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The Impact of School Closures and Emergency Remote Learning on Grade 12 Students in Spring 2020: Preliminary Findings from Toronto

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Executive Summary

School closures and the move to emergency remote learning caused by the COVID-19 pandemic have raised serious concerns about the quality and outcomes of Ontario high school students' education. This report reviews — for the first time in Canada — large-scale student data from the period of emergency remote learning in the first academic year affected by COVID-19. It draws on a unique, large-scale longitudinal data set of the Toronto District School Board (TDSB), to examine the impacts of school closures and remote instruction that took place between March and June of 2020.

Our focus is on the almost 34,000 students who were in their fourth year of high school in either 2018/19 or 2019/20. We compare course grades and accumulation of the credits required for high school graduation on average and for distinct subgroups of students, between the 2018/19 (the baseline year) and 2019/20 (referred to in this paper as "COVID-19 school year 1"). We treat the accumulation of 30 credits as a proxy for graduation as this information is available ahead of more detailed graduation statistics.

The worst fears of those concerned about the pandemic's effect on students' pathways were not borne out by data we examined. Comparing student data from the baseline year and COVID-19 school year 1, we found:

- The proportion of students achieving 30 or more credits by the end of their fourth year in high school rose by approximately 3.5% in COVID-19 school year 1. That amounts to 650 additional graduates compared to the year before.
- Course grades were higher during COVID-19 school year 1 than they had been the year before — rising by, on average, 4.1%.
    - Increases were most likely to occur among students in the middle zones of achievement: those who, in other years, might have been one or two credits shy of 30 credits in four years, or had marks between 60 and 75%.
    - Students who were very high achieving, or quite low achieving, did not contribute significantly to this trend.
- Concerns that students who struggle more with school might simply drop out because of the disruption were not borne out. Students in Grade 11 during the COVID-19 school year 1 were, in fact more likely to return to school in September 2020 than were students in the pre-pandemic cohort.

These positive findings are likely a reflection of the explicit provincial policy that froze students' grades effective March 13, 2020, and only allowed improvements in grades to "count." The TDSB also set specific assessment policies that likely affected how teachers graded and reduced the weighting of final exams. It is also possible that the virtual learning environment provided a more diverse variety of methods to demonstrate learning (TDSB, 2021).

Our analysis revealed subgroup differences that tended to favour, on average, slightly lower average achievement. Overall, the bump in grades and credit accumulation tended to narrow gaps in achievement:

- Male students gained more than female students.
- Students whose parents do not have university education gained more than those whose parents went to university.
- Among students with special education needs, students with an IEP, who had not gone through the formal special education Identification, Placement and Review Committee process, gained more than students with an identified exceptionality.
- Students in the mixed program of study gained more than those in the college program (which has quite low average achievement) and more than those in the university program (which has quite high average achievement).

These findings have some important implications. First, increased grades and higher incidences of students obtaining the credits required for four-year graduation may imply increased attendance at college and open-access universities. At the same time, students may face learning gaps arising from the disruptions to in-class learning. Early data also suggests that some of our most reliable predictors of student outcomes — grades and credit accumulation — have been destabilized. It is critically important that we continue to collect and learn from data about student outcomes to understand and respond to the impact of COVID-19 on student learning, both over time and across Ontario.

We also note that students facing substantial academic challenges (i.e., students with fewer than 22 credits after four years, or students identified with Special Education Needs) experienced relatively limited gains despite overall improvements in average grades and credit accumulation. While concerns about dropout in this group were not confirmed in the short term, we believe effective supports will be required for these students to improve overall outcomes.

A followup to this report will explore whether and how school closures and emergency remote learning have led to changes in postsecondary applications.

