

The Greater Toronto Area and Hamilton School Board Research Collaboration

Learning through COVID-19 Report #1: Enrollment and Absenteeism



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Background

In early 2021, research departments from 8 large mostly urban school boards, together representing 865,000 students agreed to work together to share information on key educational indicators in the context of COVID-19. The initial focus for this group – the Greater Toronto Area and Hamilton (GTAH) Schoolboard Collaboration on Schooling During COVID-19 -- was data from the 2020-21 school year, using data from 2019-20 as baseline.

Five boards were able to participate in this round of data sharing:

- Durham District School Board,
- Halton Catholic District School Board,
- Peel District School Board,
- Toronto District School Board, and
- York Region District School Board.

In total, this report presents data on 630,545 students.

This report is based on aggregate administrative data collected by school boards. It is the first of three planned reports.

Future reports will look at the distribution of grades, academic achievement on samples of students as measured by CAT4, a nationally normed assessment, and questions of school climate insofar as data are comparable across boards. Boards will also be reporting to the Ministry on a number of other process questions relating to learning during COVID-19, as they are required to report on issues such as access to technology, student engagement in online learning and support for teachers under policy guidance from the Ministry (Ministry of Education, 2020b). Reporting on these issues has not been standardized across boards.

It is our belief that this data simultaneously provide system-level insight into important issues about pandemic schooling, while raising numerous further questions including questions of how these results differ by different demographic subgroups, how these trends relate to student achievement and well-being, and what are the most important factors which explain overall trends and the variation we observe between boards.

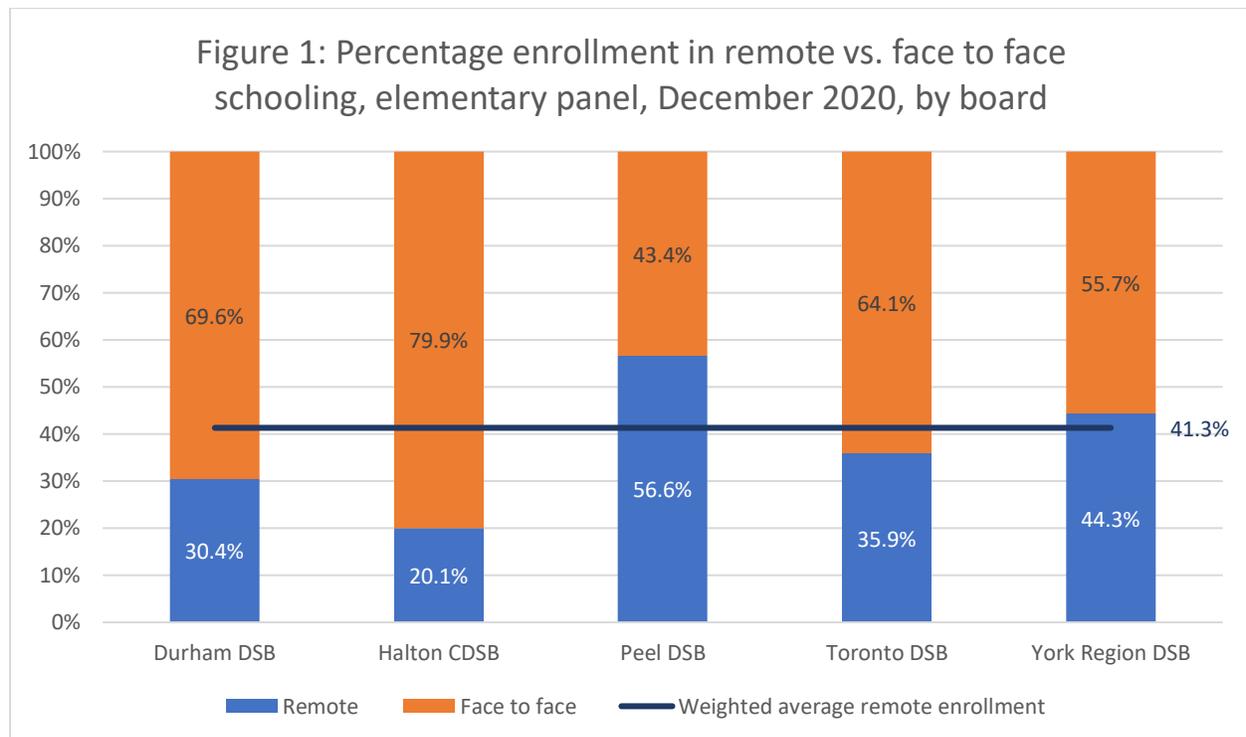
Current research resources within school boards do not allow answers to these important questions, particularly across multiple school boards. It is our hope that the research questions raised in the context of COVID-19 will lead to greater investment of research capacity and partnerships to help explore these issues in an ongoing way.

