



**Methodology Report for the 2011
Young People's Survey:
Update post completion of Christchurch
fieldwork**

Prepared for:

Sport New Zealand

Prepared by:

Ipsos

March 2014

Ipsos contact:

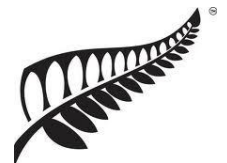
Sheryl Graham

E-mail:

sheryl.graham@ipsos.com

Phone:

(09) 538-0500



**SPORT
NEW ZEALAND**

Table of Contents

1. Introduction	3
2. Survey Population and Sample Frame	3
3. Sample Design	4
4. Survey Forms	6
5. Data Collection and Quality Control	6
6. Final Response Rates	7
7. Data Processing and Preliminary Analysis	8
8. Weighting.....	9
9. Technical Notes for Analysis.....	14
10. Dissemination of Data.....	15

1. Introduction

Sport New Zealand's Young People's Survey (YPS) is a nationwide, school-based survey. The Survey collects information about participation in sport and recreation by 5 to 18-year-olds.

A nationally representative sample of schools was selected to participate in the Survey in Term 3 (from August to September) 2011. While the majority of schools (and therefore students) took part at this time, some Christchurch schools chosen for the survey were not able to participate due to the impact following the February 2011 earthquake.

Information collected during the Survey's primary fieldwork period (2011) has previously been published by Sport New Zealand. To account for possible under- or over-representation (of any school or student, including those in Christchurch who did not take part) the published data was adjusted, or weighted, using information about students' characteristics from the Ministry of Education's school roll.

The Christchurch schools unable to take part in 2011 were given the opportunity to participate in Term 3 2012. Many of them did. With information now available for these remaining Christchurch schools, the Survey data and associated documentation have been updated to correspond to the original nationally representative sample of schools selected to participate in the Survey. Section 9 of this report shows that the Survey estimates produced using the combined 2011/2012 information are not notably different from those already published.

Where needed, this report provides information around the update of the Survey fieldwork and data. Where Survey details are unchanged, readers are referred back to the original 'Methodology Report for Young People's Survey 2011'.

For further detail on the background to the Survey, as well as the research topics, please refer to section 1 of the 'Methodology Report for Young People's Survey 2011'.

2. Survey Population and Sample Frame

For information on the target population, survey population and sample frame, please refer to section 2 of the 'Methodology Report for Young People's Survey 2011'.

3. Sample Design

Objectives of the Sample Design

The aim of the YPS was to survey between 15,000 and 20,000 students across four Year-level groupings (Years 1-2, Years 3-6, Years 7-10, Years 11-13). A regional spread of schools (four superstrata), as well as the inclusion of different-sized schools and a mix of urban and rural schools, was also required. Additionally, a booster sample was surveyed to provide more reliable estimates for Auckland Council.

Sample Selection

The YPS used a stratified Simple Random Sampling (SRS) design. A two-step selection process was used to achieve the sample:

1. Selection of school using Year-level strata
2. Selection of class(es) within that school.

Overall (2011/2012 combined), 533 schools and 17,979 students participated in the national survey. Note that this figure excludes students who did not give consent (n=183) and those who failed to complete a minimum number of questions (ie. did not complete any questions after the first four demographic questions, n=6).

National sample

Strata	Number of participating schools	Number of participating students
Years 1-2	95	1,292
Years 3-6	198	5,847
Years 7-10	191	6,347
Years 11-13	121	4,493
TOTAL	533*	17,979

*As many schools had classes selected for more than one strata, the total number of participating schools does not equal the sum of participating schools in each strata.

For further information on sample design (including the additional Auckland sampling), please refer to section 3 of the 'Methodology Report for Young People's Survey 2011'.

The following table shows (for gender, age and ethnicity) the numbers and proportions of young people (or their parents) who were interviewed (ie. the unweighted profile) and the numbers and proportions following the weighting process.

