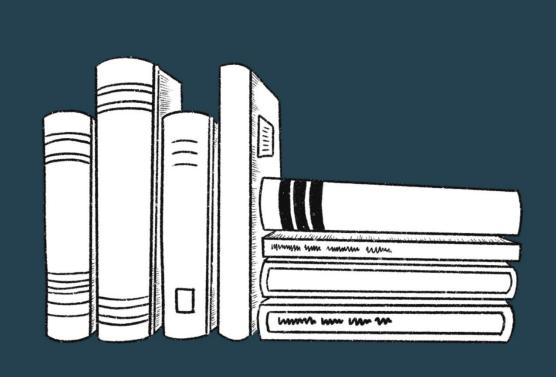


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The Impact of School Closures and Emergency Remote Learning on Postsecondary transitions in 2020/21: Findings from Toronto

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Executive Summary

The COVID-19 pandemic significantly disrupted education, raising concerns about learning gaps and student pathways into and through postsecondary. U.S. data from fall 2020 showed an unprecedented one-year decline in students' enrolment in university and college, most marked in the community college sector. But less is known about how the pandemic is affecting postsecondary access in Canada, particularly about how different demographic subgroups have been affected. This question matters since most estimates suggest that more than two-thirds of future jobs — and three quarters of those in sectors that are expanding — will require some form of postsecondary education (Canadian Occupational Projection System, 2019).

HEQCO and the Toronto District School Board (TDSB) have collaborated on two reports on short-term impacts of COVID-19. A first <u>report</u>, released in July 2021, examined grades and credit accumulation (a proxy for graduation) during the initial province-wide school closures that started in March of 2020. This report examines the progress into postsecondary for that same group of students. It draws on TDSB data and combines it with information about students' postsecondary applications. We compared two cohorts: the 16,000+ students who were in their fourth year of school in 2018/19 with a similar number of students who were in their fourth year in 2019/20.

We found:

- There was an overall increase in year-over-year postsecondary applications and confirmed acceptances.
 - We saw a 3% year-over-year increase among TDSB students applying to and confirming acceptance at Ontario universities.
 - The percentage of students confirming acceptance to college remained steady.
- From an equity perspective, some key demographic subgroups saw larger-than-usual increases in university confirmations, for example:
 - Confirmations of acceptance for students whose parents did not attend university increased at a greater rate than those whose parents had attended, helping to close a long-standing and substantial gap.
 - Middle Eastern and Black students showed a year-over-year increase in university confirmations of acceptance that was considerably greater than overall TDSB averages
- Although there were increases overall, gaps for other equity-seeking subgroups, increased relative to board-wide averages. For example:
 - Southeast Asian and Latin American/Latino/Latinx students saw year-over-year increases in university confirmations of acceptance that were lower than TDSB averages, despite particularly high graduation rates.
 - Students with special education needs saw far-below-average growth in PSE applications and confirmed acceptances.
- Students who attended the least affluent schools were not only much less likely to go
 onto postsecondary, but the year-over-year growth in applications and confirmations of
 acceptance was also much lower.

This research suggests that traditional predictors of postsecondary access — e.g., Grade 9 achievement — are still working reasonably well in the COVID-19 context. Pandemic policy



conditions, such as a freeze on students' grades, disrupted our ability to predict graduation rates particularly for middle-achieving students. The disruption in traditional predictors continued for postsecondary applications and confirmations, but was less marked.

These research findings underscore the importance of gathering and making available longitudinal Canadian data to better understand COVID-19 impacts on student pathways. A TDSB survey conducted in June 2020 indicated students were concerned about their academic preparation for postsecondary in light of the COVID-19 pandemic. In the absence of outcomes data, it is impossible to say whether and how these concerns played out, and how to address them. An absence of Canadian data also leaves researchers to draw from other jurisdictions. The findings in this report diverge considerably from U.S. results and illustrate the need for local data concerning students' K-12 outcomes as well as transitions to postsecondary. Research with a specific focus on postsecondary transitions beyond graduation will be key to informing the COVID-19 recovery.

Moreover, to understand and contextualize the impact of COVID-19 on schooling, researchers and policy-makers need to account for pre-COVID gaps in postsecondary access. For example, gaps attributed to differences in socioeconomic status, gender, race, disability or special education need. The impact of COVID-19 was highly differential in its impact, with some important groups seeing meaningful year-over-year gains, and other groups falling even further behind in the wake of the pandemic.

Lastly, we note a need for caution in interpreting these results as they reflect only the earliest outcomes from pandemic disruptions and are limited to students in their fourth year of high school. A considerable number of students will transition to postsecondary after a fifth or even sixth year. It is also important to note that these are results from only one schoolboard, however large and diverse. To get a more complete picture, we not only need to follow these students for several years, we also need province-wide data. It is crucial that we see how these Ontario students and subsequent cohorts fare in university and college.