Learning Models Across the GTAH

The first question on which participating boards shared data was the percentage of students whose families opted for full-time remote schooling vs. families who remained in face to face schooling while it was available. There are substantial differences between boards, and between elementary and secondary schools.

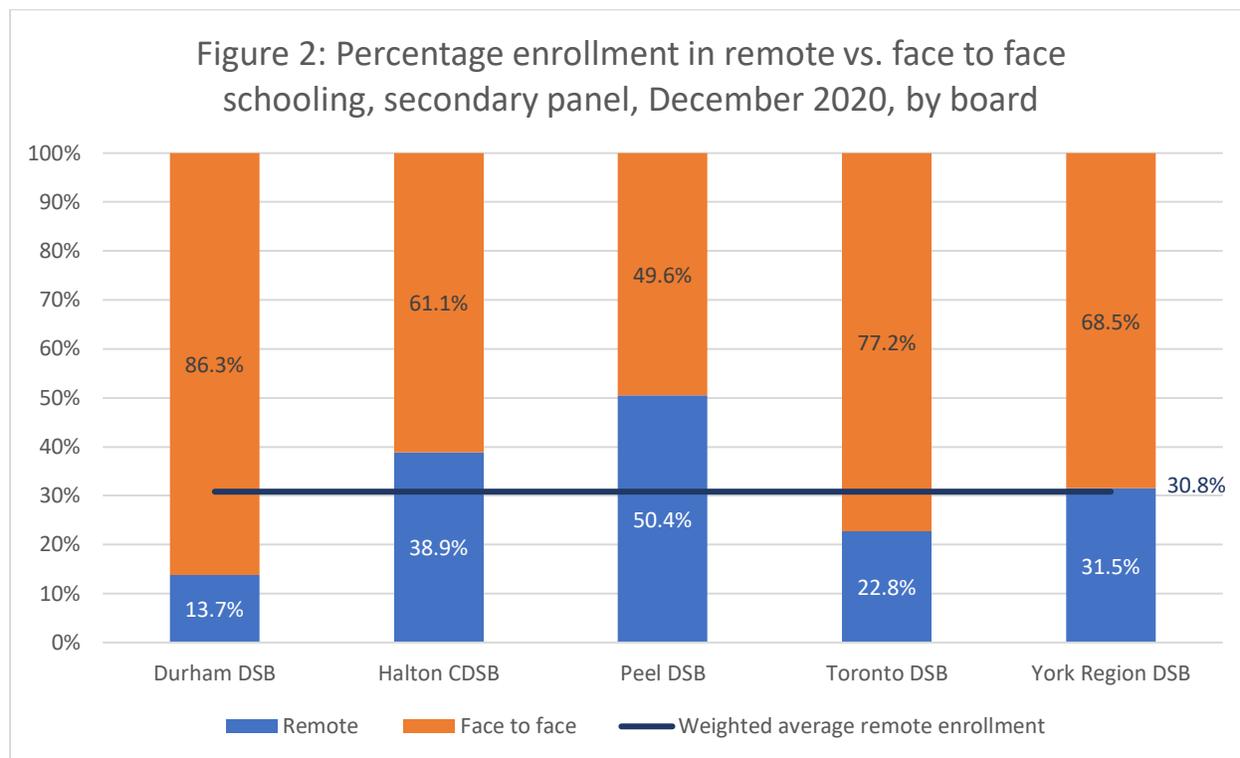
On average, across all boards and panels, at the end of December 2020, 38.2% of students (240,560 out of 630,545) were, by choice, enrolled in full-time remote schooling.

