

### Official Information Act (OIA) request: Living in Aotearoa survey

On 17 September 2023, you contacted Stats NZ requesting, under the Official Information Act 1982 (the Act), the following information:

*Currently you have Data Collection Specialists conducting a "Living in Aotearoa" survey. Can you please provide me the following information:*

- *What are areas selected for this?*
- *How were these areas selected?*
- *When is the final 14 days of the field collection phase? of the "Living in Aotearoa" survey*
- *What is the expected margin of error for this Survey*
- *Is there a budget for incentives for stragglers as was offered in the 2023 census?*
- *How much is this budget?*
- *If any incentives are going to be offered will they be Rugby Tickets or Supermarket vouchers? Or is it something else?*
- *Will these incentives be offered to New Zealanders accross the board or it just targeted to specific ethnicities*
- *Were any prosecutions completed under the Data and Statistics Act 2022 for individuals who failed to complete the 2023 Census? If so how many? and what were the ethnicities of those charged?*

Your request has been processed under the Act and I shall address each of your queries in turn.

#### 1. *What are areas selected for this?*

Living in Aotearoa is a longitudinal survey that selects panels or "rotation groups" and conducts surveys with them every year for six years. New rotation groups are selected every year and surveyed for six years. We start with a household selection for each group, and from there we follow individuals the following years (the Original Sample Members (OSMs)).

The sample size for Living in Aotearoa will be 7,200 households in the first year of each group. After the first four years, more than 20,000 households are expected to be

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participating in the survey at any given time, allowing us to meet the accuracy objectives of the survey which are discussed further in the response to your fourth question.

The sample is designed to be representative of the New Zealand population. The Living in Aotearoa Survey uses 12 geographical areas as part of the selection process:

- Northland
- Auckland
- Waikato
- Bay of Plenty
- Gisborne and Hawke's Bay
- Taranaki
- Manawatū-Whanganui
- Wellington
- Tasman, Nelson, Marlborough and West Coast
- Canterbury
- Otago
- Southland

## 2. *How were these areas selected?*

We use a fair statistical method to choose a random sample of households. The first stage of sample selection involves the selection of primary sampling units (PSUs) from the Household Survey Frame (HSF). The HSF is the standard sampling frame – or source database – we use to select samples for all our household surveys. In total, 632 distinct PSUs per rotation group are selected for each of the six rotation groups used in the Living in Aotearoa survey (3792 PSUs in total).

PSUs are selected and allocated to one of the six rotation groups' samples via "stratifying" all the PSUs within the HSF according to Census information for each PSU. Stratification is the process of dividing the population into subgroups called "strata".

The Living in Aotearoa Survey uses five stratification variables:

- **region** – 12 geographical strata based on regional council areas (West Coast, Tasman, Nelson, and Marlborough are collapsed into one region, as are Gisborne and Hawke's Bay, to create larger regions)
- **urban/rural** – we used an urban/rural sampling ratio of 1.4:1 to control collection costs for Stats NZ, as rural PSUs are more expensive than urban PSUs to survey
- **socioeconomic status** – groups based on New Zealand Deprivation Index scores (NZ Dep score) to ensure a good spread of areas by socioeconomic status
- **estimated child poverty indicators from census data** (at PSU level) – this ensures PSUs with high numbers of lower socio-economic children are represented
- **household income** – income strata based on median total gross income from the census.

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The second stage of sample selection involves systematic selection of dwellings within each selected PSU, via the use of selection panels. Here, dwellings within selected PSUs are randomly allocated into six selection panels with 11.4 dwellings within each panel, on average. Two of these panels are selected within each PSU for each annual survey – one for the main survey and one for increasing the sample size of Māori. Increasing sample size – or oversampling - is the practice of selecting respondents so that some groups make up a larger share of the survey sample than they do in the population. This is to ensure that there is a large enough sample size of particular sub-groups (in this case Māori) to allow separate analysis. There are various techniques for oversampling and weighting is used in the overall analysis to remove the potential for bias.

3. *When is the final 14 days of the field collection phase? of the "Living in Aotearoa" survey*

The current 2023 collection for Living in Aotearoa is expected to finish in the field on 12 November 2023.

