MINISTRY OF EDUCATION
TE TĀHUHU O TE MĀTAURANGA

Briefing Note: Student attendance: release of 2020 Term 2 attendance data and related He Whakaaro research reports

To:	Hon. Jan Tinetti, Associate Minister of Education		
Cc:	Hon. Chris Hipkins, Minister of Education Hon. Kelvin Davis, Associate Minister of Education Hon. Aupito William Sio, Associate Minister of Education		
Date:	8 December 2020	**Priority:**	High
Security Level:	In Confidence	**METIS No:**	1244449
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Messaging seen by Communications team:	Yes	**Round Robin:**	No

Purpose of Report

The purpose of this paper is for you to:

a. **Note** that the Ministry reports annually on Term 2 student attendance using a measure of "regular attendance" across the whole term. In contrast the weekly student attendance reports use a headcount measure for each day of the reporting week for COVID-19 monitoring.

b. **Note** the results of the 2020 Term 2 attendance survey and the three COVID-19-related He Whakaaro research reports that are proposed to be released on Monday 14 December.

c. **Note** that we will liaise with your office regarding the communications approach for the release of these reports.

d. **Note** that regular student attendance as measured in the Term 2 attendance survey has increased to 64.0% in 2020 (from 57.7% in Term 2, 2019).

e. **Note** the general patterns observed in the 2020 Term 2 attendance report are consistent with what has been observed in the weekly attendance reports and He Whakaaro research reports.

f. **Agree** to proactively release this Briefing Note.

Agreed / Not Agreed

Document Set ID: 915547
Version: 1, Version Date: 17/12/2020

Summary

- This briefing provides you with information on the 2020 Term 2 attendance results (Annex 1) and three COVID-19 related He Whakaaro research reports (Annexes 2-4).
- The Term 2 attendance data is part of an ongoing series the Ministry usually publishes every year around November. It measures the percentage of students who have attended more than 90% of Term 2 (regular attendance).
- The He Whakaaro research reports use enrolment and attendance data to examine in detail how COVID-19 has affected school attendance and early learning participation, and whether more students have left school.
- In Term 2 of 2020, the percentage of students regularly attending school/kura increased to 64.0%. The regular attendance rate peaked in 2015 (69.5%), decreasing to a low in 2019 of 57.7%.
- This was a 6.3 percentage point increase in regular attendance between 2019 and 2020.
- There was an increase in regular attendance across all ethnicities in Term 2, 2020 compared to 2019, between 3.7 and 7.4 percentage points.
- Māori students in Māori Medium Education had a larger increase in regular attendance over Term 2 than Māori students in English Medium Education (5.0 percentage points compared to 3.7 percentage points).
- Enrolment data indicates that more senior secondary students stayed enrolled in school this year.
- In 2020, to support the response to COVID-19, each week the Ministry is providing daily attendance figures for the previous week, covering both schools and early learning services. The collection processes have evolved over the period of collection, leading to improved response rates.
- The Ministry has also been improving the collection and reporting of termly attendance data over the last three years. To provide a comprehensive view across the year, data for Terms 1, 3 and 4 are being collected and the Ministry is planning to release summaries for each term on a regular basis via Education Counts.
- The Ministry has experienced increased demand from media and other interested people for attendance data and analysis of the impact of COVID-19 on attendance. Making these reports available on Education Counts facilitates direct access to this information.

Alexander Brunt
Acting Deputy Secretary
Evidence, Data and Knowledge
4 /12/2020

Hon Jan Tinetti
Associate Minister of Education
9 /12/2020

Background and COVID-19

Term 2 attendance reporting

1. The Term 2 attendance report provides a picture of student attendance in New Zealand schools to help government, schools, Communities of Learning | Kāhui Ako and other sector representatives understand patterns of attendance.

2. The Term 2 attendance data is published as part of an ongoing series the Ministry publishes every year around November. It measures student attendance, where time is measured in half-days[1].

3. We report on four categories of student attendance:

    i. Regular attendance, students attending school for more than 90% of available half-days.

    ii. Irregular absence, students attending more than 80% and up to 90% of available half-days.

    iii. Moderate absence, students attending more than 70% and up to 80% of available half-days, and

    iv. Chronic absence, students attending school 70%, or less, of available half-days.

4. This Term 2 attendance report looks at data generated by the attendance survey taken between the end of April and the beginning of July. It is a voluntary survey run across primary and secondary schools that use Student Management Systems (SMS).

5. Due to the unusual circumstances of the COVID-19 pandemic in 2020, the data reflects different circumstances than in previous years. In 2020 Term 2 was 12 weeks long, beginning on Wednesday 15 April during COVID alert level 4 and finishing on Friday 3 July during COVID alert level 1. In comparison Term 2, 2019 was 10 weeks long.

6. During the first 5 weeks of Term 2, 2020 New Zealand was at COVID-19 Alert Levels 3 and 4. At alert level 4 all students were engaged in home learning. At alert level 3 schools were open for students who could not be supervised at home by an appropriate person. When students were engaged in home learning, Ministry guidance was for schools to code these students as 'learning offsite'. From Thursday 14 May most students returned to physically attending schools/kura as restrictions lifted in alert level 2.

7. Since any variation in attendance during the initial 5-week period is only due to the way schools recorded attendance, these weeks have not been included in analysis and reporting. The main data to be published covers the last 7 weeks of Term 2 2020 (Monday 18 May to Friday 3 July) when students physically attended school. The data for the whole term including the first 5 weeks is included in supplementary data tables.

8. In 2020 Term 2, 740,321 student attendance records were reported and processed from 2,176 schools (90% of all state and state-integrated schools/kura). This represents 94.3% of the student population in all state and state-integrated schools/kura on 1 July 2020.

[1] A half-day is a minimum of two hours either before or after noon, contributing to the minimum four hours of school/kura a day. It is different from the COVID-19 weekly attendance report which measures student head count and not how long they spend at school on any one day.

COVID-19 related He Whakaaro research reports

9. Alongside the regular Term 2 attendance release, we intend to publish three He Whakaaro research reports that focus on the ways in which COVID-19 is impacting various aspects of the early childhood education and schooling systems.

10. The He Whakaaro | Education Insights series on the Education Counts website aims to provide relevant and insightful evidence and to provoke further thought and discussion on key education issues. The series is for policy analysts, people working in the programme and intervention area, educators interested in knowing more about education evidence and data, as well as the general public.

11. The three He Whakaaro research reports are:

    i. ***How COVID-19 is affecting school attendance*:** A report looking at attendance data over Terms 1-3 (compared to 2019) to show how patterns in students attending school have been impacted by COVID-19. This report particularly focuses on the month after the national lockdown (in Term 2), and the month after the regional Auckland lockdown (in Term 3) (refer Annex 2).

    ii. ***Is COVID-19 making students leave school?*** A report looking at school enrolment data over 2020 and 2019 to examine whether the rate at which students formally unenrolling from the school system, or changing schools, is changing in response to the COVID-19 outbreaks and associated lockdowns. This uses data from the (already released) July school roll return, as well as the currently unreleased September roll return, and data from the live ENROL database (refer Annex 3).

    iii. ***How participation in early learning is affected by COVID-19*:** A report examining changes in child attended hours in early childhood education over 2020, with a focus on how ECE participation recovered following changes in alert levels (refer Annex 4)*.*

Other attendance reporting

Terms 1, 3 and 4 attendance data collection

12. Historically, the Ministry has only collected attendance data from Term 2 for the official indicator of student attendance. Attendance in Term 2 is more stable than other terms and has fewer public holidays. However, the Ministry has been collecting attendance data for the other three terms and we plan to release this on an on-going basis.

13. This data will be released as summary tables on Education Counts. At present, the data is summarised into school-specific reports for participating schools only. Once a time series for Terms 1, 3 and 4 has accumulated we will review the way we report termly attendance.

Weekly attendance reporting

14. The weekly attendance snapshots (in their current form) were first produced during the week of 25 May to 28 May 2020 after New Zealand moved to COVID Alert Level 2 at 11.59pm on 13 May and continue to be reported. The purpose of these reports is to keep national COVID-19 monitoring groups, the Government and the public informed about how many children are learning onsite in early learning services (ELS) and schools during the COVID-19 period.

15. In contrast to the Term 2 attendance reporting, the weekly attendance report measures the percentage of children who attended an early learning services (ELS) or school at any time during each day of the week, as opposed to the termly attendance report that combines attendance in half-days to measure regular attendance across the term.

16. The weekly attendance snapshots are based on voluntary and electronically submitted administrative data and therefore do not cover all schools or early learning services. However, due to enhancements to the way schools submit their weekly attendance data, the response rate from schools has improved markedly, from a low of below 50% to at least 79% in recent weeks.

17. The weekly attendance snapshots are delivered as an Education Weekly Update (EWU) item and made publicly available via Education Counts.

Key findings

18. The Term 2 attendance survey report and the three COVID-19-related He Whakaaro research reports provide insights on slightly separate aspects but combine to give a cohesive picture of how COVID-19 impacted participation for New Zealand learners.

19. Participation of senior secondary school students is increasing in response to COVID-19.

- While there have been media reports about some students who have left school in order to seek work to support their families this year, data does not support this being a widespread systemic issue.
- Enrolment data indicates that there are more senior secondary students staying enrolled in school than in previous years.
- There have been particularly large drops in the number of Māori, Pacific, and low decile students leaving school this year.
- There has not been a 'catch up' in the number of students being unenrolled over this time. While it is possible that some schools are not completely up to date with unenrolling students who have left school this year, our data extend to include five months of school after the national lockdown ended, and two months after the Auckland lockdown.
- Our data on attendance also indicates no substantially negative effect for senior secondary students. While larger numbers of students are remaining enrolled compared to previous years, attendance data does not show that they are not attending.
- Across Term 2, senior secondary students (Year 11 -13) saw a 7.0 percentage point increase in regular student attendance, from 50.5% to 57.5%.
- In addition, the month after the end of both the national and Auckland lockdowns, the attendance of students in Years 11-13 was higher than over the same months in 2019.

20. On average, school attendance has increased this year, and ECE participation has recovered quickly.

- Across the last seven weeks of Term 2, 2020 (after the end of the national lockdown), regular school attendance across the country (all year levels) increased by 6.3 percentage points to 64.0% compared to term 2, 2019.

- The He Whakaaro on *How COVID-19 is affecting school attendance* found that attendance levels over the first six weeks of this year (prior to COVID-19) were slightly lower than the beginning of 2019, so this increase in attendance has emerged in response to COVID-19.

- In early learning services, attending hours dropped over each lockdown, but have largely returned to 2019 levels (on average) over Alert Level 1.

21. There has also been some impact on equity and excellence.

    - There have been slower recoveries in school attendance after lockdowns for Pacific and Māori students, students in decile 1 and 2 schools, and students participating in Māori medium.

    - Māori and Pacific students experienced 3.7 and 5.2 percentage point increase respectively in regular attendance across the last seven weeks of Term 2, 2020. These increases were lower than other ethnic groups, such as European/Pākehā students who saw a 7.4 percentage point increase.

    - Compared to Term 2, 2019, Māori students in Māori Medium Education (MME) experienced a 5.0 percentage point increase in regular attendance rates from 40.6% to 45.6%, the increase was larger than that of Māori students in English Medium Education (EME), increasing 3.7 percentage points from 44.9% to 48.6%.

    - However, Māori students in MME experienced larger increase in chronic absence of 7.0 percentage points from 11.5% to 18.5% in Term 2, 2020 compared to 2019, and Māori students in EME had 4.6 percentage point increase in chronic absence from 12.8% to 17.4%..

    - Students in decile 1 schools had a 0.7 percentage point increase in regular attendance, and students in decile 6 to 10 schools had a 7.7 percentage point increase in regular attendance.

22. For ECE participation, the reduction in hours attended was greater during periods of Alert Level 2 for Pacific and Māori children, and for children attending services in more socio-economically disadvantaged areas.

    - These differences across groups in the population have the potential to further increase existing inequities.

    - In both school attendance and ECE participation, the Auckland lockdown appears to have compounded attendance barriers for Pacific, Māori, and socio-economically disadvantaged learners in Auckland.

23. Possible reasons for absence during 2020 have changed as follows:

    - Over the last seven weeks of Term 2 (as well as the month after the Auckland lockdown in Term 3), rates of reported illnesses, holidays during term time, and lateness have all decreased compared to the same time last year.

    - However, rates of truancy, and especially 'explained but unjustified' absences, have increased following each lockdown. Explained but unjustified absences refer to situations where students or whānau provide a reason for an absence that the school accepts, but that reason does not fall under the school's attendance policy.

    - We are hearing from local communities that this could be due to concerns around catching COVID-19 in school or on transport, particularly when there are elderly and

immunocompromised family members in the same household. This also could in some instances be due to students missing school to work or take care of family members.

- However, rates of truancy and explained but unjustified absences have fallen among senior secondary students, meaning this is unlikely to be the main driver of absence this year.

24. Barriers to participation have been concentrated in younger learners, in particular:

- The largest increase in students who are chronically absent are students in primary school year levels (Years 1-8), particularly those who are Pacific, Māori, and/or attending lower decile schools.

- Across the last seven weeks of Term 2, 2020, for Māori and Pacific students in Year 1 to 8 attending schools in decile 1 and 2, 24.5% of Māori students and 20.4% of Pacific students experienced chronic absence in term 2, 2020 (an increase of 10.0 and 8.4 percentage points respectively)

- About a quarter of decile 1-2 students had not attended at all in the first week back after the Auckland lockdown, and about 5% did not attend school at all over the month following lockdown. These students are almost all primary school aged.

- In early learning, participation hours have dropped more for younger (0-2-year-old) children than for three- and four-year olds. Some five-year olds in ECE appear to be slightly delaying their enrolment to school, although patterns appear to be returning to last year's levels over Alert Level 1.

Communications Approach

25. We anticipate that these reports will attract media attention. A communications plan has been drafted (refer Annex 5) and we will continue to work with your office on communications surrounding this release.

Next Steps

26. We will liaise with your office regarding the communication of the proposed release of the Term 2 Attendance Data and the three COVID-19-related He Whakaaro reports on 14 December via the Education Counts website.

27. We will begin the process of preparing the Terms 1, 3 and 4 attendance data for release on Education Counts.

28. A strategy session on attendance with the Ministers will be held early in the new year.

Proactive Release

29. We recommend that this Briefing is proactively released as per your expectation that information be released as soon as possible. Any information which may need to be withheld will be done so in line with the provisions of the Official Information Act 1982.

Annexes

Annex 1: Students/ākonga attending school/kura regularly Term 2, 2020

Annex 2: He Whakaaro research reports: How COVID-19 is affecting school attendance and Appendix

Annex 3: He Whakaaro research reports: Is COVID-19 making students leave school?

Annex 4: He Whakaaro research reports: How participation in early learning is affected by COVID-19

Annex 5: Communications Plan

Annex 1: Students/ākonga attending school/kura regularly Term 2, 2020

Document Set ID: 915547
Version: 1, Version Date: 17/12/2020

MINISTRY OF EDUCATION
TE TĀHUHU O TE MĀTAURANGA

Education Indicator

EDUCATION AND LEARNING OUTCOMES

Students/ākonga attending school/kura regularly

The rate of regular attendance increased 6.3[1] percentage points in 2020 to 64.0%.

Indicator Description

Regular attendance at school/kura, measures the percentage of students who have attended more than 90% of Term 2, where time is measured in half-days[2].

Using the same half-days measure, irregular absence means students attended school/kura more than 80% and up to 90% of term 2, moderate absence means students attended more than 70% and up to 80% and chronic absence means students attended 70% or less of the available school/kura days.

This year's Term 2 attendance report is unlike previous years. This report provides attendance statistics and analysis for the last 7 weeks of Term 2 (18 May 2020 to 3 July 2020) in 2020 and comparisons with the full term in previous years.

Why regular attendance is important

Attendance is linked to both student wellbeing and to attainment.

Student wellbeing is a key priority of the education system. Our education insights studies[3] confirm that attending school regularly predicts the best outcomes for wellbeing on average. The Ministry found that reports by 15-year-old students of skipping a greater number of days in the previous fortnight of school predicted worse average outcomes relating to schoolwork-related anxiety, sense of belonging, bullying, racism and motivation[4].

Attendance is also linked to student attainment in secondary students. Recent research[5] shows that each additional half day absence from school predicts a consistent reduction in the number of NCEA credits a student subsequently attains – whether that is the student moving from 100% to 99% attendance or moving from 71% to 70% attendance. Students who are absent even 5-10% of the

[1] This increase is comparing 7 weeks Term 2 2020 with full term 2019.
[2] A half-day is a minimum of two hours either before or after noon, contributing to the minimum four hours of school/kura a day.
[3] He Whakaaro: School Attendance and Student Wellbeing, Ministry of Education, February 2020, available at, https://www.educationcounts.govt.nz/publications/schooling/he-whakaaro-school-attendance-and-student-wellbeing
[4] He Whakaaro: School Attendance and Student Wellbeing, Ministry of Education, February 2020, available at, https://www.educationcounts.govt.nz/publications/schooling/he-whakaaro-school-attendance-and-student-wellbeing
[5] He Whakaaro: What is the relationship between attendance and attainment? Ministry of Education, February 2020

time (still considered "regular" attendance) obtain fewer NCEA credits than those with slightly higher attendance. There is no "safe" level of non-attendance.

Impact of COVID-19 on 2020 Term 2 attendance reporting

This report compares attendance over the last 7 weeks of Term 2, 2020 with attendance for the full terms in previous years.

Due to the unusual circumstances of the COVID-19 pandemic in 2020, Term 2 was 12 weeks long, in comparison Term 2 is usually 10 weeks long. During the first five weeks of Term 2, 2020 New Zealand was at COVID-19 Alert Level 4 from 15-27 April, then at Alert Level 3 from 28 April to 13 May. The majority of students were learning at home and Ministry guidance was for schools to code students as 'learning offsite'.

From 14 May until Friday 3 July most students returned to physically attending schools/kura as restrictions lifted in Alert Level 2.

Tables of attendance data including the full term and the last 7 weeks for both 2019 and 2020 are in the appendix to this report.

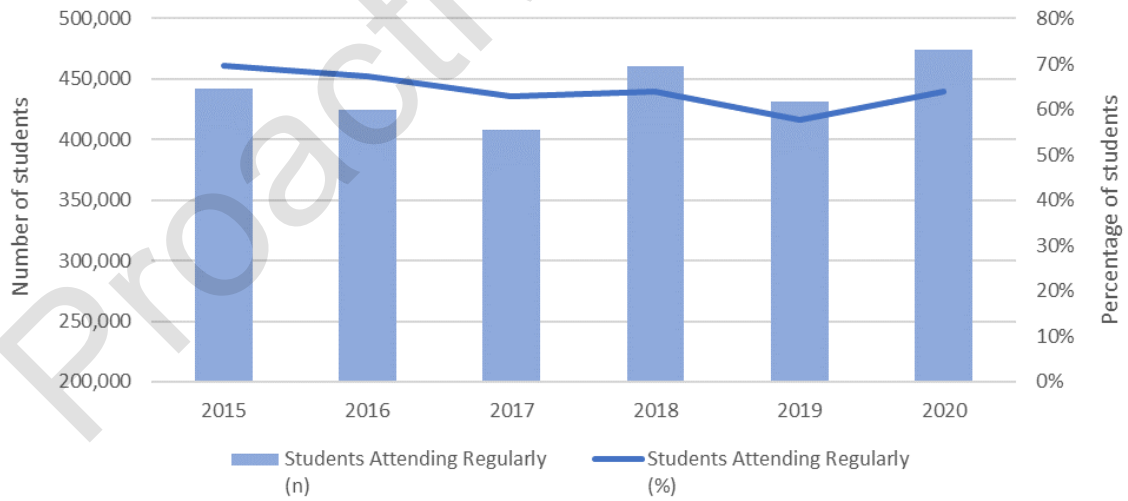
How are we going post COVID-19 National Lockdown?

In Term 2, 2020, 64.0% of students attended school/kura regularly during the last 7 weeks of term, compared to 57.7% in Term 2, 2019.

In the last 7 weeks of Term 2, 2020, there were 68 half-days. The attendance records of 740,321 students were reported and processed[6] from 2,176 schools (90% of all state and state-integrated schools) for this period. This represents 94.3% of the student population in all state and state integrated schools/kura on 1 July 2020.

In 2020, following the end of the national lockdown, the percentage of students attending school regularly recovered after a drop in 2019.

Figure 1. The percentage of students attending school regularly increased in 2020[7]



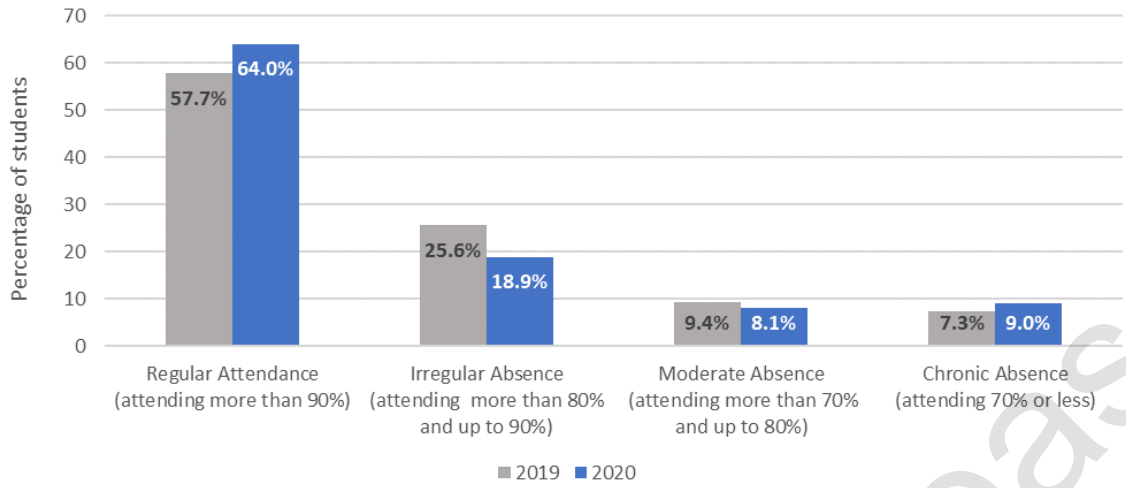
Over the last seven weeks of Term 2, 2020 64.0% of students were regularly attending school/kura, an increase of 6.3 percentage points compared to Term 2 in 2019 (57.7%). The irregular absence rate and

[6] More information about how the data is processed is available at https://www.educationcounts.govt.nz/statistics/indicators/definition/student-engagement-participation/3925

[7] The data in graph represents full Term 2 from 2011 – 2019 and last 7 weeks of Term 2 in 2020.

moderate absence rate each decreased, by 6.7 and 1.3 percentage points respectively. However, the chronic absence rate increased 1.7 percentage points to 9.0% in 2020 (7.3% in 2019).

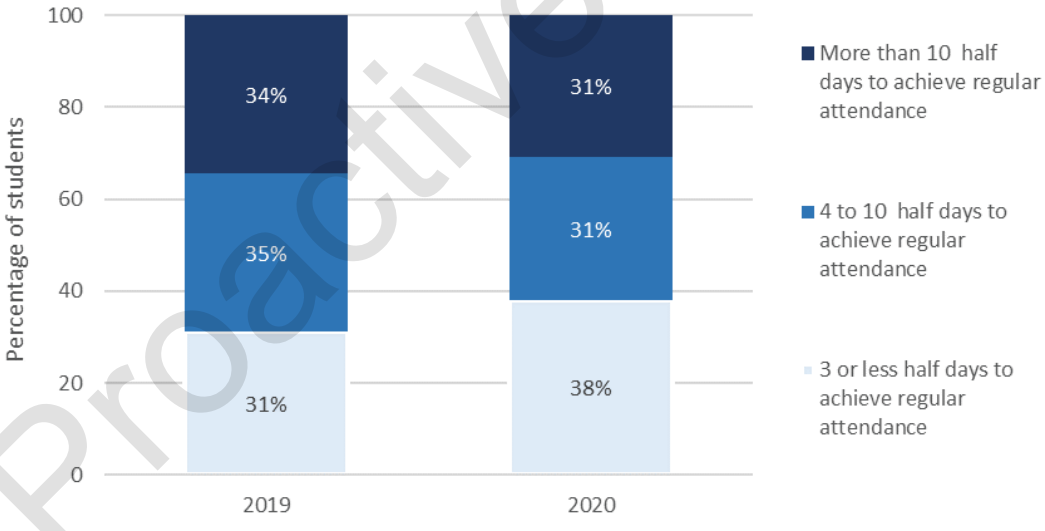
Figure 2. The percentage of students with irregular or moderate absence decreased in 2020



Of students who did not attend regularly, 38% were short of regular attendance by 1 to 3 half days, which was an increase of 7 percentage points compared to 2019. The percentage of students who were short of achieving regular attendance by more than 10 half days decreased 3 percentage points to 31% in 2020.

These findings indicate that the COVID-19 pandemic situation impacted students differently, possibly exacerbating existing barriers or introducing new barriers to attendance for some, even though barriers were reduced for others.

Figure 3. Students short of achieving regular attendance in 2019 vs. 2020

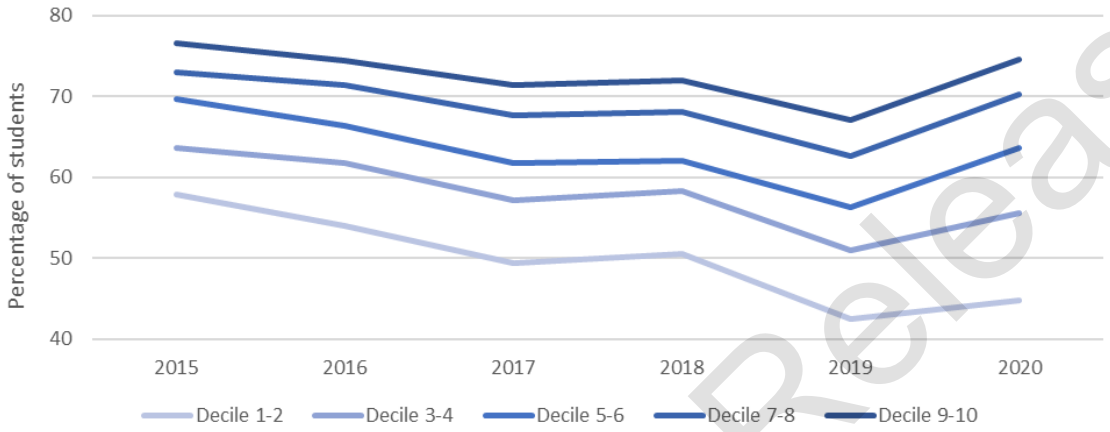


Attendance by school/kura decile

A school's decile[8] indicates the extent to which the school draws its students from low socio-economic communities. There is a correlation between school socio-economic mix and the rate of student attendance. In general, as school decile increases so does the percentage of students attending school/kura regularly.

The percentage of students attending school regularly has increased in 2020. Across deciles, lower decile schools saw a smaller increase from 2019 to 2020 compared to higher decile schools. Regular attendance in high decile schools (decile 5-10) has also improved over the rates in 2017 and 2018, this is not the case for low decile schools.

Figure 4. Regular attendance across all deciles in Term 2 from 2011 to 2020[9]

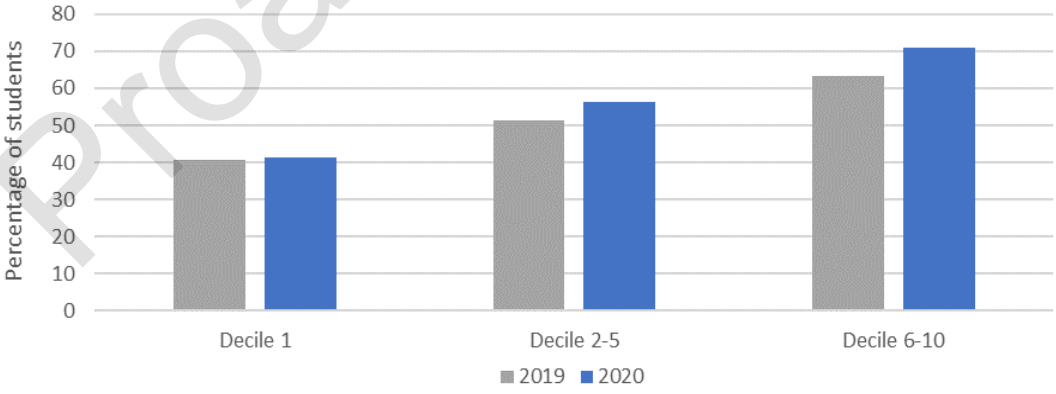


In Term 2, 2020, decile 1 schools/kura experienced the smallest increase in the percentage of students attending school regularly compared to 2019, increasing 0.7 percentage points to 41.4%. In all other decile groups, the percentage of students attending school regularly increased between 3.9 – 8.0 percentage points.

