

#### METHODOLOGY REPORT | 17 December 2021

**REPORT ON** Methodology for Cash Use Survey 2021 (#5182)

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#### 1. Background

This report summarises the methodological approach used to conduct the Cash Use Survey 2021. The survey was conducted between August and October 2021 by Research New Zealand on behalf of the Reserve Bank of New Zealand.

The Bank commissioned the Cash Use Survey 2021 in order to update a similar surveys conducted in 2019 and 2017. Although an online Cash Use survey was also conducted in 2020, that particular survey's focus was to see if and how the Covid-19 pandemic had changed the way in which New Zealanders were paying for goods and services. Whilst not designed to inform policy development, the 2020 survey provided a means by which the Money and Cash Department could determine whether the timing and direction of their strategic initiatives were still aligned to the payments environment.

The specific objectives of the 2021 survey were to:

- Inform the development of Money and Cash policies and the Bank's role as the steward of the cash system.
- Confirm that changes observed in the 2020 online-only survey were not purely a result of changes in survey mode.

Research New Zealand's specific responsibilities with respect to the Cash Use Survey 2019 were to:

- 1. Undertake the design, delivery and management of the survey.
- Capture and process the survey data and provide the Bank with the results of the survey for its own analytical purposes.

This report provides:

- 1. A summary of the changes made to the survey design.
- 2. A detailed record of the survey implementation approach and quality assurance processes.
- 3. Sampling and field outcomes information.
- 4. Response rate calculations and an analysis of non-response.



- 5. A description of the approach used to weight the data and the parameters used to do so.
- 6. Any known limitations associated with the data.

#### 2. Survey design

The questionnaire for the Cash Use Survey 2021 was an adapted version of the questionnaires used for the 2019 and 2020 surveys. The main changes to the survey are described below:

A new section of questions relating to withdrawing and depositing cash were added to the 2021 questionnaire:

- Q16. How easy is it for you personally to get some cash out from your bank account (e.g. from a bank, ATM, shop or supermarket) when you need it?
- Q17. If you find it difficult to get cash out, please tick as many of the following to tell us the main reasons why.
- Q18. How easy is it for you to visit a Bank branch or ATM (in person) to put cash into a bank account for your personal needs (not business) when you need to?
- Q19 If you find it difficult to visit a bank branch or ATM to put cash into your bank account, please tick as many of the following to tell us the main reasons why.

A question around online shopping was also included:

Q3. In the last week, did you do any of your shopping online (e.g. for groceries, food, clothes, or household goods)?

To keep the length of the questionnaire down to around 10 minutes, the following questions were removed (question numbers refer to the 2019 survey questionnaire):

- Q4. And in the last 7 days have you used any other way to pay for these things, such as credit or debit cards, phone app, direct credit or other internet payment?
- Q5. Thinking about how you were paying for everyday things such as your groceries, petrol, lunch, bus or train ticket etc. 12 months ago. Were you using cash (notes and/or coins)
   [a lot more than you are now, a bit more, etc.]
- Q6. And thinking about how you'd like to be paying for these things in 12 months' time. Would you like to be using cash (notes and/or coins) [a lot more than you are now, a bit more, etc.]
- ◆ Q11. Which of the following do you have with any bank? [types of accounts, bank cards etc.]
- Q12. For what particular reasons do you not have a bank?



- Q13. Tick the main way you do your banking in the first column and any other ways you do your banking in the second column. Use the third column to indicate any ways you don't use.
- Q14. And for each of the ways you currently do your banking, which are you able to do completely by yourself and which are you able to do only with the help of another person
- Q19. Which one of the following best describes you if, in the future, you were unable to get or use cash? [I wouldn't be able to cope, etc.]
- Q20. Which of the following would be affected if you were unable to get or use cash? [my budgeting, day-to-day life, etc.]
- Q26. Do you work for wages or salary for an hour or more a week?
- Q27. Are you self employed?
- Q29. Which one of the following best describes you? [married/living in a partnership, etc.]
- Q31. Do you have any children or young people living with you or in your care?
- Q32. If children or young people are living with you, which of the following do they use to pay for everyday things?

A copy of the questionnaire, used for the Cash Use survey 2021, is attached to this report in an appendix, together with related materials (e.g. survey invitation letter, and reminder postcard).

The paper version of the final approved questionnaire was printed by an external printing company. The printing proofs were approved by Research New Zealand and the Bank, before the questionnaire was printed and delivered to Research New Zealand's office for distribution.

Simultaneous with this process, the online version of the questionnaire was scripted and test links provided to the Bank for its approval. To minimise any response bias that might occur in completing the questionnaire online, we kept the layout, presentation and structure of the online version as close as possible to that of the paper version.

The day after the survey packs were posted to respondents, New Zealand went into Level 4 lockdown following the country's first positive case of the Delta variant of Covid-19. To help provide some measure of the impact that the lockdown may have had on the way that respondents answered the survey questions, the two questions below were added to the online version of the questionnaire:

- Q20a. Covid-19 may have also impacted the way in which you pay for everyday things. Can you please indicate what level of lockdown your area is in right now?
- Q20b. Have you answered the questions in this survey differently than you would have normally, because of the current Alert Level Lockdown?



#### 3. Potential respondents, sampling frame, and sample

The target population for the Cash Use Survey 2021 comprised normally-resident New Zealand adults, aged 18 years and over.

The New Zealand General and Māori Electoral Rolls were used as the sampling frame for the survey, as this is the most comprehensive and up-to-date register of the adult New Zealand population. Access to the Electoral Rolls was granted through a formal application process via the Electoral Commission's Enrolment Services.