Introduction

School closures and educational disruptions associated with the COVID-19 pandemic have raised significant concerns about the long-term impacts on student learning and postsecondary pathways. In 2020, the UN Secretary General declared COVID-19 a “generational catastrophe” in education, citing a UNESCO estimate that 24 million students worldwide were likely to drop out because of COVID-19 (UNESCO, 2020). Numerous international studies have pointed to significant learning loss caused by COVID-19 disruptions (Engzell et al., 2020; Kuhfeld et al., 2020; Maldonado & DeWitte, 2020; Renaissance Learning & Educational Policy Institute, 2021; Gallagher-Mackay et al., 2021). These studies are causing some to worry that greater socioeconomic and demographic gaps could result from these disruptions (Haeck & Lefebvre, 2020). Leading economists have hypothesized that learning loss associated with the pandemic will lead to both significant lost earnings (up to 3% over the course of a lifetime) and productivity (up to 1.5% of GDP) (Hanushek & Woessman, 2020).

While COVID-19 has caused dramatic and very rapid changes in educational delivery and experiences, large-scale, system-level data on educational processes and outcomes are either lagging or absent. This is in part due to administrative and data-infrastructure challenges in aggregating and validating educational data. This problem is particularly acute in Canada, where we have exceptionally sparse data on student outcomes, particularly for demographic subgroups, and limited national or provincial longitudinal data with the capacity to support causal inference (Gallagher-Mackay, 2017). To date, there is no large-scale Canadian data collection effort on the impact of the COVID-19 pandemic on student outcomes.

This report is the first of two papers supported by the Higher Education Quality Council of Ontario (HEQCO) to examine the impacts of the emergency closure between March and June of 2020 on high school outcomes including grades, graduation and postsecondary access. Both papers draw on the unique, large-scale longitudinal data set of the Toronto District School Board (TDSB), to examine the impacts of the emergency closure that occurred between March and June of 2020. This paper’s focus is on credit accumulation and grades for students in Grade 12 in 2019/20, and whether different subgroups of students experienced different outcomes.

Background

Grade 12 student outcomes, including grades and credit accumulation, are both important predictors of and contributing factors to high school graduation — an important educational and social benchmark. High school graduates have improved earnings, health, self-reported happiness and civic engagement (Belfield & Levin, 2007; Bushnik et al, 2020; Hankivsky, 2009; Oreopoulos & Salvanes, 2011; Turcotte, 2015). High school outcomes are also one of the most important predictors of postsecondary access and retention (Finnie & Mueller, 2008; Finnie et al, 2008; Hein et al., 2013).

High school graduation rates have been increasing across Ontario, and in the TDSB, for decades. Similarly, rates of postsecondary attendance are also on the rise (Brown & Tam, 2016), although significant gaps remain based on factors such as household income and race (Robson et al., 2019). When we compare the most recently published five-year graduation rate of 86% (2018) to the 13% of students completing Grade 13 in 1967, or even the 56% graduation rate of 1987 (Brown, 2010), it is hard to think of a bigger change in education.

Educational Conditions During "Emergency Remote Learning"

From March to June of 2020, Ontario — and schools worldwide — entered a period of school closure: the mandated suspension of face-to-face instruction for a majority of students (UNESCO, 2021). During this period, the system moved to what has been termed "emergency remote learning." This period was characterized by efforts "[not] to re-create a robust educational ecosystem, but rather to provide temporary access to instruction and instructional supports in a manner that is quick to set up and is reliably available during an emergency or crisis" (Barbour et al., 2020). Expectations for synchronous and asynchronous teaching, student workload and feedback were very much in flux, and inconsistent between classrooms, schools and boards.

Assessment was also affected. To cope with the emergency, and to potentially limit the damage to student learning arising out of the uncertainty of the period, a province-wide policy was instituted to ensure that students' marks could not decline after March 13, 2020 — the last day of in-person schooling. In a letter to parents dated March 31, 2020 Education Minister Stephen Lecce stated that "no student will have their graduation jeopardized by the developments of COVID-19." (Lecce, 2020)

The normal graduation requirements in Ontario are the accumulation of 30 credits, 40 hours spent in community service, and successful completion of the Ontario Secondary School Literacy Test (OSSLT) or an alternative. Community service and OSSLT requirements were waived for those graduating in 2020 and students were assured that their final credits would count towards graduation even if hours of instruction were not strictly observed.