Profile of students in the sample taking part in the survey: unweighted and weighted

Students characteristics	Unweighted profile		Weighted Profile	
	Number	Percentage	Number	Percentage
All students	17,979	100	17,979	100
AGE¹				
Boys	8,680		9,104.4	
5 to 10-year-olds	3,317	38.5%	4,148.4	45.9%
11 to 14-year-olds	3,207	37.2%	2,852.1	31.5%
15 to 18-year-olds	2,101	24.4%	2,043.2	22.6%
Girls	9,228		8,796.3	
5 to 10-year-olds	3,270	35.5%	4,018.4	45.8%
11 to 14-year-olds	3,275	35.6%	2,736.6	31.2%
15 to 18-year-olds	2,656	28.9%	2,011.3	22.9%
ETHNICITY²				
Boys				
New Zealand European	6,365	73.3%	6,561.8	72.1%
Māori	1,895	21.8%	2,037.8	22.4%
Pacific	1,181	13.6%	1,152.1	12.7%
Asian	784	9.0%	969.1	10.6%
Other ethnicities	116	1.3%	160.7	1.8%
Girls				
New Zealand European	6,738	73.0%	6,467.4	73.5%
Māori	2,038	22.1%	1,960.1	22.3%
Pacific	1,293	14.0%	1,184.4	13.5%
Asian	1,021	11.1%	936.3	10.6%
Other ethnicities	139	1.5%	158.1	1.8%

1. A small number of 4-year-olds and 19-year-olds took part in the survey, but for ease of reading, the report refers to 5 to 18-year-olds. The sum of the three age categories for boys and girls is less than the respective totals because some students did not provide their age and/or gender.

2. Students could identify with one or more ethnic groups and so the sum of the five categories for boys and girls is greater than the respective totals.

4. Survey Forms

The 2011 survey forms were used to survey Christchurch students in 2012. This included the staff survey forms, which incorporated questions about 2011.

For more information on survey form development, form types, content and testing, please refer to section 4 of the 'Methodology Report for Young People's Survey 2011'.

5. Data Collection and Quality Control

Recruitment and Scheduling

Recruitment of Christchurch schools – 2012

The 43 schools who did not accept the 2011 YPS invitation were re-contacted in June 2012. Phone recruitment of schools began in June and continued through to early August 2012. The 2011 recruitment method was used.

Survey Administration

Field dates – 2012

Fieldwork for the 28 Christchurch schools that chose to take part was completed in Term 3 – from 31 July to 29 August 2012.

For further information on school recruitment and scheduling, as well survey administration, interviewer training, and the timing and duration of the survey, please refer to section 5 of the 'Methodology Report for Young People's Survey 2011'.

6. Final Response Rates

Response Rate Calculation

Schools were classified into three response statuses based on the outcome of the approach to the school:

- If at least one class per school participated in the survey, the school had status: Eligible Responding.
- If the school refused to participate or did not agree to participate within the survey recruitment period, the school had status: Eligible Non-Responding.
- All other schools had the status: Unknown Eligibility.

Christchurch schools were classified differently in 2011 and 2012. In 2011, Christchurch schools that did not participate were treated as unknown eligibility, as they had received a 'soft invite' to participate due to the 2011 earthquakes. In the combined 2011/2012 sample, some Christchurch schools were treated as eligible non-responding in line with the rules above.

The response rates for the combined 2011/ 2012 sample have been calculated in an identical manner to the response rates for the 2011 sample. However, the change in the way non-participating Christchurch schools were classified in 2012 has reduced the national response rate slightly, and reduced the Sport Canterbury West Coast RST response rate to be more in line with other RSTs.

For information on the approach to calculating the response rate, please refer to section 6 of the 'Methodology Report for Young People's Survey 2011'.

Final Response Rates for the National Survey (2011/ 2012 combined)

The final school response rate is 81.1%.

The students (usually present) / parent response rate is 73.7%¹².

The overall response rate using students (usually present) for the survey is 59.8%.

¹ (Using the less conservative 'students actually present / parent responds' would give a response rate of 83.5%).

² It should be noted that for 37 schools (6.6% of schools or 3.9% of classes) the usual number of students present was missing. For more information about this see section 6 of the 'Methodology Report for Young People's Survey 2011'.

