



## **Attendance in New Zealand Schools in 2009**

February 2010



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## Executive Summary

- For the 2009 survey, 768 schools were randomly selected from a sampling frame of schools grouped by school type and decile. The response rate was 85 percent which was slightly lower than previous surveys (91% in 2006 and 87% in 2004). A weighted mean of the absence rates was used to estimate the national absence rates.
- The estimate of the national absence rate in 2009 is 11.6 percent. This compares to an absence rate of 11.5 percent in 2006 and 10.9 percent in 2004. The margin of error for the 2009 national absence estimate (with 95% confidence) is 2.1%, therefore the difference between the estimate of national absence for 2009 is not statistically significant, compared to estimates for 2006 (11.5 %) or 2004 (10.9%).
- The unjustified (whole day) absence rates in 2009 (2.2%) is similar to the rate measured in the 2006 survey (2.3%).
- From year 9 to year 13 the total unjustified absence rates (whole and part day) increase rapidly. Year 13 students have the highest total unjustified absence rates of all year levels.

## **Introduction**

Participating in education is fundamental to student achievement. The Education Act 1989 requires that parents enrol their children at school and ensure they attend school whenever it is open for instruction unless there is a good reason for them to be absent.

Every day a student is not at school is a day they are not learning. Over time, patterns of non-attendance can place students at risk of poor achievement and early drop-out, thus compromising their later outcomes in life across a range of social and economic measures.

The Ministry of Education continues to actively promote student engagement in education through a multi-year programme of work called the Student Engagement Initiative, which aims to decrease suspensions, exclusions and early-leaving rates and to increase school attendance.

This survey on attendance was carried out in June 2009. The survey aims to inform the Ministry's work to improve student engagement in education.

## **Research Aims and Methodology**

The attendance 2009 survey gathered data on student attendance during the week of 8-12 June 2009. The research aimed to investigate the relationships between absence and school level factors (e.g. school type, region, decile) and by student factors (e.g. gender, ethnicity, year level of the student).

A sample of 768 schools was selected to represent the 2478 state and state integrated schools in New Zealand. All state and state integrated schools were invited to participate in the previous national surveys in 1998, 2002, 2004 and 2006.

The schools were chosen randomly from sub-groups of schools. The sub-groups were defined using school type and decile as stratifying variables to ensure a representative sample was achieved for measuring both the national attendance and the variation in attendance by school-based variables.

Two forms of data collection were used. Schools who use a module in their Student Management Systems (SMS) to enter their attendance records electronically were asked to provide an extract from the electronic Attendance Register (eAR). Schools that do not use eAR were invited to take part in the paper version of the survey.

The schools recording absence on the paper form were required to make their own judgement of whether a student who is absent for all or part of a day is absent for all or part of a day based on the definitions and instructions supplied. The Ministry of

Education applied the business rules supplied to schools in the instructions for the paper survey and to the SMS vendors to define the type and duration of students' absences from the classroom and school based activities from the eAR data.

The types of absences counted include: justified absences (JA), unjustified absences (UA), and intermittent unjustified absences (IUA) (see definitions below). Total unjustified absence is the sum of unjustified absences and intermittent unjustified absences (UA+IUA). The overall absence rate is the sum of the three absence types (JA+UA+IUA). For each student, the day and type of absence, and the year level, gender and ethnicity of the absent student were collected.

The rate for each absence type is calculated based on the total school rolls for the participating schools and relate to an average (mean) daily absence for the week per 100 students. It should be noted that this does not tell us whether it is the same students that are absent, or whether different students are involved each day.

## Definitions of attendance

**Justified absences (JA)** are absences recorded in the register, and marked as having being satisfactorily explained. A school has to make a judgement as to which explanations they will accept. The basis for such judgements is a matter of school policy, and as such, the balance of justified and unjustified absence may vary slightly from school to school. For the schools with eAR data, students who had attended less than 240 minutes of classes in a day but had NO unjustified absences were counted as JA.

**Unjustified absences (UA)** are absences, which are not explained, or not explained to the satisfaction of the school. For the schools with eAR data, students who attended less than 120 minutes of their classes and had at least one unjustified absences were counted as UA.