Some school boards introduced additional measures. In light of the suspension of in-person instruction, educators explored different approaches to summative assessments and culminating activities (e.g., final exams) in order to reflect student learning. (TDSB, 2021)

Data

The TDSB is the largest school board in Canada with approximately 247,000 students in 600 schools, including 110 high schools. The board is extremely diverse, with over 120 languages spoken. TDSB data is unique in Canada because it contains rich demographic information from student census reports and is linked to key administrative and outcomes information including postsecondary destinations. The board is also unique in Canada in using its data to report publicly on student outcomes during the COVID-19 pandemic. British Columbia announced that 54,000 students graduated in 2020 though they did not release a graduation rate. Aside from this, by March, 2021, no other Canadian jurisdiction had reported on COVID-19 learning or graduation impacts.

This report draws on a draft version of the TDSB's annual student mobility data set, which is based on all students who enter, exit or remain in the board from the beginning of one school year to the beginning of the next. It has been linked to five other administrative data sets, including the student census. Because finalized graduation data is not yet available for 2019/20, we are treating the accumulation of 30 credits as a proxy for graduation.

In 2019/20 there were 22,675 students enrolled in Grade 12 in the TDSB. That group was made up of 16,860 students who started Grade 9 in September 2016 (year 4 students), and 5,815 students who were enrolled for an additional year or years. By comparison, in 2018/19 (our baseline year), there were 22,903 students in Grade 12, in very similar proportions. This analysis focuses on the 16,860 students who were year 4 students in 2019/20 (COVID-19 school year 1), compared to 16,781 students who were year 4 students in 2018/19.

Key Findings

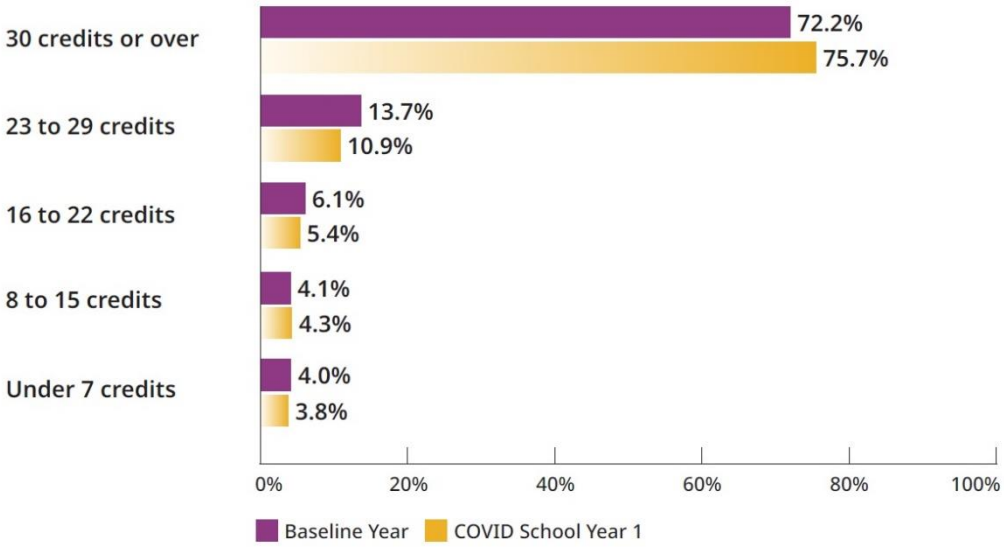
Students Anticipated to Graduate at Higher Rates After Emergency Period

Somewhat surprisingly, it appears that students' credit accumulation was *not* adversely affected by the school closures associated with COVID-19 at the end of the 2019/20 school year. Indeed, there was a slight increase in the average number of credits accumulated by students in COVID-19 school year 1, relative to the baseline year (mean credits rose 0.23%, from 27.99 to 28.23; median credits rose from 30 to 30.5 credits accumulated by the end of year 4).