7. Data Processing and Preliminary Analysis

Creation of Data Tables

Urban area

The Ministry of Education's list of schools (used as the Survey's sampling frame) included an Urban Area variable. The area types, determined by Statistics New Zealand and based on 2006 population counts, are as follows:

Area type	Definition
Main urban	Very large urban areas centred on (or typically within 5kms of) a city with a minimum population of 30,000.
Secondary urban	Centred on (or typically within 5kms of) the larger regional centres with a population between 10,000 and 29,999. Gore and Greymouth are included as exceptions to the rule ³ .
Minor urban	Urbanised settlements centred around (typically within 5kms of) smaller towns with a population between 1,000 and 9,999.
Rural area	Rural areas have a maximum population of 999.

Both Sport New Zealand and Sport New Zealand's statistician (see Appendix 1 of the 'Methodology Report for Young People's Survey 2011') identified some inconsistencies in the area type categorisation of schools in the original list of schools. A subsequent review of the categorisation was undertaken and some changes made to ensure greater consistency.

For more information on data processing and preliminary analysis, please refer to section 7 of the 'Methodology Report for Young People's Survey 2011'.

³ Two of the South Island's largest towns. Populations fluctuate around 10,000. Both were just under, in 2006.

8. Weighting

Weighting

As the Survey is a sample survey and subject to non-response, the responses may not be fully representative of the survey population. Weighting adjusts for this as described below.

Modified Sample Selection Weights

For more information on the approach to calculating modified sample selection weights, please refer to section 8 of the 'Methodology Report for Young People's Survey 2011'.

The 2011/2012 modified sample selection weights undercounted the number of pupils at schools, as shown in the table below.

Year level	Sum of overall modified selection weights	MOE roll numbers (July 2011)
Years 1-2	152,661	113,658
Years 3-6	194,811	232,951
Years 7-10	198,765	236,075
Years 11-13	125,432	155,249

As the sampling rates varied a lot across the strata, the modified sample selection weights varied considerably. Some summary statistics are shown below.

Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
3.00	18.79	28.50	37.36	42.62	453.00

For the 2011 and 2011/12 combined survey estimates the modified sample selection weights for schools in the Territorial Authorities (TAs) affected by the Canterbury earthquakes in 2010 and 2011 were calibrated to South Island School Roll estimates. To enable analysis of students from "Greater Christchurch" modified sample selection weights have also been created and recalibrated to match the Ministry of Education School Roll estimates for these three TAs.

Calibration Weights

For more information on the approach to post-stratifying the data, please refer to section 8 of the 'Methodology Report for Young People's Survey 2011'.

Imputation

Imputation largely followed the same process outlined in section 8 of the 'Methodology Report for Young People's Survey 2011', except that for the 2012 Christchurch schools the Christchurch (not national) age distribution was used (eg. for Christchurch Years 1-2 the sample distribution of ages 5, 6, 7, 8 years was 19, 64, 17, 0 respectively).

Calibration Factors

The following table gives the calibration factors (psfactor) which were applied to the 2011/12 modified sample selection weights. They show the impact of non-response both at the school level and at the pupil level. For example, the sample has too many Asian girls aged 5-9 years in Auckland, but too few in the Rest of the Upper North Island.

Ethnic group	Gender	Age group	Superstrata	psfactor
Asian	female	5-9 years	Auckland	0.60
Asian	female	5-9 years	Rest Upper North Island	1.14
Asian	female	5-9 years	Lower North Island	0.63
Asian	female	5-9 years	South Island	0.77
Asian	female	10-14 years	Auckland	1.66
Asian	female	10-14 years	Rest Upper North Island	0.82
Asian	female	10-14 years	Lower North Island	0.77
Asian	female	10-14 years	South Island	1.06
Asian	female	15-19 years	Auckland	0.76
Asian	female	15-19 years	Rest Upper North Island	0.82
Asian	female	15-19 years	Lower North Island	0.69
Asian	female	15-19 years	South Island	0.81
Asian	male	5-9 years	Auckland	0.74
Asian	male	5-9 years	Rest Upper North Island	0.93
Asian	male	5-9 years	Lower North Island	0.93
Asian	male	5-9 years	South Island	1.40
Asian	male	10-14 years	Auckland	1.96
Asian	male	10-14 years	Rest Upper North Island	0.97
Asian	male	10-14 years	Lower North Island	0.89
Asian	male	10-14 years	South Island	1.37
Asian	male	15-19 years	Auckland	0.97
Asian	male	15-19 years	Rest Upper North Island	0.87
Asian	male	15-19 years	Lower North Island	0.80
Asian	male	15-19 years	South Island	0.62
Māori	female	5-9 years	Auckland	1.03
Māori	female	5-9 years	Rest Upper North Island	1.15

