



Taxation

**A report from Economic Values
Part of the New Zealand Values Study 2005**

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Please note – As this is a section of a larger report, table and figure numbers are not consecutive.

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Introduction

This report describes the findings from the New Zealand Values Survey that relate to New Zealanders' perceptions and values regarding government use of taxes.

The survey methodology is outlined in Appendix 1.

Taxation

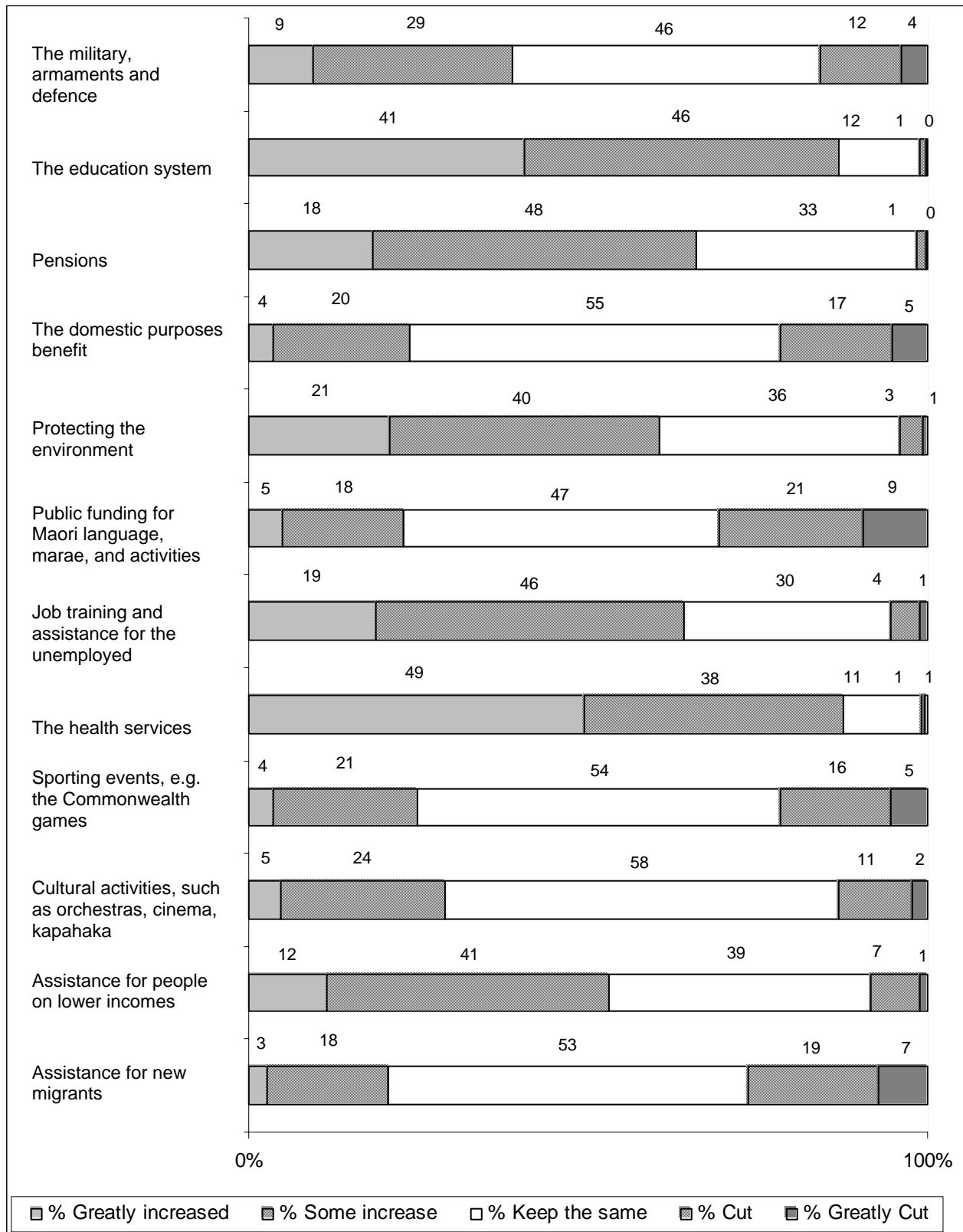
New Zealanders' views on how government should spend taxes was considered together with whether New Zealanders would be prepared to pay more tax provided it was spent on certain groups or needs.

Respondents were presented with a range of possible items of government expenditure and asked to choose between **“Increasing government spending in each particular area even though this would mean paying higher taxes for this extra spending”** or **“Cutting government spending in each area and thereby reducing taxes”**. The results are detailed opposite in Figure 13.