Higher decile schools/kura had the largest increase in regular attendance rates. The percentage of students regularly attending decile 2 to 5 schools increased by 5.0 percentage points. In comparison, the percentage of students regularly attending decile 6 to 10 schools increased by 7.7 percentage points.

In Term 2, 2020, 56.3% of students at decile 2 to 5 schools attended regularly (51.3% in Term 2, 2019) compared to 71.1% of students at decile 6 to 10 schools (63.4% in Term 2, 2019).

Figure 5. More students in higher decile schools attended school regularly in Term 2, 2020



[8] Decile 1 schools are the 10% of schools with the highest proportion of students from low socio-economic communities, whereas decile 10 is the 10% of schools with the lowest proportion of these students. A school's decile does not indicate the overall socio-economic mix of the school.

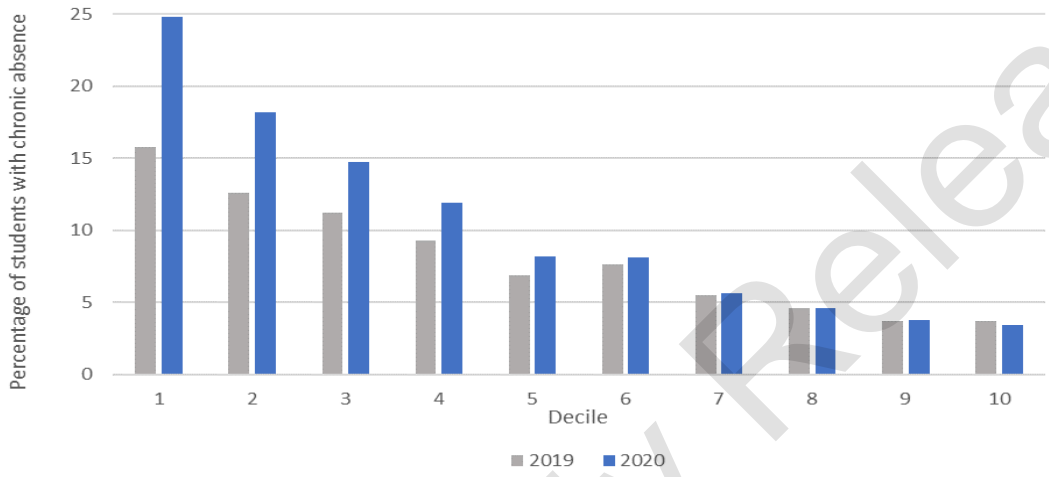
[9] The data in graph represents full Term 2 from 2011 – 2019 and last 7 weeks of Term 2 in 2020.

However, the percentage of students with 'chronic' absence (attending less than 70% of term 2) also increased in 2020 except for students from schools/kura in decile 10.

The increase in chronic absence was large for students from lower decile schools/kura. In decile 1 schools/kura, 24.8% of students experienced chronic absence, a 9.0 percentage point increase (15.8% in Term 2, 2019). In contrast, 3.4% of students in decile 10 schools/kura experienced chronic absence, a decrease of 0.3 percentage points compared to 2019.

These findings indicate that the COVID-19 pandemic situation impacted students differently. Some students who attended lower decile schools/kura moved from moderate absence (attending more than 70% and up to 80% of term 2) or irregular absence (attending more than 80% and up to 90% of term 2) to chronic absence and some of those who were already experiencing chronic absence experienced greater absence from school/kura.

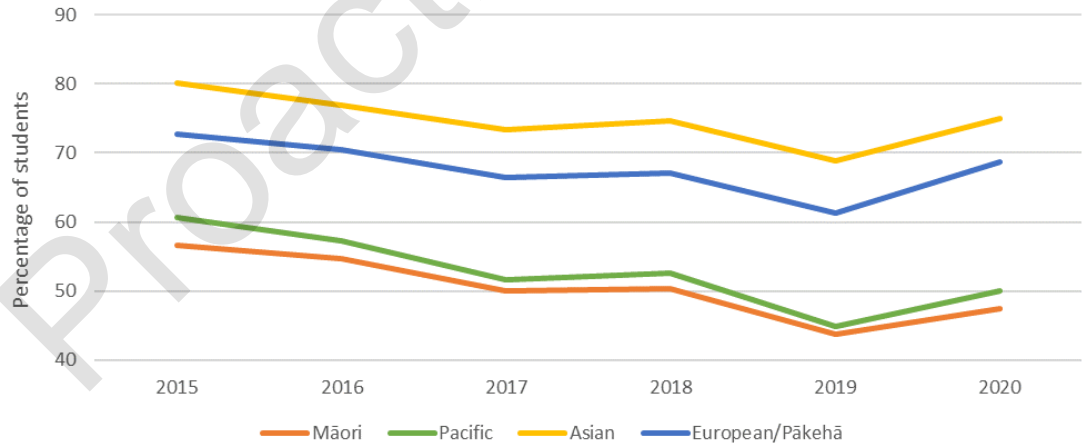
Figure 6. More students in lower decile schools experienced chronic absence in Term 2, 2020



Attendance by Ethnicity

In Term 2, 2020, the overall increase in regular attendance has been seen across all ethnicities. The regular attendance rate decreaed to a low in 2019 across all ethnicities.

Figure 7. Regular attendance across all ethnicities in Term 2 from 2011 to 2020[10]

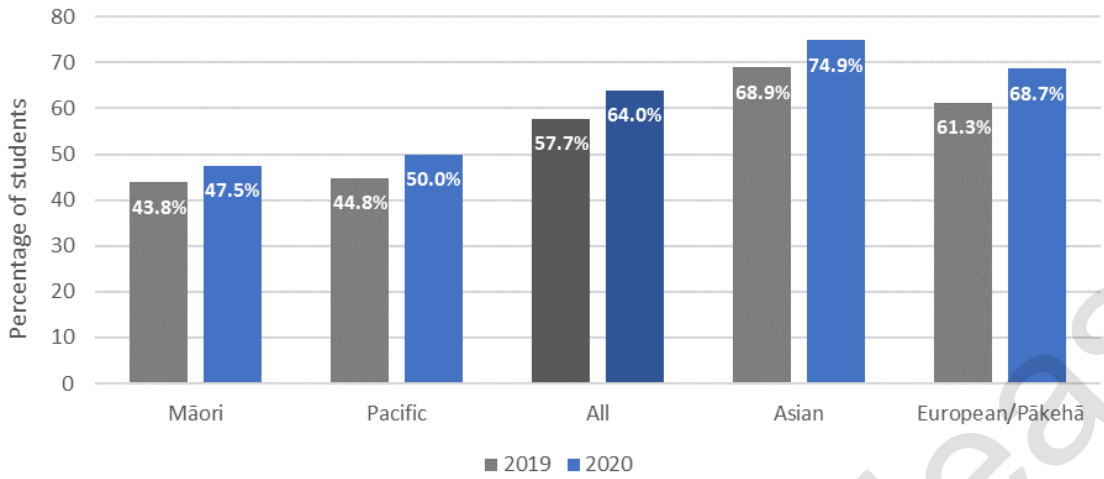


From 2019 to 2020 European/Pākehā students had the largest increase in regular attendance rates compared to 2019, increasing 7.4 percentage points to 68.7%. This was followed by Asian students, whose attendance rates increased 6.0 percentage points to 74.9%. Although Māori and Pacific students

[10] The data in graph represents full Term 2 from 2011 – 2019 and last 7 weeks of Term 2 in 2020.

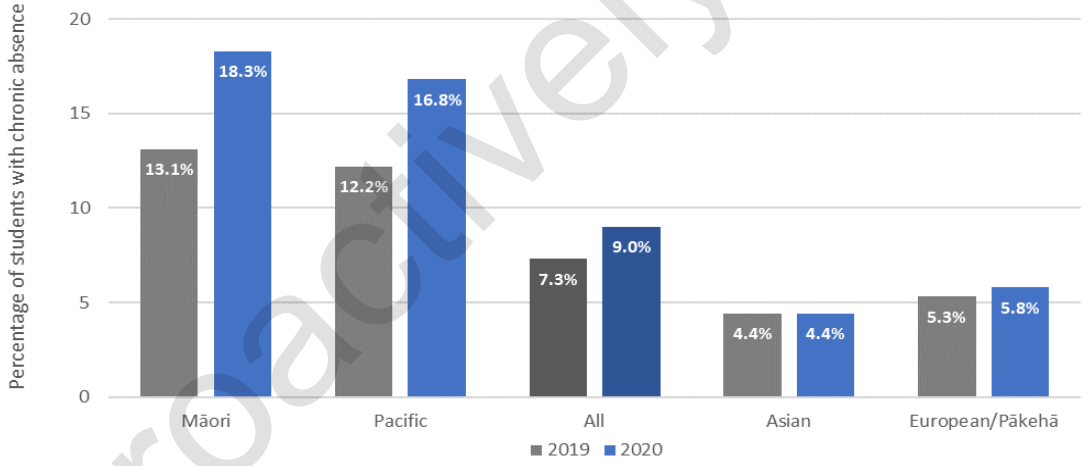
experienced 3.7 and 5.2 percentage point increases respectively, they continued to experience lower regular attendance rates than their peers, with 47.5% of Māori students and 50.0% of Pacific students attending school/kura regularly in term 2, 2020.

Figure 8. European/Pākehā students had the highest increase in regular attendance in Term 2, 2020



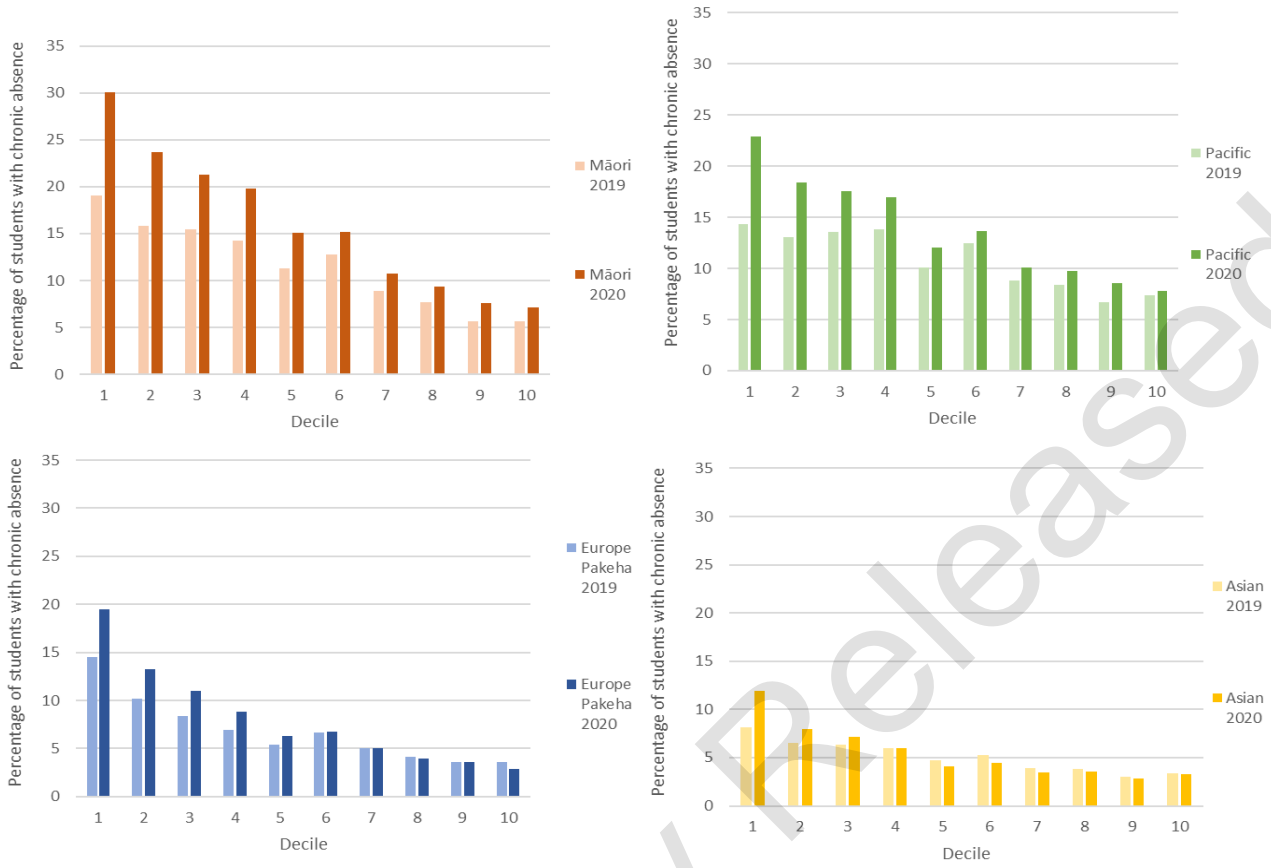
However, this increased attendance was not experienced by all students. There were more Māori and Pacific students with 'chronic' absences (attending less than 70% of term 2) in Term 2, 2020 compared to 2019. In 2020, 18.3% of Māori students experienced chronic absence, an increase of 5.2 percentage points compared to 2019. Similarly, 16.8% of Pacific students experienced chronic absence, an increase of 4.6 percentage points compared to 2019.

Figure 9. More Māori and Pacific students experienced chronic absence in Term 2, 2020



The increase in chronic absence was highest for Māori and Pacific students attending lower decile schools/kura, with 30.1% of Māori students and 22.9% of Pacific students in decile 1 schools/kura experiencing chronic absence in term 2, 2020 (an increase of 11.0 and 8.6 percentage points respectively). Similarly, 23.7% of Māori students and 18.4% of Pacific students in decile 2 schools/kura experienced chronic absence (an increase of 7.9 and 5.4 percentage points respectively).

Figure 10. More Māori and Pacific students experienced chronic absence at low decile schools in Term 2 2020



Māori Student Attendance in Māori Medium Education[11]

In 2020, of the total 2,176 schools, 72 (3.3%) schools provide Māori Medium Education (MME), 1,948 (89.5%) schools provide English Medium Education (EME), and 156 (7.2%) schools are Mixed Medium Education[12].

Out of the total Maori students enrolled in schools (180,587), 4.4% (7,977) are learning in MME, 14.7% (26,569) are learning in mixed medium and 80.9% (146,041) are learning in EME.

The percentage of Māori students attending school regularly in each of MME, EME and mixed medium increased in 2020 from a low in 2019. The largest increase from 2019 to 2020 was for Māori students in MME. In Term2, 2020, the percentage of Māori students in EME attending school regularly was higher than that of Māori students in Māori Medium Education (MME), 48.6% compared to 45.6% in 2020, and mixed medium education had the lowest percentage of Māori students attending school regularly (41.8% in 2020).

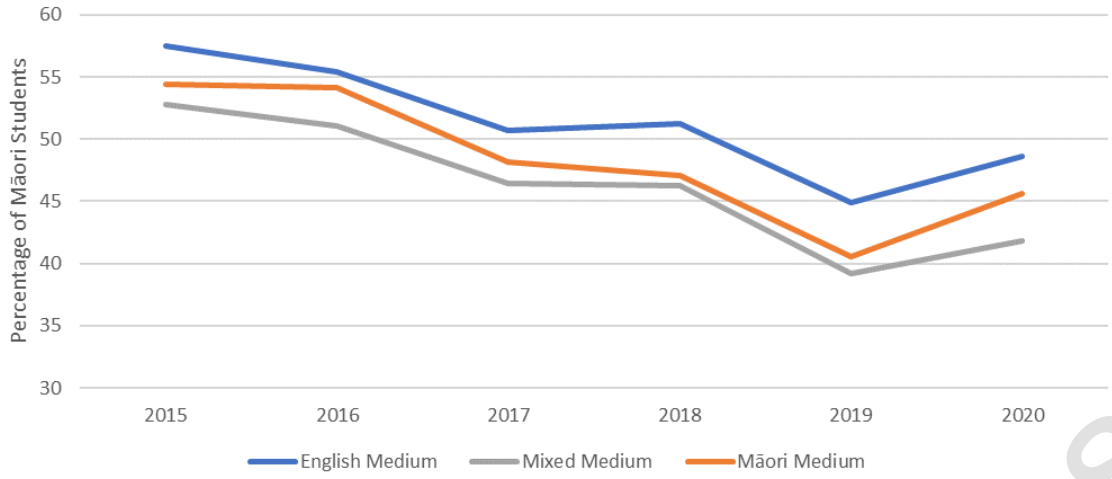
[11] **Māori Medium Education** used in this report means Māori Medium schools where all students are recorded as enrolled in Māori-medium education (ie, they are taught in the Māori language for at least 51 percent of the time). Smaller numbers of schools and students meaning that there is more variation in the data. Schools can change classification from year to year. Lower response rate so the coverage is less complete, and results are indicative but not definitive.

[12] **Mixed Medium Education** includes 3 types of schools:

- ***School with Māori medium education*** is a school where some students do Māori medium education and the rest do no Māori language in education.
- ***Mixed Māori Language in Education School*** is a school where all students are either involved in Māori medium education or Māori language in English medium education.
- ***School with Mixed Māori Language in Education School*** is a school where some students do Maori medium education, some do Māori language in English medium education and some do no Māori language in education.

More information is available at https://www.educationcounts.govt.nz/directories/maori-medium-schools

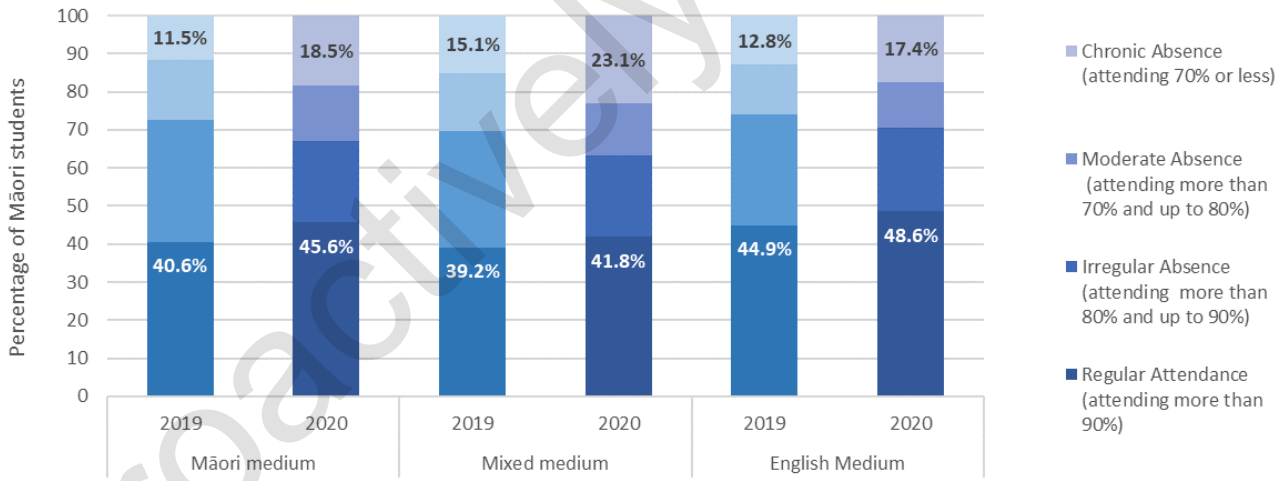
Figure 11. Māori students regular attendance by eduction type in Term 2 from 2015 to 2020[13]



From 2019 to 2020 Māori students in MME had the largest increase in regular attendance rates compared to 2019, increasing 5.0 percentage points from 40.6% to 45.6%. Māori students in EME increased their regular attendance rate by 3.7 percentage points from 44.9% to 48.6%. Māori students in mixed medium increased their regular attendance rate by 2.6 percentage points from 39.2% to 41.8%.

However, Māori students in mixed medium had the largest increase in chronic absence in Term 2, 2020 compared to 2019, increasing 8.0 percentage points from 15.1% to 23.1%. This was followed by Māori students in MME that had a 7.0 percentage point increase in chronic absence from 11.5% to 18.5%, and Māori students in EME that had 4.6 percentage point increase in chronic absence from 12.8% to 17.4%.

Figure 12. Māori students in EME experienced the largest increase in regular attendance in Term 2, 2020

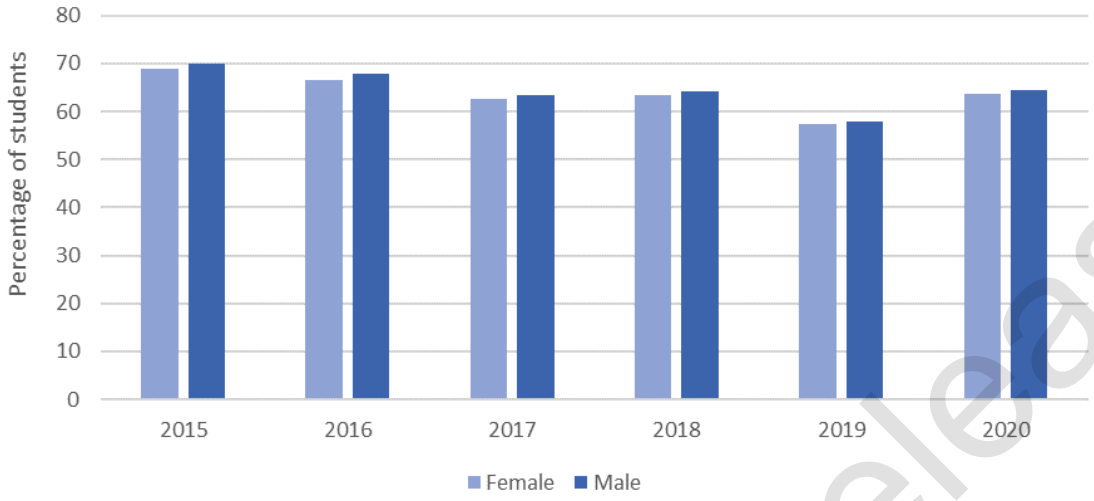


[13] The data in graph represents full Term 2 from 2011 – 2019 and last 7 weeks of Term 2 in 2020.

Attendance by student gender[14]

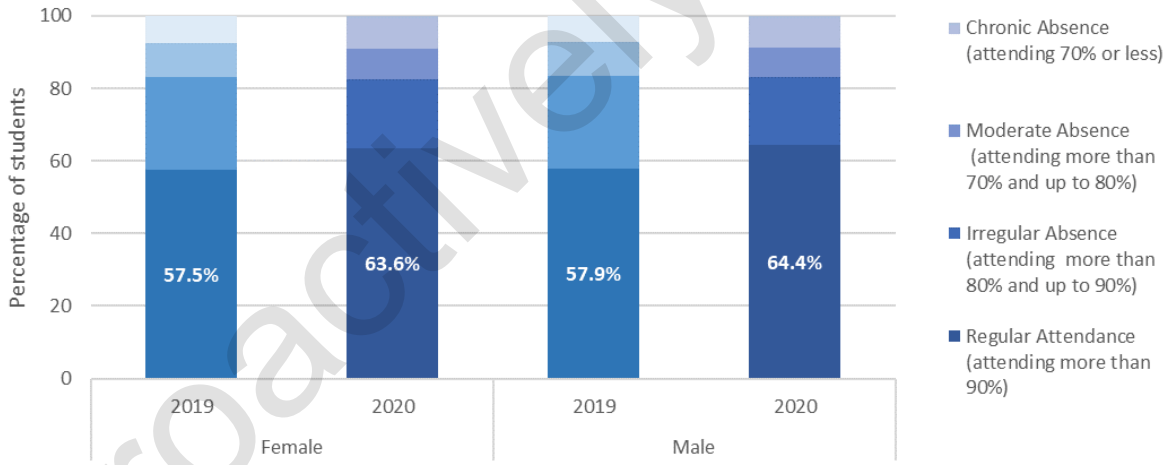
Over the last 10 years, male students had a slightly higher regular attendance rate than female students. The percentage of both male and female students attending school regularly peaked in 2015 then increased again in 2020 from a low in 2019.

Figure 13. Regular attendance across all ethnicities in Term 2 from 2011 to 2020[15]



In Term 2, 2020, male students had a slightly higher regular attendance rate than female students (64.4% compared to 63.6%). The increase in regular attendance compared to 2019 was similar for both genders, between 6.1 – 6.5 percentage points.

Figure 14. Both female and male students experienced an increase in regular attendance in Term 2, 2020



[14] Gender refers to a person's social and personal identity as male, female, or another gender such as non-binary. Currently, the Ministry of Education only captures male and female for gender.

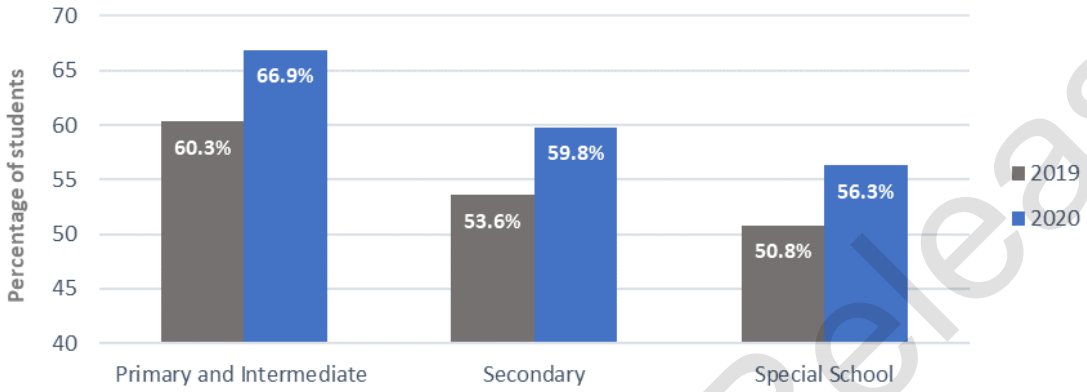
[15] The data in the graph represents full Term 2 from 2011 – 2019 and last 7 weeks of Term 2 in 2020.

Attendance by school type

In Term 2, 2020, the percentage of students attending primary and intermediate schools regularly increased by 6.6 percentage points from 60.3% in 2019 to 66.9% in 2020. Secondary schools[16] experienced a similar increase in regular student attendance, from 53.6% to 59.8% (a 6.2 percentage point increase).

Special schools[17] support high needs students, either in day schools or residential schools across New Zealand. Although special schools have the lowest percentage of regular attendance (56.3% in 2020), these are often offset by justified absences, with the student being in the care of other support agencies (e.g. health and disability support).

Figure 15. Regular attendance increased across all school types in Term 2, 2020

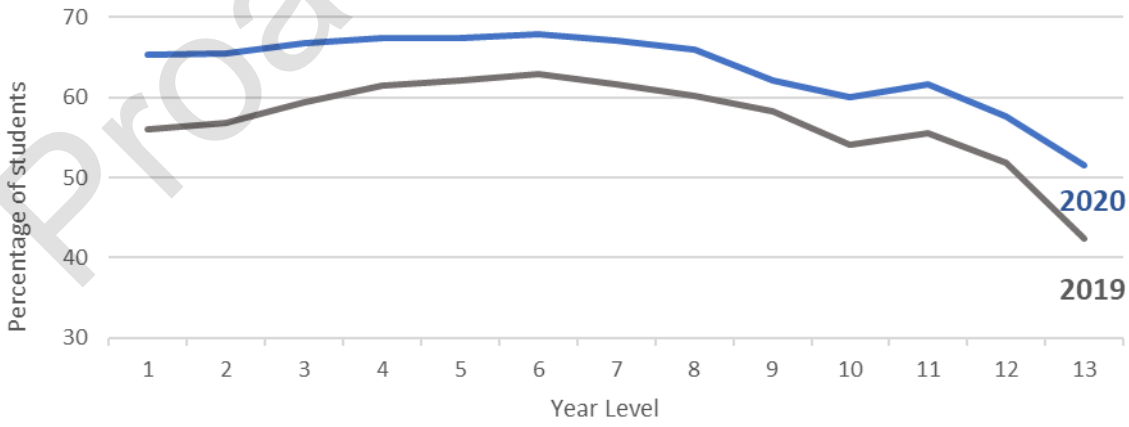


Attendance by year level

The percentage of students attending school/kura usually increases from Year 1 to Year 6 and then tends to fall through the intermediate and secondary years.

In Term 2, 2020, regular attendance rates increased across all year levels compared to 2019. 66.8% of students at primary schools (Years 1-6) attended school/kura regularly, an increase of 6.9 percentage points (59.9% in 2019). Similarly, 66.6 % of students at intermediate schools (Years 7-8) attended school/kura regularly, an increase of 5.6 percentage points (61.0% in 2019). Secondary students (years 9-13) had 6.1 percentage point increase in regular attendance rates to 59.1% (53.0% in 2019).