Differences *between* school boards were considerable (see Fig.1), though it is not clear what drove differences. It is likely that community rates of COVID-19 transmission, school board demographics, and school board practices and messaging had an impact on these schooling decisions made by families.



More elementary students (41.3%) than secondary students (30.8%) chose full-time remote learning (see Fig. 2). This is a somewhat surprising finding, given that older students might be expected to benefit more from remote learning and parents of younger children likely needed to be more deeply involved in supervising and supporting their children's learning; the custodial or 'care' role of schools is more prominent in elementary schools. There were, however, important differences between elementary and secondary school settings. Most significantly, elementary school classes were much larger, which limited physical distancing. Secondary schools used cohorting and blended learning to ensure students were in smaller groups decreasing risk of exposure and limiting physical proximity – trading off education disruptions associated with compressed schedules and far less face to face learning for public health

measures. Furthermore, secondary students are more likely able to comply with routines such as masking and maintaining physical distances to keep students safe from COVID-19.



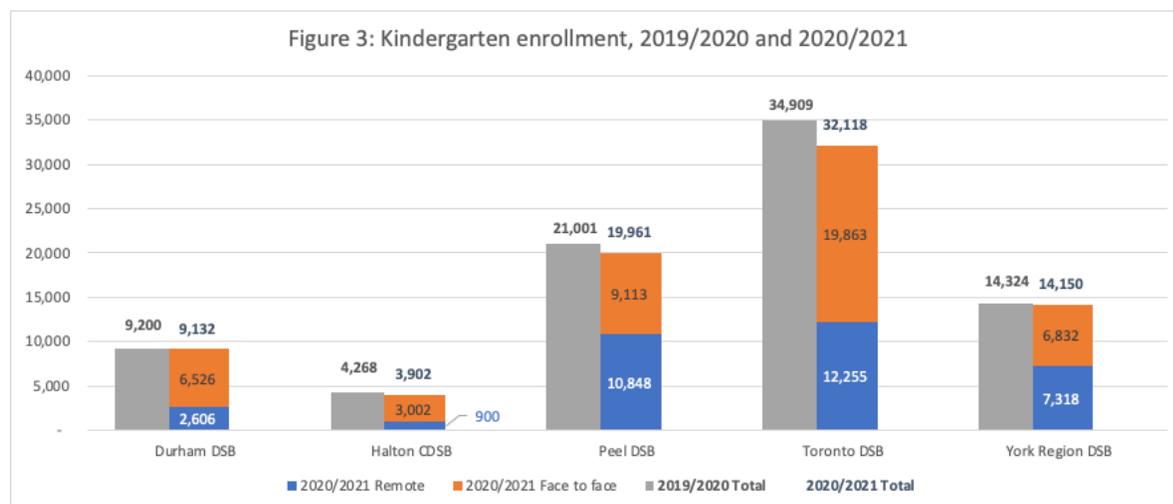
There was considerable ‘churn’ throughout the fall semester as students switched between full-time remote and face to face learning, though we do not have data from all boards on these trends (in the three boards with some data available, the percentage of students who changed mid-term, ranged between 2.3% and 7.3%). Where data is available, more students appear to have moved from face to face to virtual schooling in the fall.

There were substantial organizational complexities involved in managing this churn, which contributed to decisions by some school boards to intentionally adopt hybrid (or ‘split attention’) schooling where one classroom teacher simultaneously instructs some students on a face to face basis and others remotely starting in fall 2020 (Aguilar, 2020; *DPCDSB Remote School*, 2020; Feinstein, 2021). **Notably, no data was available from any of the participating school boards on the percentage of students who were experiencing hybrid learning.** Some boards were required to reorganize large numbers of classrooms mid-way through the term to manage the churn (Xavier-Carter, 2020). It is likely that there were also adverse educational effects for affected students, as ‘student mobility’ - a change of schools - is typically associated with negative effects on achievement (Institute of Medicine, 2010).