However, these relatively small differences in the mean had a striking increase in the number of students who completed 30 credits or more, thus becoming eligible for high school graduation. **The comparatively slight difference led to 3.5% more students in COVID-19 school year 1 completing 30 credits by the end of year 4**. Relative to 2018/19 this translates to 75.7% versus 72.2%, or almost 650 more students. Almost all the increased credit accumulation was among students who were relatively close to achieving 30 credits in year four — those with 23–29 credits. Among those with fewer than 23 total credits at the time of the initial school closures, there were much smaller shifts and prospects of graduation were roughly similar between the two years.

While unexpected, this outcome is consistent with the government's policy that students' marks could not decline after March 13, 2020. It is also consistent with other jurisdictions. For example, New York state reported a four-year graduation rate that continued its upward trend (NYSED, 2021). And a group of researchers (Ahn, Lee, & Winters, 2020) used individual-level data from the US current population survey to estimate the effect of COVID-19 on high school completion rates, comparing survey respondents who reported being high school graduates in July 2020 to those in the preceding four years. They reported a 6.9% increase in graduation for 18-year-olds, and a 4.5% increase for 19-year-olds in 2020, relative to previous years.

Chart 1:
Distribution of Accumulated Credits by Students in Year 4
Baseline Year (2018–19) vs. COVID School Year 1 (2019–20)



Grade 12 Marks Also Higher After Emergency Period

Overall, Grade 12 grades went up, quite significantly, relative to the baseline year during COVID-19 school year 1. Students who were in year 4 when COVID-related school closures began saw their averages go up by 4.1% across all courses taken during year 4. The mean average grade of year 4 students in 2019/20 was 75.8%, up from 71.3% the year before. Learning loss due to COVID-related school closures has been one of the major concerns reported on in the media. Many Ontarians feared that education disruptions would cause students to lose out on opportunities to learn. For students in semestered courses, the closures meant they could miss out on up to half of the material typically covered. However, this anticipated loss would not have been captured in 2019/20 grades due to the government's policy to not allow any drop in grades after March 13, 2020 — grades could only stay the same or increase which could explain the increase in mean average.

No Evidence of Increased Dropout

Typically, a significant number of students do *not* graduate after four years, but instead return for an additional year or years in order to complete the required 30 credits, improve their academic average or take prerequisite courses.

After the baseline year (2018/19), just under a fifth of students (19.1%) returned to the TDSB for a fifth school year in the fall of 2019. The percentage of students returning to school in the fall of 2020 declined slightly to 17.1%.

The slight decline in Grade 12 students returning for year 5 could be due to a number of factors including an increase in four-year graduation — based on the accelerated credit accumulation observed above — or possibly, more students going directly into postsecondary. We will not be able to confirm this until we have more accurate graduation and postsecondary confirmation data for students from COVID-19 school year 1.

Another key research question for this report was whether fewer students would return to school in the fall of 2020, as this could signal an increased risk of a long-term drop in graduation rates. There was a concern that students who were less motivated or less engaged by school, or less drawn to school because of social factors disrupted by online or blended learning options, might simply not return in fall (or might not return until they could attend in person). To explore this question, we looked at students who would have been in Grade 11 during COVID-19 school year 1 and compared the rate at which they returned to school with those who would have been in Grade 11 during the baseline year.

Of the students who were in Grade 11 during the baseline year, 93.9% of them returned to the TDSB for Grade 12 at the beginning of COVID-19 school year 1. It is those students whose progress through Grade 12 we discussed above. Among those who were in Grade 11 during the initial lockdown period, the proportion who returned in the fall of 2020 for COVID-19 school year 2 *increased* to 95.3%. In other words, despite the interruptions of COVID-19, and the potentially less appealing educational offerings of blended or online learning, the proportion of students returning for Grade 12 slightly increased after COVID-19 started.