Figure 16. The percentage of students with regular attendance increased across all year levels in Term 2, 2020

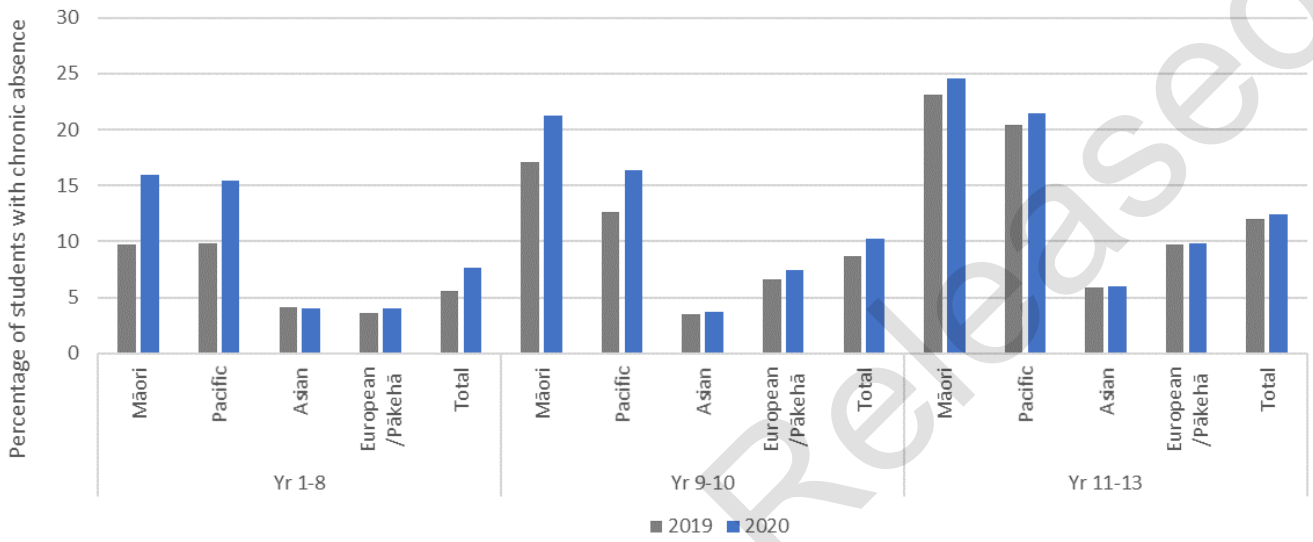


[16] Excludes composite and special schools

[17] More information about special school is available at https://parents.education.govt.nz/learning-support/secondary-school-learning-support/special-schools/

However, the percentage of students experiencing chronic absence has increased in Term 2, 2020, except for Year 13 students. Chronic absence was highest for Māori and Pacific students at senior secondary schools (Years 11-13), with 24.6% of Māori students and 21.4% of Pacific students experiencing chronic absence in Term 2, 2020 (an increase of 1.5 and 1.0 percentage points respectively). The size of the increase in chronic absence was largest for Māori and Pacific students in the Year 1-8 category, with 15.9% of Māori students and 15.5% of Pacific students at Years 1-8 experiencing chronic absence in term 2, 2020, an increase of 6.2 and 5.7 percentage points respectively.

Figure 17. Large increase in chronic absence for Māori and Pacific students at primary year levels 1-8 in Term 2, 2020

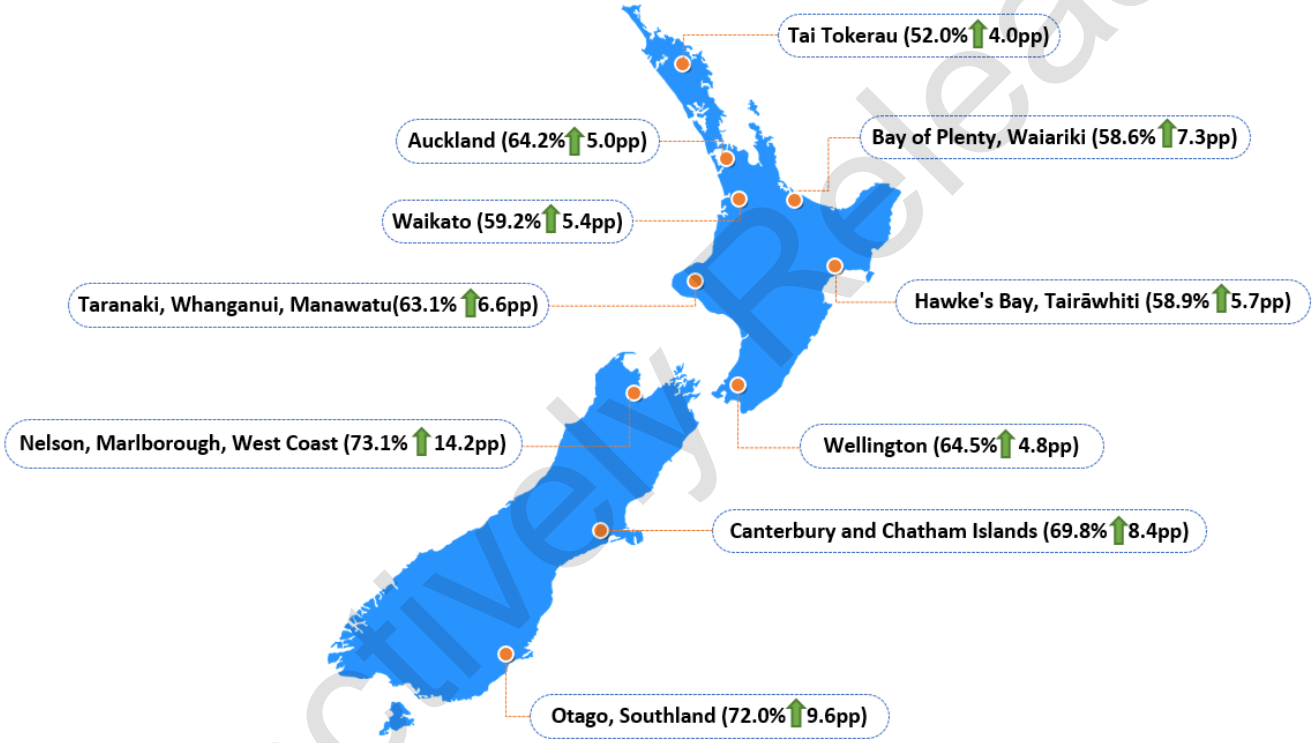


Attendance throughout New Zealand

Regions throughout the country experienced an overall increase in regular attendance rates in the last 7 weeks of Term 2, 2020. The average increase across the regions was 7.1 percentage points compared to 2019.

The Nelson, Marlborough, West Coast region had the largest increase in student attendance rates between 2019 and 2020 (14.2 percentage points) and achieved the highest percentage of students attending school regularly in 2020 (73.1%). The Otago, Southland region and Canterbury and Chatham Islands region saw an increase of more than 8.0 percentage points (72.0% and 69.8% respectively). The Tai Tokerau region had the smallest increase (4.0 percentage points) and maintained the lowest level of regular attendance at 52.0% in 2020.

Figure 18. Overall increase in regular attendance rates in Term 2 (7 weeks), 2020 by education region



Where to Find Out More

To obtain more information about student attendance, consider publications:

- Attendance under COVID-19
- He Whakaaro: School Attendance and Student Wellbeing, Ministry of Education, February 2020
- He Whakaaro: What is the relationship between attendance and attainment? Ministry of Education, February 2020
- Attendance in New Zealand Schools

To obtain information about other forms of student disengagement consider indicators:

- Stand-downs, suspensions, exclusions and expulsions from school
- Early leaving exemptions
- Transient students
- Retention of students in senior secondary schools

Reference

The Ministry of Education has established an Iterative Best Evidence Synthesis Program to systematically identify, evaluate, analyses, synthesis and make accessible, relevant evidence linked to a range of learner outcomes. Evidence about what works for this indicator can be found in:

- Alton-Lee, A. (2003). Quality Teaching for Diverse Students in Schooling: Best Evidence Synthesis. Wellington: Ministry of Education.
- Cosgrave, R., Bishop, F. and Bennie, N (2003). Attendance and Absences in New Zealand Schools. Wellington, Ministry of Education.
- Martin, M.O., Mullis, I.V.S., Gonzalez, E.J. and Chrostowski, S.J. (2004). TIMSS 2003 International Science Report: Findings from IEA's Trends in International Mathematics and Science Study at the Fourth and Eighth Grades. Chestnut Hill, MA: International Study Centre, Boston College.
- Rohan, Tracy. (2017) Teaching for positive behaviour. Wellington: Ministry of Education
- Adam Jang-Jones. (2019). PISA 2018: New Zealand students' wellbeing - School climate & student mindsets of 15-year-oldsPublications. Wellington: Ministry of Education
- Ministry of Education (2020). Term 2 Attendance Survey, 2020. Wellington, Ministry of Education.
- OECD (2020). *Education at a Glance 2020: OECD indicators.* Paris: OECD.

Appendix: attendance data

Table 1: Student Attendance, Term 2, 2019-2020

Attendance Group	2020				2019			
	Full term		Last 7 weeks		Full Term		Last 7 weeks	
	n	%	n	%	n	%	n	%
Students Attending Regularly	555,900	75.6	473,918	64.0	431,222	57.7	419,105	56.3
Students Attending 80-90%	108,671	14.8	139,652	18.9	191,647	25.6	175,719	23.6
Students Attending 70-80%	37,575	5.1	60,059	8.1	69,983	9.4	77,465	10.4
Students Attending 70% or less	32,917	4.5	66,692	9.0	54,772	7.3	72,528	9.7

Table 2: Student Attendance by Ethnicity, Term 2, 2019-2020

Ethnicity	Attendance Group	2020				2019			
		Full term		Last 7 weeks		Full Term		Last 7 weeks	
		n	%	n	%	n	%	n	%
Māori	Students Attending Regularly	107,177	60.0	85,746	47.5	79,390	43.8	78,804	43.6
	Students Attending 80-90%	36,840	20.6	39,345	21.8	53,230	29.4	46,660	25.8
	Students Attending 70-80%	16,709	9.4	22,501	12.5	24,841	13.7	25,903	14.3
	Students Attending 70% or less	17,780	10.0	32,995	18.3	23,688	13.1	29,380	16.3
Pacific	Students Attending Regularly	55,820	61.5	46,022	50.0	41,967	44.8	42,975	45.9
	Students Attending 80-90%	18,428	20.3	19,185	20.9	27,245	29.1	23,477	25.1
	Students Attending 70-80%	8,532	9.4	11,372	12.4	13,046	13.9	12,956	13.8
	Students Attending 70% or less	8,010	8.8	15,414	16.8	11,477	12.2	14,142	15.1
Asian	Students Attending Regularly	97,053	84.4	86,811	74.9	77,725	68.9	76,192	67.4
	Students Attending 80-90%	12,450	10.8	17,406	15.0	23,116	20.5	22,122	19.6
	Students Attending 70-80%	3,379	2.9	6,521	5.6	7,046	6.2	7,888	7.0
	Students Attending 70% or less	2,142	1.9	5,114	4.4	4,989	4.4	6,770	6.0
European/Pākehā	Students Attending Regularly	355,907	80.8	303,826	68.7	275,513	61.3	263,841	59.1
	Students Attending 80-90%	57,982	13.2	83,331	18.8	113,725	25.3	106,266	23.8
	Students Attending 70-80%	15,685	3.6	29,579	6.7	36,035	8.0	42,402	9.5
	Students Attending 70% or less	11,150	2.5	25,520	5.8	23,930	5.3	34,038	7.6

Table 3: Student Attendance by Decile, Term 2, 2019-2020

Decile	Attendance Group	2020				2019			
		Full term		Last 7 weeks		Full Term		Last 7 weeks	
		n	%	n	%	n	%	n	%
1	Students Attending Regularly	26,831	51.2	21,971	41.4	22,330	40.7	23,179	42.0
	Students Attending 80-90%	11,274	21.5	10,469	19.7	15,629	28.5	13,421	24.3
	Students Attending 70-80%	6,370	12.1	7,427	14.0	8,263	15.1	8,150	14.8
	Students Attending 70% or less	7,961	15.2	13,166	24.8	8,674	15.8	10,463	19.0
2	Students Attending Regularly	29,316	59.2	24,389	48.4	23,024	44.5	23,324	45.3
	Students Attending 80-90%	10,009	20.2	10,581	21.0	15,032	29.1	13,026	25.3
	Students Attending 70-80%	4,802	9.7	6,233	12.4	7,167	13.9	7,165	13.9
	Students Attending 70% or less	5,382	10.9	9,167	18.2	6,511	12.6	8,000	15.5
3	Students Attending Regularly	37,846	65.8	31,493	52.8	29,617	48.8	29,207	48.3
	Students Attending 80-90%	10,950	19.0	12,685	21.3	16,956	27.9	14,959	24.8
	Students Attending 70-80%	4,672	8.1	6,745	11.3	7,361	12.1	7,778	12.9
	Students Attending 70% or less	4,079	7.1	8,753	14.7	6,777	11.2	8,464	14.0
4	Students Attending Regularly	47,297	70.3	39,175	58.1	35,819	53.0	34,520	51.8
	Students Attending 80-90%	11,669	17.3	13,728	20.4	18,167	26.9	16,298	24.4
	Students Attending 70-80%	4,453	6.6	6,474	9.6	7,296	10.8	7,848	11.8
	Students Attending 70% or less	3,897	5.8	8,028	11.9	6,280	9.3	8,030	12.0
5	Students Attending Regularly	52,004	75.6	44,328	63.2	40,128	56.8	39,073	55.5
	Students Attending 80-90%	10,755	15.6	13,867	19.8	19,036	26.9	17,341	24.6
	Students Attending 70-80%	3,468	5.0	6,178	8.8	6,673	9.4	7,376	10.5
	Students Attending 70% or less	2,599	3.8	5,725	8.2	4,855	6.9	6,590	9.4
6	Students Attending Regularly	57,007	76.3	47,732	64.0	41,840	56.0	40,236	54.0
	Students Attending 80-90%	11,384	15.2	14,798	19.8	19,944	26.7	18,538	24.9
	Students Attending 70-80%	3,599	4.8	6,028	8.1	7,201	9.6	8,178	11.0
	Students Attending 70% or less	2,710	3.6	6,049	8.1	5,688	7.6	7,516	10.1
7	Students Attending Regularly	72,490	80.8	62,083	68.9	54,149	61.2	52,152	58.9
	Students Attending 80-90%	12,162	13.6	16,801	18.6	22,370	25.3	20,994	23.7
	Students Attending 70-80%	3,080	3.4	6,185	6.9	7,172	8.1	8,544	9.7
	Students Attending 70% or less	1,961	2.2	5,049	5.6	4,829	5.5	6,797	7.7
8	Students Attending Regularly	70,900	83.3	61,161	71.7	56,873	64.0	53,937	61.7
	Students Attending 80-90%	10,124	11.9	15,087	17.7	21,436	24.1	20,096	23.0
	Students Attending 70-80%	2,530	3.0	5,107	6.0	6,481	7.3	7,584	8.7

Decile	Attendance Group	2020				2019			
		Full term		Last 7 weeks		Full Term		Last 7 weeks	
		n	%	n	%	n	%	n	%
	Students Attending 70% or less	1,518	1.8	3,957	4.6	4,107	4.6	5,772	6.6
9	Students Attending Regularly	81,198	84.9	70,160	73.9	61,504	66.3	59,530	64.1
	Students Attending 80-90%	10,600	11.1	16,092	16.9	21,598	23.3	20,478	22.1
	Students Attending 70-80%	2,428	2.5	5,113	5.4	6,269	6.8	7,568	8.1
	Students Attending 70% or less	1,441	1.5	3,619	3.8	3,443	3.7	5,284	5.7
10	Students Attending Regularly	81,011	85.9	71,426	75.4	65,938	67.9	63,947	65.7
	Students Attending 80-90%	9,744	10.3	15,544	16.4	21,479	22.1	20,568	21.1
	Students Attending 70-80%	2,173	2.3	4,569	4.8	6,100	6.3	7,274	7.5
	Students Attending 70% or less	1,369	1.5	3,179	3.4	3,608	3.7	5,612	5.8

Table 4: Student Attendance by Education Region, Term 2, 2019-2020

Education Region	Attendance Group	2020				2019			
		Full term		Last 7 weeks		Full Term		Last 7 weeks	
		n	%	n	%	n	%	n	%
Tai Tokerau	Students Attending Regularly	17,506	63.4	14,983	52.0	13,881	48.0	13,918	47.7
	Students Attending 80-90%	5,196	18.8	6,141	21.3	8,160	28.2	7,204	24.7
	Students Attending 70-80%	2,295	8.3	3,208	11.1	3,617	12.5	3,846	13.2
	Students Attending 70% or less	2,612	9.5	4,459	15.5	3,278	11.3	4,212	14.4
Auckland	Students Attending Regularly	188,446	75.3	160,951	64.2	151,294	59.2	148,948	58.3
	Students Attending 80-90%	36,379	14.5	45,438	18.1	62,776	24.6	57,213	22.4
	Students Attending 70-80%	13,514	5.4	20,388	8.1	23,329	9.1	25,273	9.9
	Students Attending 70% or less	11,813	4.7	23,928	9.5	18,173	7.1	24,003	9.4
Waikato	Students Attending Regularly	47,330	71.1	39,941	59.2	36,716	53.8	35,695	52.3
	Students Attending 80-90%	11,169	16.8	13,587	20.1	18,559	27.2	16,921	24.8
	Students Attending 70-80%	4,108	6.2	6,311	9.3	7,143	10.5	7,934	11.6
	Students Attending 70% or less	3,986	6.0	7,667	11.4	5,848	8.6	7,706	11.3
Bay of Plenty, Waiariki	Students Attending Regularly	41,135	72.1	34,681	58.6	29,937	51.3	29,194	49.8
	Students Attending 80-90%	9,699	17.0	12,384	20.9	16,648	28.5	15,270	26.0
	Students Attending 70-80%	3,397	6.0	5,752	9.7	6,573	11.3	7,159	12.2
	Students Attending 70% or less	2,791	4.9	6,332	10.7	5,205	8.9	7,002	11.9
Taranaki, Whanganui, Manawatu	Students Attending Regularly	38,027	74.6	32,285	63.1	28,995	56.5	28,083	55.2
	Students Attending 80-90%	8,122	15.9	10,139	19.8	14,070	27.4	12,742	25.0

Education Region	Attendance Group	2020				2019			
		Full term		Last 7 weeks		Full Term		Last 7 weeks	
		n	%	n	%	n	%	n	%
	Students Attending 70-80%	2,699	5.3	4,291	8.4	4,779	9.3	5,412	10.6
	Students Attending 70% or less	2,149	4.2	4,487	8.8	3,497	6.8	4,633	9.1
Hawke's Bay, Tairāwhiti	Students Attending Regularly	25,829	70.8	21,594	58.9	19,660	53.2	18,962	51.3
	Students Attending 80-90%	6,199	17.0	7,400	20.2	10,033	27.2	9,177	24.8
	Students Attending 70-80%	2,391	6.6	3,500	9.5	3,847	10.4	4,504	12.2
	Students Attending 70% or less	2,069	5.7	4,180	11.4	3,412	9.2	4,305	11.7
Wellington	Students Attending Regularly	63,874	77.5	52,948	64.5	51,058	59.7	48,978	57.8
	Students Attending 80-90%	12,095	14.7	16,230	19.8	21,286	24.9	19,850	23.4
	Students Attending 70-80%	3,622	4.4	6,605	8.0	7,537	8.8	8,468	10.0
	Students Attending 70% or less	2,831	3.4	6,321	7.7	5,621	6.6	7,389	8.7
Nelson, Marlborough, West Coast	Students Attending Regularly	22,208	82.8	19,607	73.1	16,592	58.9	15,713	56.8
	Students Attending 80-90%	3,058	11.4	4,295	16.0	7,477	26.6	6,910	25.0
	Students Attending 70-80%	888	3.3	1,530	5.7	2,444	8.7	2,751	9.9
	Students Attending 70% or less	683	2.5	1,401	5.2	1,645	5.8	2,298	8.3
Canterbury and Chatham Islands	Students Attending Regularly	70,830	80.5	62,089	69.8	52,763	61.4	50,833	59.2
	Students Attending 80-90%	11,074	12.6	15,637	17.6	20,899	24.3	19,800	23.1
	Students Attending 70-80%	3,155	3.6	5,685	6.4	6,897	8.0	7,977	9.3
	Students Attending 70% or less	2,936	3.3	5,549	6.2	5,337	6.2	7,289	8.5
Otago, Southland	Students Attending Regularly	40,715	83.2	34,839	72.0	30,326	62.4	28,781	60.9
	Students Attending 80-90%	5,680	11.6	8,401	17.4	11,739	24.1	10,632	22.5
	Students Attending 70-80%	1,506	3.1	2,789	5.8	3,817	7.8	4,141	8.8
	Students Attending 70% or less	1,047	2.1	2,368	4.9	2,756	5.7	3,691	7.8

Annex 2: How COVID-19 is affecting school attendance and Appendix

MINISTRY OF EDUCATION
TE TĀHUHU O TE MĀTAURANGA

He Whakaaro
EDUCATION INSIGHTS

How COVID-19 is affecting school attendance

Summary

This He Whakaaro is part of a series, exploring impacts of COVID-19 on the education system. This report uses data collected during 2020 to determine the extent to which COVID-19 is impacting on whether students are attending school.

KEY FINDINGS

- Attendance has been dropping since 2015, and was on track to decrease again in the first six weeks of 2020, before the COVID-19 outbreak.
- Negative impacts of COVID-19 are heavily concentrated in primary school students, especially in Years 1-2. Senior secondary school students have experienced meaningfully increased attendance compared to last year.
- Reported attendance was extremely high over both periods of Alert Level 3, although this may not fully reflect student engagement over this time.
- Most students responded to the end of the national lockdown by attending school at higher rates than over the same time in 2019. For Auckland students, it has taken longer to get back to 2019 levels.
- There have been lower rates of illness and lateness this year, but slightly higher rates of truancy and explained but unjustified absences.
- COVID-19 appears to be substantially worsening existing inequities in school attendance, particularly in Auckland.
- Students are most likely to have reduced their attendance in response to COVID-19 if they attend a low decile school, are in earlier year levels, are Pacific or Māori, or participate in Māori medium education.
- About 40% of students with reduced attendance did not have concerning attendance patterns at the beginning of the year, prior to COVID-19.

Note: This report summarises emerging evidence from datasets that may not be fully finalised at time of writing. This may mean that some numbers in this report may differ slightly to final official reported statistics.

About school attendance

School attendance is a critical driver of other educational outcomes. Students learn best when they are able to attend school regularly and benefit from the expertise of teachers and other professionals. Attendance is a measure of student engagement, and has strong links to learning (Webber, 2020a), as well as broader student wellbeing (McGregor & Webber, 2020). COVID-19 has had a disruptive effect on most aspects of New Zealand society. To what extent has school attendance been impacted, and how might that affect other outcomes and equity of the system in the future?

This report uses attendance data that has been provided by almost all schools over Terms 1-3, representing 85 to 95% of schools and students in New Zealand (depending on term). Even in years unaffected by COVID-19, school attendance tends to change throughout the year, with higher attendance rates in Term 1 than in Term 2. This means that to assess new impacts of COVID-19, we should compare attendance patterns over 2020 to what we would expect to see in a 'normal' year where COVID was not a factor.

There are two ways that attendance is presented in this report. The first way is the **attendance rate**, which is the proportion of half-days that students attended school over a period.[1] The second way is **attendance categories**. This categorises students according to their attendance rate over a period. References to 'students attending regularly' refer to an attendance category – the proportion of students with an attendance rate greater than 90%. Similarly, 'students with chronic absences' refer students with attendance rates of 70% or less.

What was happening to school attendance before COVID-19?

The large drop in attendance since 2015 has shown up across all regions, all ethnicities, all deciles, and all year levels.

Before examining impacts that COVID-19 may have had on school attendance, it is useful to know the context of how school attendance has been changing in recent years. The 2019 attendance report (Ministry of Education, 2020) shows that school attendance dropped substantially over the last five years. In 2019, only 58% of students attended school regularly during Term 2 (that is, 42% of students were absent from school for the equivalent of one or more days per fortnight). This was down from 69% in 2015. This large drop has shown up across all regions, all ethnicities, all deciles, and all year levels. Data from previous years also shows large inequities in school attendance: students in lower decile schools are much less likely to attend school regularly (42% of students in decile 1-2 schools attended regularly in 2019, compared to 67% in decile 9-10 schools).

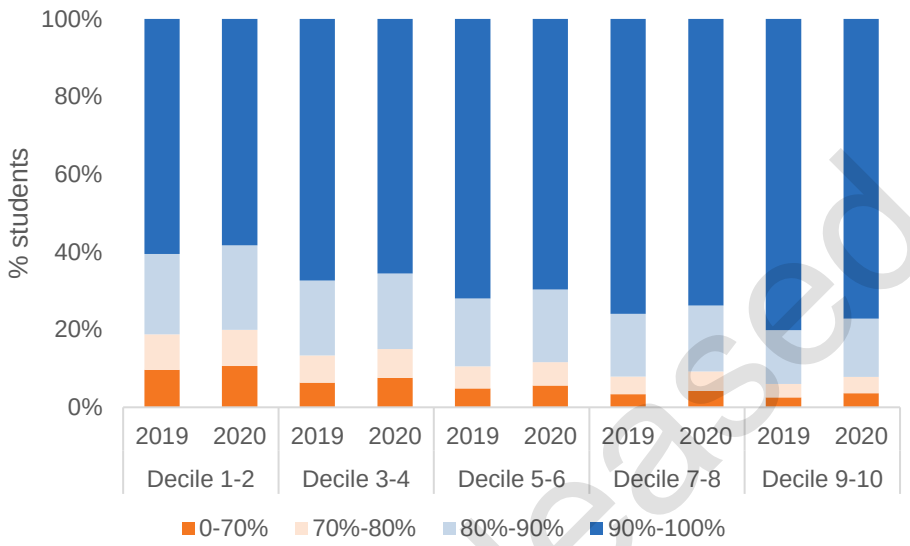
Most of these trends appeared to be on track to continue this year, before the country was affected by COVID-19. Figure 1 shows attendance categories over the first six weeks of Term 1 in 2019 and 2020, which covers the period in the year before the national COVID-19 outbreak and lockdown. For all deciles, there were fewer students attending regularly over this time in 2020 than the same period last year.[2] Regular attendance decreased slightly more from 2019 to 2020 in higher decile schools compared to lower decile schools, but lower decile students continued to be much less likely to attend school regularly.

The rest of this report compares attendance patterns over 2020 to the same periods in 2019. Because school attendance appeared to be slightly lower in the

[1] For example, if a school has three students, and one of them is present on a particular day, one of them is absent, and one is present for half of the day, the school's attendance rate for that day will be 3 half-days out of a total of 6 half-days = 50%.
[2] Partially this was due to a one-off effect of Waitangi Day being on a Thursday in 2020, causing attendance rates to be unusually low the following day. However, even excluding this effect, Term 1 attendance was consistently lower in 2020 than 2019.

early weeks of 2020, these comparisons may slightly over-state negative impacts that COVID may have had on attendance and understate positive impacts.

Figure 1. Attendance categories over first six weeks of 2019 and 2020, by decile

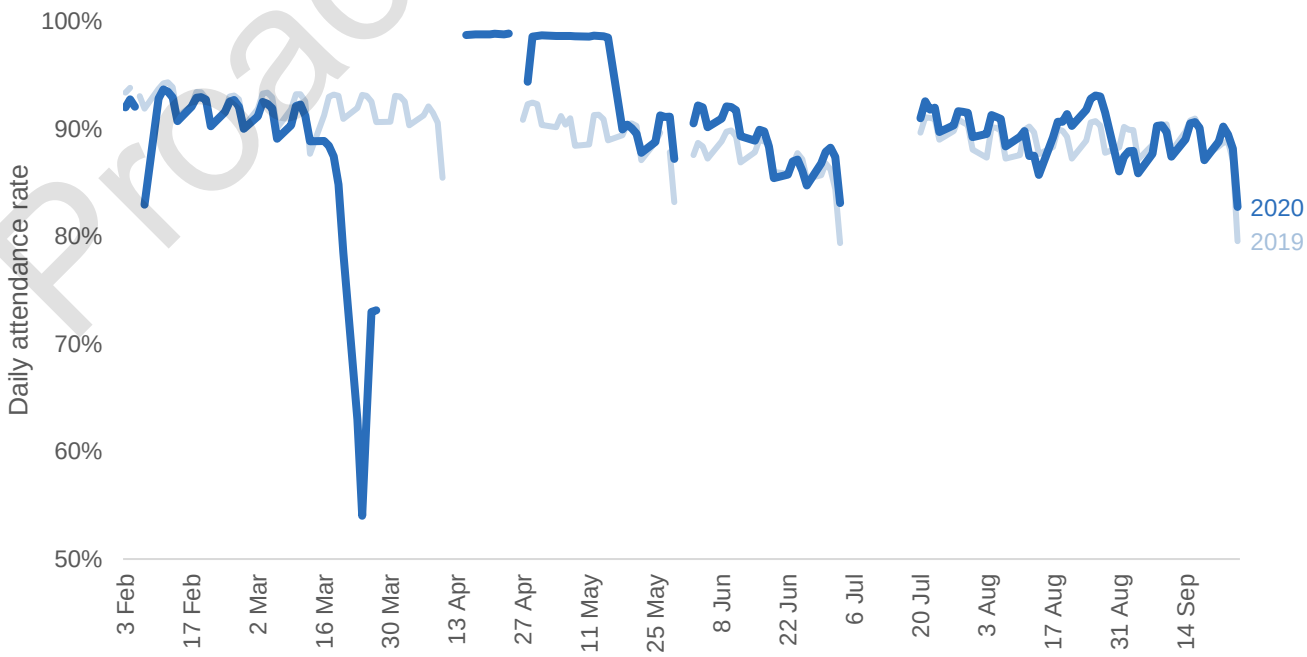


Note: Coloured categories on the graph correspond to the attendance rates of students over the first six weeks of the year. The categories are: regular attendance (attendance rate greater than 90%); irregular attendance (attendance rate greater than 80% up to 90%); moderate absence (attendance rate greater than 70% up to 80%); and chronic absence (attendance rate 70% or lower).

