



# Attendance in New Zealand Schools

2015



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# Executive Summary

The Ministry of Education is increasing the tools available to schools, to help them increase their understanding of absence and its impact on achievement. As a part of this, we are making changes to our yearly report on student attendance.

Every day a student is not at school is a day they are not learning, and we all have a part to play when it comes to keeping students in class. Schools, along with parents and guardians are legally responsible for ensuring children are attending, and this analysis is designed to support their efforts.

For a number of years, the Attendance Survey has been based on data collected in Term 2 and used to provide a week-long, national snapshot of attendance.

Thanks to the growing research and evidence base being produced, in particular in the United Kingdom and Australia, we can better quantify the significant impact that absence has on teacher workloads and student achievement. To support school leaders, and enhance the picture of attendance patterns in New Zealand schools, we have produced a national analysis across the whole of Term 2, which uses a different measurement for attendance.

It measures students' school attendance in half-days, whereas the traditional week-long snapshot used full days. Using half-days is more consistent with how schools record attendance, and we can use this to provide a picture of the impact attendance has on achievement for different groups of students. In this report, for example, we model the probability of Year 11 students achieving NCEA Level 1 in 2015 based on their attendance patterns beginning in Year 7.

The new measurement approach focuses on individual student attendance. An attendance rate is calculated for each student (e.g. attended 92 percent of half-days in Term 2) and reported on. The new student-centred approach gives school leaders, the Ministry and readers a more comprehensive understanding of student attendance.

The Ministry provides a range of support for schools to address poor attendance. In the most severe cases of non-attendance schools can request the support of the integrated Attendance Service. Earlier this year the Ministry introduced *Every Day Matters* an initiative to assist schools to turn attendance data into insights. Schools can volunteer to join the initiative and receive customised attendance reports for their school in return. The data is presented in an intuitive way, which will be enhanced over time, to assist schools with the development of their attendance strategy.

As well as the whole-term analysis, we have also provided the traditional week-long snapshot for continuity purposes.

## Summary of 2015 Findings

- For Year 11 students in 2015, there is a positive relationship between attending school and the probability of achieving NCEA level 1.
- The percentage of students attending school regularly (defined in this report as more than 90 percent of half-days) increased in Term 2, 2015 compared to Term 2, 2014.
- Year 6 students had the highest level of regular school attendance. While Year 13 students had the lowest.
- Māori students had the lowest levels of regular school attendance. However, the rate has been increasing for the last two years. Asian students had the highest levels of regular school attendance.
- A higher proportion of primary and intermediate school students attend regularly than students at secondary schools.
- The proportion of students attending regularly increases as school decile increases.
- School attendance slowly declined over the course of Term 2. From 93.2% half-days attended in the first week of Term 2, to 87.8% in the last week.
- Unjustified absences increased noticeably in the middle and end of Term 2. In 2015 holidays during term time were captured separately for the first time and recorded as an unjustifiable absence.

# Introduction

This report is designed to provide a picture that will help school leaders and other sector representatives to understand patterns of attendance in New Zealand schools, and how these can effect achievement.

Every day a student is not at school is a day they are not learning, and we all have a part to play when it comes to keeping students in class. Schools, along with parents and guardians are legally responsible for ensuring children are attending, and this analysis is designed to support their efforts.

## ***New Measure***

In this report we are introducing a new student attendance measure. This new measurement focuses on individual student attendance. An attendance rate is calculated for each student (e.g. present for 92 percent of half-days in Term 2) and reported on. A student is recorded as attending school when they are present at school and/or they are participating in a school activity (e.g. a sports exchange). Justified absences (e.g. sickness) are not counted as attendance.

For the purpose of this report a student that attends more than 90 percent of half-days is classified as attending school regularly. Ideally each student would attend 100% of the time, however we have used 90% as a minimum threshold for this attendance measure in acknowledgement that sometimes students are unable to attend for unavoidable reasons such as sickness. This does not mean the Ministry considers 90% attendance as adequate, it is not.

This report is based on student attendance data collected from state and state integrated schools for Term 2 in 2015. In addition to attendance and lateness statistics, the report analyses the relationship between attendance and achievement of Year 11 students in 2015.

All state and state-integrated schools were invited to submit Term 2 attendance data for 2015. The survey achieved a 78% response rate. In total this represents approximately 634,000 students or 86% of the student population in all state and state integrated schools on 1 July 2015.

# National Attendance

Nationally there has been a small increase in the number of students attending school regularly. In this report regular school attendance is defined as being present at school for at more than 90% of all half-days in Term 2. Being present at school does not include justifiable (nor unjustifiable) absence from school. It does include classes where a student is at school for the day but needs to attend an in school or out of school appointment, or where the student is on a school organised outing.

During Term 2 of 2015 69.4% of students attended school regularly. This compares to 68.7% in 2014 (Figure 1). The percentage of students attending regularly peaks in 2015 and is 3.1 percentage points higher than in 2013.

Figure 1: Students Attending School Regularly, Term 2

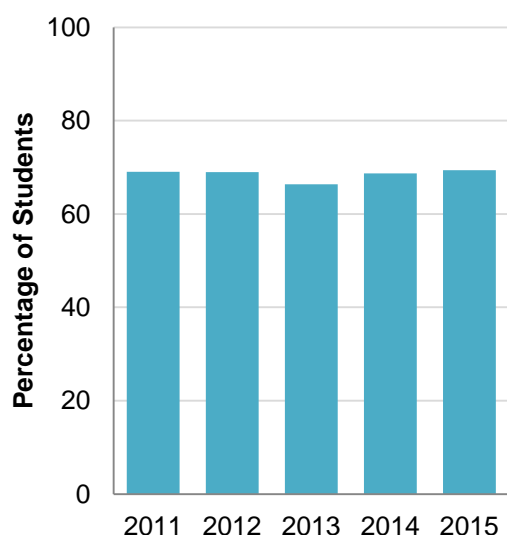
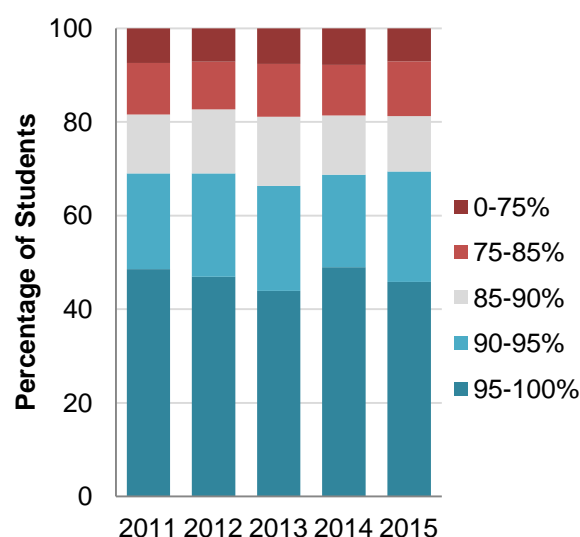