**Intermittent unjustified absences (IUA)** occur when a student is absent for part of a morning (or afternoon) or part of a period without justification. For example, a student who arrives 15 minutes late to school without a reason, or with a reason that is not acceptable to the principal, would be recorded as an intermittent unjustified absence. For the schools with eAR data, students who attended classes for more than 120 minutes and had 2 or more unjustified absences were counted as IUA.

**Overall absence** is the sum of the three absence types noted above.

**Total unjustified absence** is the sum of unjustified absences and intermittent unjustified absences.

## Response Rates

Out of the 768 schools invited to participate in the survey, completed returns were received from 653 schools (85%). The responding schools had a total of 229,759 students on their rolls, almost 32 percent of the student population in all state and state integrated schools on 1 July 2009. The overall response rate was slightly lower than the previous surveys in 2006 (91%) and 2004 (87%).

## Analysis of Absences on Different Days of the Week

Table 1 shows the results of the 2009 survey by each day of the week. The overall absence rate is fairly uniform over the week but as in 2006 and 2004 it is highest for days either side of the weekend, highest on Friday (12.8%), followed by Monday and Thursday (both 11.5%). Both justified and unjustified absences follow this pattern over the week, the intermittent unjustified absence rate was lowest on Mondays (1.8%) but similar on other days (2.0-2.2%) through the week.

**Table 1: Absence for each day of the week**

Day of the week	Total Absence rate (%)	Justified absence rate (%)	Unjustified absence rate (%)	Intermittent unjustified absence rate (%)
Monday	11.5	7.5	2.3	1.8
Tuesday	11.1	7.3	1.8	2.0
Wednesday	11.0	7.0	1.9	2.1
Thursday	11.5	7.4	2.1	2.0
Friday	12.8	7.7	2.8	2.2
<b>National Average*</b>	11.6	7.4	2.2	2.0

\* Includes students from Special schools, who were not included in previous surveys.

The estimate of the overall national absence rate in 2009 is 11.6 percent. This compares to an absence rate of 11.5 percent in 2006 and 10.9 percent in 2004. The margin of error for the 2009 national absence estimate (with 95% confidence) is 2.1%, therefore the difference between the 2009 estimates and 2006 (11.5%) and 2004 (10.9%) is not statistically significant.

Compared to 2006 the justified absence rate and unjustified absence rates stayed relatively constant, see Table 2. There was a small increase in the intermittent unjustified absence rate, which is not statistically significant.

**Table 2: Comparison of absence rates for 2004, 2006 and 2009**

Year	Total Absence rate (%)	Justified absence rate (%)	Unjustified absence rate (%)	Intermittent unjustified absence rate (%)
2004	10.9	7.5	2.1	1.3
2006	11.5	7.4	2.3	1.8
2009	11.6	7.4	2.2	2.0

## Analysis of School Factors

### Absence and Type of School

Findings from past surveys indicated that absences are more prevalent at the secondary school level than in primary, intermediate or composite schools. Figure 1 shows the variation in absence types associated with the type of school.