Attendance during lockdown

Figure 2 shows attendance rates by day over 2019 (light blue) and 2020 (dark blue) for all New Zealand students, up until the end of Term 3. A key feature of this graph is the large decrease in attendance corresponding to the initial announcement of the national COVID-19 outbreak and the Alert Level system (in the week beginning 16 March). This was followed by an attendance increase corresponding with the national lockdown (Alert Level 4, moving to 3), from 15 April to 15 May. There is also a smaller increase in August, corresponding to the two weeks of Alert Level 3 for Auckland, following the Auckland outbreak.

Figure 2. Daily attendance rates across New Zealand schools over Terms 1-3, 2019-2020



The reason for this large increase is that most schools recorded all their students as 'studying off-site' during lockdown.[3] Figures 3 and 4 show the distribution of attendance rates across schools for the weeks in the middle of the national and Auckland lockdowns, respectively. During these lockdowns, 86-89% of schools reported attendance rates over 98% across all of their students, compared to only 0.3-1.1% of schools over the same weeks last year.

Figure 3. Attendance rates by school during national lockdown, NZ

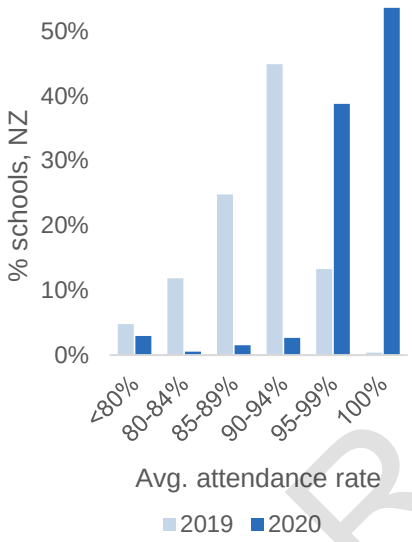
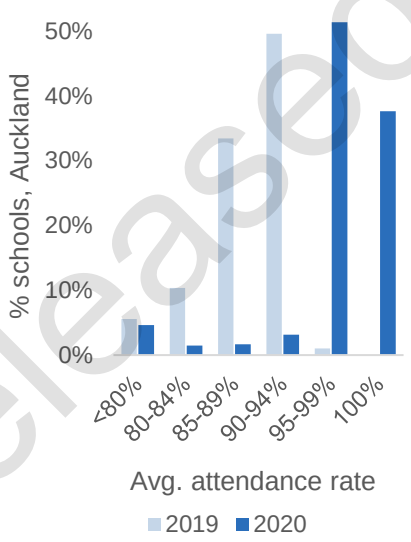


Figure 4. Attendance rates by school during Auckland lockdown, Auckland



These reported attendance rates may be accurate in the sense that they reflect the opportunities to learn for students over this time. Over both of these periods of Alert Level 3, schools were expected to provide resources to enable distance learning, which may not be available in a typical year if students are absent due to illness or truancy.[4] However, this attendance data during lockdown may not reflect student engagement over this period in the same way that physical attendance is normally an indicator of engagement. An ERO survey conducted during national Alert Level 3 found that 78% of primary students and only 58% of secondary students agreed that they had been able to learn from home (ERO, 2020).

Overall attendance following lockdowns

Figure 5 shows daily attendance rates across New Zealand for the month following the national lockdown in May.[5] Figure 6 shows attendance rates across Auckland schools in the month following the later Auckland lockdown in August. In the week immediately following the national lockdown, attendance rates were almost identical to the same week in 2019. Attendance rates then increased the following week, and remained over 90% for the fortnight after Queen's Birthday weekend. After the first week of physical learning after lockdown, attendance rates were substantially (about three percentage points) higher in 2020 than the comparable period over 2019.[6]

[3] Ministry advice to use this code for distance learning was released in Term 2. The large reduction in attendance in late March seen in Figure 2 may have been due to many students distance learning at that time.
[4] School resources were supplemented by the national distribution of devices, hard packs, and the provision of Home Learning TV | Papa Kāinga TV.
[5] New Zealand moved from Level 3 to Level 2 beginning on Thursday 14 May. However, schools did not return to physical learning until the following Monday 18 May.
[6] The week beginning 25 May likely had unusually low attendance in 2019, because it was affected by both the teacher 'mega-strike' on Wednesday, as well as the public holiday the following Monday.

In contrast, recovery in attendance rates after the Auckland lockdown was much slower. Attendance rates on immediate return to physical learning on the week beginning 31 August were far (about eight percentage points) below last year's levels. While attendance rates increased quickly over the following weeks, attendance was not fully back to 2019 levels until the end of the fourth week of physical learning after the end of the lockdown. Over the period after the Auckland lockdown (while the rest of New Zealand was in Alert Level 2), attendance rates for non-Auckland regions were consistently about one percentage point higher than for the same time in 2019.

Figure 5. Daily attendance rates in month after national lockdown, NZ

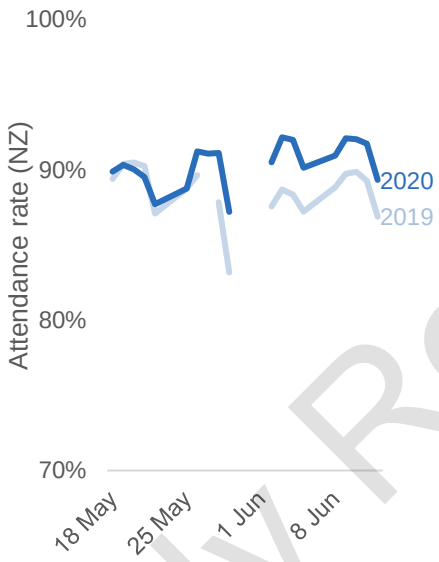
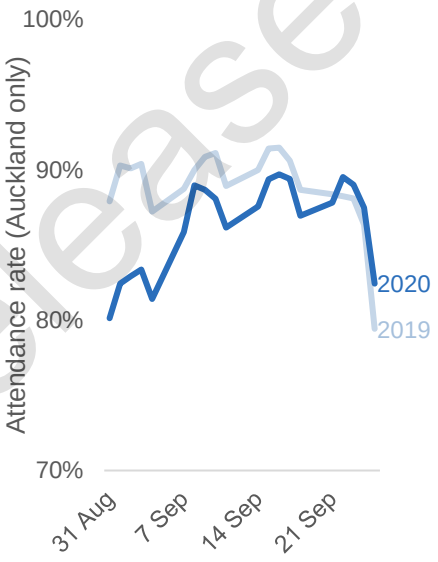


Figure 6. Daily attendance rates in month after Auck. lockdown, Auckland



Changes in types of attendance and absences

Schools record attendance and absence of students using 26 different codes. Table 1 shows rates of selected codes that may have been particularly affected by COVID-19. In the month after each lockdown, there was a large increase in distance learning, which diminished over the month as students returned to physical learning. Distance learning accounted for 9.3% of the total duration on the first day back after the national lockdown, and 5.2% on the first day back after the Auckland lockdown. Students were also less likely to be late to class in the month after each lockdown, with a greater difference after the national lockdown.

After the national lockdown, there was a substantial decrease in absence due to illness.

After the national lockdown, there was also a large decrease in absence due to illness. This might have been due to the isolation that students undertook in the months prior, reducing the spread of other communicable illnesses as well as COVID-19. There was a smaller reduction in absences due to illness after the Auckland lockdown, which may be both because of the shorter duration of the Auckland lockdown, combined with illness tending to be less prevalent over spring than winter months.

After each lockdown, there was a slight increase in unjustified absences. This change was made up of a decrease in students on holiday during term time, as well as (larger) increases in truancies and explained but unjustified absences. There were especially large reductions in absences due to holidays towards the end of each term, with holiday rates being about 2% less on the last day of each term in 2020 than the same days last year. This may be due to factors such as fewer families travelling internationally. There was a slightly larger increase in

explained but unjustified absences compared to truancies.[7] Similarly to distance learning, rates of truancies and explained but unjustified absences were highest immediately after the lockdown, and then reduced to last year's levels over the following month.

Table 1. Selected attendance/absence rates in month after lockdowns

	After national lockdown			After Auckland lockdown		
	2019	2020	Change	2019	2020	Change
National						
Distance	0.2%	3.3%	**+3.2%**	0.1%	1.1%	**+1.0%**
Late	1.9%	1.3%	**–0.6%**	1.6%	1.5%	**–0.2%**
Illness	5.6%	3.3%	**–2.3%**	4.3%	4.1%	**–0.3%**
Holiday	0.7%	0.1%	**–0.6%**	1.1%	0.4%	**–0.7%**
Truant	2.3%	2.5%	**+0.2%**	2.6%	3.1%	**+0.5%**
Explained	1.2%	2.0%	**+0.8%**	1.4%	2.0%	**+0.6%**
Auckland						
Distance	0.1%	3.9%	**+3.7%**	0.1%	2.5%	**+2.4%**
Late	2.4%	1.5%	**–0.9%**	2.0%	1.4%	**–0.6%**
Illness	5.1%	2.9%	**–2.1%**	3.9%	3.3%	**–0.6%**
Holiday	0.7%	0.1%	**–0.6%**	1.2%	0.4%	**–0.9%**
Truant	2.8%	3.3%	**+0.5%**	3.0%	4.5%	**+1.5%**
Explained	1.1%	2.2%	**+1.1%**	1.2%	3.1%	**+1.9%**

Note: Each rate is calculated as the total duration allocated to that attendance/absence code over the month following lockdown (or the same period in 2019), divided by the total duration allocated to all attendance/absence codes over the month. 'Distance' and 'late' codes are considered attending; 'illness' is considered a justified absence; 'holiday', 'truant', and 'explained' are unjustified absences.

Increases in absences were greatest in younger (primary school-aged) students.

Explained but unjustified absences refer to absences from school where students or whānau provide a reason that the school accepts, but that reason does not fall under the school's attendance policy. This could be due to instances such as students remaining home due to concerns around catching COVID-19 at school, particularly when there are elderly or immunocompromised family members in the household; barriers to attendance such as lack of transport, insecure housing, or lack of uniforms; or students absent from school because they are caring for family members or undertake employment.[8]

However, the data indicates that increases in these absences were greatest in younger (primary school-aged) students. Over the month after the national lockdown, students in Year 11-13 (typically students aged 16 or older) had a *reduction* of 0.1% in combined truancy and explained absences from the same month in 2019, compared to a 1.2-1.5% increase for students in Years 1-8 (depending on year level).[9] These differences point away from reasons such as employment or care responsibilities being the most important factor for the increase in unjustified absences (though we know this is happening in for some

[7] There was a 0.2% increase in truancies and a 0.1% increase in explained but unjustified absences in the first six weeks of 2020 (pre-COVID), compared to the same six weeks last year. This means that some of the change in these categories in Table 1 may be due to long-term trends in student attendance, rather than additional impacts of COVID-19.

[8] Some of these instances may be coded as a justified absence. Justified absences exhibited similar patterns after each lockdown to explained but unjustified absences, but justified absences were less common and increased by less than the increases shown in Table 1. Some may also be coded as truancy, depending on the school and how the absence is communicated by the student or their family.

[9] The difference for Auckland students after the Auckland lockdown was even larger: a 0.6% increase from 2019 in truancies and explained absences for Year 11-13 students, compared to a 2.5-5% increase for Year 1-8 students.

families: see Fagaiava-Muller, 2020; and Franks, 2020), and more towards explanations relating to public health concerns or attendance barriers relating to poverty.[10]

Recovery in school attendance by decile

The average hides substantial variation.

Although average attendance appears to have increased in response to COVID-19, this average hides substantial variation. One of the largest differences in impacts emerging post-COVID is across different deciles. Figures 7 and 8 show attendance rates broken down by school decile over the month after the national and Auckland lockdowns, respectively.

Figure 7. Daily attendance rates by decile after national lockdown, NZ

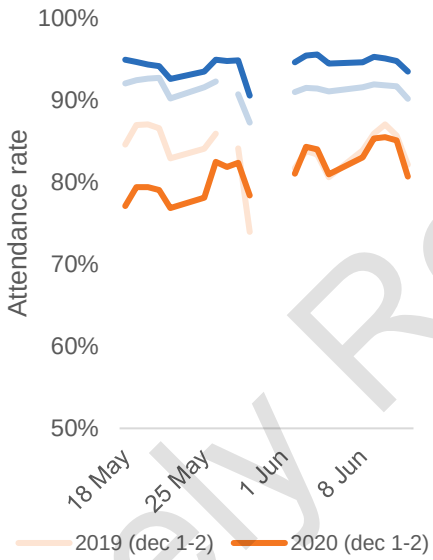
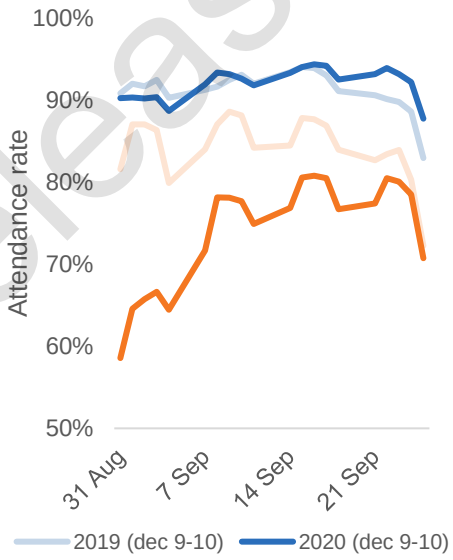


Figure 8. Daily attendance rates by decile after Auck. lockdown, Auckland



The negative effects of COVID-19 are concentrated in communities that were already the most socio-economically disadvantaged.

In each case, students at decile 9-10 schools (dark blue) have increased attendance compared to the same month last year (light blue). In contrast, students at decile 1-2 schools have initially much *lower* attendance in 2020 (dark orange) than the same time last year (light orange). While low decile school attendance does reach 2019 levels, it takes two weeks to do so after the national lockdown, and the full month after the Auckland lockdown. Considering the large and growing inequities in school attendance before COVID, this is strong evidence that COVID-19 is exacerbating inequity in ways that have the potential to flow on to other outcomes, such as learning and broader wellbeing.

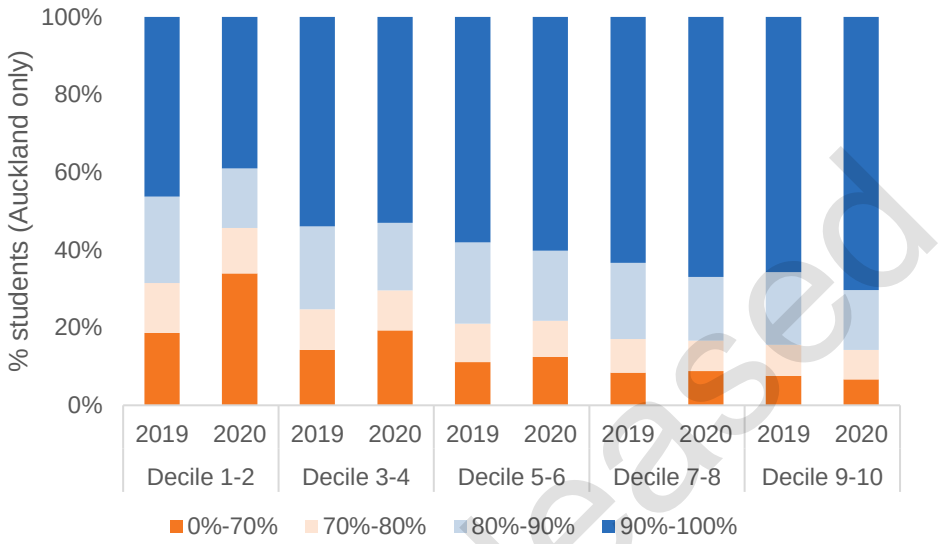
Because the more concerning delays in recovery occurred for Auckland students after the Auckland lockdown, the remaining analysis in the body of this report will focus on the recovery from the Auckland lockdown (see the attached appendix for comparable data across New Zealand in the month after the national lockdown).

Another way of showing the difference in impact is by looking at attendance categories: the proportion of students with various attendance rates. Figure 9 shows attendance categories for Auckland students over the month following the Auckland lockdown. As with Figure 8, there is a much bigger reduction this year for students of low decile schools – more than a third of students in Auckland

[10] This also consistent with what is emerging in student enrolment data, where far fewer senior secondary students appear to be formally unenrolling from school compared to previous years (Webber, 2020b); and ECE participation data, where there has been a larger drop-off in participation after the Auckland lockdown for Pacific children and those from low socio-economic backgrounds (Webber, 2020c).

decile 1-2 schools were absent for more than 30% of the month after lockdown. This was almost twice as much as the same month last year.

Figure 9. Attendance categories by school decile, month after Auckland lockdown



Note: The attendance categories correspond to attendance rates for each student: regular attendance (attending more than 90%) through to chronic absence (attending between 0% and 70%).

A particular concern is the number of students who had prolonged absences after the lockdown (detailed further in the appendix). About a quarter of decile 1-2 students had not attended at all in the first week back after the Auckland lockdown. More than 10% had still not returned after the end of the second week (at which point Auckland moved from Alert Level 2.5 to 2). About 5% of decile 1-2 students in Auckland did not attend school at all over the month following the Auckland lockdown. These students are almost all primary school aged.

This is strong evidence that, when it comes to attendance, the negative effects of COVID-19 are concentrated in communities that were already the most socio-economically disadvantaged, and where the largest barriers to attendance were present before the pandemic. Some factors that might lead to increased barriers to attendance in students experiencing poverty might include: lack of access to devices or connectivity, ruling out remote learning[11]; insecure housing situations; a greater reliance on public transport, which may be perceived as less safe; lack of funds for uniforms or learning materials, creating stigma about attending school; and the increased likelihood of health issues that create greater risk of being harmed by COVID-19.

Many students whose attendance was most impacted by COVID-19 did not have concerning attendance patterns prior to the pandemic.

There is a lot of variation within these decile groupings. In cases such as decile 3-4 schools, there has been an increase in students who are absent at least 30% of the time (from 14% of students in 2019 to 19% in 2020), while there was not much change in the proportion of students regularly attending. This means that not all students in these groups are equally affected, or some students might have attended more after COVID, while barriers are increased for others.

To get a sense of this, we compared the attendance of each student in the first six weeks of the year (prior to COVID-19) to the month after lockdown. (More detailed results are in the attached appendix.) This analysis shows that, of all

[11] It is important to note, however, that students at low decile schools were substantially *more* likely than students at higher decile schools to be reported as learning at distance after lockdowns had ended. For students at decile 1-2 schools, 8.6% of the attendance duration over the month after national lockdown was allocated to distance learning, compared to 1.5% for students at decile 9-10 schools. There was a similar, but less extreme, pattern in the month after the Auckland lockdown.

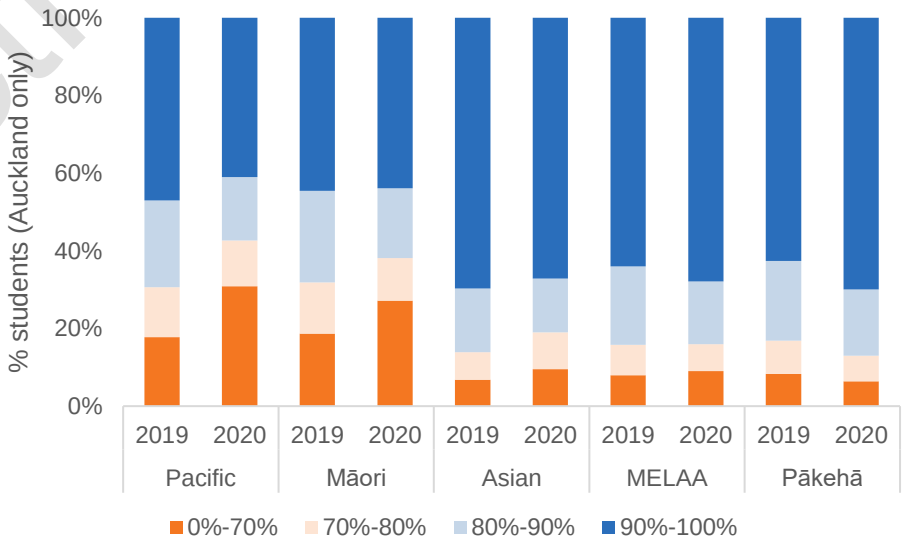
Auckland students with chronic absences in the month after the Auckland lockdown, 42% had regular attendance at the start of the year. This percentage was slightly higher for students in low decile schools, and primary school-aged students. This means that many of the students whose attendance was most negatively impacted by COVID-19 did not necessarily have concerning attendance patterns prior to the pandemic.

Recovery in school attendance by ethnic group

There were also very large differences by ethnic group in recovery in attendance after lockdowns. Figure 10 shows the attendance categories for Auckland students in the month after the Auckland lockdown, by ethnic group. For Middle Eastern, Latin American and African students, as well as Pākehā students, there appeared to be positive effects on attendance following from COVID-19. Four to seven percent more students of these ethnicities attended school regularly over the month after the Auckland lockdown, compared to the same month in the previous year. For Asian students, there was a slight decrease in students attending regularly compared to 2019, and a slight increase in the proportion of students attending 70% or less of the month.[12]

The largest differences from 2019, though, were for Pacific and Māori students. Both of these groups saw slight reductions in the proportions of students attending regularly (to 41% for Pacific students and 44% for Māori students in Auckland over the month after the Auckland lockdown ended), and also much larger increases in the number of students attending 70% or less of the time. The proportion of Pacific students with chronic absence over this month increased from 18% in 2019 to 31% this year, whereas Māori students increased from 19% to 27%. There were also decreases in attendance for both Pacific and Māori students in the month after the national lockdown, although these differences were much smaller than after the Auckland lockdown. Pacific and Māori students both subsequently had higher attendance than 2019 levels over the remainder of Term 2 after the national lockdown.

Figure 10. Attendance categories by ethnic group, month after Auckland lockdown



Note: MELAA refers to Middle Eastern, Latin American, and African students. Students can select more than one ethnicity; students are counted in every ethnic group that applies to them.

[12] Over the first six weeks of the year (pre-COVID), Asian students in Auckland had a large drop (about ten percentage points) in regular attendance. This may mean the decrease in attendance of Asian students may be the result of a longer-term trend, rather than COVID-specific impacts.

Pacific and Māori communities in Auckland have borne the brunt of the economic, social and health impacts of COVID-19.

For Māori students, attendance barriers were slightly higher for students in Māori medium education (MME) compared to Māori students in English medium education.[13] The proportion of MME students regularly attending in the month after the national lockdown was five percent higher than over the same month in 2019, but it increased by less than for all Māori students. Students in MME in Auckland also had a greater increase in chronic absences in the month after the Auckland lockdown than Māori students in Auckland as a whole, increasing from 18% in 2019 to 31% in 2020 (see the appendix for more detail). This is potentially due to MME students being more likely to be in lower decile schools and younger year levels – both groups that have had larger barriers to attendance this year.

The reasons for the greater barriers to attendance for Pacific and Māori families are likely to overlap with many of the economic barriers discussed earlier. Research by the Commission for Financial Capability found that more than half of Pacific and Māori families were experiencing financial difficulty, with a great number 'in a precarious financial situation before the crisis' (Galicki, 2020, p.3). Families in Auckland were also more likely to report being behind on their mortgage or rent, even in May, before the second Auckland lockdown. The multiple outbreaks and lockdowns in Auckland means that Pacific and Māori communities in this region have borne the brunt of the economic, social and health impacts of COVID-19 – and this appears to be impacting education, too.

Reports from Ministry of Education and Ministry of Pacific Peoples staff working in Auckland also point to other barriers of attendance for these groups. Many Pacific and Māori students live with elderly or immunocompromised family members, which may lead to a greater hesitancy to participate in physical learning if it is perceived as risky.[14] Many Pacific families reported feeling that church was the space they feel safest, and when restrictions were placed on gatherings that included churches in early September with the move out of lockdown (particularly in Alert Level 2.5 in the first two weeks after lockdown), they no longer felt safe in venues that were not restricted, such as school.

Recovery in school attendance by year level

As mentioned in the section examining types of attendance and absence, changes in attendances and absences differed substantially by year levels of students. Figure 11 shows attendance categories for students in Auckland over the month following the Auckland lockdown, as well as the same month in 2019.

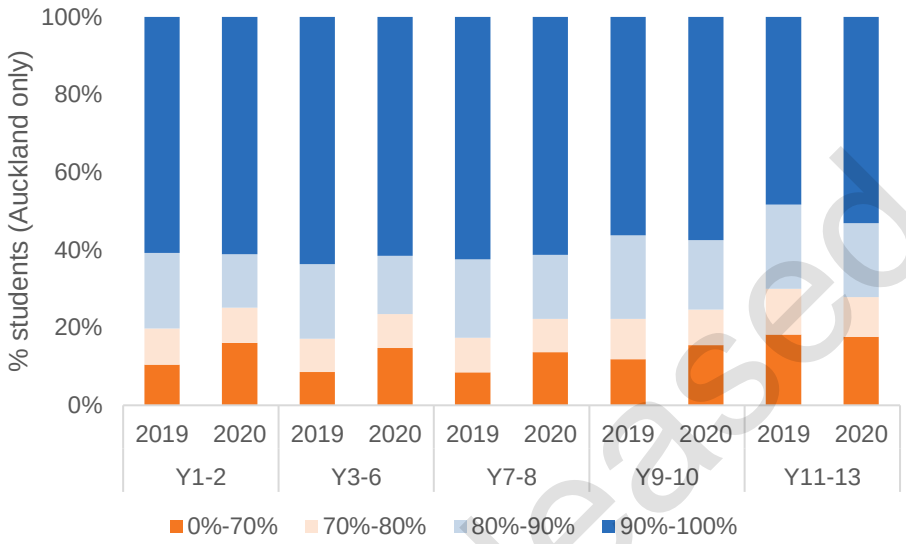
For most year levels, there has been relatively little change in the proportion of students attending regularly from 2019 to 2020. The exception to this is Year 11-13 students, which has seen a meaningful increase in students attending regularly (to 53%, from 48% in the same month last year). The relatively little change in regular attendance across most year levels is different from the response after the national lockdown in May, where all year levels (including senior secondary students) had a large increase in regular school attendance compared to the same month in 2019. This suggests that subsequent lockdowns are having a cumulative, increasingly negative, effect.

The reason for the increase in attendance of senior secondary students in the month after each lockdown could include motivation to catch up on NCEA assessment opportunities that may have been lost over lockdown. In ERO's survey of students during Alert Level 3 in May, 58% of secondary students agreed that they had been able to learn from home (compared to 78% of primary school

[13] MME refers to students who have more than half of their content delivered in te reo Māori.
[14] This may also be a barrier for many Asian and Middle Eastern, Latin American and African students.

students), and only 26% of Year 11-13 students reported that they were able to cope with their workload during lockdown (ERO, 2020).

Figure 11. Attendance categories by year level, month after Auckland lockdown



The other important aspect to Figure 11 is the large increase in students who are chronically absent (with attendance rates of 70% or lower over the month) in primary and intermediate schools. Between 14-16% (depending on year level) of students in Years 1 to 8 missed more than 30% of half-days in the month after the Auckland lockdown, up from 8-10% for the same month in 2019. It is still true that primary school students attend school more than secondary school students, but the additional barrier to attendance that has emerged after COVID-19 appears to be concentrated in younger ages.

For younger students, it is much less likely that absences from school are due to the motivation of the students themselves, or is even a decision made by the student, as opposed to their family. The concentration of COVID-related barriers in primary school ages also appears inconsistent with explanations such as care or employment responsibilities being the major driver for reduced attendance.

What does this report tell us?

This report has found that, for the majority of students, the onset of COVID-19 appears to have increased the rate of school attendance during periods of physical learning. In aggregate across all students, attendance returned to 2019 levels relatively soon after both the national and Auckland lockdowns ended, and later consistently exceeded those levels. This has reversed a declining trend in attendance that has been ongoing for half a decade, and looked set to continue into 2020 before the COVID-19 outbreak.