The information contained in the Electoral Rolls enabled us to draw a random sample of n=12,500 potential respondents stratified by age group (18 to 29 years old, 30 to 44 years old, 45 to 60 years old and 60 years plus) nested in four broad geographic areas: Upper North Island, Lower North Island, Upper South Island and Lower South Island. Table 1 details how different New Zealand geographic regions were classified into these four broad areas.

**Table 1: Geographic groupings** 

Broad areas	Region
Upper North Island	Northland region Auckland region Waikato region Bay of Plenty region Gisborne region
Lower North	Hawke's Bay region Taranaki region Manawatu-Wanganui region Wellington region
Upper South	Marlborough region Nelson region Tasman region West Coast region Canterbury region
Lower South	Otago region Southland region

The Electoral Rolls also enabled us to sample Māori and non-Māori electors proportionate to their distribution within each age band in each broad geographic area, based upon the Māori descent indicator in the Rolls.

#### 3.1 Representativeness of sample

The sampling procedure, reminder activity and weighting schemes (both described overleaf) all aim to ensure that the final sample of respondents surveyed accurately represented the target population of normally resident New Zealanders, aged 18 years and older.

With this in mind, we took into account the fact that certain groups in the general population (e.g. 18 to 29 year old males) are known to be less likely to respond to surveys when designing the stratified sampling scheme for the survey. This meant that certain age groups were disproportionately



sampled, in comparison to their normal proportions in the Electoral Rolls. Māori and non-Māori electors were also over-sampled.

Table 2 details the numbers of electors sampled from each region by age band and whether or not individuals were identified in the Electoral Rolls as being of Māori descent.

Table 2: Sampling population and initial samples drawn

Area	Sub-group	Population (Ni)	Sample (n)
Upper North	18-29 Non-Māori	275,165	786
Upper North	18-29 Māori	88,571	672
Upper North	30-44 Non- Māori	409,545	1,169
Upper North	30-44 Māori	90,152	682
Upper North	45-59 Non- Māori	416,025	1,187
Upper North	45-59 Māori	82,942	627
Upper North	60+ Non- Māori	469,843	1,342
Upper North	60+ Māori	57,969	439
Lower North	18-29 Non-Māori	113,762	325
Lower North	18-29 Māori	37,842	287
Lower North	30-44 Non- Māori	154,360	441
Lower North	30-44 Māori	36,833	279
Lower North	45-59 Non- Māori	172,654	494
Lower North	45-59 Māori	33,714	255
Lower North	60+ Non- Māori	210,235	600
Lower North	60+ Māori	23,011	175
Upper South	18-29 Non-Māori	88,631	253
Upper South	18-29 Māori	15,604	119
Upper South	30-44 Non- Māori	121,524	347
Upper South	30-44 Māori	14,978	114
Upper South	45-59 Non- Māori	145,037	414
Upper South	45-59 Māori	13,630	103
Upper South	60+ Non- Māori	179,637	513
Upper South	60+ Māori	9,047	69
Lower South	18-29 Non-Māori	40,150	115
Lower South	18-29 Māori	7,643	58
Lower South	30-44 Non- Māori	49,376	141
Lower South	30-44 Māori	6,914	53
Lower South	45-59 Non- Māori	57,058	165
Lower South	45-59 Māori	5,940	43
Lower South	60+ Non- Māori	70,855	202
Lower South	60+ Māori	4,170	32



#### 4. Survey implementation

The Cash Use Survey 2021 was completed using a mixed method approach, with respondents provided the option of completing the survey online or on paper. The survey was live from 16 August to 24 October 2021, during which time completed questionnaires were received from n=3,107 respondents. Most respondents responded by completing the paper version of the questionnaire (n=2,328 respondents or 75% of the total sample), compared with the online version (n=779 respondents or 25% of the total sample).

An overview of the survey implementation process for the survey is shown below (Figure 1).

#### 1. SURVEY PACKS POSTED ON 16th and 17th AUGUST

A survey pack was sent to all potential respondents containing a survey invitation letter, a paper version of the questionnaire and a reply paid envelope.



#### 2 ONLINE REGISTRATION

The survey letter encouraged potential respondents to register in order to complete the survey online. Respondents who registered were immediately sent an email with a link to the questionnaire.



#### 3. FIRST REVIEW OF RESPONSE - 24 AUGUST

A review of the response was undertaken one week after launch in light of the Covid-19 lockdown situation and the impact this would have on the planned reminder activity.



#### 4. REMINDER FOLLOW UP CALLS - 31 AUGUST - 7 SEPTEMBER

Telematching was completed in order to obtain as many telephone numbers as possible for all non-responders. These respondents were then followed up by telephone to encourage participation.



#### 5. SECOND REVIEW OF RESPONSE - 13 SEPTEMBER

A second review of the response was undertaken at this point to see if there were any particular groups of the population under-represented in terms of their rate of completion.



#### 6. REMINDER POSTCARDS SENT

Reminder postcards were sent 23 September to all non-responders under 60 years of age.



#### 7. EMAIL REMINDERS

All registered non-responders were sent a final email reminder encouraging them to respond on the 14th of October.