Introduction

Educational and social disruptions associated with the COVID-19 pandemic raise significant concerns about long-term impacts on student learning as well as postsecondary transitions and 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 the pandemic (UNESCO, 2020). International large-scale assessments have shown that even a few months of school closures led to students experiencing considerably lower average achievement, relative to previous years, and that losses have been unequally distributed — students facing pre-existing disadvantages were, on average, more adversely impacted by pandemic-related education disruptions (Gallagher-Mackay et al., 2021).

In the United States, where there is a much more robust, timely and transparent educational data infrastructure than in Ontario, a series of reports have clearly shown disturbing trends around students' progression into postsecondary in the context of COVID-19-related education disruptions. Notably, while graduation rates held steady in June 2020, there was "an unprecedented one-year decline" in college enrolment the following fall, a year-over-year drop of 6.8% — 4.5 times larger than the pre-pandemic decline in 2019 (National Student Clearinghouse Research Center, 2021a, p. 2). The decline was four times greater in high-poverty schools than low-poverty schools (-11.4% versus 2.9%) and twice as high in high-minority schools relative to low-minority schools (NSC Research Center, p.3). In the U.S., the greatest declines were in the community college sector, which saw a 13.2% decline in enrolment; by contrast, the decline in enrolment at four-year public universities was 3.0% (NSC Research Center, p.5). There was also a 2% decline in students persisting after their first semester in postsecondary (National Student Clearinghouse Research Center, 2021b).

Much less is known about how the pandemic is affecting postsecondary access in Canada. This is problematic given that postsecondary education is critical both for students' life outcomes and society at large. Access to the postsecondary sector is associated with higher earnings, better health outcomes, greater self-reported happiness and civic participation (OECD, 2013; Public Health Agency of Canada et al., 2008; Turcotte, 2015). Postsecondary success considerably improves chances of employment and, it is estimated that more than two-thirds of future jobs, and three-quarters of new jobs created by economic expansion will require at least some postsecondary education including vocational training (Canadian Occupational Projection System, 2019). At the societal level, the skills and knowledge of a population directly impact labour productivity and innovation which in turn affect economic growth.

This report addresses the gap in available evidence regarding COVID-19's impact on postsecondary access. It is the second of two reports resulting from a collaboration between the Higher Education Quality Council of Ontario (HEQCO) and the Toronto District School Board (TDSB) to make use of TDSB's unique, longitudinal database with rich demographic information. Our first report showed that both grades and eligibility to graduate in the TDSB actually increased after the initial "emergency remote learning" response to COVID-19 that occurred between March and June of 2020 (Gallagher-Mackay & Brown, 2021). The key outcome was "proxy graduation," that is, accumulation of the 30 credits required for an Ontario Secondary School Diploma. It takes much longer to gather full data on actual graduation, for which there are additional requirements (i.e., proof of volunteer hours and passing the Ontario Secondary School Literacy Test). This report follows the same cohorts of students into the fall



semester and examines postsecondary transitions in 2019 versus 2020. The focus is on overall trends, whether different subgroups of students experienced different outcomes, and how and to what extent long-standing disparities in access to postsecondary education were affected. To better understand the distinct phenomenon of postsecondary transitions, at times this report also draws on the information about proxy graduation contained our <u>previous report</u>.

Data

The TDSB is the largest school board in Canada with approximately 247,000 students in almost 600 schools, including 110 high schools. The board is extremely diverse, with over 120 languages spoken. It also has the strongest research program, including rich longitudinal data sets with extensive demographic information on students, of any school board in Canada.

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 eleven other data sets including:

- The most-recent student census (2017) which surveyed students about their attitudes and backgrounds (including family education, gender, self-identified race, immigrant status and family structure)
- The Learning Opportunities Index (2020), a school-level measure of students' learning context
- Comprehensive administrative data including grades, course choices, credit accumulation and information about key educational processes such as identification for special education and placements
- Applications to college and/or university

Data on students' applications to Ontario universities and/or colleges is obtained by the TDSB from the Ontario Universities' Application Centre (OUAC) and the Ontario College Application Service (OCAS). It is merged with the student mobility data set using Ontario Education Numbers (OENs), unique identifiers assigned to every student in the Ontario elementary and secondary school system. This makes it possible to know whether students applied, were accepted, and confirmed an offer of admission from an Ontario college or university, or if they did not apply to postsecondary education in Ontario.²

This study uses a quantitative approach involving analyses of two TDSB cohorts for which postsecondary application data is available. Cohort studies refer to study designs where inclusion is based upon study members sharing a common characteristic — in this case, being in year 4 of high school in 2018/19 or 2019/20. The data presented here is primarily descriptive, filling an urgent need for data on student outcomes to understand the provincial impact of COVID-19 in the short term, while establishing a foundation to track impacts over the longer-term.

