



TECHNICAL REPORT | 21 September 2021

REPORT ON Public Service Census (#5205)

PREPARED FOR Te Kawa Mataaho Public Service Commission

PREPARED BY Research New Zealand

This report contains the technical and methodological details for Te Kawa Mataaho's (TKM) 2021 Public Service Census. It comprises the following sections:

- Details of the purpose and objectives of the Census.
- The approach used to develop and test the Census questionnaire.
- The processes used to test security-related matters.
- The approach used to complete the fieldwork for the Census, including sampling.
- Response rates and margins of error.
- Deliverables.
- Appendices:
 - Appendix A: Copy of the questionnaire.
 - Appendix B: A copy of the survey invitation email.
 - Appendix C: A copy of the survey reminder email.

1. Purpose and objectives

The purpose of the Public Service Census was to gather information to better understand:

- The diversity of public servants, and their inclusion and wellbeing at work.
- Their experiences of, and views on, working for the Public Service.

With this in mind, the main objectives of the Census were:

- To better understand inclusion and diversity in the Public Service and gauge how well this diversity reflects the communities that it serves.



- To better understand how public servants' diversity, inclusion and wellbeing at work is supported by employment conditions and working arrangements in the Public Service.
- To identify how agencies can best support public servants to perform most effectively in their jobs and mitigate any barriers that might inhibit their effectiveness.
- To better understand public servants' motivations for working for the Public Service.
- To gather baseline information that can be used to assess progress on elements of public sector reforms.

It is intended that the Census be repeated every two years, to allow TKM to monitor the overall health of New Zealand's Public Service over time.

2. Methodological overview

A brief overview of the Public Service Census is as follows:

- Concurrent with the questionnaire design phase, an extensive round of discussions and **data security** checks were carried out to ensure data at all key stages of the project (sampling, data collection and reporting) would remain private and secure.
- The survey questionnaire was **designed** in collaboration with TKM who, prior to Research New Zealand's involvement had conducted an extensive consultation process with other key agency partners, including Statistics New Zealand, Te Arawhiti, Te Puni Kokiri and Te Taura Whiri i te Reo Māori.
- The final survey questionnaire comprised seven parts:
 - Part A: Mōu ake | About you
 - Part B: Te manaaki ora I te kāinga, i te mahi | Balancing life and work
 - Part C: Ō mahi | Your work
 - Part D: Te whai wāhitanga | Inclusion
 - Part E: Te whakapiki pūkenga | Skills and development
 - Part F: Te hononga I waenga I te Māori me te Karauna | Māori-Crown relationship
 - Part G: Te take mahi ai tātou I te Ratonga Tūmatanui | Why we work in the Public Service



- When the survey questionnaire was in a draft form it was **cognitively tested**. This testing was completed between 2-11 February 2021 and involved n=20 respondents. The key results of the testing are summarised in Section 5 following.
- When the survey questionnaire was finalised, the survey was **piloted**. The piloting was completed between 30 March and 21 April 2021. A total sample of n=277 respondents completed the pilot survey, the key results of which are summarised in Section 6 following.
- The **survey proper** was launched on 11 May 2021 and was completed on 10 June 2021, when the final online response was received. A telephone and paper version of the questionnaire were also available to respondents on request. In total, including the pilot data, a total sample of n=38,330 respondents completed the 2021 Census survey, representing a response rate of 60.5%.

An additional 1,647 returns in which the respondent completed at least to the end of a key set of questions in the survey relating to diversity (section A). The response rate including these partial completes was 63.1%

3. Privacy and security-related activities

Given the audience and the personal nature of some of the information being collected, data security was paramount. In this regard, a number of activities were carried out before the survey was conducted. This included:

- The completion of a Privacy Impact Assessment Report (PIA).
- A Cloud Risk Assessment.
- Penetration testing.

Research New Zealand's IT manager also liaised directly with a key contact at each of the public sector agencies who participated in the survey, to test that the survey invitation emails and the URL to the online version of the survey would successfully get through their firewalls and spam filters, prior to the survey being launched.