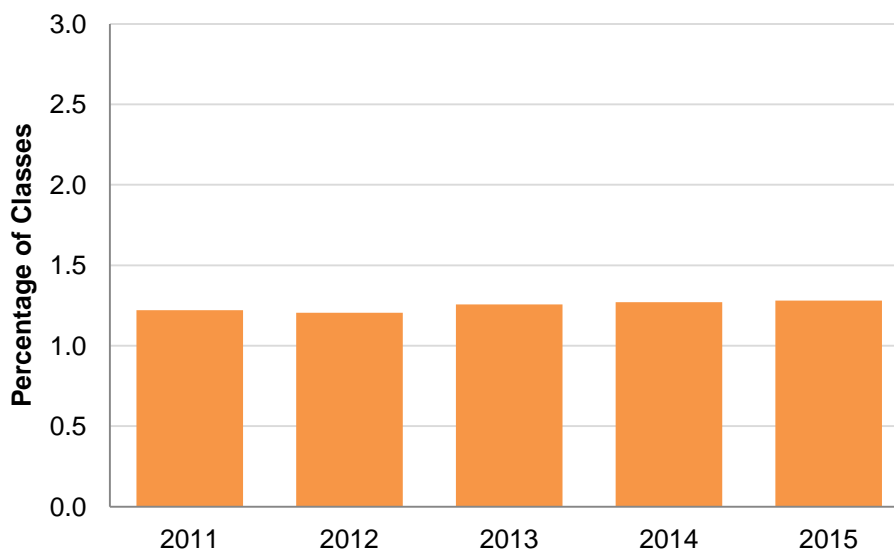
Figure 2: Half-Day Attendance, Term 2



When we look in more detail (Figure 2) we can see different patterns emerging. In 2015, compared to 2014, while the percentage of students attending school regularly increased, the percentage of students attending more than 95 percent of the time decreased slightly. In 2015 there was also a slight decrease in the number of students attending 75 percent or less of the time.

The percentage of classes that students arrived late to in Term 2 has remained fairly consistent over time (Figure 3).

Figure 3: Students Arriving Late to Class, Term 2



### Time Attending Class

In this section we look at attendance in a different way to the previous sections. Instead of using half-days we use the total number of minutes in class.

Attendance data from schools comes in the form of codes used to classify the attendance of students for each class<sup>1</sup>. This allows us to measure time present or absent by type of attendance or reason for absence. Time in half-days is derived from time in minutes; however the two are not directly comparable. Please note that the analysis in this section is not directly comparable with the rest of this report, due to this difference.

Students attended 91.0% of class time in Term 2, 2015, a small increase from 90.8% in Term 2, 2014.

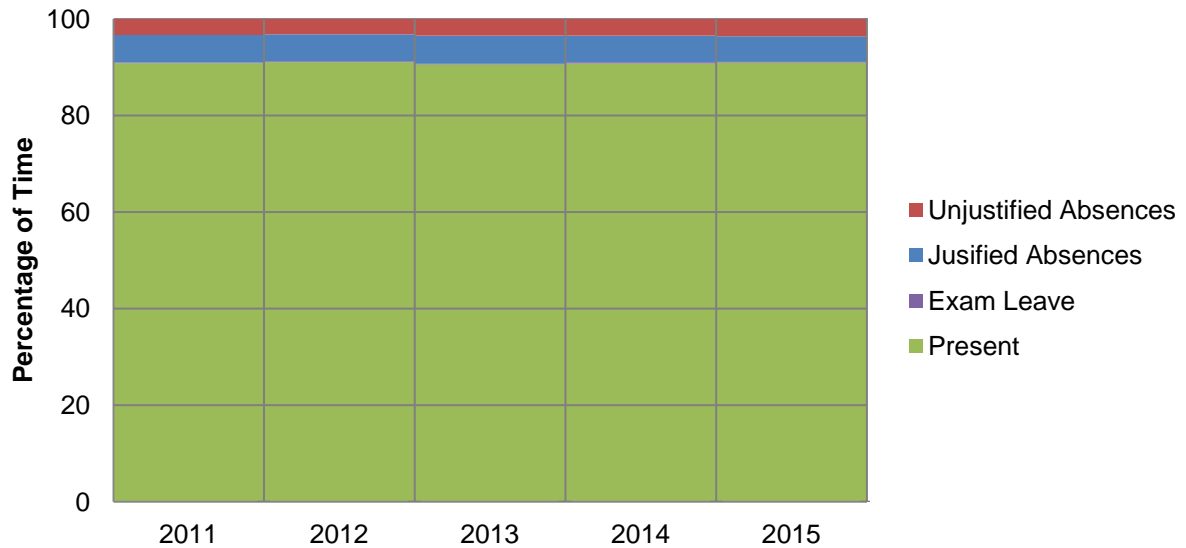
The time which students were justifiably absent decreased by 0.2 percentage points between 2014 and 2015 (5.5% to 5.3%), while the time they were unjustifiably absent increased slightly (3.5% to 3.6%), between 2014 and 2015.

Students attended class for 91.0% of all class time in Term 2, 2015.

This may be due to the introduction of a new code to record holidays during term in 2015. This is regarded as an unjustifiable absence. Previously, schools could record this reason for absence as either justified or unjustified absence.

<sup>1</sup> See the [Attendance Code List](#) on the electronic Attendance Register (eAR) page for more information on these codes.

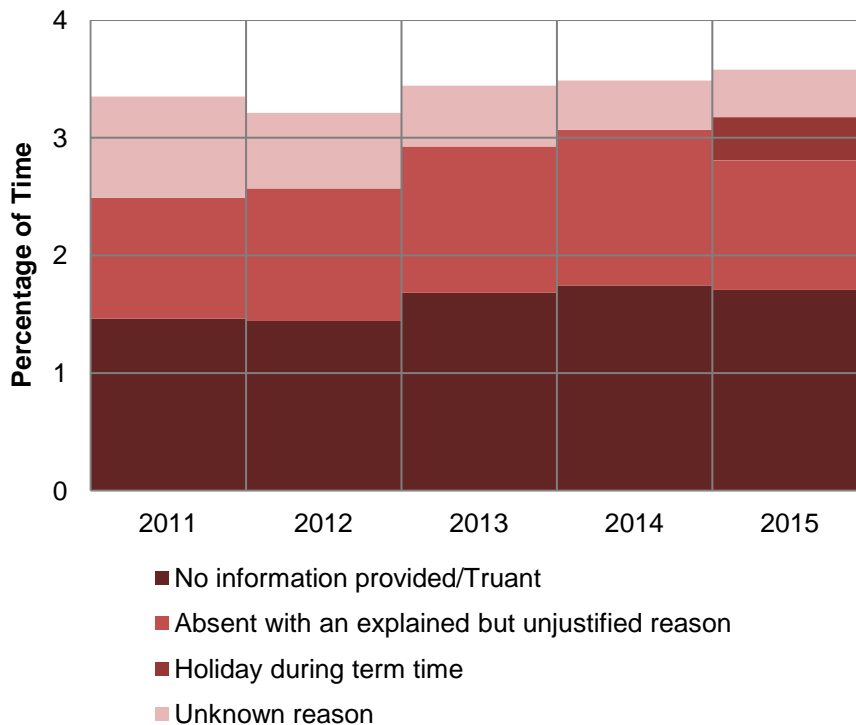
**Figure 4: Time Attending or Not Attending Class, Term 2**



Holidays during term time accounted for 10.2% of time unjustifiably absent and 0.4% of all class time (Figure 5). All other unjustified absences have decreased or remained static since 2014.

Absences for unknown reasons, as a percentage of total time, decreased by 0.5 percentage points between 2011 and 2015. This includes cases where attendance is unmarked. The decline in the use of this code indicates an improvement in the recording of reasons for absence by New Zealand schools.

