

Trust in New Zealand's Official Statistics

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The "Use and Trust in Official Statistics" Survey

One of Statistics New Zealand's (Statistics NZ) roles is to be the leader of the Official Statistics System, which comprises all official statistics produced by New Zealand government departments. Through this leadership role, Statistics NZ became part of an Organisation for Economic Co-operation and Development (OECD) working group tasked with measuring the level of trust in the Official Statistics System. Like with most countries, the working group produced a draft questionnaire, which Statistics NZ adapted to fit the New Zealand setting. A key element of this change was the inclusion of a sufficient sample of Māori, New Zealand's indigenous population, to enable measurement of Statistics NZ's 'Effectiveness for Māori' Strategy. This was the first occurrence of this survey in New Zealand, so results cannot be compared over time.

To preserve independence, Research New Zealand was commissioned to collect the data (Statistics NZ, 2010). Research New Zealand converted the questionnaire into a telephone interview and an online survey, and ran the survey in May and June 2010 (Research NZ, 2010).

The target population for the survey was all resident New Zealanders aged 18 years and over who live in private dwellings. Separate random samples from the general and the Māori electoral rolls were taken, to survey a reasonable proportion of Māori. These samples were then matched with telephone numbers. A random sample of 5,000 was taken from this matched list. The sample from the electoral rolls was supplemented by random dialling in order that households without registered electors or listed telephone numbers had a probability of selection (Research New Zealand, 2010). A total of 1,836 New Zealanders responded.

To account for oversampling in certain subgroups, individual weights were produced to ensure the weighted sample was representative of the New Zealand population's age, sex, and ethnicity. Results in this paper are calculated from the weighted sample. Results based on the total sample have a maximum margin of error of 3.0 percent at the 95 percent confidence level (Research New Zealand, 2010). Statistical significance has also been measured at the 95 percent level. All differences discussed in this paper are statistically significant, unless otherwise stated.

Users of official statistics

A user of official statistics was defined as someone who had used official statistics in the previous 12 months for any reason. Twenty-seven percent of respondents were found to be users. The proportion was not significantly different between Māori (26 percent) and non-Māori (28 percent). However, there is a statistically significant difference between the proportion of males and females, with 32 percent of males and 24 percent of females being users.

The likelihood of being a user increased as income and education increased. The only real difference

between Māori and non-Māori was for those whose highest completed qualification was an undergraduate diploma or trade certificate, where 44 percent of Māori and 25 percent of non-Māori were users. There was also an age effect on whether a respondent was a user or not. Thirty-one percent of respondents in the 18–34- and 35–50-year age groups were users, but only 21 percent of respondents over 50 years were users.

Trust in official statistics

Respondents were asked to what extent they trusted the statistics produced by New Zealand government departments. Forty-five percent answered 'almost always', 41 percent replied 'sometimes', and 11 percent answered 'hardly ever'. There are statistically significant differences for the proportions that almost always and hardly ever trusted the statistics between Māori and non-Māori: 32 percent of Māori and 47 percent of non-Māori almost always trusted the statistics, while 19 percent of Māori and 10 percent of non-Māori hardly ever trusted the statistics.

Trust in official statistics displayed similar patterns to the proportions of users of official statistics. For example, an increase in education level resulted in an increase in the proportion of people who almost always trusted the statistics and a decrease in the proportion of people who hardly ever trusted the statistics. There were also similarities with the earlier results when comparing between sexes, with 50 percent of males and 42 percent of females almost always trusting the statistics.

There was an obvious difference between people who were working and people who were not currently working. Only 29 percent of people not working almost always trusted the statistics produced, compared with 47 percent of those currently working. Of people not working, 20 percent hardly ever trusted the statistics produced, compared with 10 percent of those currently working. Māori not currently working had an even lower proportion, with only 22 percent almost always trusting the statistics produced by New Zealand government departments. They also had an even higher value of hardly ever trusting the statistics, at 30 percent.

As expected, users of official statistics were more likely to almost always trust the statistics produced (61 percent) than non-users (42 percent). For Māori, the proportion of respondents who almost always trusted the statistics was associated with whether they had read an article or paper produced by Statistics NZ in the previous 12 months. Of those who had not read an article or paper, 16 percent responded they almost always trusted the statistics, compared with 37 percent of those who had. The difference was smaller among non-Māori, at 41 percent for those who had not read an article or paper, compared with 50 percent of those who had, which is not statistically significant.

A similar survey took place in Australia and 27 European countries. In Australia, 87 percent of respondents said they tend to trust statistics produced by the Australian Bureau of Statistics (Australian Bureau of Statistics, 2010). The range of proportions that tend to trust official statistics in European countries was between 33 percent and 70 percent (Eurobarometer, 2010). Accounting for the different responses allowed under the New Zealand survey, the overall trust in official statistics is slightly below the Australian value but still above all the European values.