Kindergarten Enrollment

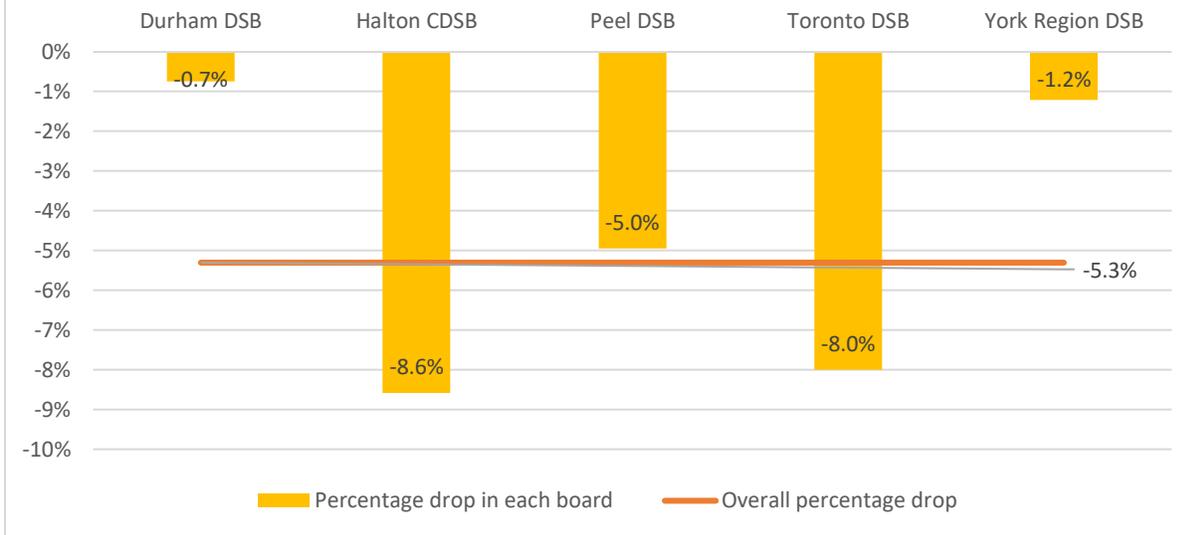
All school boards are required to report to the Ministry of Education on total enrollment in October each year. Across participating boards, there were slight declines in enrollment between October 2019 and October 2020. TDSB research on historical patterns of enrollment suggests a significant portion of this decline is associated with fewer new immigrant students moving to Canada during this pandemic, since in a typical year 4% of students newly enrol from other countries (Brown & Newton, 2015). GTAH boards are generally characterized by high student mobility and significant new immigration.

There were, however, substantial changes in kindergarten enrollment. Mandatory school attendance in Ontario begins in grade 1, so parents have discretion as to whether to enroll students in kindergarten. There was a substantial drop in kindergarten enrollment in 2020-21 in some boards (see Fig 3).



On average, combined junior and senior kindergarten enrollment dropped by 5.3%, which translates to almost 4500 fewer children enrolled in early learning in 2020-21 relative to 2019 (Fig. 4). Parents may have been responding to the risks of sending students to a congregate school setting, recognizing challenges for younger children in observing safety protocols. They may have felt that the challenges of learning online for young children meant virtual school was a less compelling option. Declines in kindergarten enrollment in these boards was not as dramatic as observed in the United States, where it is estimated that there was a 16% decline (Rix, 2021).

Figure 4: Percentage drop in Kindergarten enrollment, 2019/2020 to 2020/2021



There were substantial differences between boards, which did not correspond to differing levels of community transmission. In most boards, the percentage of children enrolled in virtual vs. face to face kindergarten was fairly consistent with overall patterns of elementary enrollment.

There is a robust body of literature that points to the importance of early years education to support students lifelong development and academic achievement (Margaret McCain et al., n.d.; McCain & Mustard, 1999; Shonkoff & Phillips, 2000). Kindergarten is also a key site for early identification of developmental needs and referral (Pascal, 2009), so there are concerns that decreased kindergarten enrollment may contribute to lower access to important services during a key developmental window (Jorenson, 2021).

Attendance and Absenteeism

Attendance is a critical issue for schools. Attendance matters for student achievement, safety, and well-being; it is an indirect measure of engagement and schools' ability to meet student needs (Balfanz & Byrnes, 2012; Ginsburg et al., 2014; Kearney, 2008). Chronic absenteeism, usually defined as missing 10% or more a year of school, has been identified as a powerful predictor of drop-out and students' failure to progress to and succeed in post-secondary education (Balfanz et al., 2007; Brown et al., 2020; Hein et al., 2013).