A more detailed description of the survey process is as follows:

- 1. A survey pack was sent to all potential n=12,500 respondents over a two day period (16 and 17 August 2021). Each pack contained a personalised survey invitation letter printed on Reserve Bank letterhead, a paper version of the questionnaire, and a reply-paid envelope. Also included in the pack, as a token incentive, was a gold wrapped chocolate coin.
- 2. The survey invitation letter encouraged potential respondents to register in order to complete the questionnaire online. In turn, their registration enabled us to monitor whether they responded and send reminder communication. A total of n=777 potential respondents registered online.
- 3. The original plan was to send reminder postcards out on the 3<sup>rd</sup> of September and then conduct follow up telephone calls with particular groups of respondents that were known to be less responsive (e.g. younger people and Māori respondents). However, the day after the paper surveys had been posted, New Zealand went into Level 4 lockdown due to an outbreak of the Delta strain of Covid-19. Due to lockdown restrictions the printers were not able to print the postcards and so the survey reminder plan needed to be reviewed.
- 4. A review of the situation was undertaken during the week commencing 23 August. The country was still in lockdown and so the decision was made to divert the bulk of the funds that had been allocated to the postcards towards telephone reminder calls instead.
- 5. A telematching exercise was conducted in order to obtain contact phone numbers for as many non-responders as possible. This exercise was completed by 27 August with around 2,300 telephone numbers obtained. Telephone reminder calls commenced 31 August. By this point we had received 455 online completes. The number of paper surveys was difficult to gauge because NZ Post was holding all bulk mail returns in-house due to the Alert Level restrictions.
- 6. A further review on 13 September was undertaken in order gauge the representativeness of the response to-date. Alert level restrictions had eased in Wellington at this point and the paper returns were released from NZ Post. As of this date, n=2,116 respondents had completed the survey; n=370 of whom were Māori. Whilst the Māori response was representative, there was an over-represented response from those in the older age cohort (60 years and over). This bias towards older respondents was similar to previous years.
- 7. To help encourage response from younger respondents, reminder postcards were sent to just under 6,000 non-responders aged under 60 years. The postcard was similar to that which was sent in 2019 although it included a QR code to allow easier access to the online survey.
- 8. A final email reminder email was sent on the 14<sup>th</sup> of October to all potential respondents who had registered for the survey online but had not completed it.
- 9. The survey was finally closed off on the 24th October.



#### 5. Quality assurance processes and standards

Research New Zealand's partners, directors and staff are all members of the European Society of Marketing & Social Research (ESOMAR) and as such abide by its Code of Practice. The Code has specific requirements regarding sample and data security which are stricter than those of the Privacy Act 1993.

In addition, our ICT system meets all the requirements of Section 16 of the New Zealand Information Security Manual, published by the Government Communications security Bureau in 2014.

We also have well-established quality assurance process and standards that we apply to each stage of the research process, with the following being relevant to the Cash Use Survey 2021.

#### 5.1 Sample security

Access to the General and Māori Electoral Rolls was restricted to those members of the Research New Zealand Survey Team working on the Cash Use Survey 2021. Access was actively monitored.

#### 5.2 Survey scripting

Scripting of the online version of the survey questionnaire was completed by our dedicated in-house Survey Scripting & Hosting Team. The scripter, together with the researchers responsible for the project, went through a rigorous process of testing and re-testing the survey script, to ensure it could be completed on any device.

The Bank were also involved in the testing process. In addition, the Bank approved the printing proofs of the paper version of the questionnaire.

#### 5.3 Survey hosting

The survey was 'in the field' for approximately ten weeks. During this time, it was listed on our website as a 'current' survey. The survey invitation letter also identified Research New Zealand as the research company commissioned by the Bank to complete the survey on its behalf, and provided our Freephone 0800 number.

Relatively few calls were received; mostly from potential respondents wishing to opt out of the survey.

#### 5.4 Follow-up reminder calls

Follow-up reminder calls were completed with non-responders by our telephone interviewers, from our purpose-built, CATI-enabled call centre.

The team of interviewers selected to work on the survey follow up reminder calls were personally briefed before they commenced making the reminder calls. As a matter of course, 5% of each interviewer's interviewing was intercepted by our Quality Control Manager to ensure that the interviewers were conducting these calls to an acceptably high standard. All interviews are recorded (with the respondent's consent), providing an additional level of quality control.



Our interviewers undergo extensive training (both initially and on an on-going basis), and are supervised, beyond the minimum industry standard, to ensure all our survey interviewing is completed in conformance with ISO 20252.

#### 5.5 Data processing and entry

As completed paper questionnaires were received, their return was logged in a master tracking file and the response data entered by our dedicated in-house Data Entry Team.

A minimum of 10% of each data entry operator's work was double-entered to ensure that the error rate was within an acceptable threshold. If an operator's work was found to contain five or more errors per 1,000 key strokes, all of that operator's work was re-entered by another operator and checked again.

Editing of the paper questionnaires prior to entry was minimal, as the survey design was relatively simple and uncomplicated, and any errors regarding routing were managed at a later date as part of the data cleaning process.

However, in order to ensure the 'master' dataset was cleaned in an agreed, consistent manner, a standard set of data editing protocols were used, based on those developed for the 2019 survey. These included rules relating to the following:

- Ensuring that respondents had correctly followed the routing instructions (and deleting responses to questions that they were not supposed to have answered).
- Rules for correcting questions where only one response should have been given.
- Differentiating a missing value as a result of a correctly followed routing instruction, from a
  missing value as a result of a respondent not answering a question that they should have.

It was also agreed that (where appropriate), Research New Zealand would recode 'other specify' comments back into the existing code frame and minimal 'cleaning/editing' of the original verbatim comments would be conducted. Aside from correcting typo's, the verbatim cleaning mainly involved checking to ensure that no identifiable information had been provided.