This is one of the clearest ways in which COVID-19 has the potential to further worsen inequities.

For these students, this data is good news during a disruptive time. While many students reported finding difficulties learning at distance during both periods of Alert Level 3, the increased attendance after lockdown creates additional opportunities to learn in an environment where teachers and other professionals can monitor learning progress and arrange support to catch up. Higher attendance might indicate that students are increasing their engagement in learning. Physical attendance also represents opportunities to socialise with peers and experience feelings of normalcy. This higher attendance therefore represents a supportive factor that may help keep the learning and wellbeing of many students on track through an incredibly disruptive time.

However, not all students have benefitted from these attendance effects equally. We have found strong evidence that students are more likely to have experienced COVID-related barriers if they are Pacific or Māori, attend low decile (1-2) schools, participate in Māori medium education, and are in primary school years. After the national lockdown, the attendance of these groups was slightly slower to recover for other students, although it did end up exceeding last year's levels. For these students in Auckland, the recovery of school attendance from the Auckland lockdown appears much slower, and a concerning number of these students have missed entire weeks of school. Pacific, Māori, and low decile students already had much higher (and rising) barriers to attendance over the years before COVID.

The different impacts on attendance for different student groups is one of the clearest ways in which COVID-19 has the potential to further worsen inequities that already existed in schools. There are strong theoretical and empirical reasons to think that barriers to attendance may lead to effects on learning and wellbeing if they are not addressed, which can also further impact on future engagement and attendance (Webber, 2020; McGregor & Webber, 2020; Jang-Jones & McGregor, 2019). This means that supporting all students to regularly attend schools should be one of the highest priorities in the education system's response to the pandemic.

Because of this, the government has announced a range of supports aimed at reducing barriers to participation in schools and early learning services. This includes the $50 million Urgent Response Fund (which prioritises Pacific, Māori, and disadvantaged students), and the Pacific Education Support Fund and Pacific Education Innovation Fund (totalling $11.1 million), specifically targeting Pacific learners. The purpose of these supports is to reduce barriers to participation, learning and wellbeing, and to support the delivery of creative, collaborative and innovative practices and programmes that is culturally responsive. These are on top of regular supports relating to attendance, such as the Attendance Service, which was expanded by $2.6m this year to address COVID-related barriers, particularly for students in Years 7-8.

We all have a collective opportunity and responsibility to create a 'new normal'.

While these additional supports are crucial to reduce additional barriers to attendance brought on by COVID-19, they may not fully address the more fundamental drivers of non-attendance that existed in the years prior to the pandemic. Our goal cannot be to 'return to normal'. Since 2015, school attendance has been consistently dropping – for everyone – in ways that likely harm learning, engagement, and broader wellbeing. The causes of non-attendance tend to be personalised and complex, because they depend on the specific circumstances of the student, their whānau, their school, and the wider community. This means that at the same time we are working towards reducing new COVID-related barriers, we all have a collective opportunity and responsibility to create a 'new normal', where every student who can attend school regularly does.

Authored by Andrew Webber

For other He Whakaaro reports, go to:
www.educationcounts.govt.nz/goto/whakaaro

For further information, questions or discussion around additional analysis and potential topics for future research, please contact Requests.EDK@education.govt.nz.

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Appendix – How COVID-19 is affecting school attendance

Who did not return?

The increase in the number of students with very low attendance over the month following lockdowns raises the question of how long it took students to return, and how many students did not return to school at all. To analyse this, we tracked each student over the month after each lockdown, to determine whether, and when, they recorded their first attendance at school.[1] Table A1 shows the proportion of students in Auckland who were yet to attend school at all at the end of each week after the Auckland lockdown.

Table A1. Proportion of Auckland students not attending school after Auckland lockdown, by week

	% students not returning by the end of…			
	4 Sep	11 Sep	18 Sep	25 Sep
Ethnicity				
Pacific	22.0%	8.7%	5.3%	4.0%
Māori	15.3%	6.8%	4.4%	3.5%
Asian	9.5%	1.9%	0.9%	0.7%
MELAA	4.9%	1.2%	0.5%	0.4%
Pākehā	1.9%	0.5%	0.3%	0.3%
Decile				
1-2	24.6%	10.7%	6.8%	5.3%
3-4	11.4%	3.4%	2.0%	1.6%
5-6	6.9%	1.8%	0.9%	0.7%
7-8	4.5%	1.0%	0.5%	0.4%
9-10	4.5%	1.1%	0.5%	0.4%
Year level				
Y1-2	13.7%	5.2%	3.0%	2.3%
Y3-6	12.1%	4.4%	2.6%	2.0%
Y7-8	9.7%	3.2%	1.9%	1.4%
Y9-10	7.9%	2.5%	1.5%	1.3%
Y11-13	5.3%	1.5%	0.9%	0.7%
All students	**10.2%**	**3.6%**	**2.1%**	**1.6%**

There are large differences between groups, with Pacific, Māori, lower decile, and lower year level students being more likely to be absent for prolonged periods. Almost a quarter of Pacific and decile 1-2 students did not attend at all in the first week of physical learning after lockdown, and more than 10% of decile 1-2 students did not attend at all in the fortnight after the end of the lockdown. Even

[1] This 'attendance' did not have to be physical; students recorded as learning at distance are counted as attending.

by 25 September, four weeks after the lockdown ended, 4% of Pacific students, 3.5% of Māori students, 5.3% of decile 1-2 students, and more than 2% of primary-aged students had not attended at any point since before the lockdown.

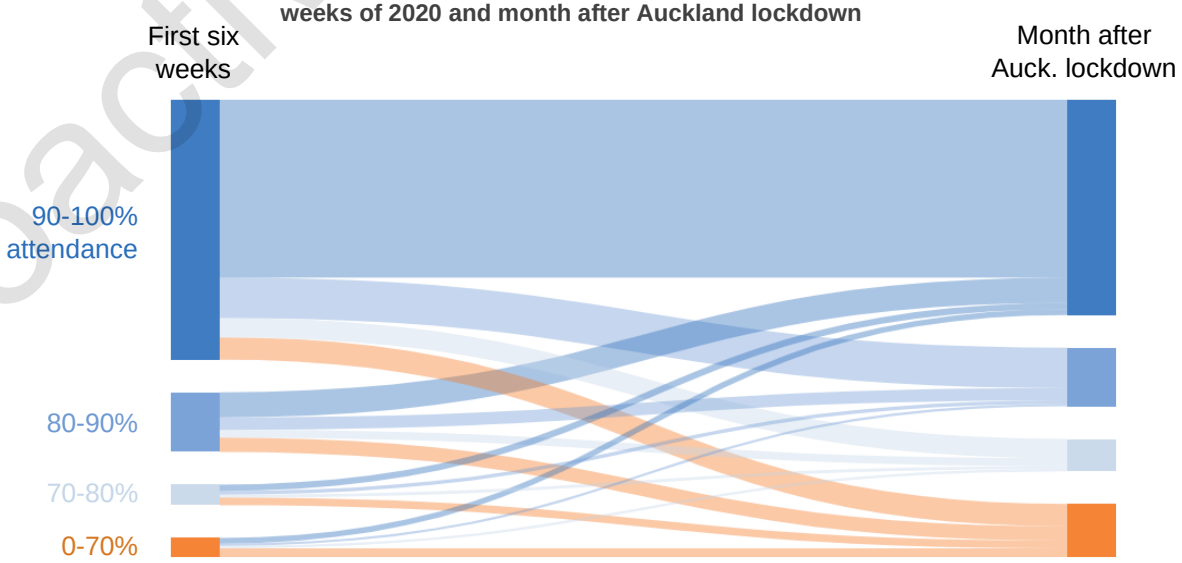
Within each ethnic group, there were also large differences between deciles and year levels. For example, 13.7% of Pacific Year 1-2 students in Auckland did not attend at all in the first fortnight after lockdown ended, compared to 3.1% of Year 11-13 students.[2] At the end of the first month after the Auckland lockdown ended, 5.6% of Pacific students in decile 1-2 schools had not returned to school, compared to 0.8% of Pacific students in decile 9-10 schools.[3]

Changes in attendance pre- and post-COVID

To get a sense of whether the students most impacted from COVID are the ones who had the largest barriers to attendance before the pandemic, we compared each student's attendance in the first six weeks of the year to their attendance in the month following lockdown. Figure A1 shows the flows for Auckland students and the month after the Auckland lockdown. The height of each bar on the left and right hand sides of the diagram represents the number of students with each attendance category at the start of the year and the month after the Auckland lockdown, respectively. Flows between these bars represents students moving into different attendance categories.

Of particular interest are the orange flows, which represent students moving into the chronic absence (70% or lower attendance rate) category. Of all Auckland students chronically absent in the month after lockdown, 42% were attending regularly at the start of the year.[4] This is an indication that the additional barriers to attendance due to COVID-19 may for many students be quite different to the barriers that existed before COVID took effect. One illustration of this is the fact that COVID-related barriers appear to be far higher in primary school students, whereas these students typically have the highest attendance rates. In contrast, senior secondary school students typically have the lowest attendance rates, but their attendance appears to have been the least negatively affected by COVID.

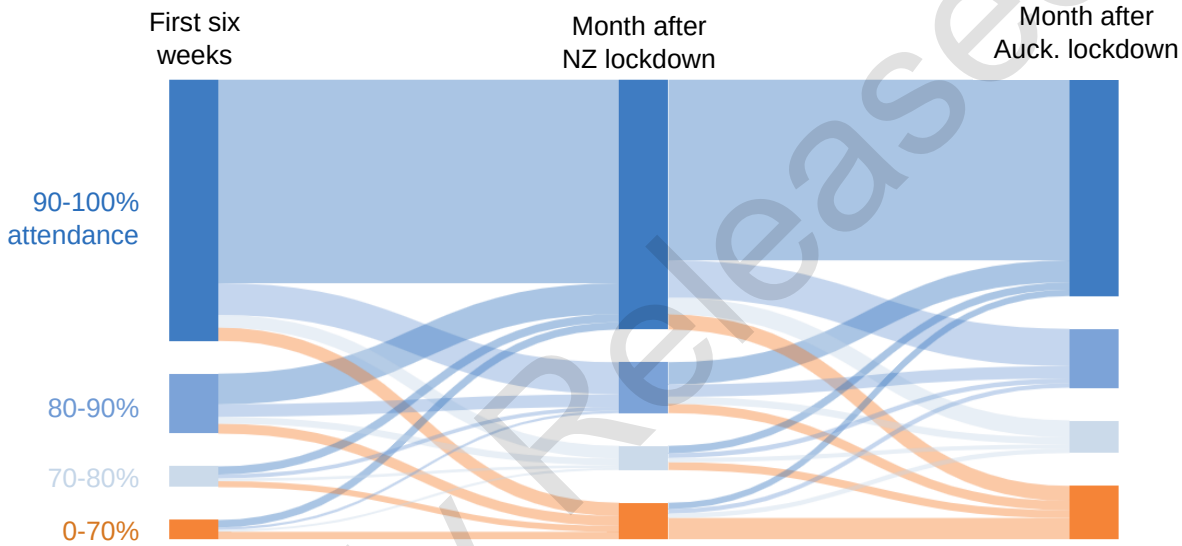
Figure A1. Flows of Auckland students between attendance categories in first six weeks of 2020 and month after Auckland lockdown



[2] The comparable figures for Māori students are 8.8% of Year 1-2 students, and 3.8% of Year 11-13 students.
[3] For Māori students, it was 7.1% for students in decile 1-2 schools, and 0.6% for students in decile 9-10 schools.
[4] The diagrams and associated statistics are very similar when looking only at Pacific or low decile students, or only at students in Years 1-2.

Figure A2 shows a similar diagram, again for Auckland students, but shows the flows between the pre-COVID period at the start of the year (on the left hand side), the month after the national lockdown (in the middle), and the month after the Auckland lockdown (on the right hand side). Almost half (46%) of the students with attendance rates 70% or lower after the Auckland lockdown had regular or irregular attendance (attendance rates 80% or more) in the month after the national lockdown, and in turn almost all of the students in these two attendance categories had regular attendance at the start of the year. This is an indication that the negative effects of lockdowns on attendance have been cumulative for students in Auckland.

Figure A2. Flows of Auckland students between attendance categories in first six weeks of 2020, and months after each lockdown



Tables and graphs for the month after the national lockdown

Figure A3. Attendance categories by school decile, month after NZ lockdown

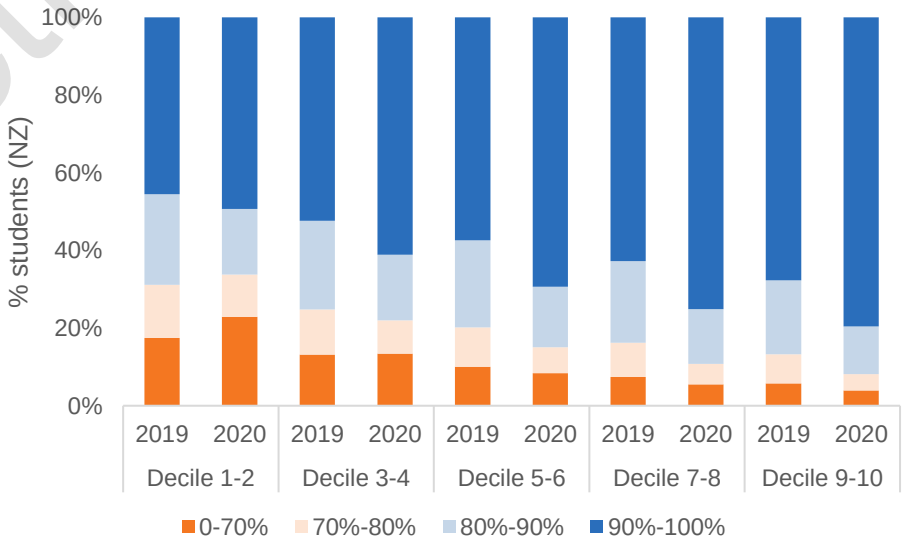


Figure A4. Attendance categories by ethnic group, month after NZ lockdown

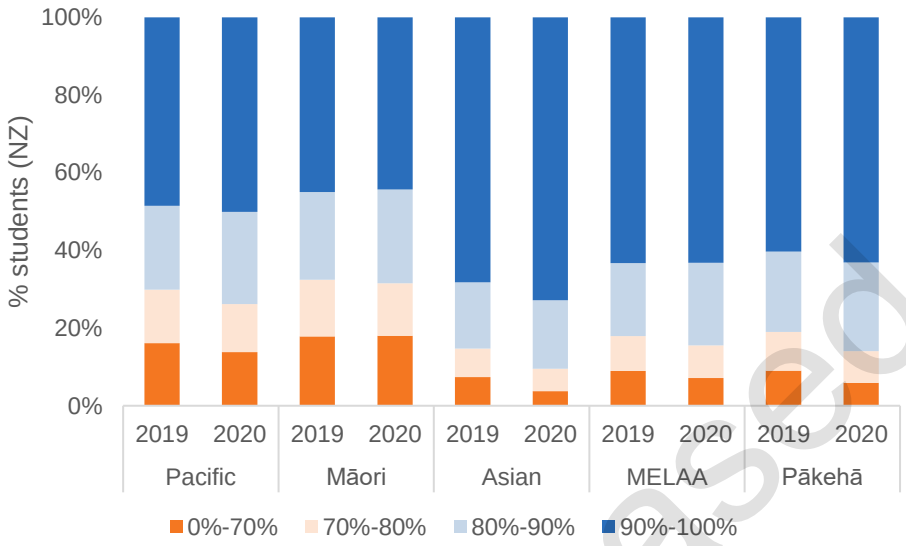
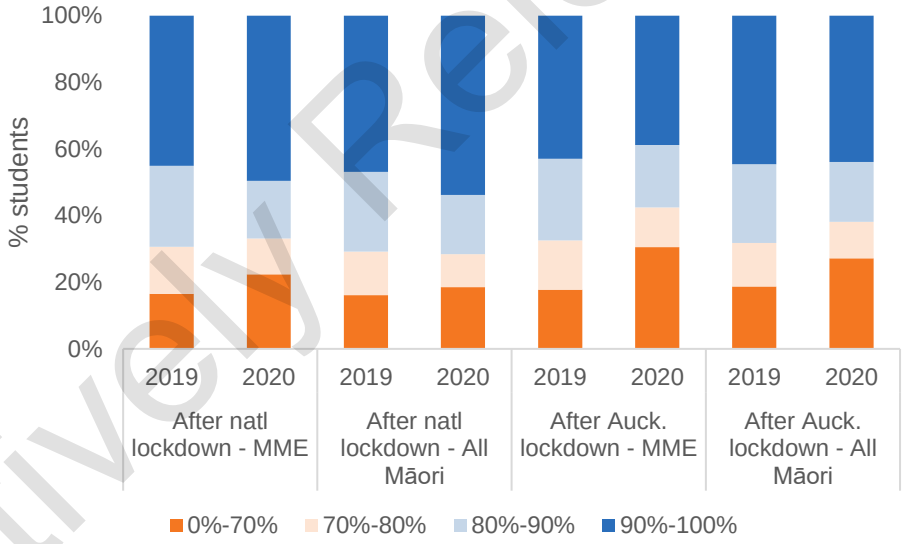


Figure A5. Attendance categories by medium of education for Māori students, months after each lockdown



Note: The "after Auckland lockdown" series refers to Māori students in Auckland only.

Figure A6. Attendance categories by year level, month after NZ lockdown

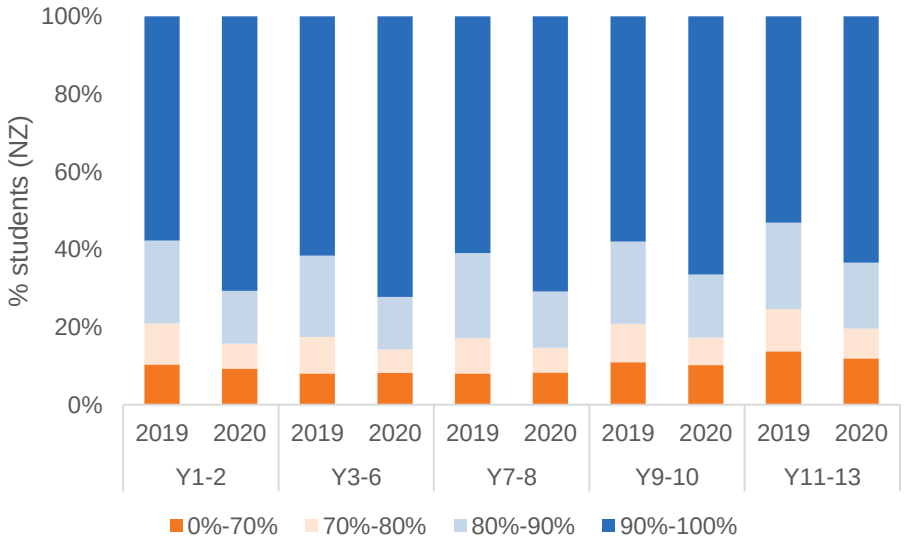


Figure A7. Attendance categories by region, month after NZ lockdown

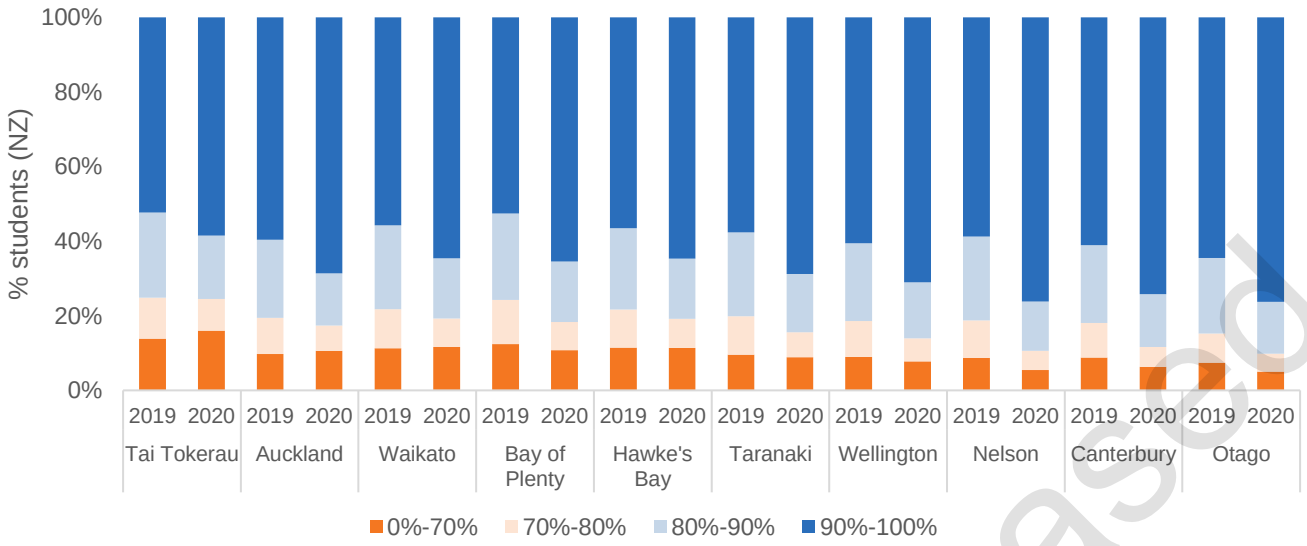


Figure A8. Attendance categories by region, month after Auckland lockdown

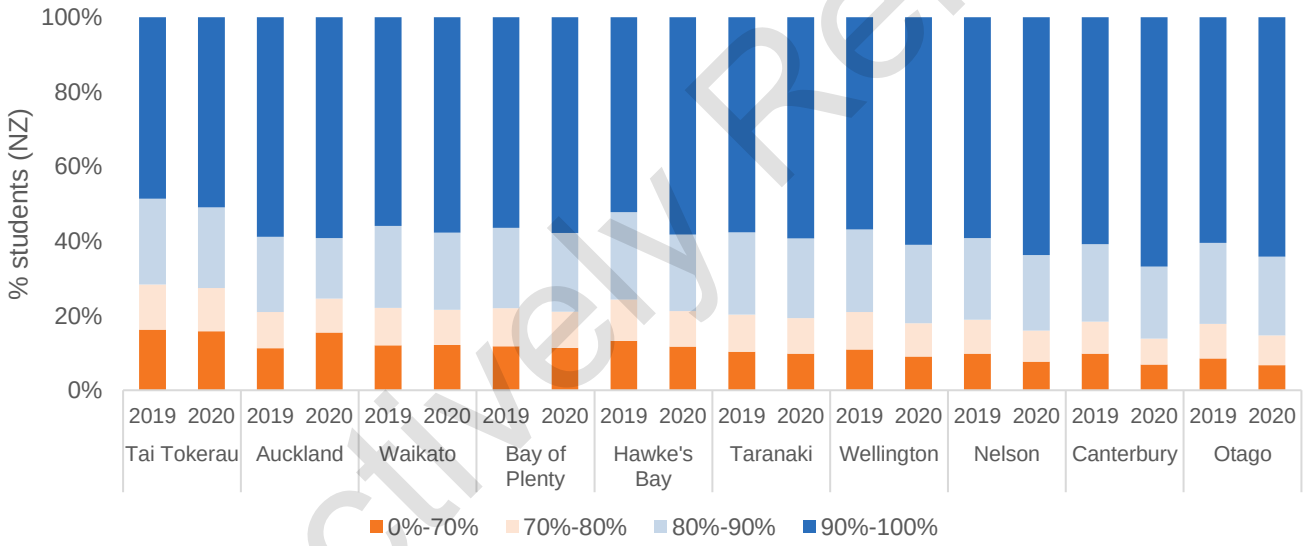


Figure A9. Flows of NZ students between attendance categories in first six weeks of 2020 and month after national lockdown

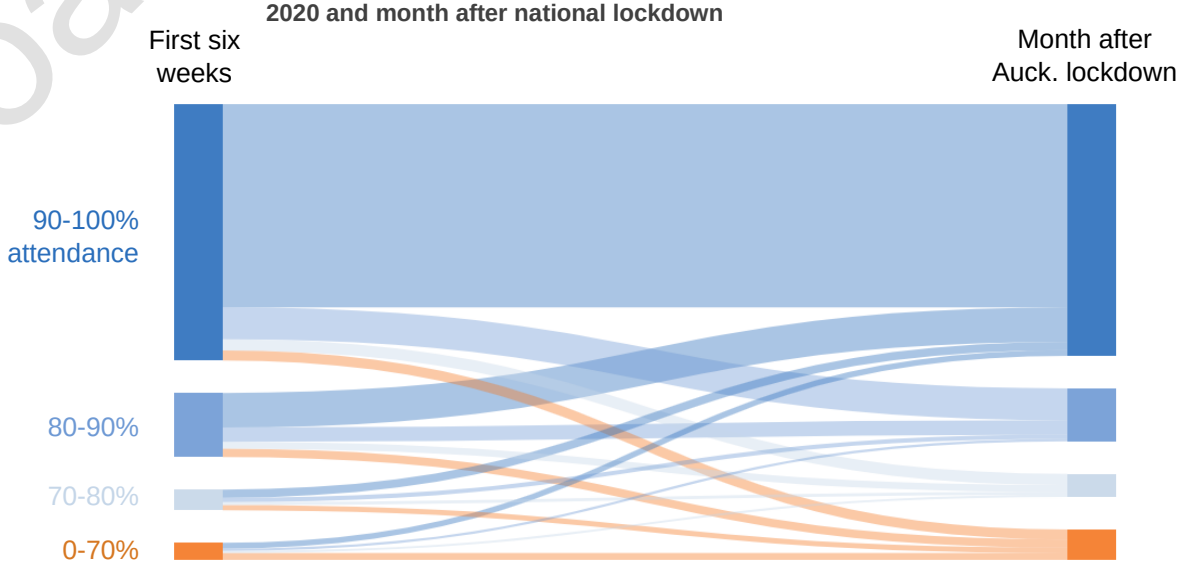


Table A2. Proportion of NZ students not attending school after NZ lockdown, by week

	% students not returning by the end of…			
	22 May	29 May	5 Jun	12 Jun
Ethnicity				
Pacific	10.2%	4.7%	2.0%	0.9%
Māori	8.9%	4.3%	2.3%	1.2%
Asian	4.7%	1.5%	0.5%	0.3%
MELAA	3.5%	1.1%	0.5%	0.3%
Pākehā	1.5%	0.6%	0.3%	0.1%
Decile				
1-2	12.6%	6.5%	3.3%	1.7%
3-4	6.4%	2.6%	1.3%	0.6%
5-6	3.8%	1.4%	0.7%	0.4%
7-8	2.5%	0.9%	0.4%	0.2%
9-10	2.1%	0.8%	0.3%	0.2%
Year level				
Y1-2	6.2%	2.7%	1.2%	0.6%
Y3-6	5.4%	2.4%	1.1%	0.5%
Y7-8	4.3%	1.8%	0.8%	0.4%
Y9-10	4.0%	1.7%	0.9%	0.5%
Y11-13	3.1%	1.3%	0.7%	0.4%
Region				
Tai Tokerau	8.5%	4.2%	2.3%	1.3%
Auckland	6.4%	2.8%	1.3%	0.6%
Waikato	5.1%	2.5%	1.2%	0.6%
Bay of Plenty	4.9%	2.1%	1.0%	0.5%
Hawke's Bay	4.9%	2.1%	1.0%	0.5%
Taranaki	3.7%	1.6%	0.8%	0.4%
Wellington	2.7%	1.2%	0.6%	0.3%
Nelson	2.1%	0.8%	0.3%	0.2%
Canterbury	2.6%	1.0%	0.5%	0.3%
Otago	2.1%	0.8%	0.4%	0.2%
All students	**4.7%**	**2.1%**	**1.0%**	**0.5%**

Annex 3: Is COVID-19 making students leave school?

Document Set ID: 915547
Version: 1, Version Date: 17/12/2020

MINISTRY OF EDUCATION
TE TĀHUHU O TE MĀTAURANGA

He Whakaaro
EDUCATION INSIGHTS

Is COVID-19 making students leave school?

Summary

This He Whakaaro is part of a series, exploring impacts of COVID-19 on the education system. This report uses data collected during 2020 to determine the extent to which the COVID-19 outbreaks and lockdowns are impacting on whether students are changing schools, or formally unenrolling from the school system altogether.

KEY FINDINGS

- COVID does not appear to be influencing more students to leave school this year. Far fewer students have unenrolled from school so far during 2020, after a stable or increasing trend since 2014.
- According to enrolment data up to late October, 3,100 fewer students have so far left Auckland schools than over the same time last year, and 4,000 fewer students have left schools outside of Auckland.
- Patterns of leaving students were almost identical between 2020 and 2019 before the national lockdown in March and only diverged after that point, strongly suggesting that this is in response to COVID-19.
- Students are also less likely to be changing schools in 2020 than previous years.
- The leaving rate has fallen more in 2020 for male, Māori, Pacific, and 18+ year old students, as well as students in lower decile schools, Auckland, Tai Tokerau, and Bay of Plenty.
- There were fewer students leaving school for each type of reason, including for employment. The largest drops were in students leaving school to go overseas, or to move into further education and training.
- Even in previous years, few students leave school during the year.