**Figure 5: Time Not Attending Class for Unjustified Reasons, Term 2**



# Student Analysis

## Gender and Year Level

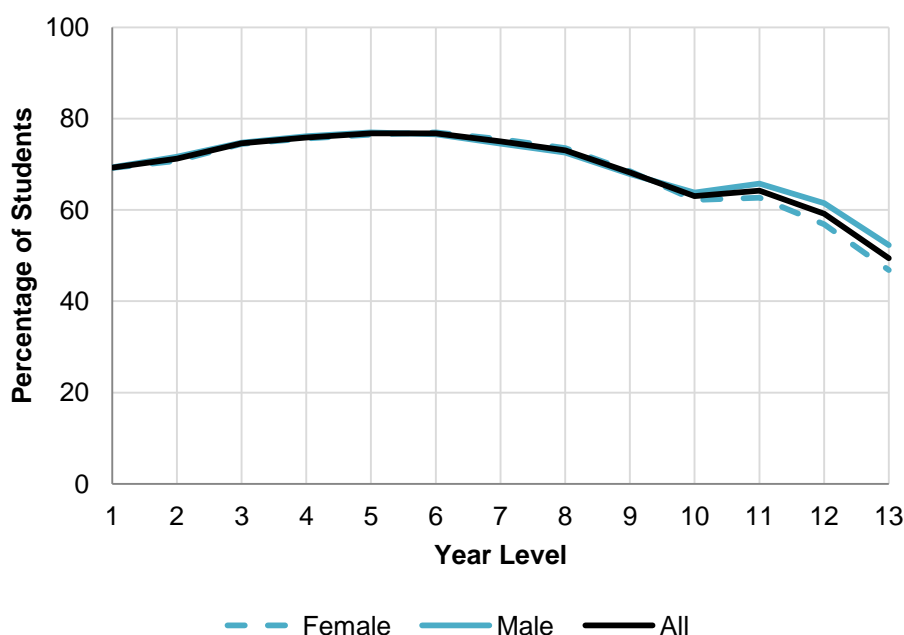
The percentage of students attending regularly increases from Year 1 to Year 6 and then tends to fall through intermediate and secondary years.

There is no obvious gender difference in students attending regularly from Years 1 to 9; however a noticeable difference starts to emerge in secondary schooling. In secondary schooling females have lower attendance rates than males. This difference is largest in Year 13 where 46.8% of female students attend regularly compared to 52.3% of male students.

These trends have been consistent since the Term 2 data collection began in 2011.

Students attending school regularly is at its highest in Year 6, and lowest in Year 13.

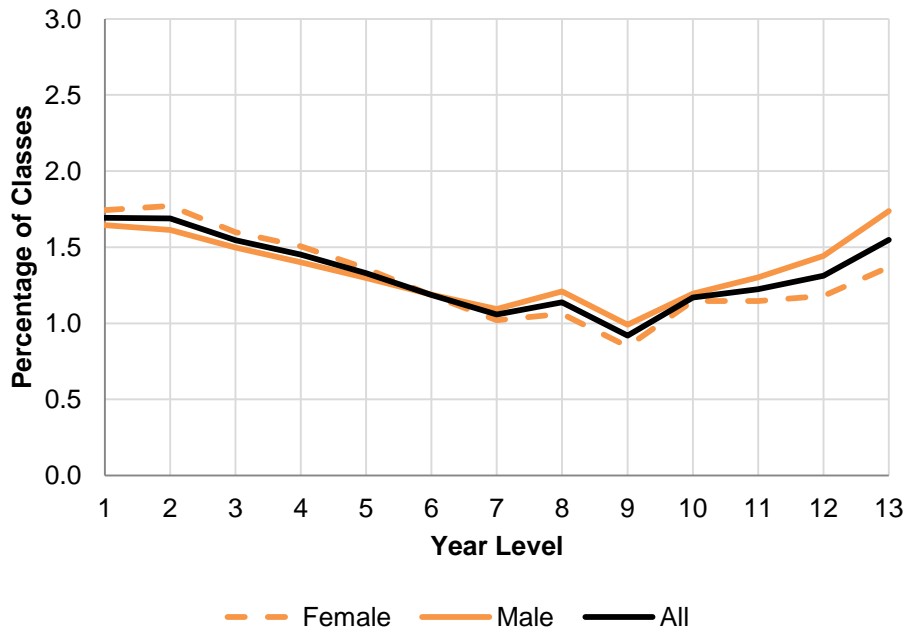
Figure 6: Students Attending School Regularly, by Gender, and Year Level, Term 2, 2015



When we look at arriving to class late the pattern is different. The percentage of students arriving late to class decreases between Year 1 and Year 9, with the exception of an increase in Year 8, and then increases through secondary school. Female students are late to more classes from Years 1 to 6, while male students are late more often in Years 7 and above. Again, these trends have been observed since 2011.

In 2015, the percentage of classes to which students arrive late is lowest in Year 9 (0.8% for female students, 1.0% for male students). Lateness was highest overall in Years 1 and 2 (1.7%).

Figure 7: Students Arriving Late to Class, by Gender, and Year Level, Term 2, 2015



### Ethnicity<sup>2</sup>

In 2015 Asian students had the highest percentage of regular school attendance at 80.1%. European/Pakeha and MELAA<sup>3</sup> students followed at 72.7% and 73.9% respectively. Māori students had the lowest percentage of regular school attendance at 56.7% and Pasifika students had a slightly higher rate of 60.6%.

Figure 8: Students Attending School Regularly, by Ethnicity, Term 2, 2015

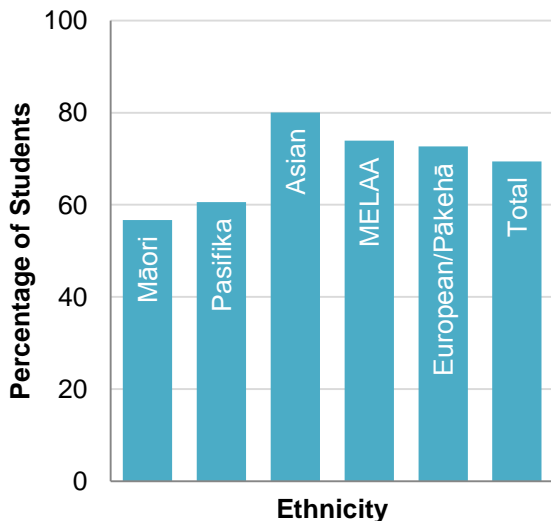
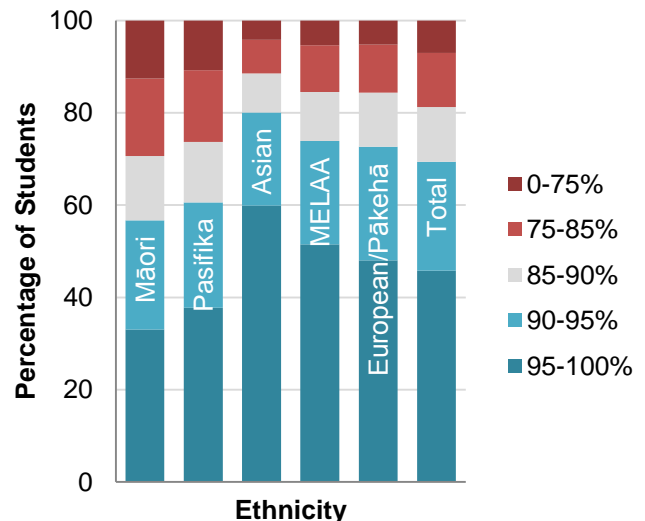