The data entry programme was designed using the same programme and following the same structure as the online database. This meant that when the fieldwork was completed, the data entry and online datasets were able to be seamlessly combined into one 'master' dataset.

#### 5.6 Data editing and cleaning

Following the completion of the data entry, the paper and online responses were merged into a 'master' dataset.

During the initial checking of the dataset, it was found that a small number of respondents (n=4) had completed both the paper and online versions of the survey. As in previous years, it was decided to retain the data from the paper version of the survey on the basis that the paper version was completed by respondents prior to the online version.



#### 5.7 Data security

In accordance with our Code of Practice, respondents' names and addresses were removed from the survey dataset as soon as our verification processes were completed (i.e. depersonalised).

All personal identifying information, including copies of the electoral data, were destroyed or deleted from our system at the conclusion of the project and the Bank advised of this fact. A depersonalised copy of the final dataset has been saved on our system and stored by our local cloud provider, Revera, which is one of three government-approved providers.

The dataset and set of tabulations provided to the Bank was internally peer-reviewed before being provided to the Bank. The data set and tabulations were provided to the Bank via of secure SSL VPN client portal.

#### 5.8 Project management

All stages of the survey design, delivery and management process were managed by Emanuel Kalafatelis, Managing Partner, and a small team led by Katrina Magill (Research Director).

This included the daily monitoring of response rates, managing and recording of all communication and follow-up activity with respondents, individual respondent survey outcomes and queries, and the provision of regular updates to the Bank.

#### 6. Response rate

As mentioned earlier, a random sample of n=12,500 potential respondents were randomly sampled from the General and Māori Electoral Rolls for the purposes of the survey.

Survey invitation outcomes were tracked, including numbers of postal returns and online completes. Opt-outs and (where possible) reasons for non-response were also recorded.

A participation rate and response rate have been calculated for this survey:

Participation rate = (Number of completed surveys / total number of survey invitations sent out)
 \* 100

A total of 3,107 completed surveys were received from the 12,500 potential respondents who were invited to participate, resulting in a participation rate of 25%.

◆ Response rate = (Number of completed surveys / total number of survey invitations sent out (excluding ineligible respondents and estimated ineligibles for unknown outcomes)) \* 100

The response rate using this method is 29%. This is slightly better than the 27% response rate recorded in 2019.

The response rate represents the proportion of potential respondents contacted during the survey period that completed the Cash Use Survey 2021 by its close-off date. The response rate is determined by assigning each sampled respondent to one of four eligibility classes and is calculated as follows:



Response Rate = C / [C + B + D\*(B+C) / (A+B+C)]

Where: A = ineligible respondents

B = eligible non-responding

C = eligible responding

D = individuals with unknown eligibility

Table 3 overleaf provides a breakdown of the research outcome codes that were used to calculate the response rate for the survey. Column 2 shows the frequency counts for each outcome.

Table 4 provides a detailed breakdown of the response rates across the 32 different sampling strata.

**Table 3: Outcome codes** 

	Total 2019	Total 2021
Survey invitations	12,500	12,501
Eligible responders (C)	3,103	3,571
Completed online survey	422	1,230
Completed paper survey	2,681	2,341
Eligible non-responders (B)	347	268
Refused	192	263
Survey completed after the close-off date	155	5
Ineligible (A)	10	4
Deceased	4	4
Unable to complete survey due to physical/mental incapacity	6	-
Unknown eligibility (D)	9,043	8,658
Language barrier	-	5
Moved/not at that address	367	492
No response	8,673	8,161



Table 4: Detailed response rates by sample strata

Area	Age group	Non-Māori %	Māori %
Upper North	18-29	14	7
Upper North	30-44	18	11
Upper North	45-59	30	19
Upper North	60+	47	30
Lower North	18-29	20	9
Lower North	30-44	25	11
Lower North	45-59	39	27
Lower North	60+	57	40
Upper South	18-29	21	13
Upper South	30-44	23	18
Upper South	45-59	43	19
Upper South	60+	57	48
Lower South	18-29	23	12
Lower South	30-44	26	4
Lower South	45-59	36	37
Lower South	60+	62	50

#### 7. Weighting

As with all surveys of the general population, the Cash Use Survey 2021 will have some inherent biases relating to:

- Disproportionate sample selection certain sub-populations were over-represented to ensure adequate base sizes for analysis.
- Differential response rates (for example, females and older people are known to be more likely to respond to surveys, while younger males are less likely to do so).
- ◆ The sample frame used while the General and Māori Electoral Rolls are the most accurate and representative sampling frame available, it does not include all members of the general population (e.g. people in New Zealand who are not permanent residents).

To address these biases so that survey results more accurately reflect the wider population, the survey data has been weighted as follows.

#### 7.1 Design weight

For each potential respondent, a design weight was calculated based upon the probability of their being sampled from each of 32 different strata. This was done so that the weighted counts of the initial sample summed to the population they were drawn from (i.e. 3,502,817). These initial weights for each strata are shown in Table 5 overleaf.



Response rates, were subsequently calculated for each strata, as well as an adjustment factor that was applied to the initial design weights. For example, the survey sample strata comprising Upper North Island Maori aged 30 to 44 years old achieved a response rate of 11%. The adjustment factor for that strata was then calculated as 1 / 0.11 = 9.0909. This factor was subsequently applied to the initial design weight for all respondents from that strata who completed the survey.