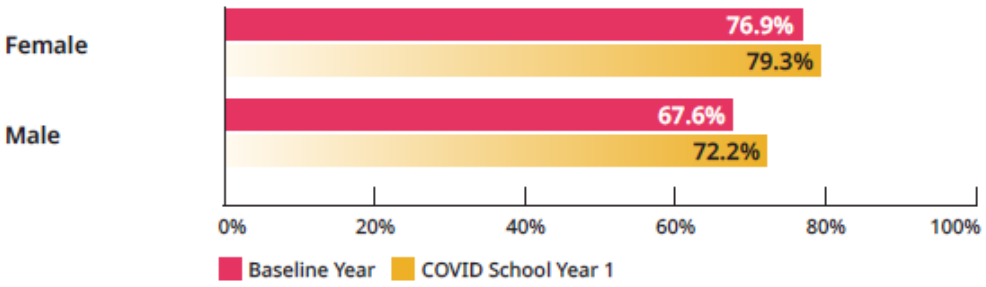
Although we cannot explain this change with certainty, there are a number of contextual factors that are probably relevant. The legal framework which requires students to attend school until they are 18 years of age ('Learning to 18') appears to limit early school leaving, although it does not determine whether students will ultimately graduate. In addition, the TDSB has traditionally been a very mobile board with 4% of students newly enrolled each year from other countries, elsewhere in the province, other boards and private schools, while other students leave (Brown & Newton, 2015). The number of students entering from other countries or elsewhere in the province may have been restricted by COVID-19. Further, youth unemployment was negatively impacted almost immediately by the COVID-19 pandemic so students may have seen school as a better option.

Graduation and Grades Increased for Many Groups of Students Who Have Traditionally Faced Greater Challenges

Grades and Graduation Increased for Males at Greater Rates than for Females, Reducing Gaps in Graduation

Consistent with long-standing patterns, students identified as female in the student registration system outperformed students identified as male in both credit accumulation and marks across the TDSB both before and during the school closures that took place from March to June of 2020. However, the *increase* in proxy graduation (the accumulation of 30 credits) between the baseline year and COVID-19 school year 1 was almost double for male students relative to female students. Males with lower but not extremely low achievement (typically, passing grades below 70) appear to have been significantly helped by the bump in grades and credit accumulation experienced by many during COVID-19 school year 1.

Chart 2:
Credit Accumulation in Male and Female Students
Baseline Year (2018–19) vs. COVID School Year 1 (2019–20)



Students Whose Parents Did Not Attend University Saw Greater Increases

Parental education is very strongly associated with socioeconomic status and is an excellent predictor of postsecondary access (Finnie & Mueller, 2008). Among students whose parents had no university education (neither started or completed a university degree), the proportion who accumulated 30 credits by year 4 increased between the baseline year and COVID-19 school year 1: from 75.2% to 80.2%. Among students whose parents *had* attended university, the increase was smaller — from 87.8% to 91.1% in COVID-19 school year 1.

Children whose parents did not attend university saw an increase in their average grade of 4.7%, rising to 73.9%. Students whose parents attended university (and who are traditionally more advantaged) saw an increase in average grade from 78.6% to 82.3% in COVID-19 school year 1, a rate of increase lower than the TDSB average. While both groups benefited, the group with typically lower average achievement benefitted more.

Smaller Gains for Students with Special Education Needs

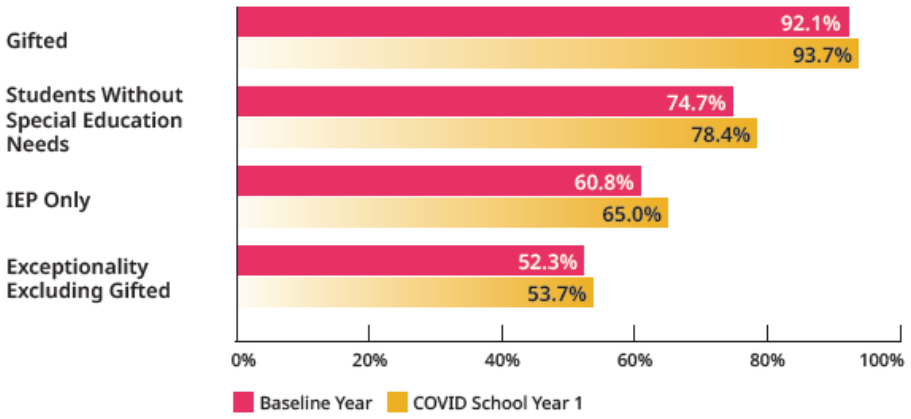
Across the TDSB, approximately one-fifth of students are considered to have special education needs (SEN) (excluding gifted). There is considerable complexity in the special education