4. Questionnaire design

As mentioned earlier, the Census survey questionnaire was designed in collaboration with TKM who, prior to Research New Zealand's involvement had conducted an extensive consultation process with other key agency partners, including Statistics New Zealand, Te Arawhiti, Te Puni Kokiri and Te Taura Whiri i te Reo Māori.

The online survey, once programmed, was tested extensively by both Research New Zealand and TKM to ensure the wording, layout and routing instructions were correct.



The survey was also reviewed against the New Zealand Government Web Accessibility and Usability Standard to ensure compliance with WCAG 2.1 AA. Changes made to improve accessibility included, for example, changes to fonts and colour contrasts. Changes were also made to the layout, lists and titles of the online version to improve accessibility and functionality for those using screen readers.

5. Cognitive testing

Prior to the survey being piloted, the draft questionnaire was cognitively pre-tested. The key features of the cognitive testing were as follows:

1. The survey was cognitively pre-tested with n=20 employees across five different agencies. Demographically, these respondents included a diverse range of Public Service employees, allowing all sections of the survey to be tested in sufficient detail and from a range of different perspectives.
2. The draft survey questionnaire was tested using Belson's double-back methodology, with respondents completing the survey online or by telephone followed by a telephone discussion on how they found the experience.
3. The follow-up interviews lasted 30-45 minutes in duration and the areas of discussion included:
 - Working through the introduction and question lines in each section and subsection to explore responses in detail.
 - Perceptions of the survey overall to identify and understand any issues respondents had with any particular lines of questioning, as well as their impressions of the survey overall (e.g. in terms of comprehension, purpose, offence, logic, flow, any technical issues).
 - The length of time it took to complete the survey.

The key conclusions arising from the testing were:

1. The average respondent took 15-20 minutes to complete the online version of the survey, whilst the telephone interviews were longer at 30-40 minutes in duration.
2. The response to the survey was relatively positive, with most finding the survey straightforward, interesting and important. Aside from a few suggestions with regard to specific questions and their code frames, the only other concerns related to privacy and the perceived relevance of some of the more personal questions (e.g. religion, gender identity and sexual identity).

As a result of the cognitive testing, some adjustments were made to the questionnaire and additional information was included to explain why particular questions were



being asked and to reassure respondents that all steps would be taken to ensure their privacy and anonymity was protected.

6. Pilot

As a final check before the Census proper was launched, it was piloted. The key features of the pilot were as follows:

1. Thirty-five agencies provided a randomly selected sample of n=10 respondents to be invited to complete the pilot. All n=350 were sent a survey invitation email on the 30th of March 2021.
2. Three reminder emails were sent over the next two weeks to encourage response. By the cut-off date of 21 April, n=277 had completed the survey, representing a response rate of 79%.
3. All completes were received online. There were no requests for paper or telephone surveys.

The key conclusions arising from the pilot were:

1. Although the response rate was positive, a small number of potential respondents did not receive the initial invitation email because of email security issues. Their agencies were followed up and the email security issues resolved.
2. The average interview length was 23 minutes (median length was 22 minutes). This was slightly longer than intended, although it was probably because of the inclusion of an open-ended question at the end of the survey which asked pilot respondents for their feedback on the survey questionnaire. This question was not included in the questionnaire that was cognitively tested, nor in the survey proper.
3. As a result of the feedback received through the pilot, a small number of changes were made to the survey:
 - The feature which allowed respondents to hover their cursor over an information icon to access additional information about certain questions was removed. Instead, to improve accessibility, the information text was made visible for all by including it as plain text on each relevant page.
 - The answer format of the question which asked for the number of hours worked was amended to include a decimal place.
 - A couple of minor wording changes were made, mainly with regard to instructions or notes for the respondent (e.g. to let them know that the survey would time out after 30 minutes of inactivity).



- The function allowing respondents to enlarge the font of the survey was debugged as it was causing an inconsistent application of font sizes.