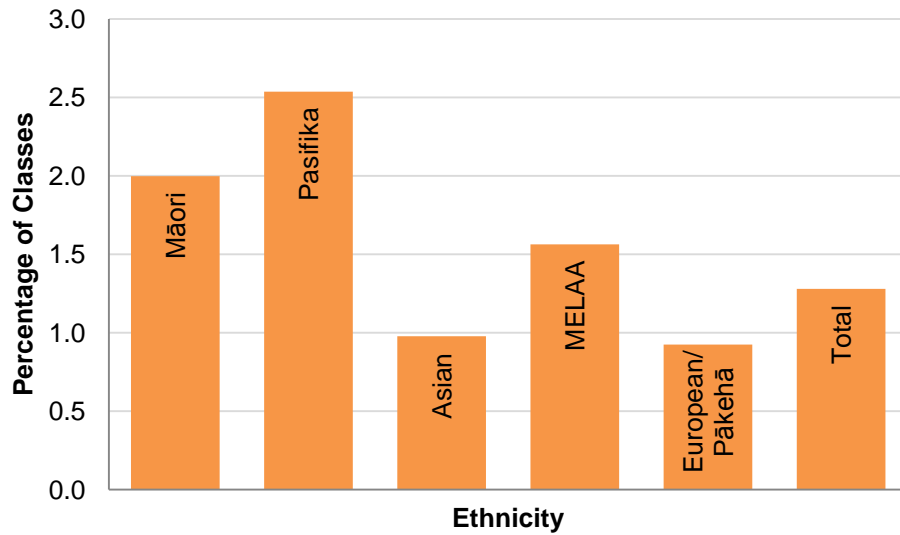
Figure 9: Half-Day Attendance, by Ethnicity, Term 2, 2015



<sup>2</sup> This data uses total response ethnicity; students who identified in more than one ethnic group have been counted in each ethnic group, but only once in "Total".

<sup>3</sup> MELAA stands for Middle Eastern/Latin American/African.

Figure 10: Students Arriving Late to Class, by Ethnicity, Term 2, 2015



When we look at arriving to class late, Māori and Pasifika students have the highest rates at 2.0% and 2.5%, respectively.

# School Analysis

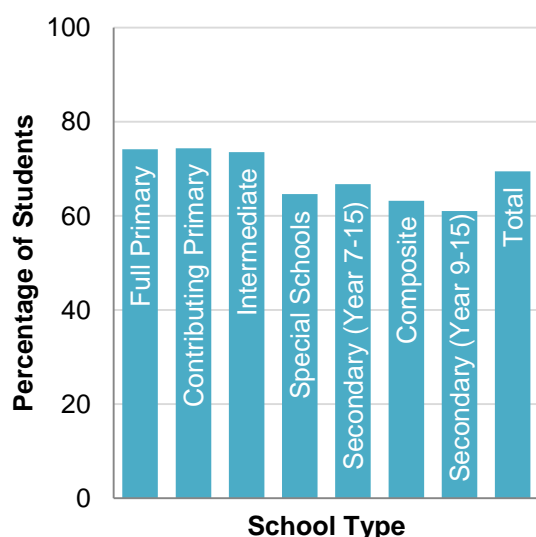
## Type of School

In New Zealand the majority of school types are defined by the year levels of the students who attend them. For this reason the school type results reflect the results for the student gender and year level who attend these schools.

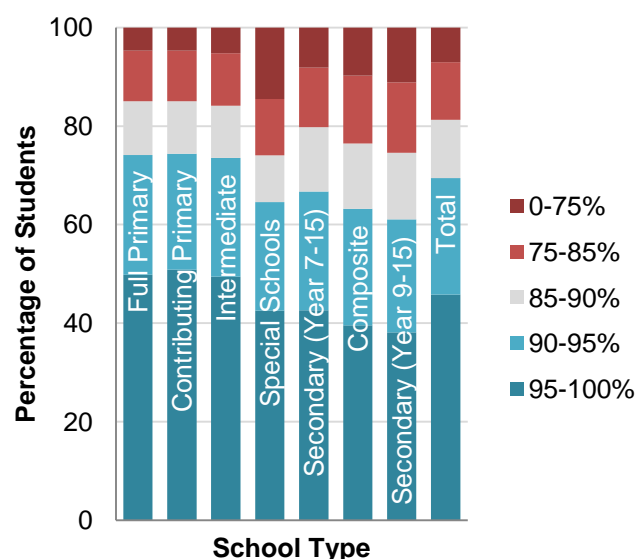
Figure 6 shows that a larger proportion of students are attending regularly in the years before secondary schooling. This is shown again in Figure 11 with Full Primary (74.1%), Contributing Primary (74.4%), and Intermediate Schools (73.5%) having the highest percentages of students attending school regularly.

The trend of secondary school student attendance declining is also reflected as Secondary (Year 7-15) (66.7%), Composite<sup>4</sup> (63.2%), and Secondary (Year 9-15) (61.0%) have lower proportions of students attending school regularly.

**Figure 11: Students Attending School Regularly, by School Type, Term 2, 2015**



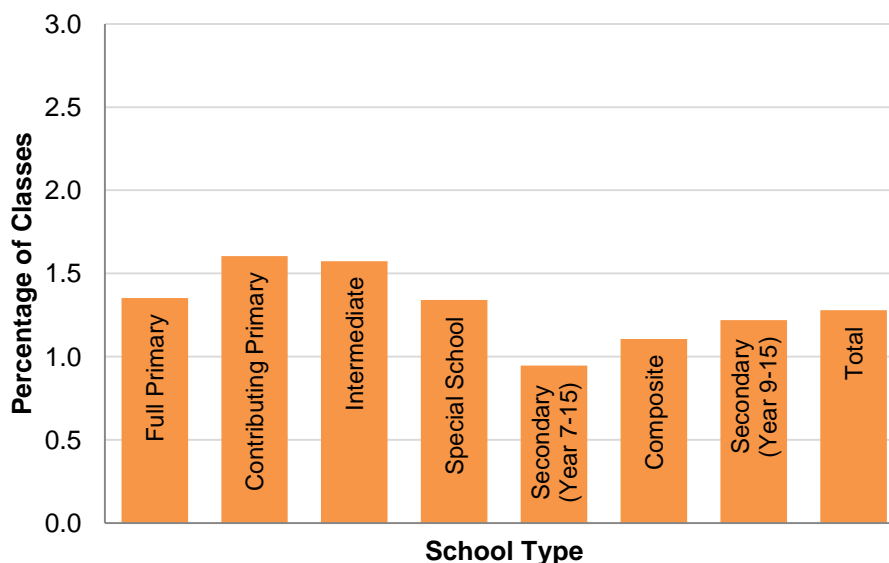
**Figure 12: Half-Day Attendance, by School Type, Term 2, 2015**



The percentage of students attending regularly at Special Schools is 64.6%. The majority of non-attendance at Special Schools is from justified absences. This is likely related to the fact that special schools support high needs students. Consideration of this should be made when interpreting their results.

<sup>4</sup> This includes Composite and Restricted Composite schools.

Figure 13: Students Arriving Late to Class, by School Type, Term 2, 2015



Again, trends previously observed in Figure 8, are reflected in the percentage of classes that students arrive late to, by school type. Although primary schools have high levels of students attending regularly, they also have high levels of students arriving late to classes attended; with Contributing Primary, and Intermediate Schools having the highest percentage overall (1.6%).

Secondary schools had lower levels of students arriving late to class, with Secondary (Year 7-15) having the lowest rate overall (0.9%).

### Decile of School

School deciles indicate the extent the school draws their students from low socio-economic communities. They are used target funding, for state and state-integrated schools, to help them overcome any barriers to learning that students from lower socio-economic communities might face. Decile 1 schools are the 10% of schools with the highest proportion of students from low socio-economic communities, whereas decile 10 schools are the 10% of schools with the lowest proportion of these students.