system, including widely different processes, settings, needs and accommodations (Brown & Parekh, 2013). There are also considerable differences in special education processes between different Ontario school boards. In the TDSB, more than half of students (53%) with an Individual Education Plan (IEP) have not gone through the formal Identification Review and Placement Committee (IPRC) process to be formally identified with an exceptionality. The IPRC process requires a report by a psychologist or similar specialist, while students with an IEP only have plans developed primarily by educators within the school (Brown, Tam, & Safari, 2017). The group who has been formally identified includes many students identified with learning disabilities, along with other communication, behavioural, intellectual and physical disabilities. Overall, students in special education were slightly more likely to accumulate 30 credits if they were in year 4 during COVID-19 school year 1, than those in year 4 in the baseline year. Among students who had an IEP, but had not been formally identified, there was a 4% boost. Both these findings line up with the findings for the overall TDSB population. Students in the gifted program (who tend to be high achieving) and students who have been formally identified (who typically have a much lower graduation rate) saw much more limited gains (see Chart 3 below).

Chart 3:

Anticipated Four-Year Graduation Rates by Special Education Need

Baseline Year (2018–19) vs. COVID School Year 1 (2019–20)



Grade 12 marks for students identified with SEN increased overall, although the increase was slightly less than that experienced by the wider TDSB student population. Gifted students' grades increased by 3.7%; grades for students with an IEP but no exceptionality increased by 4.1% and students formally identified with an exceptionality (excluding gifted) saw a mean increase of 4.4%.

More Limited Gains for Students in College and Workplace Preparation Programs

In the Ontario curriculum, there are distinct types of upper year (Grade 11 and 12) courses. Academic courses, such as math, English, science, history, or geography, are classified by students' presumed academic destinations — either university (U), college (C), or workplace preparation (W). Some courses are classified as mixed and presumed to be relevant to all students. Distinct upper-year course types, while equal in credit value, are associated not just with different curriculum emphases, but also very different student bodies and very different outcomes (Brown, Parekh, & Gallagher-Mackay, 2019). Upper-year course choices operate as a result of, and in parallel to streaming in Grades 9 and 10 through applied and academic course choices, which have been shown to have systemically unequal effects (e.g., Clandfield et al., 2014; Curtis et al., 1992; James & Turner, 2017; People for Education, 2014; Pichette et al., 2020). We use the term program of study to describe which type of courses students take for the majority of their academic courses.

A large majority of students in the university program of study typically finish within four years; the proportion of students who did so in COVID-19 school year 1 rose 3.4% to 87.1%. The greatest increase (4.7%) in proxy graduation was in the mixed program of study, where 67.7% of students accumulated the required 30 credits or more. By contrast, credit accumulation increased by less in the college program of study relative to the baseline year (3.0% to 55.6%) and increased even less among students registered in the workplace preparation program of study (2.0% to 69.7%).

Predicting Graduation in Grade 9: "Medium" Achieving Students' Graduation Rate Exceeds Predictions

Another way of understanding the impact of COVID-19 on Grade 12 students' outcomes is to review proven predictors of achievement. This type of analysis helps shed light on whether and how traditional predictors may have to be recalibrated in light of the pandemic, which in turn may shape how school systems respond to COVID-19.