Overall, however, the feedback was positive. Below are examples of some of the positive feedback received from respondents:

I think it's a well-designed survey - perhaps a bit long but I'm sure the data you'll gain from it will be valuable.

Really great survey. Easy to use, questions were really well thought through. Thanks for the opportunity to take part.

The interface worked well, and the questions were clear - thank you for making it easy to complete.

7. Sampling frame and sample size

The sample for the Census proper was provided to TKM by all of the 36 core public service agencies. Research New Zealand was then provided access to these files via TKM's secure file transfer portal that had been created through Sharepoint. As a Census, all staff of the 36 agencies were included in the sample, with the exclusion of contractors.

The only agencies that did not provide a sample list, for security reasons, were the New Zealand Security Intelligence Service (NZSIS) and the Government Communications Security Bureau (GCSB). These agencies invited their own staff to take part in a version of the survey that they scripted and administered themselves. At the end of the Census period, an anonymised copy of their survey data was hand delivered to Research New Zealand and we merged that data into the main survey dataset.

In total, 64,760 public service employees were invited to participate in the Census (including NZSIS and GCSB employees). However, once bouncebacks were excluded, the final valid number of invitations sent was 63,338. Table 1 overleaf, shows the number of original and valid invitations broken down by agency.



Table 1: Total number of invitations sent, by Agency

	Total number of invitations sent	No. of valid invitations sent (excludes bouncebacks)
Te Aho o Te Kahu Cancer Control Agency	53	51
Crown Law Office	231	194
Department of Conservation	2849	2841
Department of Corrections	10453	10234
Department of Internal Affairs	2580	2501
Department of the Prime Minister and Cabinet	307	304
Education Review Office	259	245
Government Communications Security Bureau	558	558
Inland Revenue Department	4373	4306
Land Information New Zealand	842	834
Ministry for Culture and Heritage	168	166
Ministry for the Environment	662	636
Ministry for Pacific Peoples	132	120
Ministry for Primary Industries	3586	3529
Ministry for Women	41	37
Ministry of Business, Innovation and Employment	5781	5624
Ministry of Defence	158	158
Ministry of Education	4286	4177
Ministry of Foreign Affairs and Trade	1219	1183
Ministry of Health	1666	1598
Ministry of Housing and Urban Development	322	313
Ministry of Justice	4346	4304
Ministry of Social Development	9381	9213
Ministry of Transport	208	186
National Emergency Management Agency	98	96
New Zealand Customs Service	1603	1576
New Zealand Security Intelligence Service	418	418
Oranga Tamariki, Ministry for Children	5152	5033
Serious Fraud Office	66	65
Social Wellbeing Agency	36	36
Statistics New Zealand	1494	1456
Te Arawhiti	203	187
Te Kāhui Whakamana Rua Tekau mā Iwa – Pike River Recovery Agency	23	23
Te Kawa Mataaho Public Service Commission	203	199
Te Puni Kōkiri	380	365
The Treasury	623	572
Total	64,760	63,383



8. Fieldwork

The Census proper was launched on the 11th of May 2021. Due to the size of the sample, invitation emails were sent progressively over a period of 2-3 days. This staggered approach also helped to minimise the risk of network issues (due to overloading) within some of the larger agencies.

One of the first groups of respondents to receive an invitation to the Census proper were the Chief Executives of the participating agencies. This was so they could experience the Census themselves and then comfortably promote and encourage participation amongst their staff.

Three reminder emails were sent at approximately one-week intervals to encourage response. A final more personalised email was also sent to those who had started the Census, but had not completed it.

During the period in which the Census was live, some agencies provided updated sample lists identifying new staff who had not been included in the original samples and/or an indication of staff who had since left the agency so they could be removed from the reminder schedule.

Response to the Census was monitored on a real-time basis using Research New Zealand's survey response tracker that TKM had remote access to. This tracked the response by agency and also by region.