Figure 14: Students Attending School Regularly, by Decile, Term 2, 2015

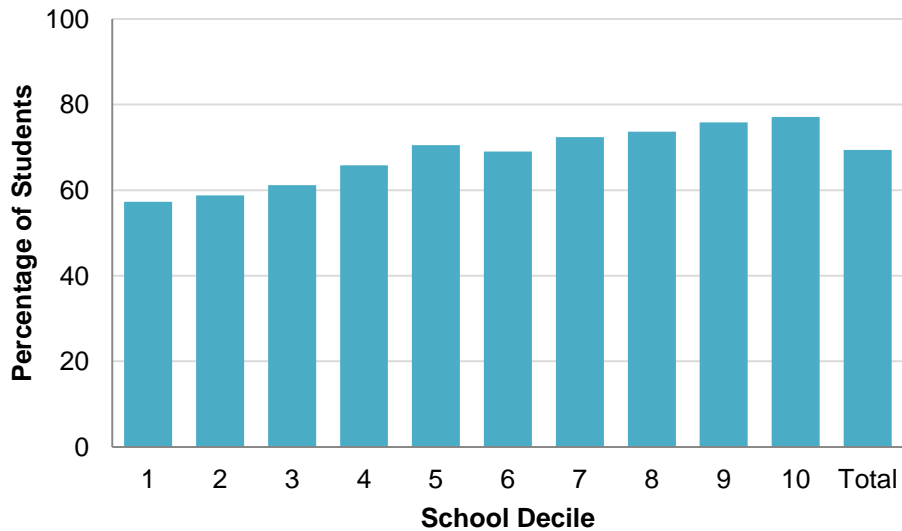
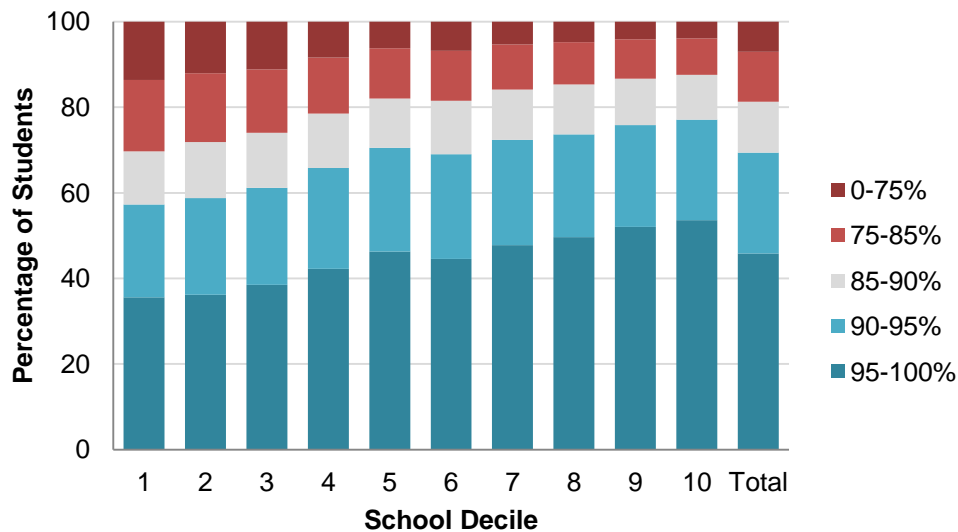


Figure 15: Half-Day Attendance, by Decile, Term 2, 2015

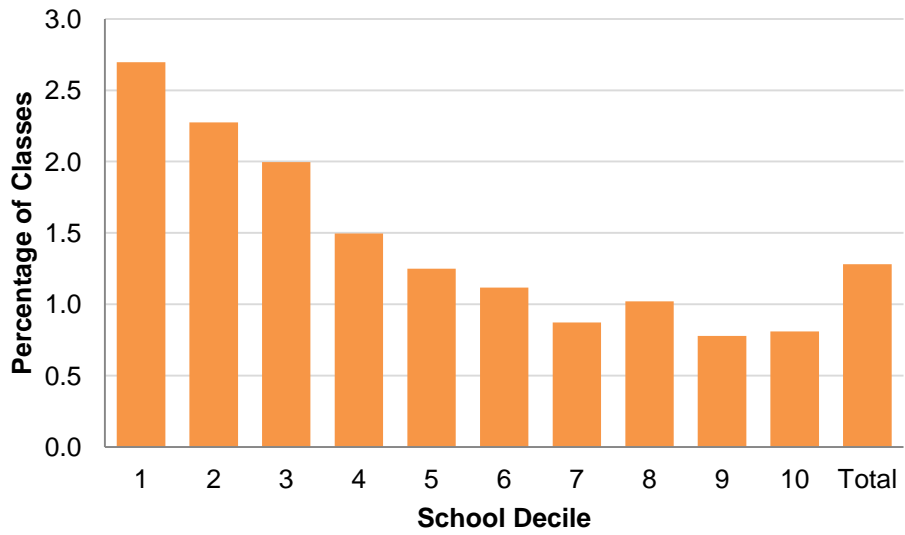


As school decile increases so does the percentage of students attending school regularly (with the exception of decile 6). Just over 77% of students at decile 10 schools attend school regularly, which is unchanged compared to 2014. Just over 57.2% of students at decile 1 schools, this compares to 55.9% in 2014.

The data shows that schools with high levels of students attending regularly also tend to have low levels of students arriving late to class.

Decile 1 schools have the highest percentage of students arriving late to class, at 2.7%, while deciles 9 and 10 have the lowest, at 0.8%.

Figure 16: Students Arriving Late to Class, by Decile, Term 2, 2015



# Regional Analysis

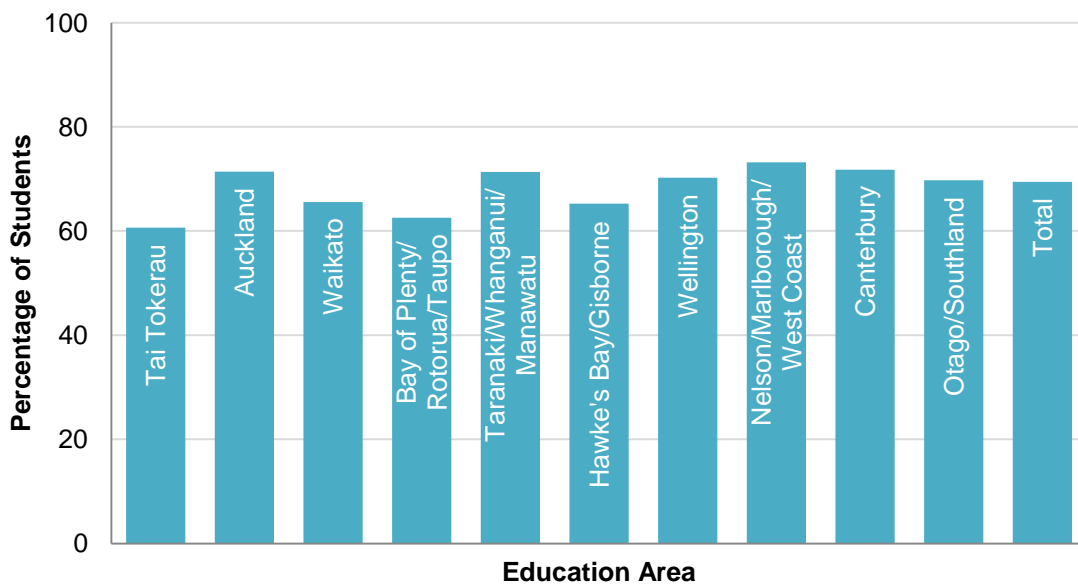
The regional analysis in this section focuses on education areas. Data based on regional council is also available in the data tables released alongside this report.