Note: This report summarises emerging evidence from datasets that are not finalised at time of writing. This may mean that some numbers in this report may differ slightly to final official reported statistics.

Why student movement and unenrolment is important

One of the key pieces of data that is collected throughout the education system is enrolment information, indicating which school students attend. Under the Education and Training Act 2020, all children and young people aged 6 to 16 must be enrolled at a registered school (or have an approved exemption). Whether students (including those over 16) are enrolled in a school is a key indicator of student engagement, aspirations and ability to achieve later educational success. Whether students are changing schools also matters. Previous research has demonstrated that school changes are associated with reduced achievement, particularly when changes happen in the middle of a school year (Loader & Webber, 2020; Dixon, 2018).

Due to the large and sudden impact of COVID-19, there is a question whether students have responded by remaining in (or leaving) school.

This report uses enrolment data collected throughout the year to assess the extent to which COVID-19 may have impacted on students changing schools or leaving the school system entirely. Whether students remain enrolled in schooling in senior secondary years may be related to economic factors, with a stronger economy (translating into more job opportunities) being associated with higher rates of school leavers. Due to the large and sudden impact of COVID-19 on many families and the New Zealand economy, there is a question whether students have responded by remaining in (or leaving) school. The large negative economic impacts might also have disrupted incomes within families, raising barriers to attending school (due to a lack of transport or school-related resources), requiring movements to other parts of the country, or requiring older students to work in order to support family members.

It is important to note that this paper focuses on the formal unenrolment of students from schools. Students may also disengage from schools through staying formally enrolled, but not attending (or attending only sporadically).[1] For an exploration of how COVID-19 is affecting school attendance, see the companion He Whakaaro report (Webber, 2020).

Students leaving between March and July

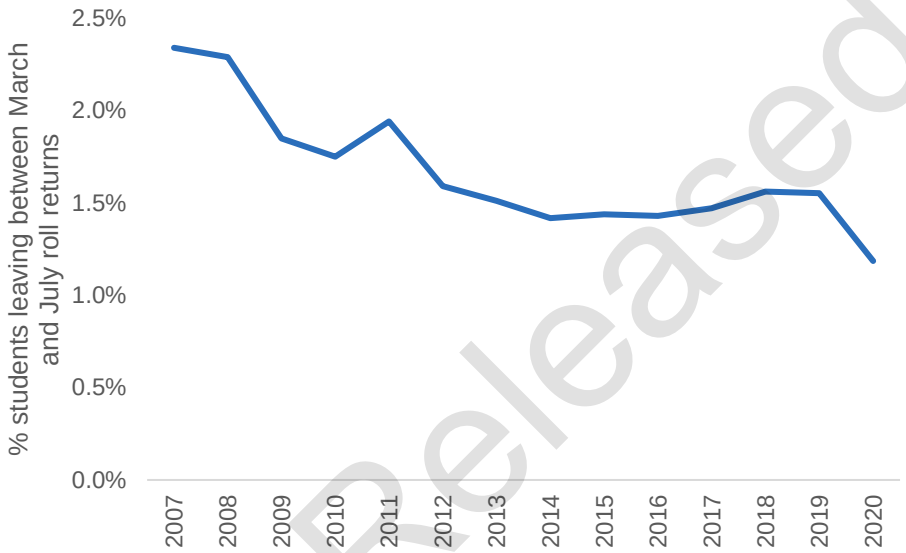
The most reliable source of information on student enrolments is data from school roll returns. These are snapshots of enrolments at schools that are used for funding purposes. School roll return data are taken from schools' student management systems but are checked for accuracy by both school and Ministry staff, and school leaders attest to their accuracy due to these data being used as a basis for school funding. Of the roll returns, March and July are the most comprehensive, providing student level data for almost all schools.[2]

New Zealand reported its first case of COVID-19 on 28 February, one school day before the March roll return. New Zealand entered Alert Level 4 and 3 over March and April, before schools returned to physical learning in mid-May. Movements between the March and July roll returns may therefore give a good sense of how COVID-19 might have impacted on students leaving or changing schools. In this analysis, we identify whether each of the students in the March roll return was enrolled in any school in July of the same year (and if so, whether their July school differed from their March school).[3] Sharp changes in the 2020 figures, compared to the overall historical trend, may tell us about COVID impacts.

[1] However, prolonged absences typically eventually result in students being unenrolled from school.
[2] All schools submit roll returns in March and July, but some do so using manual returns, which do not contain the same level of student detail. In 2020, 2,445 schools submitted their March and July roll returns with detailed student data. This represents 96% of the schools on the current school directory.
[3] The analysis in this report includes only regular enrolments at schools (that is, excluding adult students, alternative education or teen parent unit enrolments, and international fee paying or exchange students).

In 2020, there were 9,347 students who were recorded as enrolled at a school in the March roll return but not the July roll return. This represents a leaving rate of 1.2% of all students enrolled in the March roll return. The long-term trend in this rate is shown in Figure 1. There has been a stable or slightly increasing trend in the leaving rate over 2014 to 2019, followed by a large reduction (from 1.6% in 2019 to 1.2%) in 2020. This decrease represents 2,697 fewer students leaving the school system between March and July this year, compared to last year.[4]

Figure 1. Leaving rates between March and July roll returns, 2007-2020



Source: March and July school roll returns, 2007-2020.

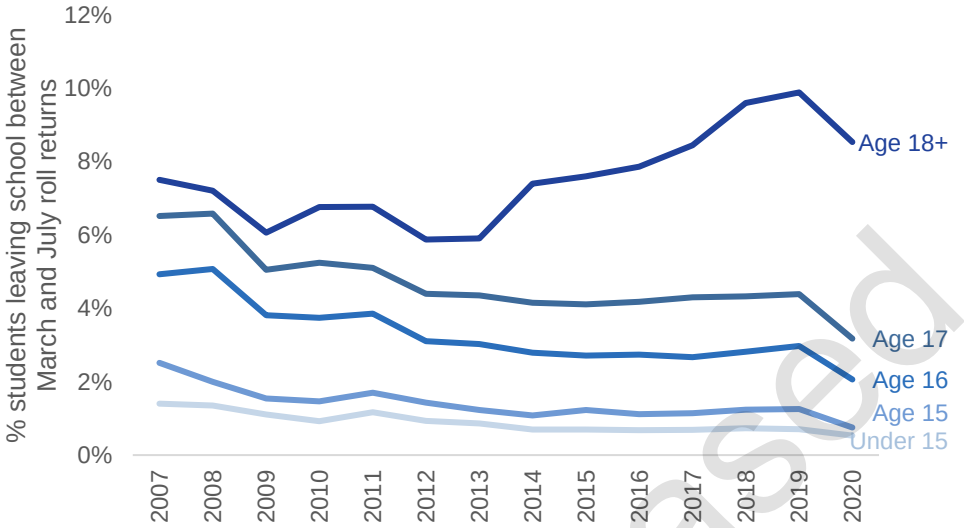
Across all age groups, there is a clear sharp drop in the leaving rate in 2020.

Rates of leaving school differ substantially by student age – older students are much more likely to leave partway through the year than younger students. Figure 2 shows the same leaving rates between March and July, split by student age on the last day of attendance. Across all age groups, there is a clear sharp drop in the leaving rate in 2020, which disrupts the long-term historical trend.[5] For groups aged below 18 years, the leaving rate in 2020 was lower than it has ever been since the collection of data began in 2007. For 18+ year olds, it was substantially lower than 2018 or 2019, but still higher than in years prior to 2017.

It is possible that COVID-19 led to students leaving schools at greater rates in 2020, but this is not showing up in July roll return data. The July roll return was conducted seven weeks after the end of the national lockdown (Alert Level 3). Students could have had delayed leaving behaviour, or schools may have responded to students leaving differently than in previous years. While schools can unenrol students aged 16 or over at any time[6], schools may have been more hesitant to unenrol students not coming back after the lockdown, in case their absence was temporary. Schools may not have updated their administrative systems immediately due to the work associated with returning to physical learning in the middle of Term 2. The Auckland lockdown in August may have had additional compounding effects.

[4] At the same time these students are leaving the school system, new students were entering New Zealand schools for the first time. Almost all of these new students are five and six year olds transitioning to school from early learning, but this group also includes recent immigrants to New Zealand, as well as former residents returning home. Roll return data indicates these groups are smaller than immigration that occurs in a typical year. There were 5,828 students aged 7+ who were enrolled in the 2020 July roll return but not the March roll return. This is the lowest number since 2013.
[5] The trend for students under 15 is difficult to see in Figure 2 because few young students leave the system. In 2020, 0.5% of these students left the system, a drop from 0.7% of students last year.
[6] Schools can unenrol students under 16 after the student has not attended school for at least 20 consecutive school days.

Figure 2. **Leaving rates between March and July by age on leaving, 2007-2020**



Source: March and July school roll returns, 2007-2020.

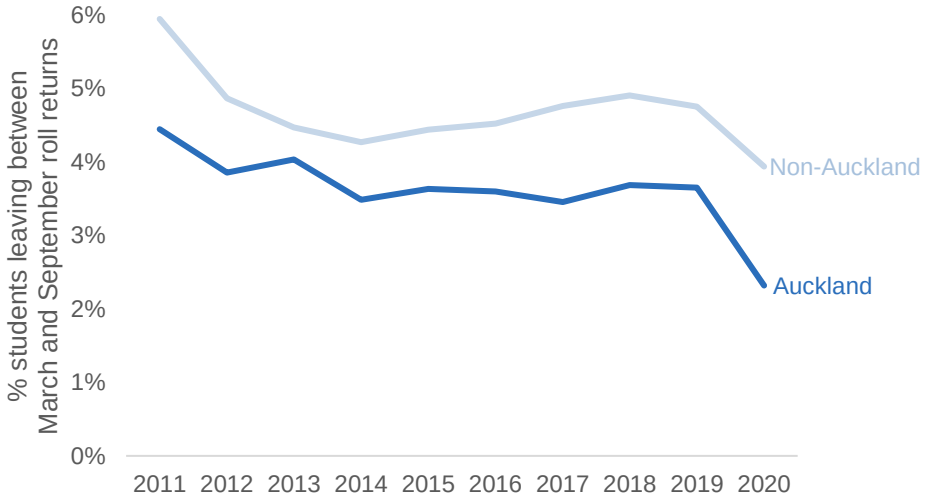
Students leaving between March and September

To get a sense of longer-term impact from the national COVID outbreak and lockdown in April, as well as the Auckland outbreak and lockdown in August, we repeated the above analysis matching students between the March and September roll returns. The September roll return was conducted in early September (immediately after the end of the Auckland lockdown), and is completed only by state and state-integrated schools that enrol students in Years 9-13. The September roll return began in 2011.

The drop in Auckland is larger than the drop in non-Auckland regions.

Figure 3 shows leaving rates (for students in Years 9-13) between March and September, for Auckland and regions outside Auckland. There is a clear sharp drop in the rate of leavers, by 1.3% in Auckland, and 0.8% outside of Auckland. In both cases, this drop is after a period of static or increasing rates since about 2014, strongly suggesting that COVID-19 is responsible for this change. The drop in Auckland is larger than the drop in non-Auckland regions, consistent with the idea that the combination of outbreaks, lockdowns, and associated economic fallout are inducing students to stay enrolled in school (at least in the short-term).

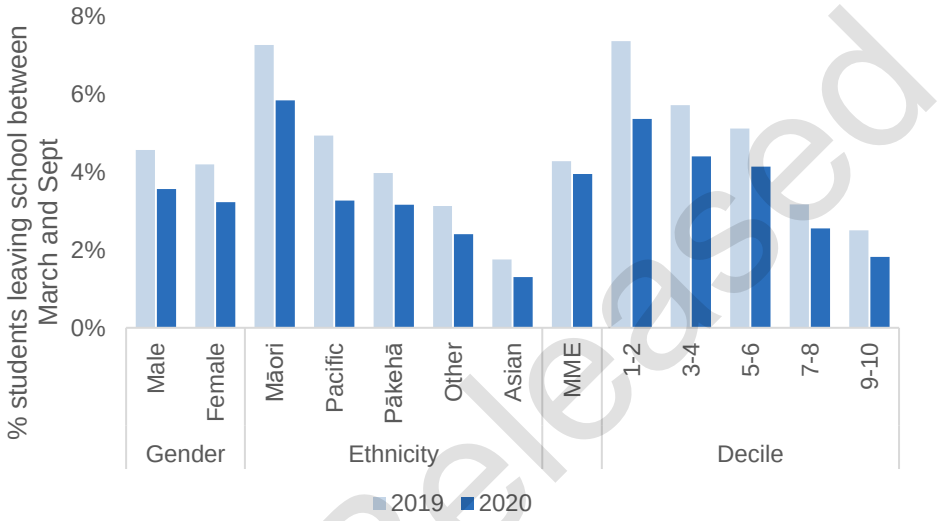
Figure 3. **Leaving rates between March and September, 2011-2020**



Source: March and September school roll returns, 2011-2020.

As well as the overall number of students leaving school, it is important to consider *who* is leaving. Figure 4 shows the proportion of Year 9-13 students who were enrolled in March who had left the school system by September, by gender, ethnicity, Māori medium education[7], and school decile. A more detailed table of the time series of these data, broken down by various student and school characteristics, and within and outside of Auckland is included in the appendix.

Figure 4. Leaving rates between March and September by characteristic, 2019-2020



Note: Students are counted in every ethnicity that applies to them. MME denotes students participating in Māori medium education.
Source: March and September school roll returns, 2019-2020.

Across gender, ethnicity and decile, the group with the highest leaving rate in 2019 has experienced the largest drop in 2020.

In each of these dimensions (as well as age and region, not shown), the group with the highest leaving rate in 2019 has experienced the largest drop in leaving rate in 2020. This indicates that – at least in terms of remaining enrolled in school – COVID-19 may be creating an opportunity for greater equity within the education system. However, the extent to which this leads to greater equity in student achievement will depend on the impacts COVID-19 may separately be having on other factors, such as school attendance, learning, or broader student wellbeing.

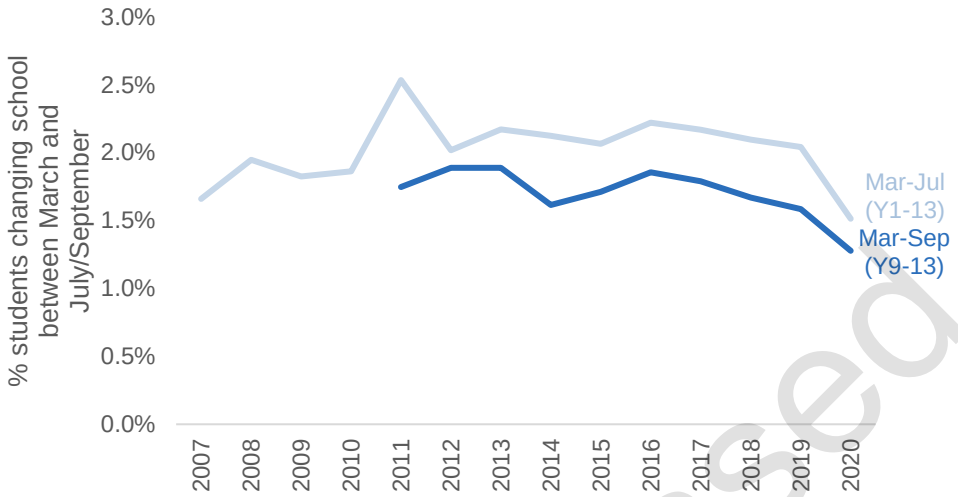
Students changing schools

COVID-19 may also be causing some students to change schools, which is likely to have an impact on their learning and wellbeing. Figure 5 shows the rates of students changing schools between March and July (light blue line) or September (dark blue line). In both cases, there has been a similar drop in 2020 as in the school leaving rate, and in both cases, the rate in 2020 is the lowest on record.

As with students leaving the school system, the rate of changing schools has dropped the most for Māori and Pacific students, and students at lower decile schools – the three groups that typically have the highest rates of school mobility. However, one consideration with this data is that we do not know what event caused the change in school. Although there appear to be fewer students changing schools in 2020 than previous years, it is possible that the school moves that are happening this year are more likely to be triggered by stressful or traumatic events, such as loss of income or housing caused by COVID-19.

[7] Māori medium education refers to students who receive more than half of their learning in te reo Māori.

Figure 5. **Rates of students changing school, 2007-2020**



Note: The March to September rates include only students in Years 9-13, and also exclude private schools.
Source: March, July and September school roll returns, 2007-2020.

What about since September?

Given that the September roll return was undertaken immediately after the end of the Auckland lockdown, it is plausible that many students who made the decision to leave school during or shortly after the lockdown will not be captured in that collection. To get a sense of the picture across the whole year, including more recently, we have analysed the data in the live enrolment systems used by schools.[8] Using this enrolment system, we have identified every instance of a student leaving a school during the year, and not subsequently enrolling in a different school in the same year.[9]

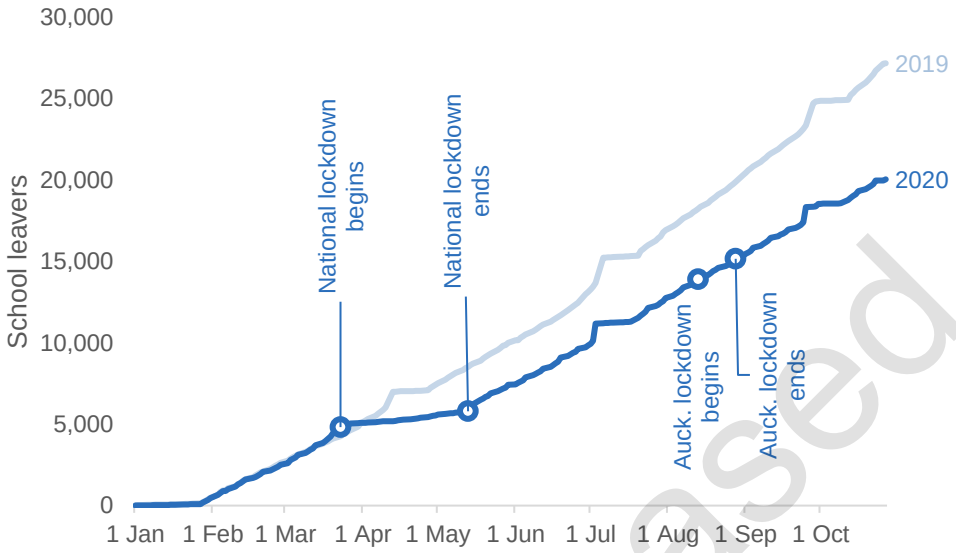
The number of leavers in each year was almost identical up until the start of the national lockdown in late March.

Figure 6 shows the cumulative number of school leavers from January to late October, in 2019 and 2020. The number of leavers in each year was almost identical up until the start of the national lockdown in late March, when the line for 2020 flattens. While students begin leaving after the national lockdown ends, it is at a consistently lower rate compared to last year. The Auckland lockdown appears to lower this rate further, and the 2020 line in late October (over the first few weeks of Term 4) is noticeably flatter than the same line in 2019.

Table 1 shows the number of leavers as at a set of dates in Figure 6, for both New Zealand and Auckland. According to these data, about 7,100 fewer students have left school in 2020 compared to 2019. This is made up of about 3,100 students in Auckland, and about 4,000 students outside of Auckland. For both groups, the largest difference between years is immediately after the national lockdown. There was then a growth in leavers up until the start of the Auckland lockdown. However, even over this period, there were fewer leavers in 2020 than 2019. Between the end of the New Zealand lockdown and the start of the Auckland lockdown, 7,906 students left schools, compared to 9,379 over the same period last year (a 16% reduction). This means there is little evidence of a 'catch up' of students who would have previously left in April or May instead leaving in June or July.

[8] Because this is a live system, the data does not go through the same quality assurance processes that a roll return does, and changes over time as schools update their records.
[9] This will slightly overcount 'leavers', because some students later end up re-enrolling in school, either towards the end of the year or in a following year. To make our calculations consistent between years, we have counted students who left a school in 2019 and did not re-enrol until November or December 2019 as having left the system.

Figure 6. **Number of school leavers over 2019 and 2020**



Note: Includes all students who had unenrolled in a school and not re-enrolled by late October of the same year.
Source: ENROL live enrolment system.

Table 1. **Number of school leavers in 2019 and 2020, at selected points**

	New Zealand			Auckland		
	2019	2020	Change	2019	2020	Change
Before national lockdown	4,113	4,461	8.5%	1,124	1,136	1.1%
After national lockdown	8,643	5,831	-32.5%	2,461	1,496	-39.2%
Holidays after Term 2	15,265	11,245	-26.3%	4,418	3,011	-31.8%
Before Auckland lockdown	18,022	13,737	-23.8%	5,249	3,658	-30.3%
After Auckland lockdown	20,304	15,339	-24.5%	6,042	3,894	-35.6%
Most recent data point	27,177	20,047	-26.2%	8,195	5,071	-38.1%

Note: This table likely undercounts the number of leavers in both years. See footnote 7 for further explanation.
Source: ENROL live enrolment system.

Table 2 gives a summary of the number of leavers up until late October, the most recent data available at the time of writing. This table also includes the number of Pacific and Māori school leavers in Auckland, as there is particular concern about the possibility of these groups leaving school due to COVID-19. Compared to last year, there has been a 26% reduction in the number of leavers up until late October across New Zealand, and a 38% reduction in the number of leavers in Auckland. These rates are higher for Pacific students – the number of Pacific students leaving Auckland schools so far this year has almost been cut in half. Similarly with Figure 6, the difference between years appears at the start of the first lockdown and grows during the Auckland lockdown, strongly suggesting this is caused by COVID-19.

Table 2. Number of school leavers in 2019 and 2020, by characteristic

	New Zealand			Auckland		
	2019	2020	Change	2019	2020	Change
Pacific students						
Younger than 16	2,273	982	-57%	1,544	651	-58%
16 and older	1,893	1,404	-26%	1,110	751	-32%
Total	4,166	2,386	-43%	2,654	1,402	-47%
Māori students						
Younger than 16	4,619	2,977	-36%	1,275	769	-40%
16 and older	5,270	4,765	-10%	933	729	-22%
Total	9,889	7,742	-22%	2,208	1,498	-32%
All students						
Younger than 16	11,989	7,024	-41%	4,695	2,544	-46%
16 and older	15,188	13,023	-14%	3,500	2,527	-28%
Total	27,177	20,047	-26%	8,195	5,071	-38%

Note: Students are counted in every ethnicity that applies to them.
Source: ENROL live enrolment system.

Reasons for leaving

Schools' enrolment systems also provide an ability for schools to report the reason why students are leaving (including whether they are moving overseas), and also the destination activity for the student (including whether they are going into the workforce or further education).[10] When students go overseas, schools typically also report a destination activity (like employment), so students who are leaving the country are also reported in other categories.

The drop in students leaving school for the workforce was larger for Auckland students, and especially for Pacific students in Auckland.

Table 3 shows the number of leavers with various reported reasons for leaving/ destinations. As might be expected, the reason with the largest percentage reduction is going overseas, where the number of leavers dropped by more than half across the country, or by four-fifths for Pacific students in Auckland. But there are also large percentage reductions in destination activities.

The reported destination activity with the largest reduction from last year is further education or training. This is a particularly large drop for Pacific students in Auckland, where the number of leavers reporting this destination activity has fallen by almost two-thirds. This may indicate that COVID-19 is inducing students who may have chosen early tertiary pathways to remain in schooling. If this continues into 2021, this may have implications for the resourcing of both schools and tertiary providers, particularly in Auckland.

Of particular interest are the students indicating that they are leaving school for the workforce. There was a 19% reduction in students leaving in 2020 who reported employment as their destination, a total of 4,572 leaving students.[11] This drop was larger for Auckland students (32% reduction), and especially for Pacific students in Auckland (38% reduction).

[10] This reason is provided to the school by the student or their whānau, and is not further verified.
[11] This combines the 'employment' and 'employment and education' categories in Table 3.

Table 3. Destination of school leavers in 2019 and 2020

	New Zealand			Auckland		
	2019	2020	Change	2019	2020	Change
Pacific students						
Gone overseas	1241	309	-75%	869	184	-79%
Further education	1,193	524	-56%	762	281	-63%
Employment	431	311	-28%	248	167	-33%
Employment and education	162	102	-37%	108	54	-50%
Destination not recorded	2,236	1,356	-39%	1,463	868	-41%
Māori students						
Gone overseas	963	291	-70%	258	56	-78%
Further education	1,950	1,400	-28%	449	195	-57%
Employment	1,346	1,138	-15%	195	151	-23%
Employment and education	456	429	-6%	83	80	-4%
Destination not recorded	5,864	4,506	-23%	1,450	1,054	-27%
All students						
Gone overseas	6,548	2,932	-55%	2,883	1,287	-55%
Further education	8,587	5,786	-33%	2,940	1,656	-44%
Employment	3,996	3,218	-19%	816	555	-32%
Employment and education	1,628	1,354	-17%	444	305	-31%
Destination not recorded	11,914	8,734	-27%	3,744	2,398	-36%

Note: Leaving reason is based on what is reported by the school in the enrolment system. When a student moves overseas, schools also record a destination activity (such as education or employment) for them, so many students are counted in multiple categories.
Source: ENROL live enrolment system.

How might these data be limited?

It is important to consider ways in which these data are limited.

This report summarises data that is a snapshot of an evolving situation, and it is important to consider ways in which these data are limited. Most students who leave school do so at the end of the year, not the middle of the year. It is possible that many students who would have left school in August if not for the pandemic are simply waiting until the end of the year to leave school. Future developments in relation to COVID-19 might also change the patterns of student behaviour in unknown ways in the future.

One of the largest potential limitations with these data is that just as COVID may have affected student behaviour, it also may have changed school responses, or reporting behaviour. While schools can unenrol 16+ year old students at any time if they are satisfied the students have left, schools may potentially be more hesitant to unenrol students this year if there is a possibility that they may return to school in the future. Schools may also be more delayed in terms of entering data for school leavers into their enrolment systems compared to previous years, as ensuring the wellbeing of students during a disruptive time understandably takes precedence over administrative processes. This should make us particularly cautious about impacts from the more recent Auckland lockdown.

These data may miss situations where students reduce their participation in school in ways that do not affect their enrolment. Students may remain enrolled but attend intermittently, for example. Administrative data are also less able to distinguish between the nature or motivations of leaving school. A student leaving school because they are securing a positive start to a productive career is different from a student feeling forced to cut short their education aspirations in

order to support their families. A student moving schools because their parent gets a new job is likely to be a less disruptive situation to learning and wellbeing than a student moving schools because they have insecure housing.

What does this tell us?

This report has provided the first national examination of the impact COVID-19 might be having on disruptions to school enrolments. In every data source examined here, there is evidence that more students than ever are remaining formally enrolled in school. The sharp fall in leaving rates that reverse a long-term historical trend, as well as pre-March leaving rates being almost identical between 2019 and 2020, strongly indicate that this is being caused by COVID-19.

While we should be cautious in interpreting these data, there are several reasons to think that COVID-19 is leading to more students than ever staying in school.

That a declining economy would cause an increase in people participating in education is consistent with economic theory and previous research. A reduction in the number of jobs makes employment a relatively less desirable activity and schooling relatively more desirable. Previous research has demonstrated that recessions tend to be times when education participation increases for young people (Dellas and Sakellaris, 2003; Clark, 2011). COVID-19 has led to the largest recorded drop in New Zealand's economic growth (Statistics NZ, 2020). Students responding to this disruptive event by remaining enrolled in schooling is a rational response.

While we should be cautious in interpreting these data (especially for more recent dates), there are several reasons to believe that, at least for the national outbreak and lockdown, COVID-19 is leading to more students than ever staying in school. The first major reason is the length of time we are observing. Our current picture of the data includes two months of school after the Auckland lockdown, and five months of school after the national lockdown. Most senior secondary students attend large schools with dedicated administrative staff. While unenrolment processes might be delayed in 2020 relative to previous years, it seems unlikely that schools would wait multiple terms, across multiple roll return periods, to unenroll students who have left from their student management system.[12]

The second reason in favour of these data showing real changes in student behaviour is what we are seeing in the data on school attendance. If student leaving behaviour was unaffected by COVID-19, and the change we see is solely due to changes in school responses or reporting behaviour, then we would expect to see schools with the largest decreases in school leavers to also have much lower attendance rates. While COVID-19 appears to have negatively impacted on the attendance of many students, this appears to be less the case for senior secondary students, who are most likely to be school leavers.[13] Over the four weeks after the Auckland lockdown, a *smaller* proportion of students in Year 11-13 were chronically absent this year compared to last year. Of the secondary schools with fewer leavers in 2020 than 2019, 69% had *higher* attendance rates for the last week of Term 3 than the same week last year.[14]

We know from school and community reports that there are cases where COVID-19 is negatively impacting on students' ability to remain in schooling. Yet the broader data suggests that for every student in this situation this year, there may have been just as many (if not more) similar students experiencing different pressures in previous years. In this way, COVID-19 might simply be directing attention to existing societal inequities. One challenge for the education system is

[12] It is important to note too that schools are still regularly processing unenrolment records (except for during the lockdown periods) – they are just doing so for fewer students than previous years.
[13] For more on how COVID-19 is affecting school attendance, see Webber (2020).
[14] Looking only at Pacific students, the equivalent percentage is 64%. Looking only at Auckland schools, it is 73%.

how to respond to local barriers to participation created by COVID-19, without assuming these experiences are universal, or that many of these issues did not previously exist.