The Census was closed off on 10 June 2021. By that date, 38,324 respondents had completed the Census; the vast majority online. No respondents completed the Census by telephone and only three completed the paper version of the questionnaire.

Respondents were provided with email addresses for both the Research New Zealand and the TKM Census teams if they had any feedback, queries or technical issues completing the Census. Given the scale of the Census, the number of queries or issues raised by respondents was extremely small (fewer than 0.01%).



9. Response rates

A total of 63,383 survey invitations were successfully emailed to potential Census respondents; excluding the email invitations that bounced back. Of those invited, n=38,330 completed the Census in its entirety, representing an overall response rate of 60.5%. This is shown in Table 2 overleaf as 'Response rate A'.

A second response rate is also provided, which is based on the Census completes, plus an additional 1,647 returns in which the respondent completed at least to the end of a key set of questions in the survey relating to diversity (section A). 'Response rate B', which includes the partial completes, is 63.1%.

The response rate per agency ranged from 49.4%, through to 100%. Note that for one agency, the response rate is shown as higher than 100%. Respondents were asked to identify which agency (or agencies) they currently work for, and then to identify which of those agencies they were going to complete the survey in relation to. This was done to handle situations such as secondments. In a small number of cases, the agency they identified was not the agency from which their contact details were provided. This is why Table 2 shows that 36 employees from the Social Wellbeing Agency were invited, but 37 responded (hence the 102.8% response rate).



Table 2: Response rates, per agency

	No. of valid invitations sent	No. of completed surveys	Response rate A	No. of completed surveys, plus partial completes	Response rate B (includes partials)
Te Aho o Te Kahu Cancer Control Agency	51	45	88.2%	46	90.2%
Crown Law Office	194	161	83.0%	170	87.6%
Department of Conservation	2841	1634	57.5%	1687	59.4%
Department of Corrections	10234	5055	49.4%	5467	53.4%
Department of Internal Affairs	2501	1545	61.8%	1599	63.9%
Department of the Prime Minister and Cabinet	304	185	60.9%	189	62.2%
Education Review Office	245	180	73.5%	184	75.1%
Government Communications Security Bureau	558	337	60.4%	337	60.4%
Inland Revenue Department	4306	2980	69.2%	3049	70.8%
Land Information New Zealand	834	629	75.4%	640	76.7%
Ministry for Culture and Heritage	166	145	87.3%	145	87.3%
Ministry for the Environment	636	419	65.9%	437	68.7%
Ministry for Pacific Peoples	120	92	76.7%	98	81.7%
Ministry for Primary Industries	3529	2025	57.4%	2093	59.3%
Ministry for Women	37	36	97.3%	37	100.0%
Ministry of Business, Innovation and Employment	5624	3376	60.0%	3512	62.4%
Ministry of Defence	158	125	79.1%	128	81.0%
Ministry of Education	4177	2667	63.8%	2770	66.3%
Ministry of Foreign Affairs and Trade	1183	814	68.8%	836	70.7%
Ministry of Health	1598	1046	65.5%	1083	67.8%
Ministry of Housing and Urban Development	313	275	87.9%	276	88.2%
Ministry of Justice	4304	2476	57.5%	2607	60.6%
Ministry of Social Development	9213	5765	62.6%	6045	65.6%
Ministry of Transport	186	145	78.0%	149	80.1%
National Emergency Management Agency	96	60	62.5%	61	63.5%
New Zealand Customs Service	1576	926	58.8%	971	61.6%
New Zealand Security Intelligence Service	418	236	56.5%	236	56.5%
Oranga Tamariki, Ministry for Children	5033	2638	52.4%	2771	55.1%
Serious Fraud Office	65	47	72.3%	48	73.8%
Social Wellbeing Agency	36	37	102.8%	38	105.6%
Statistics New Zealand	1456	1111	76.3%	1128	77.5%
Te Arawhiti	187	165	88.2%	168	89.8%
Te Kāhui Whakamana Rua Tekau mā Iwa – Pike River Recovery Agency	23	19	82.6%	19	82.6%
Te Kawa Mataaho Public Service Commission	199	186	93.5%	187	94.0%
Te Puni Kōkiri	365	291	79.7%	297	81.4%
The Treasury	572	457	79.9%	469	82.0%
Total	63,383	38,330	60.5%	39,977	63.1%



10. Margins of error

The maximum margin of error associated with the total sample of $n=38,330$ at the 95% confidence interval is $\pm 0.3\%$.