## Education Area

School attendance in the South Island was above the national average of 69.4%. The North Island had a range of attendance rates below, at and above the national average.

The Nelson/Marlborough/West Coast education area had the highest percentage of students attending school regularly (73.2%), whereas Tai Tokerau had the lowest (60.6%).

**Figure 17: Students Attending School Regularly, by Education Area, Term 2, 2015**



**Figure 18: Half-Day Attendance, by Education Area, Term 2, 2015**

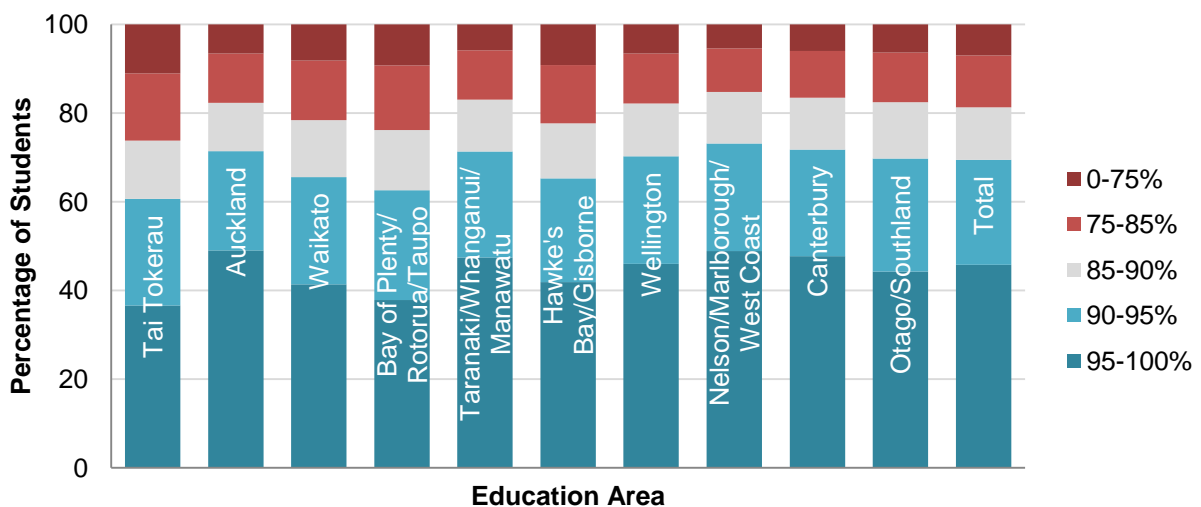
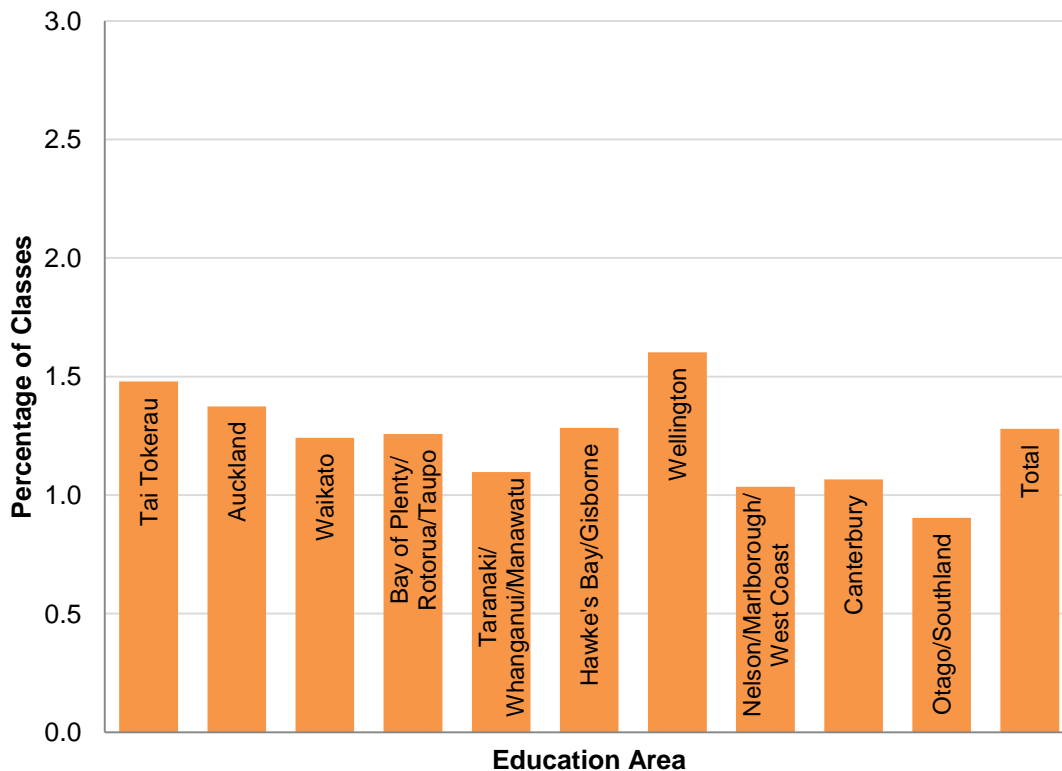


Figure 19: Students Arriving Late to Class, by Education Area, Term 2, 2015



The South Island education areas had the lowest percentage of students arriving late to classes, with Otago/Southland having the lowest of all education areas at 0.9%.

Wellington had the highest levels of students arriving late to class, at 1.6%, despite having a relatively high percentage of students attending regularly.

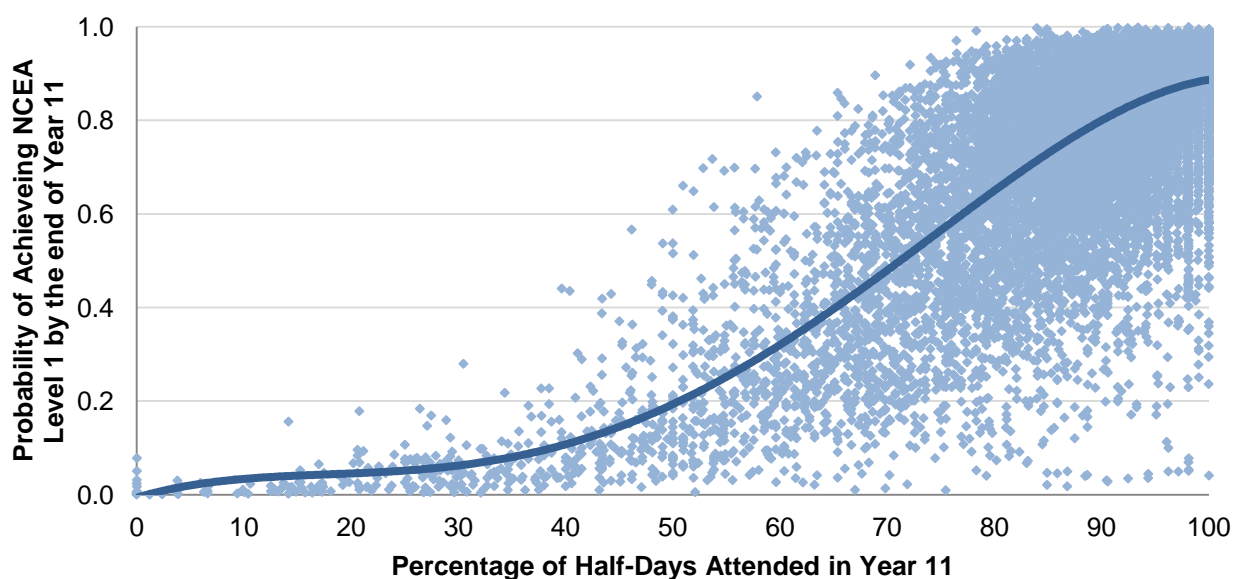
# Attendance and Achievement

## Why Attendance Matters

In this section we present a model<sup>5</sup> that analyses the relationship between attending school and the likelihood of achieving NCEA Level 1 for Year 11 students. We have five years of Term 2 attendance data for students who were in Year 11 in 2015. That means we have their attendance for Year 7 through to Year 11.