Ethnic group	Gender	Age group	Superstrata	psfactor
Māori	female	5-9 years	Lower North Island	0.99
Māori	female	5-9 years	South Island	1.08
Māori	female	10-14 years	Auckland	0.82
Māori	female	10-14 years	Rest Upper North Island	1.41
Māori	female	10-14 years	Lower North Island	1.24
Māori	female	10-14 years	South Island	1.00
Māori	female	15-19 years	Auckland	1.33
Māori	female	15-19 years	Rest Upper North Island	1.85
Māori	female	15-19 years	Lower North Island	1.31
Māori	female	15-19 years	South Island	0.88
Māori	male	5-9 years	Auckland	0.98
Māori	male	5-9 years	Rest Upper North Island	1.27
Māori	male	5-9 years	Lower North Island	1.12
Māori	male	5-9 years	South Island	1.09
Māori	male	10-14 years	Auckland	1.27
Māori	male	10-14 years	Rest Upper North Island	1.42
Māori	male	10-14 years	Lower North Island	1.05
Māori	male	10-14 years	South Island	1.07
Māori	male	15-19 years	Auckland	1.42
Māori	male	15-19 years	Rest Upper North Island	1.52
Māori	male	15-19 years	Lower North Island	1.92
Māori	male	15-19 years	South Island	1.32
Pacific	female	5-9 years	Auckland	1.12
Pacific	female	5-9 years	Rest Upper North Island	0.80
Pacific	female	5-9 years	Lower North Island	1.60
Pacific	female	5-9 years	South Island	1.33
Pacific	female	10-14 years	Auckland	0.91
Pacific	female	10-14 years	Rest Upper North Island	0.81
Pacific	female	10-14 years	Lower North Island	0.97
Pacific	female	10-14 years	South Island	1.01
Pacific	female	15-19 years	Auckland	0.87
Pacific	female	15-19 years	Rest Upper North Island	1.73
Pacific	female	15-19 years	Lower North Island	0.87
Pacific	female	15-19 years	South Island	1.44
Pacific	male	5-9 years	Auckland	0.89
Pacific	male	5-9 years	Rest Upper North Island	1.11
Pacific	male	5-9 years	Lower North Island	1.42

Ethnic group	Gender	Age group	Superstrata	psfactor
Pacific	male	5-9 years	South Island	0.60
Pacific	male	10-14 years	Auckland	1.03
Pacific	male	10-14 years	Rest Upper North Island	0.95
Pacific	male	10-14 years	Lower North Island	0.92
Pacific	male	10-14 years	South Island	0.73
Pacific	male	15-19 years	Auckland	1.11
Pacific	male	15-19 years	Rest Upper North Island	0.80
Pacific	male	15-19 years	Lower North Island	1.40
Pacific	male	15-19 years	South Island	1.10
Other	female	5-9 years	Auckland	0.97
Other	female	5-9 years	Rest Upper North Island	1.16
Other	female	5-9 years	Lower North Island	1.01
Other	female	5-9 years	South Island	1.12
Other	female	10-14 years	Auckland	1.80
Other	female	10-14 years	Rest Upper North Island	1.09
Other	female	10-14 years	Lower North Island	0.99
Other	female	10-14 years	South Island	1.18
Other	female	15-19 years	Auckland	1.30
Other	female	15-19 years	Rest Upper North Island	1.15
Other	female	15-19 years	Lower North Island	1.53
Other	female	15-19 years	South Island	1.11
Other	male	5-9 years	Auckland	0.90
Other	male	5-9 years	Rest Upper North Island	1.19
Other	male	5-9 years	Lower North Island	1.10
Other	male	5-9 years	South Island	1.15
Other	male	10-14 years	Auckland	1.69
Other	male	10-14 years	Rest Upper North Island	1.08
Other	male	10-14 years	Lower North Island	1.07
Other	male	10-14 years	South Island	1.11
Other	male	15-19 years	Auckland	1.48
Other	male	15-19 years	Rest Upper North Island	1.19
Other	male	15-19 years	Lower North Island	1.59
Other	male	15-19 years	South Island	1.25