Another challenge is to respond effectively to needs of students who do remain in the schooling system. Leaving rates fell by more among groups (male, Māori, Pacific, and older students, as well as schools that are low decile or in Tai Tokerau or Bay of Plenty) that previously had the highest rates of leaving. This creates an opportunity for driving greater educational equity by helping students in these groups achieve their educational aspirations. But it is important to recognise that, if the emerging data in this report are accurate and this increased retention is being caused by COVID-19, staying in school may be considered a second- or third-best option for many students who would have already left the system in any 'normal' year. These students might therefore require extra support in order to remain fully engaged in learning. It is the job of everyone in the education system to ensure that these students' short-term choice to stay pays off in the long run.

Authored by Andrew Webber

For other He Whakaaro reports, go to: www.educationcounts.govt.nz/goto/whakaaro

For further information, questions or discussion around additional analysis and potential topics for future research, please contact Requests.EDK@education.govt.nz.

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Appendix

Table A1. Year 9-13 students leaving school between March and September, New Zealand

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
By age										
Younger than 15	2.2%	1.6%	1.5%	1.4%	1.3%	1.4%	1.4%	1.5%	1.5%	1.1%
Age 15	3.1%	2.2%	2.0%	1.9%	1.8%	1.8%	1.8%	2.1%	2.0%	1.5%
Age 16	6.4%	5.3%	5.2%	4.8%	4.7%	4.6%	4.6%	5.0%	5.3%	4.1%
Age 17	8.5%	7.3%	7.2%	6.7%	6.7%	6.8%	7.2%	7.5%	7.4%	5.7%
Age 18+	10.6%	10.0%	9.7%	9.0%	10.1%	10.2%	10.3%	10.5%	9.6%	7.8%
By ethnicity										
Māori	8.8%	7.5%	7.2%	6.7%	7.0%	7.1%	7.1%	7.5%	7.3%	5.8%
Pacific	5.6%	5.1%	5.3%	4.2%	4.9%	4.8%	4.7%	5.0%	4.9%	3.3%
Asian	2.5%	2.1%	1.9%	1.7%	1.8%	1.7%	1.8%	1.9%	1.8%	1.3%
Pakeha	4.7%	3.9%	3.6%	3.5%	3.6%	3.6%	3.8%	4.0%	4.0%	3.2%
Other ethnicity	5.0%	4.3%	4.6%	3.7%	3.5%	3.3%	4.0%	3.4%	3.1%	2.4%
By gender										
Male	5.5%	4.7%	4.5%	4.2%	4.4%	4.5%	4.6%	4.8%	4.6%	3.6%
Female	5.3%	4.3%	4.1%	3.8%	3.9%	3.9%	4.1%	4.2%	4.2%	3.2%
Māori medium	5.9%	5.6%	5.0%	5.0%	3.9%	4.7%	4.1%	5.3%	4.3%	3.9%
By decile										
Decile 1	7.3%	7.8%	8.2%	7.0%	7.6%	7.8%	7.5%	8.3%	7.8%	5.5%
Decile 2	8.2%	6.9%	7.1%	6.7%	7.0%	6.9%	7.3%	7.0%	6.9%	5.2%
Decile 3	6.7%	6.3%	5.6%	5.6%	5.3%	5.8%	5.9%	5.8%	6.2%	4.5%
Decile 4	6.5%	5.5%	5.3%	4.8%	5.2%	5.5%	5.3%	5.7%	5.3%	4.3%
Decile 5	6.5%	4.7%	4.9%	4.6%	4.5%	4.9%	5.1%	5.2%	5.0%	4.3%
Decile 6	6.0%	5.0%	4.9%	4.7%	4.7%	4.8%	5.0%	5.1%	5.2%	4.1%
Decile 7	4.1%	3.4%	3.4%	3.1%	3.4%	3.2%	3.7%	3.7%	3.4%	2.8%
Decile 8	3.7%	3.2%	2.8%	2.6%	2.7%	2.6%	2.7%	3.1%	2.9%	2.3%
Decile 9	2.9%	2.5%	2.2%	2.2%	2.2%	2.1%	2.2%	2.4%	2.4%	1.8%
Decile 10	3.2%	2.8%	2.5%	2.1%	2.3%	2.2%	2.3%	2.5%	2.7%	1.8%
By region										
Tai Tokerau	7.6%	6.3%	5.4%	5.9%	5.7%	6.7%	6.9%	6.4%	6.4%	5.4%
Auckland	4.4%	3.9%	4.0%	3.5%	3.6%	3.6%	3.5%	3.7%	3.7%	2.3%
Waikato	6.4%	5.4%	5.3%	5.1%	5.5%	5.4%	6.0%	5.5%	5.4%	4.4%
Bay of Plenty	6.5%	5.6%	5.6%	4.6%	5.3%	5.3%	5.2%	6.2%	6.0%	4.6%
Hawke's Bay	5.6%	5.3%	4.4%	5.1%	4.6%	5.6%	5.6%	5.6%	5.6%	4.6%
Taranaki	5.4%	4.9%	4.5%	4.3%	4.6%	4.4%	4.5%	4.9%	4.8%	4.5%
Wellington	4.4%	4.1%	3.6%	3.3%	3.4%	3.1%	3.6%	3.6%	3.5%	2.7%
Nelson	6.3%	4.5%	3.8%	3.8%	4.5%	4.6%	4.8%	4.7%	4.5%	4.0%
Canterbury	7.9%	4.8%	4.3%	4.1%	4.2%	4.3%	4.3%	4.6%	4.4%	3.7%
Otago	6.0%	3.7%	3.8%	3.6%	3.2%	3.3%	3.9%	4.0%	4.0%	3.3%
All students	**5.4%**	**4.5%**	**4.3%**	**4.0%**	**4.2%**	**4.2%**	**4.3%**	**4.5%**	**4.4%**	**3.4%**

Note: Ethnicity is total response; students are counted in every ethnic group that applies to them. Māori medium is defined as students undertaking more than half of their coursework in te reo Māori. Age is as of the last date of attendance. September roll return data for 2020 is provisional and subject to change.
Source: March and September school roll returns, 2011-2020.

Table A2. Year 9-13 students leaving school between March and September, Auckland only

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
By age										
Younger than 15	1.7%	1.7%	1.8%	1.4%	1.6%	1.6%	1.5%	1.5%	1.5%	1.0%
Age 15	2.8%	2.3%	2.1%	1.8%	2.1%	2.0%	1.9%	2.1%	2.0%	1.1%
Age 16	5.0%	4.1%	4.6%	3.9%	3.8%	3.8%	3.7%	3.9%	4.2%	2.4%
Age 17	6.9%	5.8%	6.2%	5.6%	5.5%	5.4%	5.1%	5.7%	5.9%	3.8%
Age 18+	8.8%	8.0%	8.3%	7.1%	7.5%	7.5%	7.4%	7.5%	7.2%	5.0%
By ethnicity										
Māori	8.6%	7.2%	7.7%	6.6%	7.3%	6.5%	6.7%	7.6%	6.8%	4.6%
Pacific	5.6%	5.1%	5.3%	4.2%	4.8%	4.7%	4.5%	4.8%	4.9%	3.0%
Asian	2.3%	2.0%	1.8%	1.6%	1.6%	1.5%	1.6%	1.7%	1.6%	1.1%
Pakeha	3.8%	3.2%	3.4%	3.1%	3.0%	3.2%	3.1%	3.2%	3.4%	2.3%
Other ethnicity	4.4%	3.6%	4.5%	3.8%	3.1%	3.0%	3.0%	2.6%	2.9%	1.4%
By gender										
Male	4.5%	3.9%	4.2%	3.7%	3.9%	3.8%	3.6%	3.8%	3.8%	2.5%
Female	4.4%	3.8%	3.9%	3.2%	3.4%	3.4%	3.3%	3.6%	3.5%	2.1%
Māori medium	7.2%	6.7%	4.7%	6.3%	3.0%	3.3%	4.1%	6.7%	4.6%	3.4%
By decile										
Decile 1	6.8%	6.9%	7.6%	6.4%	6.7%	6.8%	6.4%	6.7%	6.8%	3.7%
Decile 2	6.5%	5.2%	5.8%	5.1%	5.8%	5.4%	5.1%	5.9%	5.2%	3.5%
Decile 3	5.4%	4.4%	4.3%	4.3%	4.5%	4.1%	4.2%	4.2%	4.3%	2.9%
Decile 4	4.9%	4.2%	4.2%	3.6%	3.6%	4.0%	3.3%	3.8%	3.5%	2.7%
Decile 5	4.7%	3.7%	4.9%	3.6%	3.8%	2.9%	3.7%	3.7%	4.5%	2.6%
Decile 6	5.7%	4.6%	5.2%	4.5%	3.8%	4.0%	4.6%	4.0%	4.4%	3.0%
Decile 7	3.3%	2.7%	2.9%	2.6%	2.8%	2.8%	2.5%	2.8%	2.4%	1.6%
Decile 8	3.9%	2.5%	3.1%	2.6%	2.3%	2.6%	2.5%	2.6%	2.4%	1.7%
Decile 9	2.6%	2.1%	1.9%	1.9%	1.7%	1.9%	1.7%	2.0%	2.2%	1.3%
Decile 10	3.2%	3.4%	3.2%	2.4%	3.1%	3.0%	3.1%	3.3%	3.4%	2.2%
All students	**4.4%**	**3.9%**	**4.0%**	**3.5%**	**3.6%**	**3.6%**	**3.5%**	**3.7%**	**3.7%**	**2.3%**

Annex 4: How participation in early learning is affected by COVID-19

MINISTRY OF EDUCATION
TE TĀHUHU O TE MĀTAURANGA

He Whakaaro
EDUCATION INSIGHTS

How participation in early learning is affected by COVID-19

Summary

This He Whakaaro is part of a series, exploring impacts of COVID-19 on the education system. This report uses emerging data collected during 2020 to explore children's patterns of participation in early childhood education (ECE), and how it is being affected by outbreaks, associated lockdowns, and recovery.

KEY FINDINGS

- We estimate a total of 35.5 million hours of formal ECE has been lost due to COVID-19. This works out to be about 177 hours for the average child in Auckland, and 108 hours for the average child outside of Auckland.
- ECE participation fell sharply during lockdown, and has been slightly down during periods of Level 2, but appears to have returned to normal levels for most children over Level 1.
- There are slightly fewer children in formal ECE this year, but this is more from fewer new children entering than children leaving the sector.
- In non-Auckland regions, younger children were slower to return to ECE than three- and four-year olds after the national lockdown, but participation now appears to be back to normal levels.
- In Auckland regions, recovery has been slower after both lockdowns.
- There are indications that participation has been negatively impacted more for more disadvantaged services, and for Pacific and Māori children.
- Barriers to participation appear to be highest for Pacific children and children at low EQI services in Auckland.

Note: This report summarises emerging evidence from datasets that may not be fully finalised at time of writing. This may mean that some numbers in this report may differ slightly to final official reported statistics.

Why participation in early childhood education is important

Enrolment and attendance in early childhood education is not compulsory in the same way it is for schooling, but it is an important factor in supporting educational outcomes for young children. ECE participation is particularly important for three- and four-year olds because there is strong evidence that high quality ECE at these ages develops critical skills, and supports later educational achievement (NSW CESE, 2018). ECE participation at all ages also enables workforce participation for whānau.

ECE participation may be one indicator of changing employment conditions and household budgets.

This report uses data taken from the Early Learning Information (ELI) data system to examine patterns in ECE participation across 2020, and how they might have been affected by COVID-19. ELI is used by almost all early learning services in New Zealand to track enrolments and attendances. As of 2019, 4,166 services were connected to ELI, which represents 89.3% of all licenced early learning services.

There are two limitations of ELI data that are important to consider alongside this report. The first is that although almost all services provide data to ELI, this is not the case for Nga Kōhanga Reo, hospital-based early learning services, and licenced playgroups other than Playcentre. While enrolments in hospital-based and playgroups tend to be relatively small, Kōhanga Reo represent approximately 18% of Māori enrolments in early learning, and almost all the children in Māori medium ECE.[1]

The second limitation of ELI is that it is a live dataset, so it is being updated constantly. Many ECE services are very small organisations that have limited capacity for administration. This means that at times during the year, some services may take several weeks to enter their enrolments and attendance into the database.[2] This is likely to be particularly the case this year, as COVID-19 may have impacted on the operations of services, who could have responded by deprioritising administrative tasks. Because the measure of ECE participation we are using relies on total hours recorded by services, a delay in services submitting data will look as though participation has dropped. This report only examines data for weeks that we are confident are almost entirely comprehensive, but there is likely to be a small amount of participation missing, particularly for more recent weeks.[3] For this reason, all 2020 figures in this report should be treated as *under*-estimates (which might have the effect of slightly *over*-estimating the impact of COVID-19).

How can we determine the impact of COVID-19?

One important characteristic of ECE participation patterns is that they typically change over a year. For example, ECE participation tends to drop during school holidays or around public holidays, and also tends to be slightly lower in winter months. This means that we cannot simply look at ECE participation data in 2020 and be confident that any changes across the year are due to COVID-19. Ideally, we need to compare data in 2020 to other data that represents what would have happened if COVID-19 was not a factor.

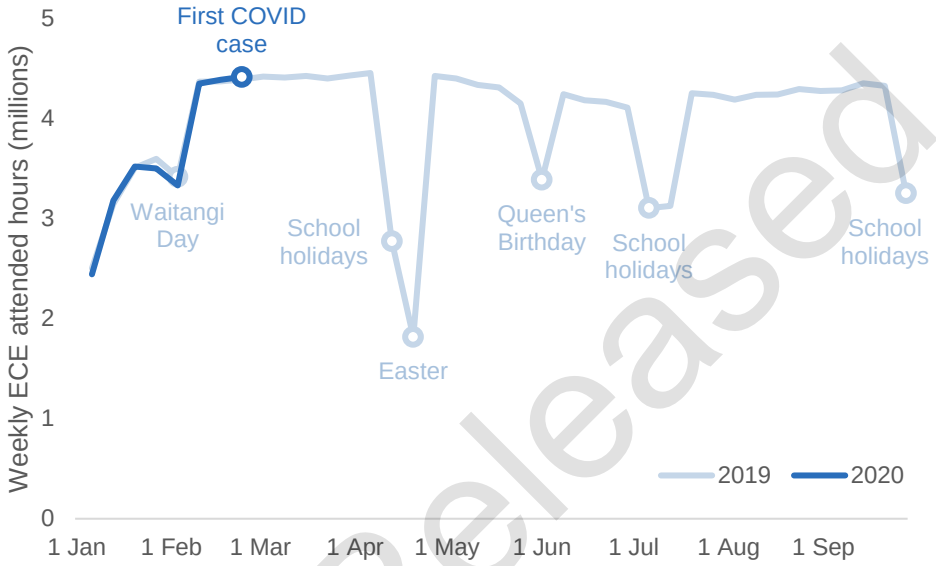
2019 provides a very good comparison for what this year would have looked like without COVID.

Figure 1 shows the total number of hours of children attending ECE services for each week in 2019 (light blue), as well as each week in 2020 (dark blue) up until the week beginning 24 February, which was the week New Zealand's first

[1] According to the 2019 ECE Census (Ministry of Education, 2019), there were 8,488 enrolments in Nga Kōhanga Reo during the census week, and a total of 47,267 Māori children across all services.
[2] There are several key points during the year in which services submit records for funding purposes. Data is most likely to be up to date at these times.
[3] See the appendix of this report for an overview of service response rates across the year.

COVID-19 case was recorded. Participation was almost identical between the two years, with there being only 0.6% fewer hours over the first eight weeks of 2020, compared to the same period in 2019. This gives us strong evidence that 2019 provides a very good comparison for what this year would have looked like without COVID.

Figure 1. ECE participation in New Zealand prior to the COVID outbreak, 2019-2020



The national lockdown and recovery

The total number of hours children attended ECE per week over the Level 4 and 3 lockdown, as well as how participation recovered over Levels 2 and 1, are shown in Figure 2. Compared to last year, participation dipped slightly in the weeks after the first New Zealand case of COVID-19 was announced, but did not decrease substantially until the restriction on indoor gatherings to 100 people (and later the announcement of Level 2) in the week beginning 16 March.

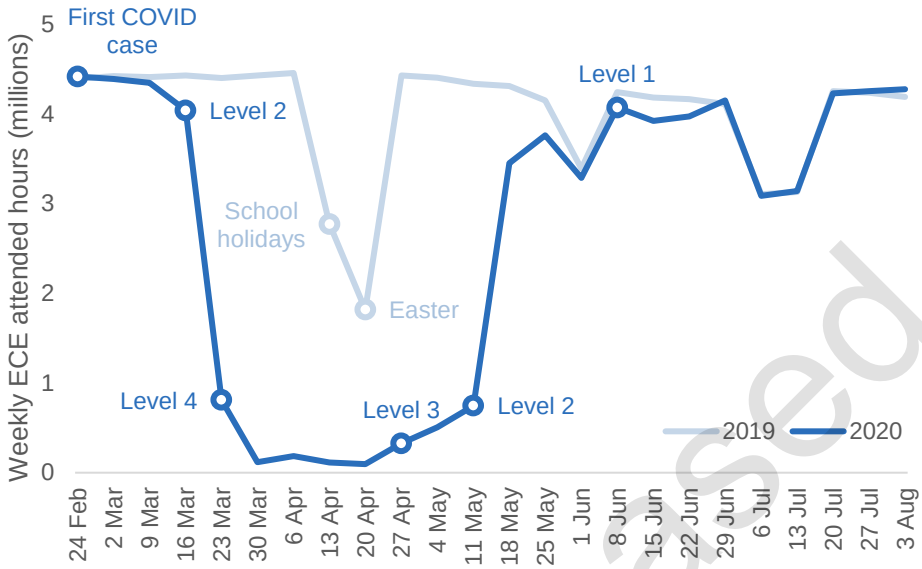
Participation levels fell off sharply over Level 4 and Level 3, but then rapidly increased after the announcement of New Zealand moving back to Level 2.[4] Weekly hours increased to close to their 2019 levels, but full participation didn't consistently occur until the week beginning 29 June, four weeks after the start of Level 1 and about eight weeks after the end of the national lockdown. After this point, ECE participation in 2020 was again almost identical to 2019, up until the start of the announcement of the Auckland outbreak in August.

Over this time, there was a total of approximately 30 million fewer hours of ECE attended by children in 2020 than 2019.[5] Given the similarity of ECE participation in each year in the pre-COVID period and the last two months of Level 1, this may be a reasonable estimate of the number of hours lost to the initial COVID-19 outbreak and subsequent lockdown. Across the total of 270,000 children attending ECE at some point over 2019, this equates to about 111 fewer hours of formal ECE per child.

Over this time, there was a total of approximately 30 million fewer hours of ECE attended.

[4] New Zealand moved to Level 2 on Wednesday 13 May, so the week beginning Monday 11 May combines both Level 3 and Level 2. Many ECE services may also have taken time to transition from Level 3 and prepare for the return to larger scale physical learning.
[5] To put this number in perspective, there were about 154 million hours of ECE attended by children across the entirety of 2019.

Figure 2. **ECE participation in New Zealand over February to August, 2019-2020**



The Auckland lockdown and recovery

Due to a second community outbreak in Auckland, the government announced that on 12 August, Auckland would be moving from Level 1 to Level 3 (Auckland lockdown), and the rest of the country would move from Level 1 to Level 2. Figures 3 and 4 show how ECE participation changed for Auckland and New Zealand, respectively over this period.

Figure 3. **ECE participation in Auckland over Auckland lockdown**

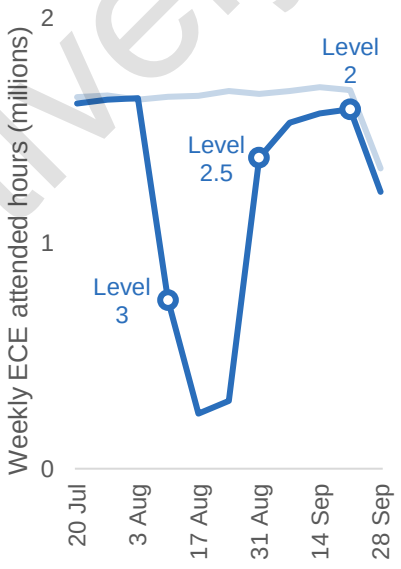
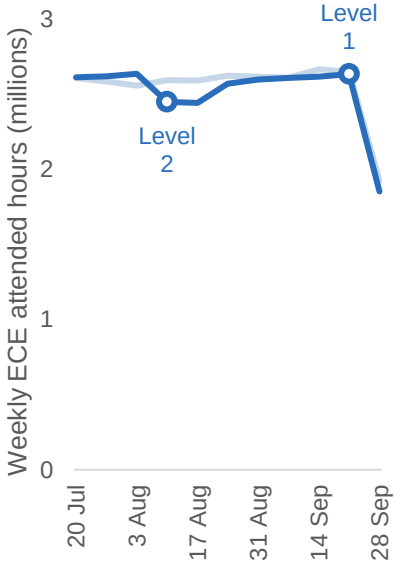


Figure 4. **ECE participation outside Auckland over Auckland lockdown**



In Auckland, there was an immediate reduction in participation for the duration of Level 3, and a similar increase in participation after the region returned to Level 2 with further restrictions (denoted as Level 2.5 in this report). Weekly hours across Auckland increased over Level 2.5, though were still noticeably below participation levels for the same weeks in 2019. The Auckland change to Level 2 without restrictions appears to have increased participation further, and data for the most recent weeks are only slightly below those for last year (although

participation dipped in the week beginning 28 September in both years, because of the start of the school holidays).

In other regions, Level 2 coincided with a slight decrease in ECE participation of about 145,000 hours per week, or about 6% of normal weekly attendance hours. Participation then increased in non-Auckland regions for the third week of Level 2, and remained very close to 2019 levels until the move back to Level 1 in the week beginning 21 September.

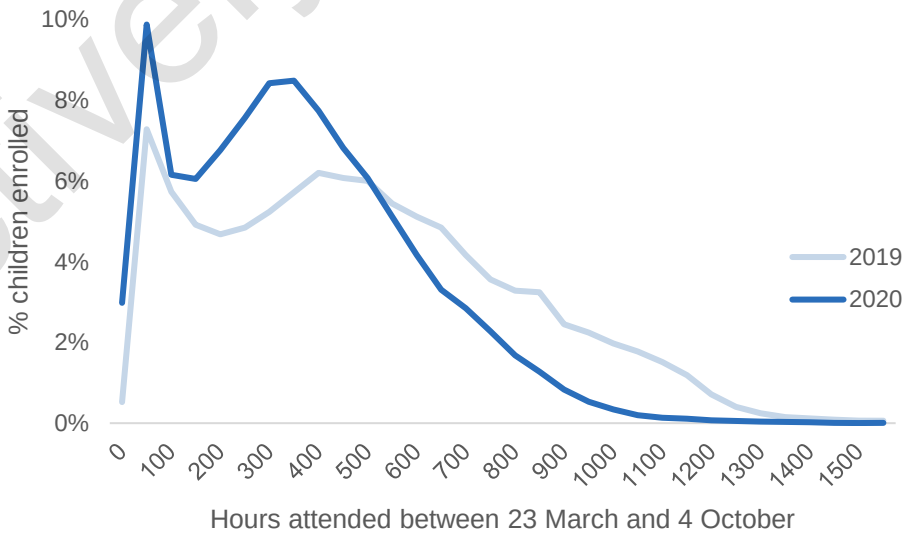
Over this period, there was a total of 4.4 million fewer hours in 2020 compared with 2019 in Auckland, and a total of 0.5 million fewer hours for the rest of the country. Adding this to the differences in participation during and after the first national lockdown can provide estimates of loss of formal ECE due to COVID-19 so far:

- 16.8 million hours for children in Auckland (177 hours per child)
- 18.7 million hours for children outside of Auckland (108 hours per child)
- 35.5 million hours for all New Zealand children (132 hours per child).

What is the nature of the reduction in hours?

While there is strong evidence that participation in aggregate has been reduced due to COVID-19, it may be helpful to determine the nature of this reduction. Was this due to fewer children attending ECE, or the same number of children attending fewer hours? Figure 5 shows the distribution of children in both 2019 and 2020 depending on the number of hours they attended ECE from the start of Level 4 (week beginning 23 March) to the most recent data (week ending 4 October).

Figure 5. Distribution of hours attended between March and November, 2019-2020



About 3% of children in 2020 were enrolled but had no attendance over this period, compared to 0.5% of children in 2019. In addition, about 10% of children attended between 1 and 50 hours in 2020, compared to 7.3% in 2019. About a quarter of these children with 50 or fewer hours had fewer than 10 hours attended. Adding these together, about 5% more enrolled children in 2020 than 2019 had either no attendance or extremely low attendance.

The other major difference between the distributions in Figure 5 is the peak for 2020 around 300-350 hours, in contrast to the peak for 2019 around 400-450

hours. This potentially provides an indication that some of the reduction in hours is due to COVID causing about 5% of children to not attend at all (or attend for less than ten hours over six months), and between 15-20% of children to reduce their hours (likely mostly during the lockdown but potentially also in recovery) but still regularly attend.

To provide a closer look at children with no attendance, we tracked the flows of children into and out of the ECE system between three time points: the eight weeks prior to COVID-19 affecting participation; the nine weeks of Level 1 after the national lockdown; and the five weeks after Auckland moved to Level 2.5 (and later Level 2) from the Level 3 lockdown in August. Table 1 shows the number of children attending at least one hour at an early learning service in each of these periods, and the flows of new children into the system and flows of children leaving ECE in between each period.

977 fewer children left the ECE sector after the national lockdown than over the same time in 2019.

The national lockdown appears to have caused a reduction in the number of children attending ECE, with 4,281 fewer children attending after lockdown than before it. However, this change was *not* due to children dropping out of the ECE sector. Across New Zealand, 977 *fewer* children left the ECE sector after the national lockdown than over the same time in 2019.[6] The change was instead due to fewer new children entering the ECE system. Over the past five years, births have been mainly stable, so it is unlikely that this is caused by changes in the population. Fewer new children entering ECE is more consistent with families losing income or work, and opting not to put their children into formal education and care, or concerns around the health of young children.

In slight contrast, the Auckland lockdown did seem to be associated with a slightly larger number of children who were previously attending ECE leaving the sector. The bulk of the change in children compared to last year is still due to fewer new children entering ECE, but this is potentially an indication that compounding effects of outbreaks, lockdowns, and associated economic and health impacts might be causing a small number of children to leave the sector.

Table 1. ECE participation in New Zealand over February to October, 2019-2020

	New Zealand			Auckland		
	2019	2020	Change	2019	2020	Change
6 Jan – 1 Mar (pre-COVID)	206,009	205,950	–59	71,811	71,954	143
Plus: New children entering ECE	+35,202	+30,003	–5,199	+13,051	+10,708	–2,343
Less: Children leaving ECE	–34,323	–33,346	–977	–12,401	–12,653	252
8 Jun – 9 Aug (after natl. lockdown)	206,888	202,607	–4,281	72,461	70,009	–2,452
Plus: New children entering ECE	+11,427	+10,631	–796	+4,392	+3,351	–1,041
Less: Children leaving ECE	–20,613	–20,998	385	–7,806	–8,370	564
31 Aug – 4 Oct (after Auck. lockdown)	197,702	192,240	–5,462	69,047	64,990	–4,057

Note: This table counts all children who have at least one attendance period within any of the shaded periods. The figures in the change column are coloured red if they lead to fewer children attending ECE in 2020 than 2019, and blue if they lead to more children in 2020 than 2019.

Participation by age

Up until now we have examined total participation across all children. However, these total figures hide differential impacts on different groups. One of the ways in

[6] In both 2019 and 2020, most children who leave ECE appear to do so because they turn five and start attending school.

which COVID-19 might have differentially impacted on ECE participation is over children of different ages. Table 2 shows the percentage change in total ECE hours attended between 2019 and 2020 for children in non-Auckland regions, across different time periods (corresponding with changes in alert levels) and different ages of children.