The majority of respondents considered that the government should increase to some degree or greatly increase spending on the health services (87%); the education system (87%); pensions (66%); protecting the environment (61%); job training and assistance for the unemployed (65%); and spending on assistance for people on lower incomes (53%).

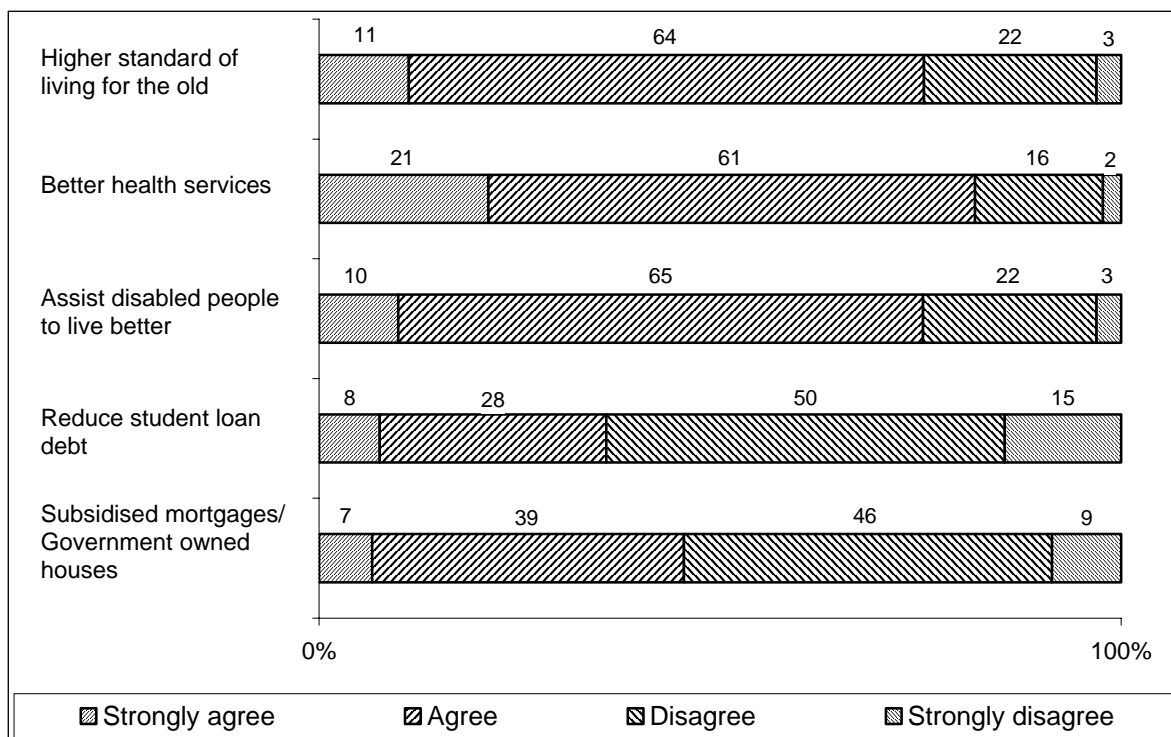
Relatively fewer respondents thought that government should greatly increase or have some increase in spending on the military, armaments and defence (38%); spending on cultural activities, such as orchestras, cinema and kapa haka (29%), spending on special sporting events like the Commonwealth Games (25%), the domestic purposes benefit (24%); public funding for Maori language, Marae and other activities (23%) and spending on assistance for new migrants (21%).

Figure 13: Increasing government spending even though this would mean paying higher taxes or cutting government spending and thereby reducing taxes



In a separate question respondents were asked to indicate their level of agreement with a range of statements saying that they would be prepared to pay higher taxes if the money was going to be spent on specific items (Figure 14).

Figure 14: Level of agreement to an increase in taxes if extra money was going to be spent on specific items



Three-quarters of respondents strongly agreed or agreed with the statement **“I would agree to an increase in my taxes if the extra money were used to provide a higher standard of living for the old”**.

The majority of respondents (82%) strongly agreed or agreed with the statement **“I would agree to an increase in my taxes if the extra money were used to provide better health services”**.

People were prepared to accept an increase in their taxes if it meant that the money would be used to assist disabled people to live better. Three-quarters of respondents strongly agreed or agreed with this.

Respondents were generally not prepared to have an increase in taxes so that student loan debt could be reduced. Almost two-thirds of respondents (64%) disagreed or strongly disagreed with the statement **“I would agree to an increase in my taxes if the extra money were used to reduce student loan debt”**.

When asked whether they would agree or disagree to an increase in their taxes if the extra money were used to provide subsidised mortgages or government owned houses to those that cannot afford them, respondents were slightly more likely to disagree

than agree. Fifty-five percent of respondents disagreed or strongly disagreed with this, while 46% strongly agreed or agreed.