Under pre-pandemic circumstances, very few phenomena in education are more readily observable than whether a student is present in class. However, the recording and aggregation of absenteeism data is in fact, very complex and requires human judgment at different stages including how to classify absences, and appropriate denominators for determining an absenteeism rate: the provincial guide is 76 pages (Ministry of Education, 2020a). Teachers, principals, safe arrivals coordinators, social work staff, and administrators who manage provincial reporting have different responsibilities for, and interests in, the production of attendance data.

In Ontario, most school board research offices do not track or report on attendance data, nor does the Ministry of Education or the Educational Quality and Accountability Office report on it, despite the fact that attendance is considered to be a key educational indicator (Data Quality Campaign, 2014).

During COVID-19, the complexity of reporting attendance increased considerably because of remote schooling, voluntary learning at home, delayed start dates, lack of access to technology. In secondary school, blended learning including asynchronous time, and quadmester/octomester scheduling further complicated the process of recording absences. Finally, there has been widespread concern that some students in remote schooling conditions are 'ghosting' classes, signing in and tuning out (Abraham, 2021). This practice has been facilitated by informal norms under which most students keep cameras off.

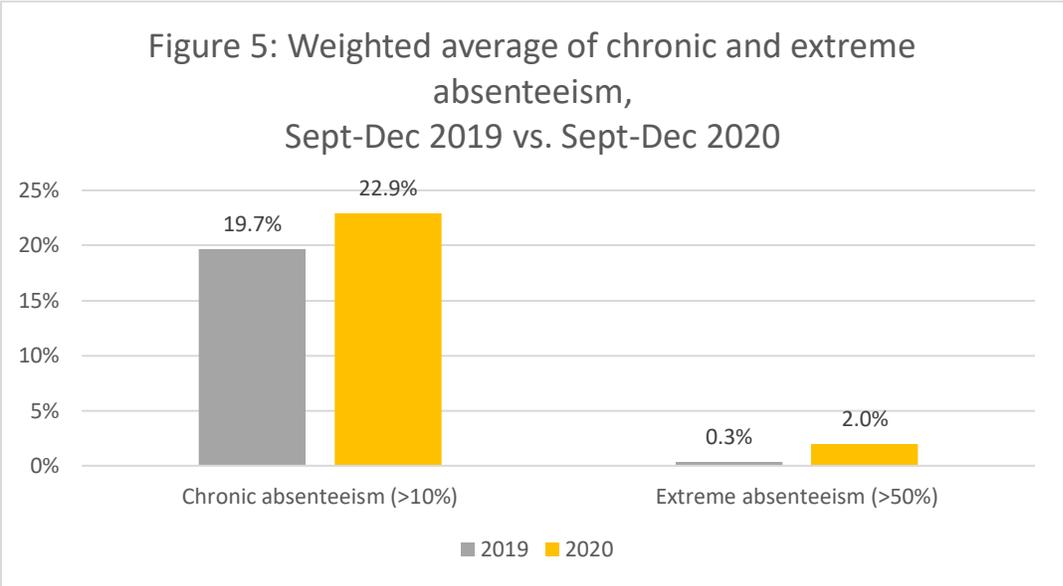
Apart from the complexities of reporting on attendance, the implications of attendance have shifted – in ways that will take years to unpack – during the pandemic. Typically, chronic absenteeism is considered problematic, and a sign of non-compliance with school expectations (Kearney, 2008). During COVID-19, however, public health messaging encouraged students to prioritize protection of themselves and others by staying home if experiencing any symptoms of COVID-19. Moreover, entire classes of students were sent home as a precautionary measure in the case of COVID-19 exposures. Accordingly, higher absenteeism in 2020-21 – while still representing lost opportunity to learn through in-class participation – may be less predictive of academic problems than under pre-pandemic circumstances. At the same time, there are major concerns that some students may have simply lost any connection to schooling due to the disruption associated with the pandemic (Alphonso, 2021).

Participating boards in our research collaboration produced data to report on attendance during COVID-19, comparing absenteeism between September to December 2020-21 with absenteeism at the same time in 2019-20 (pre-pandemic). We also compared absenteeism between virtual vs. in-person schooling. These months were particularly relevant for understanding differences between the models, as there were no province-wide school closures during this period.