4. *What is the expected margin of error for this Survey*

Below is information around sample errors for this survey.

**Non-sample error**

Any error that arises from factors other than sample variability. Non-sample error can occur in any survey, whether the estimates are derived from a sample or a census. Sources of non-sample error include non-response, errors in respondents' reporting or interviewers' recording of answers, and errors in data processing.

**Sample error**

A measure of the variability that occurs by chance because a sample, rather than an entire population, is surveyed. The magnitude of the sample error associated with any survey is a function of sample design, sample size, and population variability.

**Statistical significance**

A measure of whether a change or difference in a variable is genuine or simply a result of chance. Sample errors can be used to identify changes in the data that are due to real-world effects and are unlikely to have occurred by chance due to a particular sample being chosen. If an observed annual change is larger than the associated sample error, this change is unlikely to be the result of chance and is therefore statistically significant. Statistical significance is tested at the 95 percent confidence level.

**Desired (target) sample errors**

With an achieved sample size of 20,000, it is expected that:

- sample errors (95 percent confidence intervals) for the annual change in rates for the nine child poverty measures will be 1.5 percentage points or less
- sample errors (95 percent confidence intervals) for the annual change in rates for Māori children will be 3.9 percentage points or less.

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*5. Is there a budget for incentives for stragglers as was offered in the 2023 census?*

We are not using incentives as part of the approach for Living in Aotearoa. However, as part of the respondent relationship approach Stats NZ has designed to support survey participation, vouchers have been introduced as koha for survey participants.

Many longitudinal surveys find, that after just a few waves of interviewing, members of the responding sample from the initial wave are no longer participating. The primary concern is that the loss of participants, also known as sample attrition, can be systematic rather than random. Evidence from longitudinal studies, in New Zealand and abroad, shows that building and maintaining a meaningful relationship between the survey administrators and survey participants is important to minimise sample attrition.

In Te Ao Māori, investing in relationships has been shown to be effective in ensuring Māori have trust and confidence in survey processes and outputs produced. Therefore, the relationship approach is centred on building strong and effective relationships with survey participants, recognising that to maintain a representative sample over time, Stats NZ must be able to engage with people from diverse backgrounds that are motivated to participate in different ways.

Our approach is based on building relationships with people that are mana enhancing, based on trust, and show reciprocity. The intention is to develop a shared kaupapa, a sense of collective responsibility so that people will be more willing to share their information, to contribute to a 'greater good'.

By giving a koha, we acknowledge the taonga (the person's information) being gifted to us, we enhance the reciprocal nature of the relationship and we uphold the mana of both the survey participant and Stats NZ, thanking participants for their time and participation in the survey for the six years we will carry out interviews with them.

*6. How much is this budget?*

The budget for koha for the 2023 Collection (April to November 2023) is \$550,000.

*7. If any incentives are going to be offered will they be Rugby Tickets or Supermarket vouchers? Or is it something else?*

Stats NZ offer koha in the form of a \$50 supermarket voucher or MTA voucher to each household in the survey.

*8. Will these incentives be offered to New Zealanders across the board or it just targeted to specific ethnicities*

Koha is offered to all participants in the Living in Aotearoa Survey as part of the relationship approach for the survey.

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9. *Were any prosecutions completed under the Data and Statistics Act 2022 for individuals who failed to complete the 2023 Census? If so how many? and what were the ethnicities of those charged?*

No prosecutions have been completed under the Data and Statistics Act 2022 for individuals who did not complete the 2023 Census.

Should you wish to discuss this response with us, please feel free to contact Stats NZ at: [OfficeoftheGSCE@stats.govt.nz](mailto:OfficeoftheGSCE@stats.govt.nz).

If you are not satisfied with this response, you have the right to seek an investigation and review by the Ombudsman. Information about how to make a complaint is available at [www.ombudsman.parliament.nz](http://www.ombudsman.parliament.nz) or 0800 802 602.

It is Stats NZ's policy to proactively release its responses to official information requests where possible. This letter, with your personal details removed, will be published on the Stats NZ website. Publishing responses creates greater openness and transparency of government decision-making and helps better inform public understanding of the reasons for decisions.

Nāku noa, nā



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