The education system and health services, together with better standards of living for the old and disabled, were seen by the majority as the areas where government should increase its tax spending, even if this meant paying higher taxes.

Appendix 1: Methodology

Design

Two samples that included people aged 18 years and over living in private residential dwellings in New Zealand with a connected landline telephone were collected. Each sample had a different version of the questionnaire. All interviews were conducted by Computer Assisted Telephone Interviewing (CATI). The samples included households with published and unpublished telephone numbers. The sample sizes were N=1226 and N=1272.

Sampling

For each sample, telephone numbers were initially selected using random digit dialling, which included connection testing to establish whether phone numbers were working telephone connections before contact was attempted. Using randomly generated phone numbers has the advantage of including both published and unpublished phone numbers therefore gaining greater coverage of the frame than using non-randomly generated, listed, telephone numbers. Selected numbers were also screened against telephone numbers that have been selected for surveys in the last six months, and against the Yellow Pages (to remove business numbers). Some other telephone numbers that did not reach private households were screened out at contact, such as businesses not in the yellow pages.

Phone numbers were randomly generated based on stems within standard views known as NATW. There are two main types of NATW – Main and NMU. Main refers to phone number ranges which span New Zealand main urban centres, NMU refers to phone number ranges that are not Main. Phone numbers were ordered by SHORE/Whariki and provided to SHORE/Whariki in a format suitable for loading into the data collection software. The system used to generate the phone numbers is maintained and updated on an ongoing basis to include new stems as they come into use.

Phone numbers in each sample were distributed in proportion to the usually resident population aged 18 years and over with a landline phone across 33 area strata which, when combined, cover the whole country.

Each number was called at least ten times at different times and day of the week or until contact was made.

Respondent selection

The number of eligible people (that is, those aged 18 and over) living in each household was established and listed so that the data collection software could select one respondent at random. Each eligible person within a household was thereby given an equal chance of being selected.

A proportion of households containing only one such person was decimated (i.e. excluded) with a fixed probability of 0.5 to reduce the design effect.

Data collection

Data collection for the survey was carried out using the Computer Assisted Telephone Interviewing (CATI) system operated by SHORE/Whariki. The CATI system is a network of 20 computer stations and a supervisor's station. The survey questions were programmed and appeared on the computer screen, and respondents' answers, given over the telephone, were coded directly into the computer. Supervisors were at any time able to observe any interview on their own screen and listen into any call without the interviewer or respondent being aware (respondents were told this might happen before the interview began). All people surveyed were asked if they would like to be interviewed by a Maori interviewer.

Where gatekeepers (the person answering the telephone) or respondents declined to take part in the survey, notes were taken on the conversation and, if deemed appropriate, these people were re-contacted by a senior interviewer who attempted to convert the 'refused' into an interview.

Data collection took place from 9 December 2004 to 24 March 2005.

Response rate

The response rate is the number of completed interviews as a proportion of the number of telephone numbers dialled that would or did produce an eligible participant. There are a number of reasons why a call may not reach an eligible participant/household: the householders were always out or would not answer the phone, the person answering the phone refused before a respondent selection could take place, or the selected participant could not be re-contacted.

The response rate was 51%.

There is evidence of generally declining response rates in New Zealand and internationally.¹ These are likely to reflect increased difficulty in getting both household and respondent co-operation. In the case of these current New Zealand surveys there may have been a contribution from increased internet usage using home telephone lines.

In relation to public opinion polling there is evidence of little impact on results from declines in response rate.² This has been the case when questions are asked of respondents' views on a range of economic, social and moral issues, including opinions toward government, the poor, business, immigrants, and the root causes of poverty³.

¹ (PEW Research Center for the People and the Press (2004) *Polls Face Growing Resistance, But Still Representative*, 21 June 2005,

² <http://people-press.org/reports/display.php3?ReportID=211>

³ <http://people-press.org/reports/print.php3?PageID=813>

Data fusion

Two versions of the questionnaire were used. These had a few selected questions in common, but most of the substantive questions were only on one version. Data from the variables unique to each version were fused onto the other half-sample, creating a synthetic dataset with complete data for all questions.

Data fusion was conducted using an unconstrained nearest neighbour matching algorithm, based on a weighted city-block distance, with penalties applied iteratively to minimise heavy donor usage. Weights for the matching variables were roughly proportional to their predictive power, based on classification trees for most of the unique variables. Specifically, the total size of all nodes split by each common variable was taken as the measure of their predictive power.