The maximum margins of error differ by agency, depending on the number of responses received and the proportion of the population that number represents. These margins range from $\pm 9.4\%$ for the Pike River Recovery Agency which was the smallest agency included in the Census (19 of their 23 staff completed the Census), through to 0% for the Social Wellbeing Agency, another small agency but one in which all staff participated.

The margins of error per agency are presented in Table 3, overleaf.



Table 3: Margins of error, by agency

	No. of valid invitations sent	No. of completed surveys	Maximum margin of error
Te Aho o Te Kahu Cancer Control Agency	51	45	5.0%
Crown Law Office	194	161	3.2%
Department of Conservation	2841	1634	1.6%
Department of Corrections	10234	5055	1.0%
Department of Internal Affairs	2501	1545	1.5%
Department of the Prime Minister and Cabinet	304	185	4.5%
Education Review Office	245	180	3.8%
Government Communications Security Bureau	558	337	3.4%
Inland Revenue Department	4306	2980	1.0%
Land Information New Zealand	834	629	1.9%
Ministry for Culture and Heritage	166	145	2.9%
Ministry for the Environment	636	419	2.8%
Ministry for Pacific Peoples	120	92	4.9%
Ministry for Primary Industries	3529	2025	1.4%
Ministry for Women	37	36	2.7%
Ministry of Business, Innovation and Employment	5624	3376	1.1%
Ministry of Defence	158	125	4.0%
Ministry of Education	4177	2667	1.1%
Ministry of Foreign Affairs and Trade	1183	814	1.9%
Ministry of Health	1598	1046	1.8%
Ministry of Housing and Urban Development	313	275	2.1%
Ministry of Justice	4304	2476	1.3%
Ministry of Social Development	9213	5765	0.8%
Ministry of Transport	186	145	3.8%
National Emergency Management Agency	96	60	7.7%
New Zealand Customs Service	1576	926	2.1%
New Zealand Security Intelligence Service	418	236	4.2%
Oranga Tamariki, Ministry for Children	5033	2638	1.3%
Serious Fraud Office	65	47	7.5%
Social Wellbeing Agency	36	37	0.0%
Statistics New Zealand	1456	1111	1.4%
Te Arawhiti	187	165	2.6%
Te Kāhui Whakamana Rua Tekau mā Iwa – Pike River Recovery Agency	23	19	9.4%
Te Kawa Mataaho Public Service Commission	199	186	1.8%
Te Puni Kōkiri	365	291	2.6%
The Treasury	572	457	2.1%
Total	63,383	38,330	0.3%



11. Deliverables

TKM has taken responsibility for reporting the results of the 2021 Public Service Census. To assist with this Research New Zealand has provided the following deliverables:

- A clean, depersonalised dataset, including the results of the thematic analysis of the open-ended questions.
- An e-reporting tool, which has two 'views'; one for TKM and the other for each participating agency.

Appendix A: Census Questionnaire

Available at :

<https://www.publicservice.govt.nz/our-work/workforce-data/public-service-census-2021/>

Appendix B: Invitation email

Tēnā koe <First name>

As an employee of a Public Service agency, you are invited to take part in New Zealand's first Public Service Census, Te Taunaki. Research New Zealand has been contracted to run the survey on behalf of Te Kawa Mataaho Public Service Commission.

< Link: Start the survey now >

Why are all the employees of the Public Service being surveyed?

It's important that the Public Service represents the people we serve, and that we have the tools and resources to do our jobs well.