Table 5: Initial and adjusted design weights

A.v		Initial design weights Non-Māori Māori		Adjusted des Non-Māori	ign weights Māori
Area	Age group				
Upper North	18-29	350.08	131.80	2,500.59	1,882.89
Upper North	30-44	350.34	132.19	1,946.32	1,201.71
Upper North	45-59	350.48	132.28	1,168.28	696.23
Upper North	60+	350.11	132.05	744.91	440.16
Lower North	18-29	350.04	131.85	1,750.18	1,465.04
Lower North	30-44	350.02	132.02	1,400.09	1,200.16
Lower North	45-59	349.50	132.21	896.16	489.67
Lower North	60+	350.39	131.49	614.72	328.73
Upper South	18-29	350.32	131.13	1,668.19	1,008.66
Upper South	30-44	350.21	131.39	1,522.67	729.92
Upper South	45-59	350.33	132.33	814.72	696.47
Upper South	60+	350.17	131.12	614.33	273.16
Lower South	18-29	349.13	131.78	1,517.96	1,098.13
Lower South	30-44	350.18	130.45	1,346.86	3,261.32
Lower South	45-59	345.81	138.14	960.57	373.35
Lower South	60+	350.77	130.31	565.75	260.63

#### 7.2 Population weight

Table 6 overleaf compares the key characteristics of the survey population against the unweighted profile of those who responded to the survey<sup>1</sup>. Variables shown are those which were used to calculate population weights for the surveys' achieved sample. The weighted sample proportions are also presented.

The table illustrates the proportional non-response and over-response biases by gender, age and region between the achieved sample when compared with the overall general public, as estimated by Statistics New Zealand (2018 census).

<sup>&</sup>lt;sup>1</sup> Population data was sourced from Statistics New Zealand according to the estimated resident population aged 18 years and over, as at 30 June 2017.



To address this issue, a population weight to make the data more representative of the overall population was also calculated. This was done using an iterative proportional fitting procedure (IPFP) wherein the surveys' achieved counts by age, gender and region were 'raked' against the marginal population estimates for each of those dimensions until the weighted counts within each dimension converged.<sup>2</sup>

Table 7 below shows the marginal totals of the weighted survey data compared with Statistics New Zealand's estimates.

Table 6: Proportional distributions of population and the achieved survey sample

	Population proportions (%)	Sample proportions (unweighted) (%)	Sample proportions (weighted) (%)
Gender			
Male	49	45	49
Female	51	55	51
Age groups			
18- 44 years	47	24	47
45+	53	76	53
Location			
Upper North Island	54	48	54
Lower North Island	22	25	22
Upper South Island	16	20	16
Lower South Island	8	8	8

Table 7: Estimated marginal totals – Stats NZ estimates and weighted Cash Use Survey 2021 survey data

Variable		Stats NZ estimate	Weighted survey data
Region	Upper North	1,941,962	1,941,962
	Lower North	788,270	788,270
	Upper South	564,033	564,033
	Lower South	300,429	300,429
Age band	18-44	1,686,136	1,686,136
	65+	1,908,558	1,908,558
Gender	Male	1,753,257	1,753,257
	Female	1,841,437	1,841,437
Total		3,669,862	3,669,862

<sup>&</sup>lt;sup>2</sup> Raking adjustments are particularly useful when one has confidence in the accuracy of the high-level counts for particular characteristics, but lower confidence in the accuracy of counts wherein one or more variables have been nested (i.e. age by gender, within broad geographic area).



#### 8. Limitations

As noted previously, all surveys of the general population will have some inherent biases relating to disproportionate sample selection, differential response rates (e.g. females and older people are known to be more likely to respond to surveys, while younger males are less likely to do so), as well as the sample frame used. Where possible, such issues have been dealt with through the application of agreed weighting parameters and protocols.

One data quality limitation that cannot be addressed by issues such as weighting, editing protocols or data cleaning relate to whether the named elector who was sampled from the rolls was the person who completed the survey (this is despite a statement being added to the survey invitation letter and in the introduction to the survey, emphasising the importance of this, but not hesitating to ask for assistance from a family member or friend). As the degree to which this is an issue in the achieved survey is not known, adjustments have not been made to deal with this possibility.



## **Appendix A: Questionnaire**







#### Thank you for taking part in this survey

The survey should take up to **10 minutes** to complete (excluding any final comments you make). As you move to each new question, please read any instruction carefully. It is important that you answer each question, but if you need help, please ask a friend or family member.

#### Confidentiality

Completing this survey is **voluntary**. Your answers to the survey questions will be **completely confidential**. We will group them with those of other people so that individual respondents cannot be identified.



### How do you pay for things?

1	Which of the ways listed below do you use to pay for <b>regular bills or payments</b> such as your power, telephone/mobile bill, or your mortgage or rent for example?				
	Pleas	Please tick all the boxes that apply			
	Cash (notes and/or coins)				
		A credit card account			
		Online banking where you do a one-off payment to a person or company			
		Debit card/EFTPOS			
		Payment using a mobile phone (for example, Google pay, Apple pay, Alipay)			
		Other private digital currencies, such as Bitcoin			
		Paypal			
		Direct debit or automatic payment from your bank account, set up to automatically:  • pay a particular bill (e.g. power bill) in full, each time it is due to be paid, or  • pay another account at regular times – e.g. same amount once a month			
		Other internet payment from your bank account, e.g. POLi (which lets you pay for things online without using a credit/debit card)			
		Some other way(s) of paying → please say what			