² Unfortunately, this data does not allow us to look at non-college pathways into apprenticeship, which may well have been considerably affected by COVID-19's obvious impact on hands-on-learning opportunities.



¹ The full list of administrative data sets consists of 1) TDSB course information for 2018/19; 2) Course information for 2019/20; 3) Selected data from the 2016/17 student census; 4) OCAS 2019; 5) OUAC 2019; 6) OCAS 2020; 7) OUAC 2020; 8) October 31, 2020 enrolment; 9) High achievement for Grade 9 for 2015/16 (Grade 12 year 4 2018/19); 10) High achievement for 2016/17 (Grade 12 year 4 2019/20); and 11) the 2020 Learning Opportunities Index.

In 2019/20 (referred to here as "COVID-19 school year 1") there were 22,675 students enrolled in Grade 12 in the TDSB. That group was made up of 16,860 students in their fourth year of secondary school. Most started Grade 9 in September 2016, while others arrived in the TDSB after Grade 9. There were an additional 5,815 students who had returned to the TDSB for a fifth, sixth or seventh year of secondary study. In 2018/19 (the baseline year), there were 22,903 students in Grade 12, in very similar proportions. This analysis focuses on the cohort of 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 (baseline year).

We note that many students in the TDSB return for a fifth year (or portion of a year) of high school, and of those students, many eventually go on to university or college. In general, about 20% of Ontario students attend high school after year 4, a phenomenon described as a "victory lap" (Brady & Allingham, 2010). Approximately a fifth of baseline-year 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% (Gallagher-Mackay & Brown, 2021, p. 10). It is too soon to compare the impact of COVID-19-related educational disruptions on postsecondary applications/confirmations for students who take more than four years to complete high school.

Findings

Increase in Year-over-year Postsecondary Applications and Acceptances

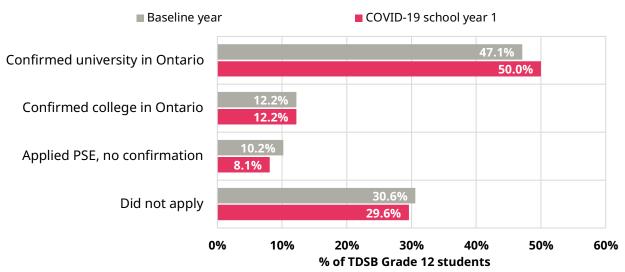
A general overview of postsecondary transitions in Ontario shows that the situation here is quite different from that reported in the United States.

Overall, there was a year-over-year *increase* in the number and percentage of TDSB students confirming acceptance to university in Ontario after COVID-19 school year 1. The percentage of students confirming acceptance to college remained steady. For TDSB year-4 students in the fall immediately after COVID-19 school year 1 postsecondary confirmations were as follows: 8,431 students confirmed university and 2,062 students confirmed college, compared to the fall of our baseline year when 7,908 students confirmed university and 2,039 students confirmed college. This translates to a 3% year-over-year increase in university confirmations.



Figure 1: University and College Confirmations and Applications, Baseline versus COVID School Year 1

University and College Confirmations and Applications, Baseline versus COVID School Year 1



Baseline year = 2018/2019; COVID school year 1 = 2019/2020; n(Baseline year) = 16,781; n(COVID school year 1) = 16,860

The group of students who are categorized as having "applied to PSE, no confirmation" consists of multiple subgroups of students. It includes the roughly 3–4% of students who attend university, or occasionally college, outside of Ontario; students who applied for college or university and did not accept any offer of admission; and students who were not successful in their application to an Ontario college or university.

Provincewide data released by OUAC and OCAS suggests stability in applications (as opposed to confirmations) in the immediate period after COVID-19 first affected in Ontario students.³ By slight contrast, the *growth* in university confirmations in fall 2020, noted in the TDSB data, suggests more students decided to actually attend university (or to stay within Ontario) than might be suggested by applications alone.

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³ See Ontario Universities' Application Centre, 2021 and Colleges Ontario 2020. Please note, the majority of college applicants — almost 75% — do not apply directly from high school.