Prior to COVID-19, the TDSB's composite Grade 9 achievement indicator has been shown to have strong predictive power for both graduation and postsecondary access and success (Brown, Davies & Chakraborty, 2019). Using this indicator, students are grouped into low, medium, high and very high achievement. Students with low achievement were those who did not accumulate eight credits by the end of Grade 9. Students with medium achievement had all credits, but no As. Students with high achievement have 1–3 As, and students with very high achievement have As in all four mandatory Grade 9 subjects.

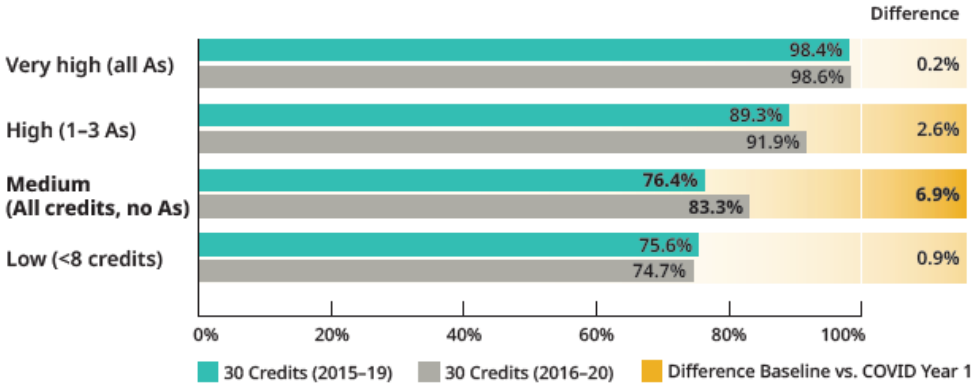
We used this variable to compare Grade 12 achievement with proxy graduation (30 plus credits by the end of year 4) using Grade 9 data from 2015/16 for the baseline year (Grade 12 year 4 in 2018/19) and Grade 9 data from 2016/17 for COVID-19 school year 1 (Grade 12 year 4 in 2019/20). For both cohorts, data for the Grade 9 achievement variable was available for 85% of the students (15% entered the TDSB after Grade 9).

There was a dramatic increase in anticipated graduation between the baseline year and COVID-19 school year 1 for students whose Grade 9 achievement was in the medium range. The Grade 12 proxy graduation rate of those with medium Grade 9 achievement increased 6.9%, from 76.4% to 83.3%. By contrast, for the very high achievement group and the low achievement group, the difference between the two cohorts was minimal (under 1%). There was a moderate difference between the two cohorts in the high achievement group, with the group who was in year 4 in COVID-19 school year 1 doing better (2.6%).

Chart 4:

Anticipated Four Year Graduation by Grade 9 Achievement

Baseline Year (2018–19) vs. COVID School Year 1 (2019–20)



It will be important to monitor whether this is a lasting or short-term change in the power of this predictor, and to understand what factors led to the improved outcomes for this somewhat vulnerable group of students.

Discussion

School closures and educational disruptions associated with COVID-19 have significant potential to exacerbate learning loss and interfere with academic transitions, and to exacerbate gaps in equity (Gallagher-Mackay et. al., 2021). That said, it appears that system-wide efforts to insulate students from the worst shocks were effective in the short term in terms of academic progression. Data comparing COVID-19 school year 1 to the previous, baseline year for Grade 12 in the TDSB shows that grades increased rather than decreased. Our proxy graduation measure showed positive change as well, which is in line with some initial findings from other education systems. These adjustments may have improved equity for some lower-middle achieving students, although it appears that the lowest-achieving students may not have benefited to the same degree.

While the increases in grades and credit accumulation were substantial for students in the lower-middle range of achievement, students with the lowest achievement were mostly unaffected by these trends. The proportion of these students — low achieving in Grade 9, and

not graduating after even five years — is quite consistent between the years (13%). These students are more likely to be in the college program of study (unlike the majority of college applicants who are in mixed and university programs of study (Brown, Parekh & Gallagher-Mackay, 2019)), and more likely to have formally identified special education needs.