2		_	different ways you use to pay for everyday things?
	Plea	ase tick all th	ne boxes that apply
		Cash (no	tes and/or coins)
		A credit of	card account
		Online ba	anking where you do a one-off payment to a person or company
		Debit car	rd / EFTPOS
		A public	transport payment card (for example: Snapper, AT HOP, Metrocard)
		Payment	using a mobile phone
		Other pri	vate digital currencies, such as Bitcoin
		Paypal	
		Other int	ernet payment from your bank account e.g. Poli
		Some oth	ner way(s) of paying please say what
	Still	thinking ah	out everyday things, such as your groceries, petrol, lunch, bus or train ticket:
	3	Tick only o	e of these ways do you <b>mainly</b> use to pay for everyday things? one box
			And, in which <b>one</b> of these ways do you <b>prefer</b> to pay for everyday things?  Tick only one box
7	√ The <b>m</b>		3
	way pay	-	
			Cash (notes and/or coins)
			A credit card account
			Online banking where you do a one-off payment to a person or company
			Debit card / EFTPOS
			A public transport payment card (e.g. Snapper, AT HOP, Metrocard)
			Payment using a mobile phone
			Other private digital currencies, such as Bitcoin
			Paypal
			Other internet payment from your bank account e.g. Poli
			Some other way(s) of paying → please say what

e 1	In th	e last week, did you do any of your s	hopping onli	ne (e.g. for groceries, food, clothes, or
5	hous	sehold goods)?		
		Yes		
		No		
Usi	ing	cash		
coins	) to p	•	n to pay for ar	ing New Zealand <b>cash</b> (notes and/or nything, go to Question 15, otherwise
6		e last seven days, about how many <b>t</b> veryday things such as your groceri	_	ou used cash (notes and/or coins) to pay och, bus or train ticket?
		Not at all in the last 7 days		7 – 10 times
		Once		11 - 20 times
		Twice		More than 20 times
		3 – 6 times		Don't know
7	How etc?	often do you get cash out – for exar	nple, from a k	pank, an ATM (money machine), a shop,
		More often than once a week		
		Once a week		
		Every two weeks or more often		
		Once a month or more often		
		Less often than once a month		
		I hardly ever get cash out		
		I never get cash		
		Don't know		
8	Whe	n you get cash out, roughly how mu	ch do you us	ually get out each time?
	We d	don't need an exact amount, a rough	estimate is f	ine
		About the amount written here		
		Don't know		

	or the following do you <b>currently</b> use to get cash?
Tick all	the different ways you use
	An ATM (money machine)
	A teller at a bank
	A supermarket
	Some other shop (e.g. a dairy, bar, Farmers Market)
	From other people/family
	Work
	Other → please say where you get it from
	Don't know
10/	
	hich <b>one</b> of these ways do you use <b>most frequently</b> to get cash?  ck only one box
	And which <b>one</b> do you <b>most prefer</b> ?  Tick only one box
	I prefer this one:
	An ATM (money machine)
	A teller at a bank
	A supermarket
	Some other shop (e.g. a dairy, bar, Farmers Market)
	From other people/family
	Work
	Other → please say where you get it from
	Don't know
	Tick all

12	Please	e indicate the reasons you use cash.
	Please	e tick all the reasons you use cash
		I don't get into debt using cash
		Payments are private - there's no record of what I spent or where I spent it
		I shop in some places that will only take cash (e.g. market, school fair, shop with no EFTPOS machine)
		Some payments are so small I don't like to use a card for them
		I give money to my family - it has to be cash
		I give cash donations to buskers or charities collecting in the street
		Sometimes I buy something from a private person (not a shop) and I prefer to pay them cash
		With cash I get a better idea of how much I'm spending in a day, week etc.
		I find that the other ways of paying are hard to use
		Sometimes there is a discount or reward for paying cash
		Sometimes there is a charge for using a credit card
		For gifting, koha, meaalofa, etc.
		I find it convenient to use cash → please say why
		I feel safer using cash than other ways of paying
		Gambling (e.g. buying raffle tickets, playing poker machines)
		Other reason(s) → please say what
		Can't say / don't know

	Which <b>one</b> is the <b>most important</b> reason why you use cash?  Tick only one box			
	-14	Which <b>one</b> is the <b>second most important</b> reason why you use cash? Tick only one box		
My 1st most important reason	My 2nd most importan reason	ıt		
		I don't get into debt using cash		
		Payments are private – there's no record of what I spent or where I spent it		
		I shop in some places that will only take cash (e.g. market, school fair, shop with no EFTPOS machine)		
		Some payments are so small I don't like to use a card for them		
		I give money to my family - it has to be cash		
		I give cash donations to buskers or charities collecting in the street		
		Sometimes I buy something from a private person (not a shop) and I prefer to pay them cash		
		With cash I get a better idea of how much I'm spending in a day, week etc.		
		I find that the other ways of paying are hard to use		
		Sometimes there is a discount or reward for paying cash		
		Sometimes there is a charge for using a credit card		
		For gifting, koha, meaalofa, etc.		
		I find it convenient to use cash → please say why		
		I feel safer using cash than other ways of paying		
		Gambling (e.g. buying raffle tickets, playing poker machines)		
		Other reason(s) → please say what		
		Can't say / don't know		