Table 2. Change in hours attended between 2019-2020 by age, non-Auckland regions

	6 Jan - 1 Mar	23 Mar - 10 May	18 May - 7 Jun	8 Jun - 9 Aug	10 Aug - 20 Sep	21 Sep - 4 Oct
	Pre-COVID	**L4-3**	**L2**	**L1**	**L2**	**L1**
Age 0	–6%	–90%	–27%	–10%	–6%	–3%
Age 1	–3%	–90%	–15%	–6%	–5%	–5%
Age 2	0%	–91%	–11%	–1%	–3%	–3%
Age 3	1%	–93%	–8%	0%	–3%	–2%
Age 4	–2%	–94%	–5%	1%	–2%	0%
Age 5+	10%	–90%	100%	41%	22%	15%
Age 0-2	–2%	–90%	–14%	–4%	–4%	–4%
Age 3-4	0%	–93%	–7%	1%	–2%	–1%
Total	**–1%**	**–92%**	**–17%**	**–3%**	**–42%**	**–6%**

This finding of no participation loss among three- and four-year olds is encouraging.

The largest group is three- and four-year old children. According to the 2019 ECE Census, these children make up 58% of all ECE enrolments, and are more subsidised than younger children.[7] For these children, recovery in ECE participation from the initial national COVID outbreak and lockdown appears to have been complete. While these children had a 7% drop in hours over Level 2 in late May, across Level 1 (from June to August), three- and four-year olds had attended ECE for about the same number of hours than over the same period in 2019. Evidence is strongest that quality ECE improves learning outcomes for children of these ages, so this finding of no participation loss is encouraging. There was a slight dip in participation over the more recent Level 2 (corresponding with the Auckland outbreak), but the drop in participation was far less than during Level 2 after the national lockdown.

The next largest group of children is those younger than three. Compared to those aged three or four, young infants saw a much larger reduction in participation from last year for the period immediately after the national lockdown. While participation returned mainly to 2019 levels for two-year olds over the first period of Level 1, those aged one or below continued to attend fewer hours than in 2019. This may be influenced by fewer new children entering ECE over this period, as shown in Table 1. During the more recent Level 2 (in August), the participation drop became *less* negative for younger children compared to the period over Level 1, indicating that over time, infants are increasingly returning to ECE and/or attending for more hours.

The ECE participation of young infants is subsidised proportionately less than for three- and four-year olds, and requires lower child-to-teacher ratios, which often means fees are higher for this age group. This may mean that reducing ECE

[7] Children aged 3-5 are eligible for 20 Hours ECE, a policy intending to subsidise the cost of the first six hours a day and 20 hours a week of ECE (Ministry of Education, 2020a).

participation for young infants may be an early action that families can take after reducing employment hours, losing jobs, or experiencing a reduction of income.

There was a much larger decrease in Auckland ECE hours over Level 2 in the weeks following the national lockdown.

The smallest age group in ECE is children aged five or more. These children tend not to be a focus of most analysis of ECE data, because they typically make up only 1-2% of ECE enrolments. It is still true that there are few five-year olds in ECE because almost all of these children attend school, but COVID-19 does appear to be temporarily changing their participation patterns. In the three week period of Level 2 after the national lockdown, there was an extremely large increase in hours for five-year olds, with double the number of hours attended than for the same period in 2019.[8] This increase in participation for five-year olds compared to 2019 remained large, but decreased towards zero over later alert levels. This is consistent with the idea that some whānau responded to the national lockdown by delaying children's start to school temporarily, but these children are now mainly making their way into the school system.

Table 3 looks at similar changes in participation levels for children in Auckland. Compared to the rest of New Zealand, there was a much larger decrease in ECE hours attended over Level 2 in Auckland in the weeks following the national lockdown. Consistent with the rest of the country, participation appeared to recover close to 2019 levels over Level 1 (though not a full recovery for younger children).

Table 3. Change in hours attended between 2019-2020 by age, Auckland

	6 Jan - 1 Mar **Pre-COVID**	23 Mar - 10 May **L4-3**	18 May - 7 Jun **L2**	8 Jun - 9 Aug **L1**	10 Aug - 30 Aug **L3**	31 Aug - 20 Sep **L2.5**	21 Sep - 4 Oct **L2**
Age 0	–3%	–88%	–29%	–12%	–63%	–11%	–9%
Age 1	–2%	–90%	–20%	–7%	–68%	–8%	–6%
Age 2	–2%	–92%	–21%	–6%	–73%	–13%	–10%
Age 3	3%	–92%	–14%	1%	–76%	–12%	–7%
Age 4	–4%	–93%	–16%	–2%	–78%	–11%	–5%
Age 5+	19%	–89%	63%	23%	–70%	19%	11%
Age 0-2	–2%	–91%	–21%	–7%	–70%	–11%	–8%
Age 3-4	0%	–93%	–15%	0%	–77%	–11%	–6%
Total	**–1%**	**–92%**	**–17%**	**–3%**	**–74%**	**–11%**	**–6%**

Recovery from the more recent Auckland lockdown also appears to be slightly different. During the period of Level 2 with further restrictions in September, all age groups (except five-year olds) appeared to decrease participation by approximately the same amount, in contrast to the earlier recovery, where younger children reduced participation by more than older children. Three- and

[8] Part of this may be an effect of cohort entry. This is a new policy that schools may adopt to enrol new students only at the start and the midpoint of each school term, rather than at any point throughout the year. There is some indication that this may have caused some increase in ECE participation for five-year olds, but these likely cannot explain the large increase seen in Table 2. There were 10% more hours for five-year olds in 2020 than 2019 in the first eight weeks of the year, prior to COVID-19, compared to much larger increases post-COVID. It appears that relatively few schools have so far adopted cohort entry. Lastly, the specified cohort entry points where schools must enrol students occurred on 2 June (during Level 2) and 20 July (during Level 1). There appear to be higher ECE participation of five-year olds even after these cohort entry points.

four- year olds have also reduced participation by almost as much as younger children over Level 2 without further restrictions.

One important feature of Table 3 is that participation reductions over Level 2 (with or without further restrictions) after the Auckland lockdown have been much smaller than the reductions in participation over Level 2 following the initial national lockdown. This is true of all age groups, but particularly true for younger children. This gives some reason to believe that participation for many of these groups will return to 2019 levels relatively quickly, as it did previously did over Level 1. However, it is also possible that the cumulative effect of multiple outbreaks and lockdowns will change family behaviour, such that it is difficult to extrapolate based on patterns earlier in the year. A similar pattern can be seen in school attendance, where primary school students took much longer to return to previous levels of attendance after the Auckland lockdown, compared to the earlier national lockdown (Webber, 2020).

Participation by socio-economic background

The main measure of socio-economic disadvantage used within the ECE sector is EQI. EQI is used for funding purposes and measures how much an ECE service draws its children from low socio-economic communities, using the addresses of enrolments at each service. Low EQI services draw from more disadvantaged areas, and attract more equity funding as a result. Table 4 shows the percentage change in total ECE hours attended between 2019 and 2020 for children in non-Auckland regions, across different time periods and different service EQI values.[9]

Table 4. Change in hours attended between 2019-2020 by EQI, non-Auckland regions

	6 Jan - 1 Mar	23 Mar - 10 May	18 May - 7 Jun	8 Jun - 9 Aug	10 Aug - 20 Sep	21 Sep - 4 Oct
	Pre-COVID	L4-3	L2	L1	L2	L1
EQI 1	0%	–93%	–16%	–3%	–7%	–5%
EQI 2	–1%	–94%	–14%	–3%	–7%	–8%
EQI 3	–1%	–94%	–8%	–2%	–4%	–1%
EQI 4	–2%	–93%	–9%	–2%	–4%	–2%
EQI 5+	–1%	–92%	–8%	–2%	–3%	–3%

Note: EQI is a measure of socio-economic advantage – EQI 1 indicates services drawing from more disadvantaged communities than EQI 5+.

There is a consistent pattern that more socio-economically advantaged services have had a smaller reduction in ECE hours.

There is a consistent pattern across all post-COVID periods that higher EQI (more socio-economically advantaged) services have had a smaller reduction in ECE hours. This was particularly large across the three weeks of Level 2 following the national lockdown, where services rated as EQI 1 had a percentage reduction in hours twice as large as the most advantaged services. A similar pattern (though less pronounced) occurred over the more recent Level 2 coinciding with the Auckland lockdown, and appears to have persisted into the start of the most recent Level 1. Of most concern, the reductions for EQI 1-2 services so far in the most recent Level 1 are larger than reductions in participation for these services over the Level 1 from June to August. We know that children in low socio-economic areas were already substantially less likely to participate in ECE than

[9] More detailed tables by EQI and age are included in the appendix.

their more advantaged peers (Ministry of Education, 2020b), so this may be an indication that COVID-19 is further aggravating this aspect of inequity.

These equity gaps in ECE participation recovery are even larger for children in Auckland (Table 5). Compared to the recovery from the national lockdown in May and June, children in higher EQI services have returned to ECE more rapidly after the Auckland lockdown. The same is not true of children at services rated EQI 1-2. For these children, the difference in hours over the weeks of Level 2 (with further restrictions) after the recent lockdown was similar to Level 2 after the national lockdown. While participation improved substantially over the following weeks of Level 2 without further restrictions, the average child in Auckland services rated EQI 1-2 lost an estimated 15 hours of formal ECE after the end of the Auckland lockdown, compared to an average of 6 hours for children at services rated EQI 5+. This gives reason to be concerned that COVID-19 is further impacting on equity of ECE participation.

Table 5. Change in hours attended between 2019-2020 by EQI, Auckland

	6 Jan - 1 Mar	23 Mar - 10 May	18 May - 7 Jun	8 Jun - 9 Aug	10 Aug - 30 Aug	31 Aug - 20 Sep	21 Sep - 4 Oct
	Pre-COVID	**L4-3**	**L2**	**L1**	**L3**	**L2.5**	**L2**
EQI 1	–6%	–94%	–27%	–9%	–83%	–26%	–17%
EQI 2	0%	–94%	–23%	–5%	–79%	–21%	–12%
EQI 3	1%	–92%	–22%	–5%	–76%	–18%	–10%
EQI 4	3%	–93%	–18%	–2%	–75%	–10%	–4%
EQI 5+	–1%	–91%	–15%	–2%	–72%	–8%	–5%

Note: EQI is a measure of socio-economic advantage – EQI 1 indicates services drawing from more disadvantaged communities than EQI 5+.

One reason for this larger impact on low EQI services is that the families in these services may have had more change in economic circumstances due to COVID-19. Job loss could cause a reduction in ECE participation of children for two reasons: firstly, the loss of income may make some forms of ECE more difficult to afford; and secondly, it may free up the time of parents to enable them to care for their own children during the day.

These employment effects may affect lower socio-economic communities more, both because they may be more likely to lose income, and because they are less likely to have savings to draw upon, and so need to more quickly make changes to household expenditures, including ECE. ECE participation may be particularly sensitive to the employment conditions of working mothers. According to the Household Labour Force Survey, the unemployment rate for women over the September quarter rose to 5.8%, from 4.5% in the June quarter (Statistics NZ, 2020).

Participation by ethnicity

Table 6 shows the average change in ECE hours between 2019 and 2020 in non-Auckland regions, cut by child ethnic group and alert level.[10] This shows quite different patterns of recovery depending on the ethnic group. For Pākehā children, recovery from the initial national lockdown was relatively rapid, and the impact of the more recent Level 2 has also been minimal. For children specifying

[10] More detailed tables by ethnicity and age are included in the appendix.

ethnicities other than the four largest ethnic groups (predominantly Middle Eastern, Latin American, or African), participation has been higher in 2020 than 2019 post-COVID.[11] For Asian children, participation was down the most of any ethnic group immediately after the national lockdown, but since then has recovered to higher than 2019 levels. Participation for Māori children are similar, with similar changes in participation to Pākehā children over both periods of Level 1.

Table 6. Change in hours attended between 2019-2020 by ethnic group, non-Auckland regions

	6 Jan - 1 Mar **Pre-COVID**	23 Mar - 10 May **L4-3**	18 May - 7 Jun **L2**	8 Jun - 9 Aug **L1**	10 Aug - 20 Sep **L2**	21 Sep - 4 Oct **L1**
Māori	0%	–93%	–10%	–1%	–4%	–3%
Pacific	–1%	–94%	–11%	–3%	–6%	–6%
Asian	4%	–93%	–14%	2%	2%	5%
Pākehā	–1%	–92%	–6%	0%	–2%	–2%
Other	14%	–92%	2%	8%	6%	7%

Note: Ethnicities are total response; children are included in each ethnic group that applies to them.

Pacific children are the ethnic group that appear to have experienced the largest barriers to ECE participation from COVID-19.

Pacific children are the ethnic group that appear to have experienced the largest barriers to ECE participation from COVID-19. Pacific children had the largest reduction in hours over Level 1 after the national lockdown compared to the same two months last year. Pacific children also appear to have lost noticeably more hours in the more recent Level 1, with no apparent recovery after the change to Level 2 that accompanied the Auckland outbreak and lockdown.

As with the data by socio-economic background, these differences between ethnic groups are more pronounced for children in Auckland (Table 7). Pākehā and Asian children, as well as children identifying as ethnicities outside the four largest ethnic groups, had about the same number of hours (or only a slight reduction) compared to last year for the period of Level 1 after the national lockdown, as well as the most recent Level 2 with no further restrictions.

Table 7. Change in hours attended between 2019-2020 by ethnic group, Auckland

	6 Jan - 1 Mar **Pre-COVID**	23 Mar - 10 May **L4-3**	18 May - 7 Jun **L2**	8 Jun - 9 Aug **L1**	10 Aug - 30 Aug **L3**	31 Aug - 20 Sep **L2.5**	21 Sep - 4 Oct **L2**
Māori	0%	–93%	–17%	–4%	–75%	–11%	–8%
Pacific	–1%	–93%	–22%	–6%	–79%	–20%	–13%
Asian	0%	–93%	–23%	–2%	–74%	–14%	–4%
Pākehā	0%	–91%	–8%	0%	–72%	–3%	–4%
Other	12%	–91%	–11%	1%	–71%	–3%	–2%

Note: Ethnicities are total response; children are included in each ethnic group that applies to them.

[11] However, this group also attended for 14% more hours over January and February this year compared to 2019, so the later 8% increase in Level 1 hours over 2019 represents a relative *reduction* in participation over the year.

In contrast, Pacific and Māori children had much larger reductions in attended hours over these periods. The average Pacific child in Auckland has lost about 14 hours of formal ECE since the end of the Auckland lockdown, compared to about seven hours for the average Māori child, and about 2.5 hours for the average Pākehā child. This disproportionate impact on participation on Pacific and Māori learners in Auckland is consistent with our analysis of recent school attendance, particularly in primary schools.[12] This is also consistent with reports from Auckland Pacific communities that many families have safety concerns with sending children to education, particularly when they live with elderly or immunocompromised relatives.

Implications

Participation in ECE can provide indications of both exposure to critical learning in early childhood, as well as the decisions families make as their income or employment conditions change. We find that participation dropped off a moderate amount during Level 2 after the national lockdown, but returned to 2019 levels during Level 1 for most groups. The drop-off in hours appears to be in part due to fewer new children entering the formal ECE, the majority of whom are younger than three years.

However, not all children's participation has recovered so quickly. Auckland children appeared to return to ECE more slowly after the initial national lockdown, and this slower recovery has been compounded by the subsequent Auckland lockdown. There is an indication that recovery in participation is taking longer for Pacific and Māori children, as well as children in low EQI services. These differences are far larger in Auckland than non-Auckland regions, and apply to three- and four-year olds, as well as younger children. This provides ample evidence that the educational effects of this pandemic are not borne equally across society.

This provides ample evidence that the educational effects of this pandemic are not borne equally across society.

To respond to these unequal effects, the Ministry of Education has created a range of funds to provide support to both early learning services and schools. This includes the $50 million Urgent Response Fund, which is allocated by region using a measure of socio-economic disadvantage and prioritises Māori and Pacific learners. It also includes a further $11.1 million for the Pacific Education Support Fund and Pacific Education Innovation Fund targeted at Pacific learners at schools and early learning services. The purpose of these supports is to reduce barriers to participation, learning and wellbeing, and to support delivery of creative, collaborative and innovative practices that are culturally responsive.

The Ministry of Education has also guaranteed funding for all ECE services, to continue to fund services as if there has been no change in enrolment or participation. Together with the COVID-19 wage subsidy scheme operated by Ministry of Social Development for organisations losing at least 30% of their revenue, this policy is intended to support the sustainability of ECE services during a time of fluctuating enrolment.

Data available at the time of writing do not yet give us a reliable picture of participation in Auckland since the recent transition to Level 1, so it is possible that many of these concerning findings will have already improved. Our experience so far is that participation patterns can change rapidly, and that impacts of COVID-19 are cumulative. This means it will be critical to continue to monitor trends and make sure that the most affected communities continue to be supported.

[12] See our companion report on the impacts of COVID-19 on school attendance (Webber, 2020).

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For other He Whakaaro reports, go to:
www.educationcounts.govt.nz/goto/whakaaro

For further information, questions or discussion around additional analysis and potential topics for future research, please contact Requests.EDK@education.govt.nz.

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Appendix

Table A1. Number of services providing ECE data for each week, 2019 and 2020

	Education & care			Kindergarten			Playcentre/home-based			Total		
Week beginning	2019	2020	% diff	2019	2020	% diff	2019	2020	% diff	2019	2020	% diff
6 Jan	2753	2702	-2%	659	653	-1%	760	709	-7%	4172	4064	-3%
13 Jan	2765	2743	-1%	663	659	-1%	780	738	-5%	4208	4140	-2%
20 Jan	2769	2747	-1%	666	663	0%	809	761	-6%	4244	4171	-2%
27 Jan	2781	2746	-1%	667	663	-1%	836	775	-7%	4284	4184	-2%
3 Feb	2780	2747	-1%	667	663	-1%	856	817	-5%	4303	4227	-2%
10 Feb	2781	2746	-1%	667	663	-1%	860	820	-5%	4308	4229	-2%
17 Feb	2782	2747	-1%	667	663	-1%	859	819	-5%	4308	4229	-2%
24 Feb	2783	2747	-1%	667	663	-1%	861	820	-5%	4311	4230	-2%
2 Mar	2782	2743	-1%	667	663	-1%	859	817	-5%	4308	4223	-2%
9 Mar	2782	2744	-1%	667	663	-1%	854	813	-5%	4303	4220	-2%
16 Mar	2782	2744	-1%	667	663	-1%	854	812	-5%	4303	4219	-2%
23 Mar	2783	2735	-2%	667	663	-1%	854	770	-10%	4304	4168	-3%
30 Mar	2783	2589	-7%	667	660	-1%	856	680	-21%	4306	3929	-9%
6 Apr	2782	2550	-8%	667	660	-1%	856	669	-22%	4305	3879	-10%
13 Apr	2771	2504	-10%	665	635	-5%	788	618	-22%	4224	3757	-11%
20 Apr	2769	2508	-9%	663	634	-4%	786	619	-21%	4218	3761	-11%
27 Apr	2783	2656	-5%	667	663	-1%	852	725	-15%	4302	4044	-6%
4 May	2782	2663	-4%	666	663	0%	853	724	-15%	4301	4050	-6%
11 May	2783	2680	-4%	666	663	0%	848	732	-14%	4297	4075	-5%
18 May	2782	2735	-2%	666	663	0%	849	786	-7%	4297	4184	-3%
25 May	2781	2735	-2%	666	663	0%	850	791	-7%	4297	4189	-3%
1 Jun	2779	2737	-2%	666	663	0%	848	808	-5%	4293	4208	-2%
8 Jun	2778	2737	-1%	666	663	0%	850	809	-5%	4294	4209	-2%
15 Jun	2775	2736	-1%	666	663	0%	846	804	-5%	4287	4203	-2%
22 Jun	2774	2734	-1%	666	663	0%	846	804	-5%	4286	4201	-2%
29 Jun	2772	2729	-2%	666	663	0%	842	802	-5%	4280	4194	-2%
6 Jul	2763	2706	-2%	664	636	-4%	783	705	-10%	4210	4047	-4%
13 Jul	2766	2696	-3%	664	634	-5%	782	712	-9%	4212	4042	-4%
20 Jul	2771	2719	-2%	664	662	0%	837	797	-5%	4272	4178	-2%
27 Jul	2771	2715	-2%	664	662	0%	838	798	-5%	4273	4175	-2%
3 Aug	2772	2717	-2%	664	662	0%	835	795	-5%	4271	4174	-2%
10 Aug	2772	2715	-2%	664	662	0%	835	794	-5%	4271	4171	-2%
17 Aug	2773	2693	-3%	664	660	-1%	834	777	-7%	4271	4130	-3%
24 Aug	2773	2692	-3%	664	659	-1%	834	781	-6%	4271	4132	-3%
31 Aug	2771	2710	-2%	664	662	0%	834	776	-7%	4269	4148	-3%
7 Sep	2771	2708	-2%	664	662	0%	831	775	-7%	4266	4145	-3%
14 Sep	2770	2707	-2%	664	662	0%	832	770	-7%	4266	4139	-3%
21 Sep	2770	2706	-2%	664	661	0%	832	767	-8%	4266	4134	-3%
28 Sep	2762	2664	-4%	660	605	-8%	761	665	-13%	4183	3934	-6%
5 Oct	2763	2565	-7%	661	599	-9%	757	520	-31%	4181	3684	-12%
12 Oct	2770	2592	-6%	664	661	0%	831	609	-27%	4265	3862	-9%
19 Oct	2770	2517	-9%	664	661	0%	832	580	-30%	4266	3758	-12%
26 Oct	2768	2285	-17%	664	660	-1%	828	490	-41%	4260	3435	-19%

The above table indicates the number of ECE services that have entered attendance data for at least once child, by week and service type, across 2019 and 2020. (Home-based services have been combined with Playcentre, because of the relatively small number of services in either category.) This represents the state of ELI data when the extraction for this report was undertaken. The weeks shaded red at the bottom of the table have not been included in the report. This is because the number of responding services is much lower in 2020 than 2019, and so there is a strong risk that participation data for these weeks will be materially incomplete.

Note that while data for the week beginning 28 September has been included in this report, there were 6% fewer services reporting data in 2020 than 2019, as of the extraction date. This means that data for the most recent weeks (Level 2 without further restrictions in Auckland, and Level 1 for the rest of the country) are particularly likely to underestimate participation in 2020, and therefore overestimate negative impacts of COVID-19. Note also that the change in number of services responding differs substantially by service type. There have been far fewer Playcentre and home-based services reporting data in recent weeks than in the same weeks in 2019, in contrast to relatively complete data for education and care or kindergarten services. Both Playcentre and home-based services tend to report fewer hours of attendance than other services, so this does not have as much of an effect on the overall totals.

Table A2. Change in hours between 2019 and 2020 for children in Auckland, by age, EQI, and alert level

	6 Jan - 1 Mar	23 Mar - 10 May	18 May - 7 Jun	8 Jun - 9 Aug	10 Aug - 30 Aug	31 Aug - 20 Sep	21 Sep - 4 Oct
	Pre-COVID	L4-3	L2	L1	L3	L2.5	L2
0-2 year olds							
EQI 1	-6%	-93%	-31%	-13%	-82%	-26%	-20%
EQI 2	-1%	-93%	-27%	-12%	-78%	-22%	-16%
EQI 3	-5%	-91%	-29%	-15%	-75%	-20%	-15%
EQI 4	2%	-92%	-24%	-8%	-71%	-11%	-7%
EQI 5+	-2%	-90%	-19%	-6%	-67%	-8%	-6%
3-4 year olds							
EQI 1	-6%	-94%	-27%	-7%	-83%	-28%	-16%
EQI 2	1%	-95%	-22%	-2%	-80%	-22%	-11%
EQI 3	5%	-92%	-19%	0%	-77%	-18%	-9%
EQI 4	3%	-93%	-14%	3%	-77%	-10%	-1%
EQI 5+	0%	-92%	-13%	-1%	-76%	-9%	-5%
All children							
EQI 1	-6%	-94%	-27%	-9%	-83%	-26%	-17%
EQI 2	0%	-94%	-23%	-5%	-79%	-21%	-12%
EQI 3	1%	-92%	-22%	-5%	-76%	-18%	-10%
EQI 4	3%	-93%	-18%	-2%	-75%	-10%	-4%
EQI 5+	-1%	-91%	-15%	-2%	-72%	-8%	-5%

Table A3. Change in hours between 2019 and 2020 for children in non-Auckland regions, by age, EQI, and alert level

	6 Jan - 1 Mar	23 Mar - 10 May	18 May - 7 Jun	8 Jun - 9 Aug	10 Aug - 20 Sep	21 Sep - 4 Oct
	Pre-COVID	L4-3	L2	L1	L2	L1
0-2 year olds						
EQI 1	-3%	-92%	-17%	-6%	-7%	-6%
EQI 2	-4%	-93%	-20%	-10%	-10%	-10%
EQI 3	0%	-92%	-24%	-5%	0%	6%
EQI 4	-2%	-90%	-12%	-3%	-4%	-4%
EQI 5+	5%	-91%	-13%	-1%	-3%	-3%
3-4 year olds						
EQI 1	2%	-94%	-8%	1%	-3%	-1%
EQI 2	0%	-94%	-8%	0%	-5%	-4%
EQI 3	6%	-94%	-11%	5%	3%	4%
EQI 4	-1%	-93%	-4%	1%	-2%	-2%
EQI 5+	21%	-92%	9%	14%	11%	12%
All children						
EQI 1	0%	-93%	-10%	-1%	-4%	-3%
EQI 2	-1%	-94%	-11%	-3%	-6%	-6%
EQI 3	4%	-93%	-14%	2%	2%	5%
EQI 4	-1%	-92%	-6%	0%	-2%	-2%
EQI 5+	14%	-92%	2%	8%	6%	7%

Table A4. Change in hours between 2019 and 2020 for children in Auckland, by age, ethnicity, and alert level

	6 Jan - 1 Mar	23 Mar - 10 May	18 May - 7 Jun	8 Jun - 9 Aug	10 Aug - 30 Aug	31 Aug - 20 Sep	21 Sep - 4 Oct
	Pre-COVID	L4-3	L2	L1	L3	L2+	L2
0-2 year olds							
Māori	-3%	-93%	-22%	-8%	-73%	-11%	-9%
Pacific	-3%	-92%	-26%	-12%	-78%	-20%	-15%
Asian	-4%	-91%	-29%	-10%	-69%	-15%	-9%
Pākehā	-1%	-90%	-14%	-4%	-68%	-5%	-5%
Other	6%	-91%	-24%	-9%	-69%	-12%	-13%
3-4 year olds							
Māori	1%	-93%	-16%	-2%	-77%	-12%	-8%
Pacific	-1%	-93%	-20%	-3%	-80%	-21%	-12%
Asian	2%	-94%	-20%	3%	-77%	-14%	-2%
Pākehā	1%	-91%	-6%	2%	-74%	-2%	-3%
Other	14%	-92%	-4%	8%	-74%	2%	5%
All children							
Māori	0%	-93%	-17%	-4%	-75%	-11%	-8%
Pacific	-1%	-93%	-22%	-6%	-79%	-20%	-13%
Asian	0%	-93%	-23%	-2%	-74%	-14%	-4%
Pākehā	0%	-91%	-8%	0%	-72%	-3%	-4%
Other	12%	-91%	-11%	1%	-71%	-3%	-2%

Table A5. Change in hours between 2019 and 2020 for children in non-Auckland regions, by age, ethnicity, and alert level

	6 Jan - 1 Mar	23 Mar - 10 May	18 May - 7 Jun	8 Jun - 9 Aug	10 Aug - 20 Sep	21 Sep - 4 Oct
	Pre-COVID	L4-3	L2	L1	L2	L1
0-2 year olds						
EQI 1	-4%	-92%	-24%	-13%	-14%	-11%
EQI 2	0%	-92%	-18%	-7%	-10%	-10%
EQI 3	-5%	-94%	-17%	-8%	-5%	-3%
EQI 4	-2%	-92%	-16%	-5%	-5%	-3%
EQI 5+	-2%	-90%	-14%	-5%	-5%	-5%
3-4 year olds						
EQI 1	2%	-94%	-14%	3%	-3%	-2%
EQI 2	-2%	-95%	-15%	-2%	-7%	-6%
EQI 3	1%	-94%	-5%	0%	-4%	-1%
EQI 4	-2%	-94%	-8%	-1%	-5%	-2%
EQI 5+	-1%	-93%	-6%	-1%	-3%	-3%
All children						
EQI 1	0%	-93%	-16%	-3%	-7%	-5%
EQI 2	-1%	-94%	-14%	-3%	-7%	-8%
EQI 3	-1%	-94%	-8%	-2%	-4%	-1%
EQI 4	-2%	-93%	-9%	-2%	-4%	-2%
EQI 5+	-1%	-92%	-8%	-2%	-3%	-3%

Annex 5: Communication Plan