Calculating weighted means, proportions and other statistics from the fused dataset is straightforward. However standard software for analysing complex surveys will underestimate the variability of these results. This has been adjusted for here by increasing the estimated variances by a factor of 1.2848, which accounts for the increased effective weight applied to each respondent due to its use as a donor in the fusion process. However this does not account for the variability of donor usage. It is also important to realise that relationships in fused databases can be weaker than the true underlying relationships, due to regression to the mean. The degree of weakening depends on the quality of the fusion, and in particular on whether the matching variables provide a strong enough linkage. Any weakening should vanish if the unique variables are conditionally independent given the matching variables. This conditional independence assumption is implicit in the fusion process.

Weighting

The weighting incorporated decimation and the selection of one person per household, while correcting for sample skews relative to the population broken down by age and gender.

Analysis

Important aspects of the sample design and weighting procedures were accounted for using the SUDAAN software package. Different methods were used to analysis questions based on the different types of response variables recorded.

Data were analysed using logistic regression for binary responses, multi-logistic regression for categorical outcomes with more than two categories and regression analysis was used for continuous/semi-discrete data.

Most often variables that had a scale response were analysed using regression and their mean scores have been reported. For example, respondents were asked to rate their level of satisfaction with their household income on a one to ten scale where one meant they were completely dissatisfied and ten meant they were completely satisfied. This type of response variable was analysed by age using regression and a mean score reported.

Sometimes variables that had a scale response between one and five were reduced to a binary response by grouping certain points on the scale together. For example respondents were asked how committed are you to spending most of the rest of your life in New Zealand? They were asked pick a number between one and five, where one meant being very committed and five meant being not very committed as their response. In our analysis we dichotomised this variable into one (being in some way committed to spending the rest of their life in New Zealand if their response was greater than three) and zero (being not committed in some way to spending the rest of their life in New Zealand if their response was less than three). Those who chose three were omitted. Then this new variable was analysed as a binary variable using logistic regression.

Variables that had three, four and five level responses were analysed using multi-logistic regression. In this type of modelling one level of the response is chosen as the baseline and other levels of the response are compared relative to this level using odds ratios.

For example respondents were asked whether they would personally be prepared to pay towards the cost of preventing environmental pollution by choosing to either, strongly agree, agree, disagree or strongly disagree with the statement: “I would give part of my income if I were certain that the money would be used to prevent environmental pollution”. This variable was analysed with strongly disagreeing being the base line and the other responses being compared to this base line using odds ratios. When this type of variable was analysed by age the odds ratio for one particular age level was compared relative to the odds ratio for all other age groups separately.

All differences between demographic groups were tested for statistical significance at the 5% level. A factor was included in the analysis to adjust for the effective sample size being less than the actual sample size (see data fusion section Appendix 1).

Data collected on the range of variables were cross classified by age and highest level of education received. Age was broken down into the following groups: 18-24; 25-34; 35-44; 45-54; 55-64; and 65+. Highest level of education received consisted of the following groups: no formal schooling, primary, secondary, and tertiary.

As is usual in the analysis of survey data, these tests only account for random sampling variation and not for any non-sampling errors (such as non-response bias or measurement error) that may be present.

Where differences are commented on in the text these were significant at the 5% level. Where significant differences exist between ages or level of education received tables showing the breakdown of results are provided in Appendix 3.

Sums of percentages may not always add to 100% due to rounding.

Appendix 2: Comparison of sample with population estimates

Tables 4 and 5 show comparisons of the unweighted sample against 2004 population estimates.

Table 4: Comparison of age and gender of sample against 2004 population estimates

Age	Population estimates (Dec 2004)		Sample		Difference	
	Male	Female	Male	Female	Male	Female
18-19	2.0%	1.9%	1.5%	1.6%	-0.5%	-0.3%
20-24	4.9%	4.7%	2.6%	4.1%	-2.3%	-0.6%
25-29	4.1%	4.3%	2.9%	4.2%	-1.2%	-0.1%
30-34	4.7%	5.1%	3.6%	6.6%	-1.1%	1.5%
35-39	4.9%	5.2%	4.6%	6.2%	-0.3%	1.0%
40-44	5.2%	5.5%	4.7%	7.5%	-0.5%	2.0%
45-49	4.7%	4.8%	4.3%	5.8%	-0.4%	1.0%
50-54	4.2%	4.2%	5.0%	5.2%	0.8%	1.0%
55-59	3.7%	3.8%	3.0%	4.6%	-0.7%	0.8%
60-64	2.9%	3.0%	2.4%	3.3%	-0.5%	0.3%
65-69	2.3%	2.4%	2.1%	3.0%	-0.2%	0.6%
70-74	1.9%	2.1%	2.1%	2.1%	0.2%	0.0%
75+	3.0%	4.5%	2.4%	3.7%	-0.6%	-0.8%

Table 5: Comparison of Maori proportion of sample against 2004 population estimates

	Population estimates (Dec 2004)	Sample	Difference
Maori	12.0%	13.2%	1.2%