Chronic absenteeism in elementary school higher during pandemic than previous year

Our analysis showed that **rates of chronic absenteeism (>10% of days missed) in elementary school increased in the first four months of 2020-2021, from a weighted average of 19.7% in 2019-20, to 22.9% in 2020-21.** We note that days of missed school this past fall were likely higher than this weighted average suggests, since schools may have classified days missed where students sent home because of COVID-19 exposure or delayed starts as a ‘general absence’, akin to a snow day or religious holiday, which would not be included in absenteeism calculations.

Furthermore, there was a substantial increase in the percentage of elementary school students missing really large amounts of school. We asked boards to report on the number and percentage of students who were absent for more than 50% of classes. **The percentage of students missing more than half their classes increased by a factor of six between Sept-December 2019-20 and the same period in 2020-21: from 0.3% to 2.0% of students: 8528 children.**



This figure provides perspective on the additional work facing board social workers and/or attendance counsellors this year. For example, in one board, there is only one FTE social worker for every 287 students missing more than 50% of classes; additional mental health

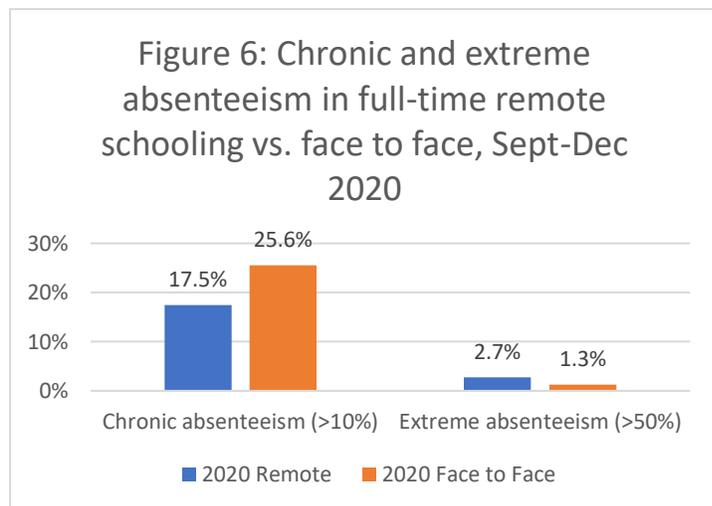
funding under COVID permitted the hiring of only one additional social worker more than a year into the pandemic. These patterns of absenteeism also create challenges for teachers and administrators who would all have responsibility to maintain connection with these (and other) students, and to support them in catching up on missed learning.

The rates of chronic absenteeism in 2019-20 were fairly consistent across school boards (ranging between 16-20%); there was much less consistency in 2020-21 – the range in rates was much broader, between 11.5% and 33.2%. Similarly, the rates of extreme absenteeism (>50% of days missed) ranged between 0.2% and 4.5% (in 2019-20, the range was between 0.2% and 0.4%). We suspect that some of this variation is associated with differences in how absences were counted and aggregated across boards, alongside differences in actual absences.

Chronic absenteeism tends to be higher face to face, and extreme absenteeism in remote schooling

Across the five participating boards, **chronic absenteeism (>10% of days missed) was higher in face to face school than in remote schooling in four of them: on average, 17.5% of students in attending elementary school remotely missed more than 10% of days, vs. 25.6% of students in face to face learning.** The range across boards was between 4.0% and 28.8% in remote schooling, and between 19.0% and 37.4% in face to face.

Notably, however, students with extreme patterns of absenteeism (>50% days missed) were twice as likely to be in remote schooling: 2.7% vs. 1.3%. The 4759 students in remote schooling who missed more than 50% of days between September and December would be considered at high risk of adverse educational outcomes.



Two boards were able to produce data specifically on students who changed between remote and face to face learning (in either direction). Absenteeism among this group was more than double the rates of either remote or face to face learning.

Data quality means we cannot report on secondary attendance with confidence

Among the participating boards in this project, **serious concerns about the quality of data** – particularly because of challenges in the reporting of asynchronous time under the blended learning models– **have led us to conclude it is not possible to report with an acceptable degree of confidence on absenteeism in secondary school for 2020-21.**

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