**Figure 1: Absences and school type**

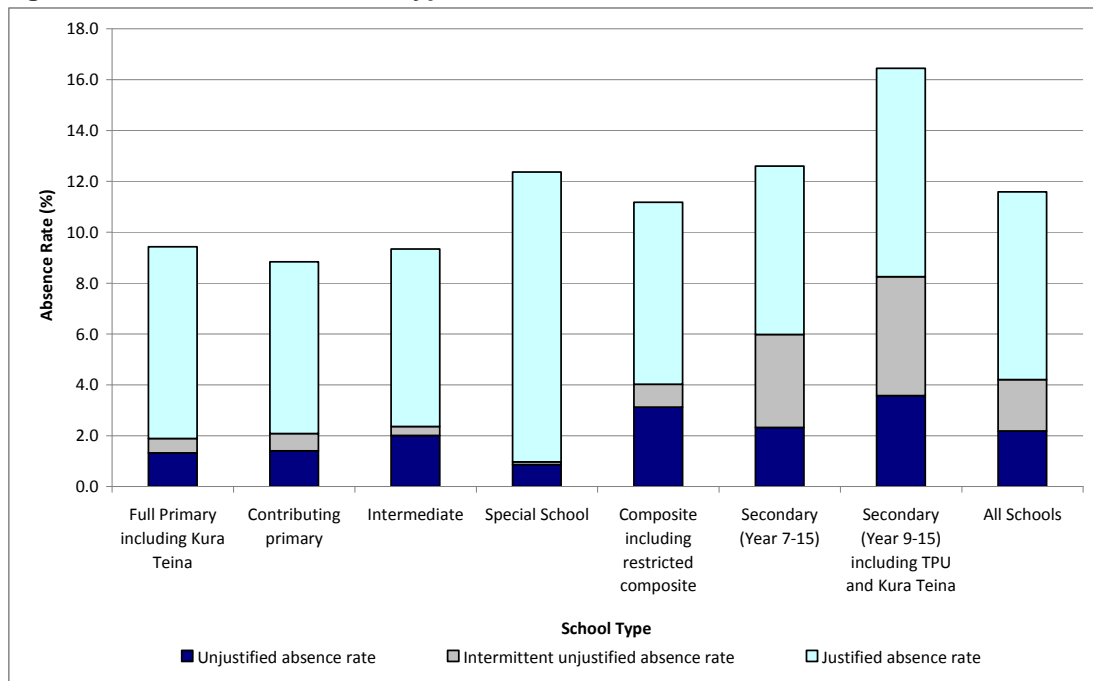


Figure 1 shows that overall absence rates are very similar, including proportions of justified and unjustified absence, for full primary, contributing and intermediate schools. The overall absence rate for special schools is similar to the national average but there is a much higher proportion of justified absences.

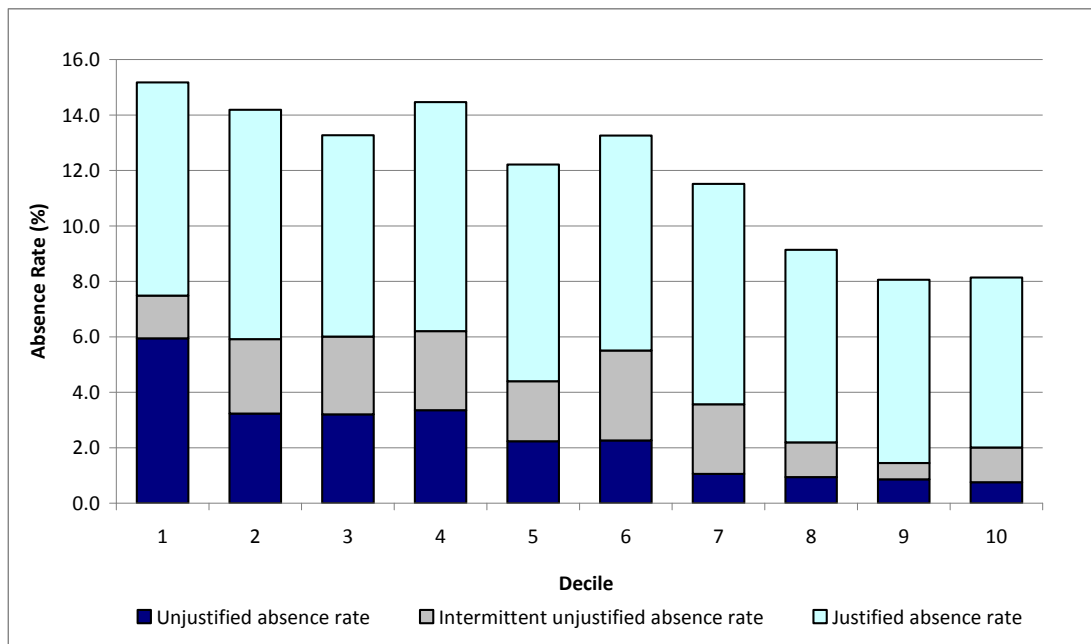
As in previous surveys the rate of unjustified absences are higher in secondary schools.

The results are similar to 2006 for justified and unjustified absences for all school types.

## Absence and School Decile

As for previous surveys justified absences are similar across all deciles but total absence is lower in high decile schools due to lower rates of unjustified absences.

**Figure 2: Absence type by school decile**



## Analysis of Student Factors

### Gender of Student, Year Level, and Absence

There is no significant difference between males and females in overall absence rates (11.4% for males and 11.7% for females) and total unjustified absence rates (4.1% for males and 4.2% for females). Figure 3 looks at gender differences in relation to absence by current year level.