Information from Te Taunaki will be used to drive policy improvements in areas such as flexible working, opportunities to shift between agencies, pay equity for people in similar roles, fair hiring practices, as well as training and career development. Getting a better understanding of the diversity of public servants will help build a unified Public Service that represents the people we serve, and where public servants feel supported to be themselves at work.

What kind of questions are in the survey?

Survey topics include demographic questions about you and your role, flexible working, work-life balance, career development, cultural capability, what attracted you to join the Public Service, and how you feel about it now.

Do I have to participate?

The survey is voluntary, but we need as many people as possible to participate so we have an accurate picture of the Public Service. Each question in the survey is optional, so you can indicate if you'd 'prefer not to answer'.

What does it involve?

The survey is on a secure Research New Zealand website, and can be done on any computer with a browser or a phone with a browser (although some work mobile devices which may be restricted). Anyone who is visually impaired can choose to view the survey in a larger font size. The survey will also work with screen readers. If you have accessibility issues with the online survey, please contact Research New Zealand at census@researchnz.com for the option to complete the survey on paper or with a Research New Zealand interviewer over the phone.

How long will the survey take?

About 15 minutes. You can leave the online survey at any time and go back to finish later if needed. The survey will be open until midnight on 31 May.

What will happen to the information I provide?

Census responses will be kept anonymous and you will not be individually identified in any reporting from the survey. Your information will only be used for statistical and research purposes. Agencies will have access to aggregated reporting that has been confidentialised to inform policies and practices.

Read more about [Te taunaki e anga whakamua ai te Ratonga Tūmatanui | Public Service Census 2021](#), including how we will protect your information.

By answering questions in the survey, you are agreeing that the information you provide can be used for the purposes described above. If you have any questions, please contact the Te Taunaki team at census@publicservice.govt.nz

If you have any questions about the survey itself or experience any technical difficulties with the online questionnaire, please contact Research New Zealand at census@researchnz.com.

Tēnā rawa atu koe.

Thank you for your help!

Ngā mihi nui

Appendix C : Reminder email

Tēnā koe <First name>

As an employee of a Public Service agency, you were recently invited to take part in New Zealand's first Public Service Census, Te Taunaki. Research New Zealand has been contracted to run the survey on behalf of Te Kawa Mataaho Public Service Commission.

If you have already completed the survey, thank you. If not, you can complete the survey now by clicking on the link below.

< Link: Start the survey now >

Why are all the employees of the public service being surveyed?

It's important that the Public Service represents the people we serve, and that we have the tools and resources to do our jobs well.

Information from Te Taunaki will be used to drive policy improvements in areas such as flexible working, opportunities to shift between agencies, pay equity for people in similar roles, fair hiring practices, as well as training and career development. Getting a better understanding of the diversity of public servants will help build a unified Public Service that represents the people we serve, and where public servants feel supported to be themselves at work.

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the survey in a larger font size. The survey will also work with screen readers. If you have accessibility issues with the online survey, please contact Research New Zealand at census@researchnz.com for the option to complete the survey on paper or with a Research New Zealand interviewer over the phone.

How long will the survey take?

About 15 minutes. You can leave the online survey at any time and go back to finish later if needed. The survey will be open until early June.

What will happen to the information I provide?

Census responses will be kept anonymous and you will not be individually identified in any reporting from the survey. Your information will only be used for statistical and research purposes. Agencies will have access to aggregated reporting that has been confidentialised to inform policies and practices.

Read more about [Te taunaki e anga whakamua ai te Ratonga Tūmatanui | Public Service Census 2021](#), including how we will protect your information.

By answering questions in the survey, you are agreeing that the information you provide can be used for the purposes described above. If you have any questions, please contact the Te Taunaki team at census@publicservice.govt.nz

If you have any questions about the survey itself or experience any technical difficulties with the online questionnaire, please contact Research New Zealand at census@researchnz.com.

Tēnā rawa atu koe.

Thank you for your help!

Ngā mihi nui

Survey Access Code: << >>