15		Do you ever use any <b>online/internet banking</b> ? (This includes using a computer, tablet, or a mobile phone, to do your banking.)		
		Yes → GO TO QUESTION 17		
		No, never		
16	_	ou <b>NEVER use</b> online/Internet banking (on any device such as a computer, tablet or a bile phone) please tick as many of the following to tell us the main reasons why?		
		I don't know how		
		Security/privacy reasons		
		I don't own a mobile phone		
		I don't own a computer/laptop/tablet		
		There is no coverage where I live/poor coverage		
		Costs too much		
		Other reasons – please say why		
Sto		ng cash		
17		you personally keep New Zealand cash stored somewhere (not in a bank), not to be used ightaway, but available if you need it?		
		Yes – have some cash stored		
		No → GO TO QUESTION 20		
		Would rather not say → GO TO QUESTION 20		
18	Hov	w much New Zealand cash do you have stored in this way (i.e. not in a bank)?		
		\$50 or less		
		\$51 – \$100		
		\$101 – \$500		
		\$501 – \$1000		
		\$1001-\$5000		
		More than \$5000		
		Don't know		
		Would rather not say		

19	For w	hat particular reasons do you store cash?
	Tick a	s many as apply
		I don't have a bank account
		I like to keep my savings private
		For emergencies (e.g. in an earthquake kit)
		I feel better prepared for the unknown
		To be able to quickly get money when I need it
		I'm conscious of the economic environment or interest rates
		I don't trust banks
		I don't trust governments
		It is difficult for me to get cash when I need it
		It's a way of saving for specific events (holidays, birthdays etc)
		To cover unplanned spending
		Other reason(s) → please say why
Wit	thdr	awing and depositing cash
20		easy is it for you personally to get some <b>cash out</b> from your bank account (e.g. from a ATM, shop or supermarket) when you need it?
		Very difficult
		Somewhat difficult
		Neutral
		Somewhat easy
		Very easy
		Don't know
		I don't get cash out → GO TO QUESTION 22
		I don't have a bank account → GO TO QUESTION 22

21	-	u find it difficult to get cash out, please tick as many of the following to tell us the main ons why.
	Tick	as many as apply
		The ATM/Bank branch is a long way from my home, work, etc.
		Shops that allow cash out are a long way from my home, work, etc.
		Transport difficulties, including cost
		It takes too much time out of my day
		The opening times don't suit my needs
		I feel unsafe using an ATM
		I'm not confident/comfortable using ATM/EFTPOS machines (I don't know what buttons to push, I can't remember my PIN etc.)
		Other → please specify
		Not applicable/I don't find it difficult to get cash out
22		u easy is it for you to visit a Bank branch or ATM (in person) to <b>put cash into</b> a bank bunt for your personal needs (not business) when you need to?
		Very difficult
		Somewhat difficult
		Neutral
		Somewhat easy
		Very easy
		Don't know
		I don't deposit cash → GO TO QUESTION 24
		Not applicable/I don't have a bank account → GO TO QUESTION 24

23	If you find it difficult to visit a bank branch or ATM to put cash into your bank account, please tick as many of the following to tell us the main reasons why.						
	Tick a	Tick as many as apply					
		The ATM/Bank branch is a long way from my home, work, etc.					
		Transport difficulties, including cost					
		It takes too much time out of my day					
		The opening times don't suit my needs					
		I feel unsafe using an ATM					
		I don't know how to deposit cash at an A	ТМ				
		I don't trust depositing cash into an ATM					
		Not all ATMs accept cash deposits					
		Other → please say what					
		Not applicable/I don't find it difficult to de	eposit	cash			
The	The future						
24	Not as many people are using cash to pay for everyday things as before. Even if you are not a cash user, which one of the following best describes how you feel about this?						
		I feel very concerned					
		I feel somewhat concerned					
		I feel not concerned at all					
		I feel not concerned at all					
		I feel not concerned at all  Don't know					
So	me		u				
<b>So</b> :		Don't know	u				
_		Don't know final questions about yo	u	50-54			
_		Don't know  final questions about your old are you?	u	50-54 55-59			
_		Don't know  final questions about you  old are you?  18-24	u				
_		Don't know  final questions about you  old are you?  18-24  25-29	u	55-59			
_		Don't know  final questions about you  old are you?  18-24  25-29  30-34	u	55-59 60-64			

26	What is your gender?			
_	Male			
		Female		
Another gender, please state				
	Choo	ac ac many angware ac you need to chow w	which othnic group(a) you bolong to	
27		noose as many answers as you need to show which ethnic group(s) you belong to.  Ck as many as apply		
		New Zealand European / Pākehā		
		Māori		
		Pacific		
		Chinese		
		Indian		
		Other -> please say which group		
		Other please say which group		
		Don't know		
		DON L KNOW		
28	Were	you born in New Zealand?		
20		Yes		
		No		
Would rather not say				
29	Whic	h of these best describes where you live? D	Do you live in a?	
		Rural area or small town with a population	on of less than 10,000	
		Or do you live in a large town or city with	n a population greater than 10,000	
		Don't know		
	Befor	e tax or anything else was taken out of it, al	about how much was your own personal	
30		ne in the last 12 months?		
		No income	\$80,001 - \$100,000	
		\$20,000 or less	More than \$100,000	
		\$20,001 - \$40,000	Don't know	
		\$40,001 - \$60,000	Would rather not say	
		\$60,001 - \$80,000		