There is a strong relationship between attendance in Year 11 and probability of achieving NCEA Level 1 in Year 11.

Figure 20: Probability of Year 11 Students in 2015 Achieving NCEA Level 1, by Attendance at School in Term 2



The absence of data points in the top-left corner of Figure 20 and the presence of data points in the bottom-right corner can be interpreted as that while attendance is required to have a high probability of achieving, it does not guarantee it. This reflects situations where other circumstances may affect a student's ability to achieve.

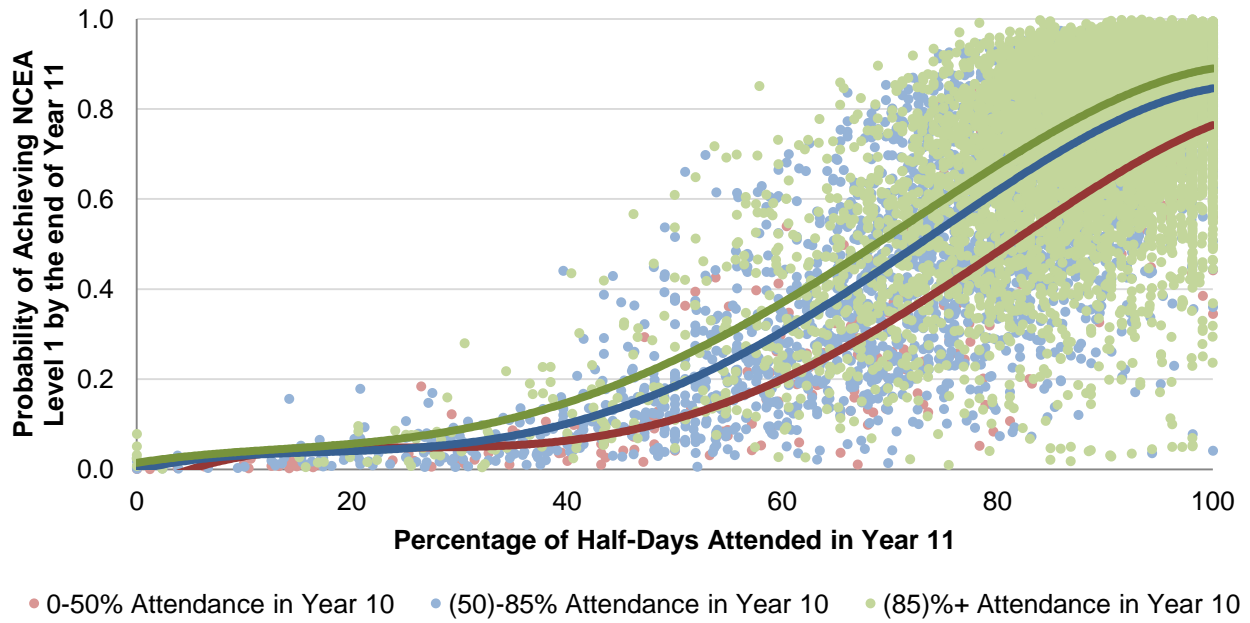
Student attendance in Years 9 to 11, out of all years from Years 7 to 11, were found to be the most significant predictors of achievement in Year 11. Attendance in Year 11, out of all years from Years 7 to 11, had the largest effect on the probability of a student achieving NCEA Level 1. This indicates that it is never too late to improve a student's chances of achieving by improving their attendance.

It is never too  
late to  
improve.

Attendance in Year 10 had the next largest effect on achievement with the effects of non-attendance in previous years observed, in Figure 21.

<sup>5</sup> More information regarding the model used to analyse the data in this section can be found in the section Appendix: Supplementary Information.

Figure 21: Probability of 2015 Year 11 Students Achieving NCEA Level 1, by Attendance at School during Term 2



## Week-by-Week Analysis of Term 2

In this section we look at average student attendance by week. Using the data for all of Term 2 provides a much richer picture of how attendance at school changes over the term. In week 1 of Term 2 2015 93.2% of students attended school. This decreased over the course of the term to be 87.8% in the last week of Term 2.

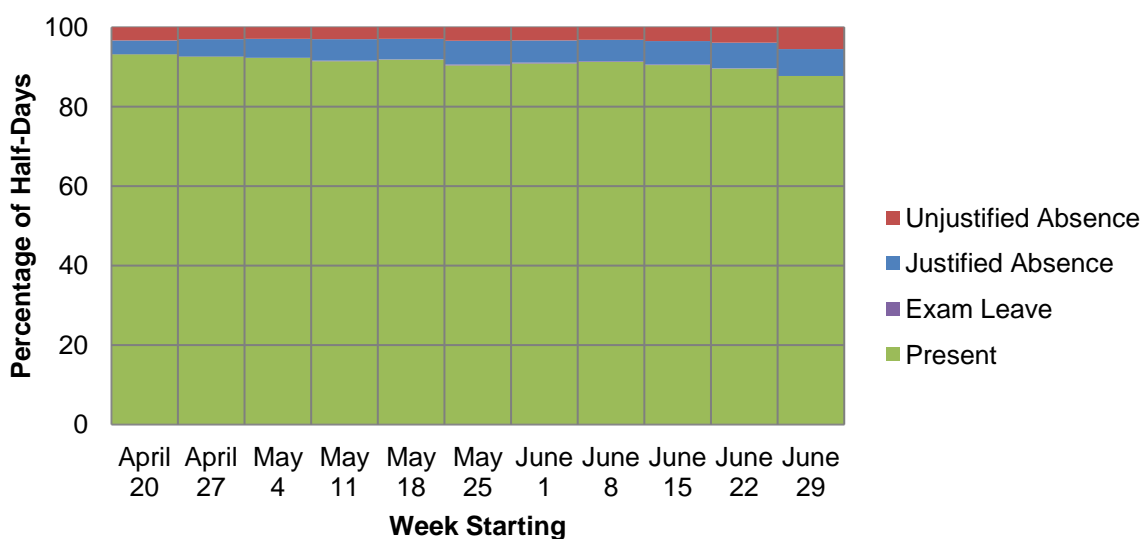
Exam leave (presented in Figure 22 but too small to be observable) represents up to a maximum of 0.2% of half-days between weeks 4 and 10 of Term 2. In other terms (particularly Term 4) this is likely to be much higher.

There are weeks of the term which have peaks in students being absent for unjustified reasons (e.g. skipping class or holidays during term time). This occurred in week 6 (beginning May 25<sup>th</sup>) rising by 0.5 percentage points from the previous week, and also in the final week of term, rising by 1.6 percentage points from the previous week.