Trust in Statistics New Zealand

Overall, almost an equal number of respondents were very sure their personal details were kept confidential by Statistics NZ (26 percent) as those who were not sure (25 percent). Māori were less likely to think their details were kept confidential, with 20 percent being very sure and 36 percent not sure. These are both statistically significant from the non-Māori responses of very sure (27 percent) and not sure (24 percent).

Once again, as education increased the proportion of people who were sure Statistics NZ kept their personal details confidential increased, and the proportion that were not sure their details were kept confidential decreased. Income had little effect on the trust in confidentiality, although those earning above \$70,000 annually had the highest proportion (35 percent) of respondents who were very sure their details were kept confidential. This is statistically significant compared with other income levels.

Respondents who were users of official statistics were more likely to trust in the confidentiality of their

details. Of non-users, 28 percent were not sure their details were kept confidential, compared with 17 percent of users. People who had read an article or paper from Statistics NZ in the previous 12 months were also more likely to trust the confidentiality of their details, especially among Māori. For Māori who had read an article or paper in the previous 12 months, the likelihood of being very sure their details were secure increased from 3 percent to 33 percent, while for a non-Māori it increased from 21 percent to 29 percent. The increase in the Māori proportions is statistically significant.

Almost double the proportion of Māori respondents (19 percent) believed the statistics produced by Statistics NZ were not free from political interference, compared with 10 percent of non-Māori respondents. Interestingly, a lower proportion of respondents in the private sector (8 percent) believed the statistics were not free of political interference, compared with the public sector (11 percent). However, this difference is not statistically significant. Those who were not working at the time of survey had the highest proportion of people who believed the statistics were not free of political interference (27 percent). This is statistically significant when compared with the private and public sectors.

Trust in major Statistics New Zealand outputs

Respondents were asked specifically about four of Statistics NZ's major outputs. These were the consumers price index (CPI), gross domestic product (GDP), employment statistics, and population statistics. These questions were asked only of users of official statistics.

Consumers price index

Almost exactly half of both Māori and non-Māori users of official statistics were users of the CPI in the previous 12 months, contributing to a total proportion of 50 percent. More interestingly, 59 percent of male users had used the CPI, while only 39 percent of female users had; 61 percent of official statistics users in the private sector had used the CPI, compared with 45 percent of users in the public sector.

CPI use increased with age and income, although the difference between the proportion of use for low income earners and the proportion for high income earners was larger among non-Māori than Māori. As expected, trust in the CPI data increased as trust in the statistics produced by government departments increased. However, of respondents who hardly ever trusted statistics produced by government departments, less than 10 percent hardly ever trusted the CPI, while 47 percent almost always trusted CPI data.

More Māori used the CPI for work reasons (53 percent) than personal reasons (46 percent). More non-Māori used the CPI for personal reasons, at 54 percent, which compared with 50 percent who used the CPI for work reasons. These differences are not statistically significant.

Gross domestic product

Of official statistics users, 39 percent had used GDP statistics within the previous 12 months. Again, the proportion of official statistics users in the private sector who used GDP data was higher than that of the public sector, at 48 percent and 35 percent, respectively.

Official statistics users in the older age groups were more likely to use GDP data, but income had less of an effect than it did on CPI use. Again, of users who hardly ever trusted official statistics, less than 10 percent hardly ever trusted the GDP data and 44 percent almost always trusted GDP data.

More Māori used GDP data for work reasons than personal reasons, at 59 percent and 33 percent, respectively. In contrast, more non-Māori used GDP data for personal reasons, at 48 percent, compared with 43 percent who used it for work reasons. The Māori difference is statistically significant.

Employment statistics

Employment data was used in the previous 12 months by 55 percent of users of official statistics. The proportions within the private and public sector were similar, at 58 percent and 56 percent, respectively, with no obvious effect of age, income, or sex.

Of Māori users of official statistics, 59 percent had used employment data in the previous 12 months, compared with 54 percent of non-Māori. This difference is not statistically significant. Again, of users who hardly ever trusted official statistics, less than 10 percent hardly ever trusted employment data from Statistics NZ, and 25 percent of respondents who hardly ever trusted official statistics almost always trusted employment data.

A larger proportion of both Māori and non-Māori used unemployment statistics for work reasons than personal reasons. Overall, 53 percent used them for work reasons and 42 percent for personal reasons.

Population statistics

Of users of official statistics, 56 percent had used population data in the previous 12 months. More Māori (63 percent) than non-Māori (55 percent) had used population data. More public sector (60 percent) than private sector employees (50 percent) were users of population data. Interestingly, unlike the other three outputs, a higher proportion of students (75 percent), were users of population statistics than either private or public sector employees. There was no obvious effect of age, income, or sex.

Of the four outputs, population statistics were the most trusted. In total, less than 1 percent of users of official statistics hardly ever trusted population statistics, while 81 percent of users almost always trusted population data. Both Māori and non-Māori used population statistics for work reasons more than personal reasons. Overall, 54 percent used them for work reasons and 35 percent for personal reasons.