The calibrated weights showed less variation than the modified sample selection weights with a squared coefficient of variation of 0.93 compared with 1.15. Some summary statistics are:

Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
2.468	21.82	32.51	41.92	46.69	455.50

Replicate Sample Errors

Section 8 of the 'Methodology Report for Young People's Survey 2011' provides more information about the replicate sample errors and finite population correction (fpc).

The 2011/12 sample error with the fpc included for the question about what students do after school and at weekends⁴ is about 6-13% smaller for a national estimate, but about 16-19% smaller for the 15-19 age group (because secondary schools are more heavily sampled).

⁴ Watch TV, read, listen or play music or play on computers, etc; or do mostly sport or active things after school; or do about the same of both

9. Technical Notes for Analysis

For information on standard errors and confidence intervals, please refer to section 9 of the 'Methodology Report for Young People's Survey 2011'.

2011 and 2011/2012 Estimates

Sport New Zealand has previously published estimates from the 2011 sample. 2011 total sample estimates and means for key measures are shaded grey in the table below. 2011/12 estimates and means are also shown, along with confidence intervals at the 95% level.

The indicators below show that there are no notable differences between results for the two samples. This was not unexpected, given that the additional 961 Christchurch students account for only around five percent of the combined sample. Subsequent to such analysis, Sport New Zealand will not be updating either the publications previously released or those in development.

Measure		2011 %	2011/2012 combined %
Combined time spent participating in sport and recreation – 3 or more hours per week	Estimate	89.0%	89.0%
	CI	88.30-89.78	88.28-89.75
Time spent participating in organised sport – 3 or more hours per week	Estimate	55.7%	55.6%
	CI	53.93-57.45	53.89-57.32
Time spent participating in sport and recreation while "mucking around" – 3 or more hours per week	Estimate	66.3%	66.1%
	CI	65.19-67.50	64.94-67.16
Participation with sports clubs outside of school this year	Estimate	54.9%	54.6%
	CI	53.52-56.26	53.22-55.92
Participation with sports teams at school this year	Estimate	50.8%	50.6%
	CI	49.34-52.25	49.20-52.04
Participation with a coach/instructor this year	Estimate	70.4%	70.6%
	CI	68.86-71.84	69.14-72.12
Mean number of sports/activities participated in this year (excluding games, including 0)	Estimate	13.1	13.0
	CI	12.89-13.29	12.85-13.23
Mean number of regular activities participated in this year (excluding games, including 0)	Estimate	3.6	3.6
	CI	3.52-3.68	3.50-3.66

10. Dissemination of Data

As at February 2014 Sport New Zealand has released the following publications (using the 2011 sample):

- Sport and recreation in the lives of young New Zealanders - 2012
- Sport and recreation in the lives of young New Zealanders. Infographic - 2013
- Young People's Survey Regional Profiles - 2013

The following publications (using the 2011 sample) will be released in 2014:

- Sport and recreation in the lives of 15 to 18-year-old girls
- Sport New Zealand's Young People's Survey 2011 - In-depth Report

Sport New Zealand's Young People's Survey 2011 - Staff Survey Results will also be released in 2014. This combines the 2011/12 staff sample. The first publication expected to be released using the 2011/12 student sample will provide insight into sport and recreation participation by students residing in urban/rural areas.