Students absent for justified reasons (e.g. sickness) appears more variable over the course of the term, with peaks (greater than 0.5 percentage point change from the previous week) occurring in weeks 2, 4, 6 and 10.

Attendance gradually decreases over the course of the term.

Figure 22: Weekly Attendance, Term 2, 2015



# Survey-week analysis

As mentioned earlier in the report we are continuing to produce the week-long national attendance estimates. These can be interpreted as the average daily absence rate during the survey-week.

## National Summary

The survey-week in 2015 was from 8-12 June.

- The national absence rate (both justified and unjustified absences) was 9.9% or 73,400 students per day, with a margin of error of 0.6%.
- The 2015 national absence rate shows a decline since 2014 (10.8%). This was due to a decrease in both justified and unjustified absences.
- The total unjustified absence rate was 4.1%. This compares to 4.6% in 2014, and 3.9% in 2013.
- The national frequent truant rate (students who were unjustifiably absent for three or more days in the survey week) was 1.2%. This rate was lower than in 2014 (1.3%).
- While frequent truancy rates were highest for Māori and Pasifika students (2.0% and 1.5%, respectively), these rates were lower for both groups in 2015 compared to 2014.
- In 2015, all state and state integrated schools were invited to participate in the attendance survey. The response rate was 77.7%, compared to 75.8% in 2014.

# Appendix: Supplementary Information

## Collection Change Explanation

The Ministry of Education has changed the way that attendance in New Zealand schools is reported. Since 2011, data has been collected that includes attendance for each day of Term 2 each year. This report has been modified to report upon the entirety of this data thereby removing some of the noted limitations of the survey-week analysis. The national picture, using survey-week analysis, is still reported in this report as a feature for reference purposes.

All supporting data tables for the survey-week analysis have also been provided for download from [Education Counts](#), under the name “Survey-Week Data Tables”.

## Response Rates

Of the 2,420 schools invited to submit Term 2 attendance data, completed returns were received from 1,887 schools, a response rate of 78% (76% in 2014). In total, the responding schools had approximately 634,000 students on their rolls, equating to 86% of the student population in all state and state integrated schools on 1 July 2015.

## Definitions of Attendance

Attendance data was collected for each student for each day of the term. Other information about the school was also collected.

- If a student was enrolled for less than 30 half-days during Term 2 their data has not been included in the estimates presented in this report.
- Alternative education students and students attending teen parent units are excluded from this report.
- Being present at school does not include justifiable (nor unjustifiable) absence from school. It does include classes where a student is at school for the day but needs to attend an in school or out of school appointment or is on a school organised outing.
- Students attending regularly are defined as having attended more than 90% of all school time in Term 2 in 2015, where time is measured in half-days.
- Students arriving late to class are classified as attending said classes, as the student was present for the class after arriving late. Therefore, to accurately report on students arriving late to class, only classes that were attended are included in this measure.
- Justified and unjustified absences are absences with explanations that have been deemed satisfactory or unsatisfactory, respectively. School principals are required to make a judgement as to which explanations they will accept, based on school policy. These policies may vary slightly and could lead to small differences in data between schools.

## Survey-Week Definitions

Attendance data was analysed for each student for each day of the survey week. Absence rates relate to the average daily absence for the survey week. Note that this does not tell us whether the same students were absent each day.

Absences were classified into three main absence types: justified absences, unjustified absences, and intermittent unjustified absences. **Total absence** relates to the sum of these three absence types.

- **Justified** and **unjustified absences** are absences with explanations that have been deemed satisfactory or unsatisfactory, respectively. School principals are required to make a judgement as to which explanations they will accept. The basis for this judgement is a matter of school policy and as such the balance of justified and unjustified absence may vary slightly from school to school.
- Unjustified absences are considered **intermittent** if the absence occurred for part of the day, rather than the majority thereof.
- **Total unjustified absence** relates to the sum of unjustified absence, and intermittent unjustified absence.
- The rate of **frequent truants** was also estimated. A student was classified as a frequent truant if they were unjustifiably absent for three or more days during the survey week.

## Attendance and Achievement Data Considerations

The students included in the attendance and achievement analysis are a cohort of Year 7 students in 2011, which are then tracked through attendance data over time, until they are in Year 11. Their achievement in Year 11 is then compared with their attendance in each year, to identify a relationship between these measures.

As students may move between schools over time, and not all schools submit Term 2 attendance data, some students are not in the data in some years. This means the cohort of students able to be found in all years between 2011 and 2015 is approximately 20,000 students.

The model used to analyse this data accounts for the effect of ethnicity, gender, and school decile (as at Year 7, and Year 11) on achievement, as well as the fact that students attending the same school are likely to be similar in nature. The effect of student type, when included with other effects, was not found to be significant, and so was not included in the model.

Interpretations of this data should be made with caution; while there is a positive relationship between attendance and achievement no analysis of causation between the two variables has been made.

## Methodology

The 2015 attendance report uses student attendance data from Term 2, 2015 (April 20 - July 3). This report investigates the relationships between attendance, and achievement, school factors (school type, and decile), student factors (gender and year level, and ethnicity of the student), or regional factors (education area).

In 2011 to 2015, all state and state integrated schools in New Zealand were invited to submit Term 2 attendance data. Schools that are able to enter their attendance records into their Student Management Systems (SMS) were asked to provide an extract of this data electronically.

The electronic files supplied by schools contain detailed attendance records. Each half-day's attendance or non-attendance is then reported.

Detailed attendance records are required for the analysis performed in this report, therefore only schools that can provide attendance data electronically are able to participate in this analysis. In earlier years, there were more schools that could not provide electronic extracts of their attendance data, and these schools were typically smaller primary schools. Therefore the data in this analysis has become more representative over time, as more schools are able to provide this data.

## Survey-Week Methodology

The 2015 attendance survey used student attendance data from the week of 8-12 June 2015.

In 1998, 2002, 2004, 2006, and 2011 to 2015, all state and state integrated schools in New Zealand were invited to participate in the attendance survey. All surveys from 2004 have used the same instructions. In 2009, a representative sample of 768 schools was invited to participate. Due to the nature of the sample and the number of responses from schools, some comparisons against 2009 are not possible.

Prior to 2009, data was collected using paper forms only. Since 2009, two forms of data collection have been used. Schools that are able to enter their attendance records electronically into their Student Management Systems (SMS) were asked to provide an extract of this data electronically. Until 2013, schools that were not able to do this were invited to take part in the paper version of the survey. Before 2009 all surveys used paper form data only.

From 2014, paper forms are not used, and only schools with electronic attendance registers are able to participate in the survey. The electronic files supplied by schools contain detailed attendance records. Each day's record was converted to a single daily attendance code. Schools recording absences on the paper form were required to make their own judgement as to whether a student was absent for all or part of a day, and whether the reason for the absence was satisfactory based on the definitions and instructions supplied.

In 2012 and all subsequent years, Teen Parent Units are not included in the computation of national absence rates.

## Time Frame

### Survey-Week Time Frame

The survey was carried out in the week of 8-12 June 2015, close to the middle of the second school term. This week was the same week of term as used in the 2009, and 2011-2014 surveys. By analysing data from a similar time of year, factors such as winter illness would have been at similar levels.

Prior to 2009, surveys were carried out in mid-August and early-September. Due to feedback from schools, starting 2009, surveys were carried out in mid-June, when absences due to winter illnesses were expected to be lower.

Some schools and local area activities resulted in school closures during the 2015 survey week. For schools that were closed or had data missing on days during the survey week, the missing data was replaced with an alternative day or days from an adjacent week. The corresponding day(s) from either the previous week or the week after were chosen at random.



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