**Figure 3: Absence rates by gender and current year level**

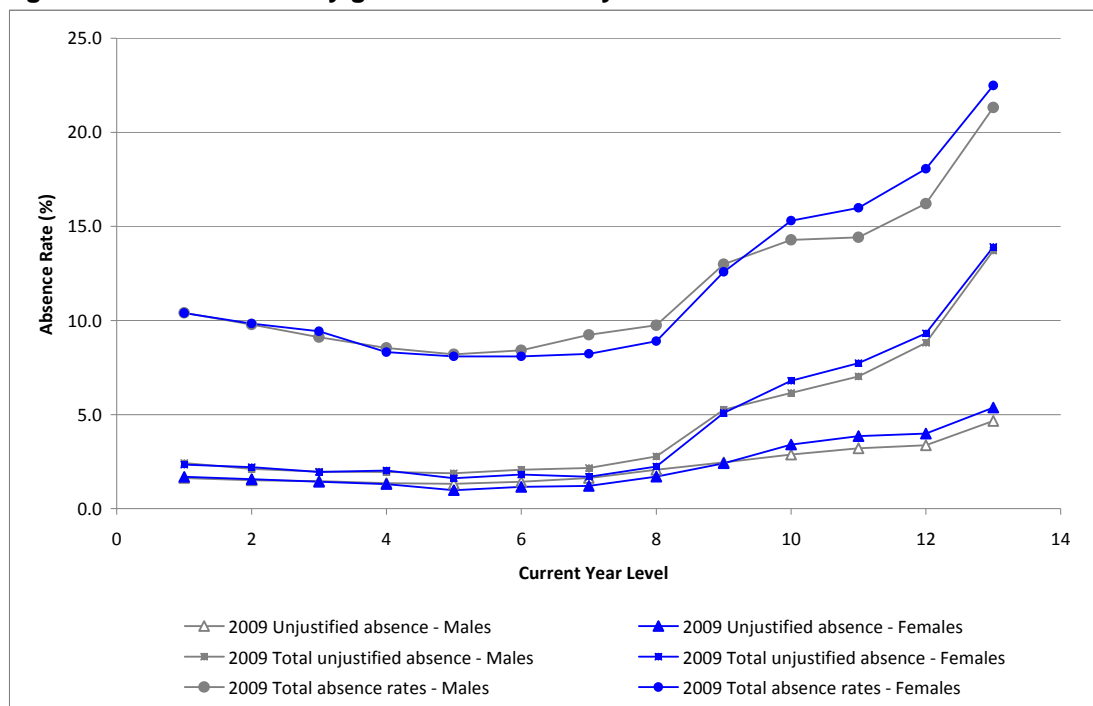


Figure 3 shows that absence rates for males and females track each other closely at all year levels. Noticeable is the rapid increase in the unjustified and intermittent unjustified absence rates for both males and females from year 9 to year 13.

From years 10-12, absence rates for females move to slightly higher levels than for males.

The patterns observed with year level in the 2009 survey mirror those observed in the 2006 and 2004 results. In 2009 there are slight increases observed in absence rates in years 7 and 8. In previous surveys this trend was probably present but missed because of the denominator used in these surveys.

The 2009 survey is the first survey to use current year level in both the numerator and denominator. In previous surveys absences are recorded against students' current year level and ratios calculated using the July roll data of the same year in the

denominator (which has funding year level). The two definitions have approximately the same number of students for most year levels but funding year level underestimates the number of students in year 0/1 and over estimates the number of year 7 and 8 students.

## Absence and Ethnicity

Table 3 shows the absence rates for students by ethnic group in 2006 and 2009. None of the changes are statistically significant but some small changes have been observed.

Unjustified absences and Intermittent unjustified absence rates have increased slightly for students in most ethnic groups but they have improved slightly for Māori students.

The justified absence rate has increased slightly for Pasifika students.

In both years, Māori and Pasifika students have approximately double the rate of unjustified absence when compared with NZ European and Asian students.

**Table 3: Absence and ethnicity**

Ethnicity	Absence rate (%)		Justified absence rate (%)		Unjustified absence rate (%)		Intermittent unjustified absence rate (%)	
	2006	2009	2006	2009	2006	2009	2006	2009
NZ European	10.2	10.3	7.5	7.2	1.3	1.3	1.4	1.7
Māori	15.0	14.9	8.1	8.4	4.5	4.1	2.5	2.4
Pasifika	12.1	13.8	5.9	7.2	4.0	3.9	2.2	2.7
Asian	7.2	7.4	4.3	4.4	1.2	1.1	1.7	1.8
Other*	10.5	17.9	7.3	12.8	1.7	2.3	1.5	2.8
<b>National Average</b>	<b>11.5</b>	<b>11.6</b>	<b>7.4</b>	<b>7.4</b>	<b>2.3</b>	<b>2.2</b>	<b>1.8</b>	<b>2.0</b>

\* Can not interpret increases in the Other ethnicity grouping as student's with unknown ethnic background tend to be grouped in Other.