31	Is some or all of your income paid in cash?			
		All of my income is paid in cash		None of it is paid in cash
		Some of it is paid in cash		Not applicable/I don't receive an income
32	_	ou are MARRIED OR LIVING IN PARTNERSHIFT on the come into? Tick only one box	-	ich <b>one</b> of these bands does your
		No income		\$180,001 - \$200,000
		\$20,000 or less		\$200,001 - \$220,000
		\$20,001 - \$40,000		\$220,001 - \$240,000
		\$40,001 - \$60,000		\$240,001 - \$260,000
		\$60,001 - \$80,000		\$260,001 - \$280,000
		\$80,001 - \$100,000		\$280,001 - \$300,000
		\$100,001 - \$120,000		More than \$300,001
		\$120,001 - \$140,000		Don't know
		\$140,001 - \$160,000		Not applicable (not married or living in a partnership)
		\$160,001 - \$180,000		Would rather not say
33		e last question – how much New Zealand cash et, purse and pocket at the moment? No cash Don't know	n (not	es and/or coins) do you have in your
		About the amount written here		
34	If you have anything further to say about cash use or payments, please write your comments			
	Thank you for taking the time to answer our questions; your answers will contribute to information that will be very helpful to the Reserve Bank of New Zealand.  Please post the questionnaire back to us in the reply-paid envelope we sent you.  If you would like more information about the project that this survey is contributing to, please email FutureofCash@rbnz.govt.nz  If you would like a copy of the summary survey results please enter your email address here:			



# Appendix B: Survey letters and postcard



[Date]

[FirstName Surname]
[Street address]
[Suburb]
[City Postcode]

Greetings, Tēnā koe

#### A survey for the Reserve Bank of New Zealand – Te Pūtea Matua

The Reserve Bank has ongoing research looking at cash use and payments in New Zealand. I am writing to invite you to help with this work by completing a short survey.

The survey will help us understand how New Zealanders are using and thinking about cash and payments today, compared to when we last surveyed people this way two years ago. This will help us better meet the needs of New Zealanders as we develop our role as steward of the cash system.

#### Why are you asking me?

We have asked Research New Zealand (an independent research company) to conduct this survey on our behalf. You have been randomly selected from the Electoral Rolls to undertake this survey. The survey is **completely voluntary**, and should only take about 10 minutes to complete.

#### How do I complete the survey?

You can use the enclosed form and reply-paid envelope, or do it online using the information in the box to the right. It is important that the answers are just from you, but you are welcome to ask a family member or friend to help with entering your answers.

If you don't want to take part, then please call Research New Zealand on 0800 273 732 and let them know by quoting this ID number: [insert number]

#### Are my answers confidential?

Yes. Research New Zealand will not tell us (or any other organisation or individual) your identity or answers or include these in any report. Your answers will be combined with those from other people.

Thank you for your assistance with this important piece of research.

Yours sincerely

Ian Woolford

Head of Money and Cash

#### Prefer to complete the survey online?

Step 1: Go to: <a href="https://www.researchnz.com">www.researchnz.com</a>

Step 2: Then to: CURRENT SURVEYS page

Step 3: Under Reserve Bank, select Cash Use

Survey

Step 4: Enter your details

What's the purpose of the survey?	The survey is being completed to help us better understand how New Zealanders are using cash and other payment options.
Who will be conducting this research?	We've appointed Research New Zealand to manage the collection of the survey data on our behalf.
	Research NZ is an <b>independent</b> research company.
How did they get my name and address?	Your name was <b>randomly</b> selected along with hundreds of others from the Electoral Rolls.
What's involved?	Participating in the survey involves completing the short survey questionnaire that came with this letter and sending it back to Research New Zealand in the reply-paid envelope that has been provided.
What if I want to do the survey online?	If you want to do the survey online, go to <a href="https://www.researchnz.com">www.researchnz.com</a> and follow the instructions on the front page of this letter.
How long will the survey take to complete?	Up to 10 minutes, depending on your answers.
Do I need to take part in the survey?	No, it's your choice; participation is completely <b>voluntary</b> . If you don't want to take part, please call Research New Zealand on 0800 273 732 and quote the reference number at the bottom of the letter.
Is the survey confidential?	Yes, it is completely <b>confidential</b> .  Research New Zealand will anonymise the answers you provide to the survey questions, so that any data or reports provided to us will not identify you personally.
What if I want to find out more about the survey?	If you have any queries about the survey, please email Sarah Major at Research New Zealand:  sarah.major@researchnz.com  If you'd like to contact someone at the Reserve Bank, please email FutureofCash@rbnz.govt.nz. You can check the legitimacy of this survey by looking at the RBNZ website: www.rbnz.govt.nz

Have your say

Cash Use in New Zealand Survey









Recently, the Reserve Bank of New Zealand wrote to you to invite you to complete a short survey to help it better understand how New Zealanders use cash.

Thank you if you have already completed and returned the survey.

The survey is **completely voluntary** but we would appreciate you taking the time to complete it. It should only take about 10 minutes and it is completely confidential.

There is still time to complete the survey online:

**1A:** Go to www.researchnz.com Select Current surveys Under Reserve Bank select Cash Use Survey

2: Register for the survey using this **ID** [

OR 1B: Scan this QR code:





## **Appendix C: Email reminders**

From: sarah.major@researchnz.com

Subject:

REMINDER: SURVEY FOR THE RESERVE BANK OF NEW ZEALAND – TE PŪTEA MATUA

Good morning,

This is a gentle reminder that there's still time to have your say in the Cash Use Survey for the Reserve Bank of New Zealand. The survey closes at midnight this Sunday 17 October.

The survey will help us understand how New Zealanders are using and thinking about cash and payments today compared to when we last surveyed people this way two years ago.

You can access the confidential 10-minute survey by clicking on the link below:

<<Survey link>>

If you have any questions, or would like additional information or assistance in completing the survey, please call me on 0800 500 168 or email me at <a href="mailto:sarah.major@researchnz.com">sarah.major@researchnz.com</a>

Yours sincerely

#### Sarah Major

#### **Research New Zealand**

If you wish to opt out of this survey please <u>click here</u>. RNZ Ref: <IDNO>