These findings raise important questions and possible implications for colleges and universities, for instance:

- Postsecondary institutions may have faced a larger pool of applicants in 2020/21. In general, students graduating after four years are more likely to go directly into postsecondary (Brown & Parekh, 2019).
- Impacts on the applicant pool will likely be more significant for colleges given that larger numbers of students with somewhat lower achievement graduated this year (and perhaps for universities with a stronger focus on access).
- Students likely had higher entering averages — while also having gaps in what they know and can do. There are multiple possible causes for this phenomenon that are discussed further below.

These patterns suggest that postsecondary institutions, colleges and access-focused universities should identify, employ and evaluate strategies for addressing skill and knowledge gaps among entering students in the fall of 2021 and likely in 2022 as well.
The second report in this series — on postsecondary applications — will provide us with additional insights.

It is also important to note that these trends are likely to continue as 2020/21 (COVID-19 school year 2) where there were numerous policy changes, including closures, blended learning or full-time remote schooling, cohorting and the switch to quadmester scheduling implemented in the wake of COVID-19 (Gallagher-Mackay et. al., 2021). Educational effects are likely to be cumulative (Andrabi et. al, 2020).

The data reported here also suggests that well-established educational predictors of high school graduation and postsecondary access may need to be recalibrated as part of the COVID-19 response. Grades, credit accumulation and four-year graduation are usually the strongest predictors of postsecondary access and retention (Allensworth & Easton, 2005, 2007; Bowers et al, 2013; Brown, 2010; Brown, Davies & Chakraborty, 2019; Hein et al., 2013; Silver et al., 2008). Although there are no direct measures available, it seems likely that students across the system have lost considerable learning opportunities during emergency remote learning despite the apparent increase in grades and credit accumulation for Grade 12 students.

Grades have never directly aligned with achievement on tests, although they are strongly predictive of student outcomes (see, e.g., Brookhart et al., 2016). Research on grading (Brookhart et al., 2016; Olsen & Buchanan, 2019) suggests that some students receive better grades if they are perceived to be trying hard (e.g., asking lots of questions) or if teachers are trying to impose a sense of fairness.

A sense of fairness may be particularly relevant as there was a widely expressed, politically sanctioned belief that those in Grade 12 during COVID-19 school year 1 should not be disadvantaged relative to prior groups. Educators may have determined that students' cumulative learning constituted most of what they would need to be successful in their next steps, particularly as they were in their 14th year of education. It is also possible that the crush of major assignments at the end of Grade 12 may itself be a barrier to graduation; student performance earlier in the term may be stronger than performance in final grades. During COVID-19, teacher assessment practices switched away from summative exams and even heavily weighted culminating assignments.

There are other questions that arise from this report:

- If the increased rate of four-year graduation corresponds to a decrease of students who take an additional year to graduate, will the characteristics of that group be more like traditional five-year graduates (less likely to move on to postsecondary) or traditional four-year graduates (more likely to progress to postsecondary)?
- If the trends recorded here continue, what will happen to the "signalling" power of grades and graduation in the labour market (Belfield & Levin, 2007; Heckman & Rubinstein, 2001). Will students experience a 'discount' in employers' perception of the value of their achievement even as they progress?

COVID-19 has had a revolutionary impact on how schools operate, and that impact is likely to be felt on student success and postsecondary transitions for years to come. To truly understand the impact of COVID-19 on student learning and pathways, we will need sustained qualitative research to understand student choices and perceptions; and ongoing quantitative research involving large, representative data sets capable of reflecting subgroup differences (with an eye on equity) and with stronger linkages between K-12, postsecondary and employment data.

To date, there is very little large-scale data relating to student experiences and outcomes during the pandemic. This limits the ability to plan for a response to COVID-19 and to understand the impact of interventions that may be undertaken to address possible learning loss or disruptions in students' education. This data gap — and the underlying data infrastructure for education in Ontario — deserves policy attention as part of an effective COVID-19 response.

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