Overall

Users of official statistics were evenly split into those who regarded Statistics NZ's statistics as having very good or fairly good quality, with only 2 percent believing the statistics were not of good quality. This percentage was higher among Māori than non-Māori and higher among females than males, although neither is statistically significant.

Users who knew more about Statistics NZ believed their statistics were of better quality. The proportion of users who thought the statistics were of very good quality was 61 percent when they knew quite a lot about Statistics NZ. This proportion compared with 25 percent for those who knew nothing about Statistics NZ. This difference is statistically significant and is more significant for non-Māori, where the two proportions were 63 percent and 24 percent, respectively. For Māori the two proportions were 46 percent and 35 percent, respectively. These increases show how important it is for Statistics NZ to be better known by the public, as this will improve the confidence in their outputs.

In addition to being the most trusted of the four outputs, population statistics had the highest proportion of people (59 percent) who said the statistics met their information needs very well. The other three outputs ranged between 48 percent and 53 percent. Only between 1 percent and 3 percent said any particular output did not meet their information needs at all.

Accessing official statistics

Users were most likely to read about New Zealand government statistics in the newspaper, with 71 percent reading statistics there in the previous 12 months. Both the Statistics NZ website and other government departments' websites had also been accessed by over 60 percent of users to find statistics in the previous 12 months. This shows more people were receiving statistical information through the media than the statistical office itself. This could be a concern due to issues around misreporting of statistics and the media not always providing full technical information on the methodology behind the survey.

There were three main methods by which Māori were more likely to access their statistics than non-Māori. The first was from other government departments' websites, at 68 percent for Māori compared with 59 percent for non-Māori. The second was from direct contact with a government department, at 37 percent (Māori) and 25 percent (non-Māori). The third was from printed government publications, at 62 percent (Māori) and 45 percent (non-Māori).

There was also an age effect between some methods. The 50 years and above age group was less likely to have accessed their statistics from the Statisphere website,¹ Statistics NZ's website, and other government departments' websites. The 35–50 and 50 years and over age groups were less likely to use other non-government websites to access government statistics. The 18–34-year age group was less likely to have accessed their statistics through direct contact with a government department. All these proportions by age group are statistically significant when compared with the other age groups.

Sixty-six percent of those who had accessed statistics through the Statistics NZ website almost always trusted official statistics, compared with 57 percent of those who had not. Sixty-eight percent of those who had read a printed government publication almost always trusted official statistics, compared with 58 percent if they had not. Noticeably, the proportion of respondents who almost always trusted official statistics was almost the same whether they accessed them through the newspaper, at 63 percent if they did and 62 percent if they did not.

Only 13 percent of the 18–34-year age group responded that finding the statistics they wanted was very easy, compared with 29 percent of respondents over 35 years. This difference between the 18–34-year age group and the older age groups is statistically significant. This highlights the importance of improving methods of access to statistics so that they are more accessible and interesting for the younger age group.

The opinion on the importance of Statistics NZ's outputs in helping to understand the country was fairly even across Māori and non-Māori, with 58 percent of non-Māori and 53 percent of Māori believing official statistics are very important. As expected, users were more likely to believe the statistics were very important, with 71 percent of users and 52 percent of non-users responding this way.

Respondents working in the public sector were more likely to think Statistics NZ's outputs were very important (63 percent) compared with those in the private sector (53 percent). People who were not currently working were the most likely to think the statistics were not important. However, over 96 percent of them still believed they were very important or fairly important in helping to understand the country.

Conclusions

The results show many significant differences. There were clear differences between how Māori and non-Māori trust official statistics and Statistics NZ, as well as how each group accesses their statistics. This suggests the need for different actions to be taken to target Māori. Statistics NZ has already started taking these steps with the implementation of the 'Effectiveness for Māori' Strategy. It is clear that Statistics NZ's major outputs are already more trusted than the overall set of official statistics.

There are also some significant differences between the sexes, age groups, income levels, and education levels. It is evident there is no 'one size fits all' plan to increase the trust of the whole New Zealand population, but these results have given some ideas about which groups need the most attention and how to target them.

The Use and Trust in Official Statistics Survey is set to become an annual survey, run over a three year cycle. In early 2011 the public questionnaire was re-worked for government respondents, with a few changes to allow for the new respondent group and amendments that were requested after the first survey. The questionnaire was redeveloped to allow comparability with the public results at the high level for the majority of key measures.

The survey was delayed several times as a result of the Christchurch earthquake on the 22nd of February; however 2,443 responses were received from 46 government agencies. The data is yet to be weighted but initial results show similar overall levels of trust within government to the public survey. The responses from a wide range of job titles and roles show that official statistics are used in many areas across government. When final results are available they will be published on the Statistics NZ website. In 2012 a third key user group will be surveyed, who are yet to be decided.

¹ Statisphere (www.statisphere.govt.nz/) provides information on New Zealand's Official Statistics System.

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