## Absence across Different Regions

Table 4 shows the absence and total unjustified absence rates by local body regions. The absence rate varied from 8.3 percent in the Otago region to 14.9 percent in the Gisborne region. It was necessary to group Nelson, Tasman, Marlborough and West Coast together for this table because the sample size in 2009 was not sufficient to estimate a separate rate for each region.

The margin of error was calculated for the 2009 survey using the number of schools in the sample and the number of schools in the population they represent. The margin of error for the 95 percent confidence interval was larger than the change between 2006 and 2009 for all regions, meaning that changes are not statistically significant.

**Table 4: Absence across different regions**

Regions	Total absence rate (%)		Total unjustified absence rate (%)	
	2006	2009	2006	2009
Northland	12.6	13.0	4.6	4.8
Auckland	10.9	11.4	4.2	4.4
Waikato	12.5	13.6	4.6	4.9
Bay Of Plenty	12.6	13.6	5.8	4.3
Gisborne	12.9	14.9	5.7	7.9
Hawkes Bay	12.1	12.0	4.4	4.2
Taranaki	11.3	10.6	3.6	4.4
Manawatu-Wanganui	10.8	10.3	3.6	2.3
Wellington	11.5	12.8	3.7	5.7
Tasman	13.2	9.4	1.0	2.6
Nelson	14.5		4.1	
Marlborough	13		4.6	
West Coast	11.9		3.5	
Canterbury	11.2	10.1	3.3	3.3
Otago	10.7	8.3	2.4	2.7
Southland	13.0	9.3	3.7	2.9
<b>National Average</b>	<b>11.5</b>	<b>11.6</b>	<b>4.1</b>	<b>4.2</b>

In 2009, the Northland, Auckland, Waikato, Bay of Plenty, Gisborne, Taranaki and Wellington regions had high total unjustified absence rates compared with the national average (4.2%). The Gisborne region had the highest overall absence rates. Compared to 2006 most North Island regions have higher rates of absence. Rates were lower in the 2009 survey in Hawkes Bay, Taranaki, Tasman/Nelson/Marlborough/West Coast, Canterbury, and Southland.

## Effect of the flu season

In April 2009 New Zealand school students returning to Auckland Airport from Mexico with flu like symptoms were quarantined in case they had contracted (H1N1) 09 Swine Flu.

In the week of the survey several schools in Auckland and Christchurch had high levels of justified absences due to staff and/or students with flu-like symptoms or in quarantine in case they had contracted influenza (H1N1) 09 Swine Flu.

No schools were excluded from the analysis because of justified absences. To exclude them would bias the estimate of absence in New Zealand schools during the survey week.

The Ministry of Health website contains a graph of the weekly consultation rates for influenza type illnesses in New Zealand for 2007, 2008 and 2009 (<http://www.moh.govt.nz/moh.nsf/indexmh/influenza-a-h1n1-update-154-071009?Open> ). The 2009 school attendance survey was during week 23 on this graph. This was before the peak consultation rate for 2009.

The 2009 consultation rate is similar to 2007 and 2008 during week 23. Therefore it is likely that the differences observed in the 2009 survey, compared to previous surveys in 2006 and 2004, are not likely to be due to the increased absence rates caused by the influenza (H1N1) 09 Swine Flu pandemic alert.

## **Analysing your School's Student Engagement Data**

To inform your school's engagement policies, look for patterns or differences in your attendance data. For example:

- Do male and female students' absence rates differ?
- At what year level are absence rates at the highest?
- Which groups of students have the highest unjustified absence rates?
- What time of year or day of the week are unjustified absence rates at their lowest? Why?

Or you can compare your data with the national data. For example:

- How does your school compare to others of your decile and type?

Information about analysing attendance data can also be found on the TKI website <http://www.tki.org.nz>. Previous attendance reports are available on Education Counts <http://www.educationcounts.edcentre.govt.nz>