Trends Vary by Demographic Sub-group⁴

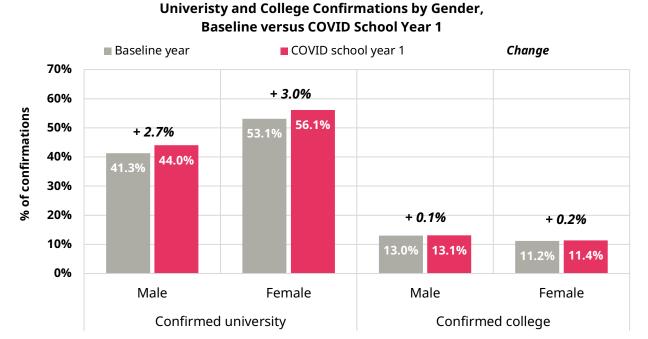
Gender

Over the past thirty years, there has been a well-established pattern of female students pursuing university at a far greater rate than males (college confirmations remains split).⁵ That pattern is reflected in the confirmation numbers of COVID-19 School Year 1 students.

Female students saw slightly *greater* increases in university confirmations than male students during early COVID-19, though both increased between the baseline year and COVID-19 school year 1: by 2.7% for males, 3% for females.

Male students continued to be more likely than females to apply to college directly from high school; there was a slightly greater increase in the rate at which female students confirmed college acceptance (0.2%) than the increase for male students (0.1%).

Figure 2: University and College Confirmations by Gender, Baseline versus COVID School Year 1



 $Baseline\ year=2018/2019;\ COVID\ school\ year\ 1=2019/2020;\ n(Baseline\ year)=16,781;\ n(COVID\ school\ year\ 1)=16,860$



how institutional practices, policies and organizational culture may be adversely affecting particular groups is needed.

⁴ This analysis discusses "gaps" in postsecondary confirmations for different subgroups within the TDSB. From an equity perspective, the language of "gaps" is problematic and can reinforce stereotypes, racial hierarchies or a deficit perspective (Eizadirad, 2020; Kendi, 2016; Quinn, 2020). An undue focus on university may also be seen as "elitist" and devalue learning and experiences associated with traditional practices, college, skilled trades or going straight to work (Smith et al., 2019). At the same time, differences in postsecondary destination have real-world effects on life outcomes. For example, there are considerable earnings differences: in 2016, in Ontario, among adults between 25-64, working full-year full time, average earnings of university graduates were \$70,832. College diploma holders earned \$49,649; apprenticeship certificate holders earned \$37,510 and those whose highest level of education was a high school diploma earned \$44,928 (Statistics Canada, 2017). This report is informed by a focus on systemic discrimination, which the Ontario Human Rights Commission defines as "patterns of behaviour, policies or practices that are part of the social or administrative structures of an organization, and which create or perpetuate a position of relative disadvantage for racialized persons." (Ontario Human Rights Commission, n.d.). Data is a key part of assessing and addressing systemic discrimination. Where data show that gaps appear to be increasing over time, attention to

⁵ An analysis for students identifying as non-binary is not available at this time.

The consistency in patterns of postsecondary confirmations between the two school years is particularly notable because, as we saw in our first report, eligibility to graduate increased for males at almost twice the rate that it did for females between spring 2019 and spring 2020 (by 4.6% versus 2.4%). There was also a greater increase in the grades of male students. Thus, the gap-closing growth in proxy graduation and grades between the baseline year and COVID-19 school year 1 did not translate to closing the gap in university applications and confirmations of acceptance for male students.

Socioeconomic Status

There is a long-standing association between different measures of socioeconomic status (SES) and educational outcomes (see Coleman, 1966; Finnie et al., 2008). Parental education, family income, and parental occupational status interact and contribute to students' SES (see National Centre for Education Statistics (U.S.), 2012). Students whose parents are more educated, higher income and more likely to be in professional or management roles tend to be more likely to access postsecondary — particularly university — which has an impact on both social mobility and intergenerational inequality (see Chatoor et al., 2019; Duncan & Murname, 2011). The TDSB student census asks high school students about parental education and occupation.

Parental Education

COVID-19 school year 1 saw greater increases in proxy graduation rates for students whose parent(s) had not attended university (a 5% increase, to 80.2%) as opposed to those whose parents had attended (3.3%, to 91.1%). The grades of students whose parents did not attend university also increased more than their counterparts whose parents attended university (Gallagher-Mackay & Brown, 2021, p.11).

The gap also closed in terms of first-generation students' intentions to access university during COVID-19 school year 1, relative to the baseline year, but not by as much: a 3.5% increase in confirmations for first-generation students (to 43.8%) compared to a 2.6% increase in the already higher percentage of students (68.5%) whose parents had at least some university. Parental education appears to have a distinct impact on postsecondary transition, above and beyond graduation rate.

There was very little change in students' college confirmations between the baseline year and COVID-19 school year 1. Students whose parents attended university were less likely to confirm college acceptance directly after year 4 of high school than those whose parents did not attend university (8.2% versus 19.5% in fall 2020).

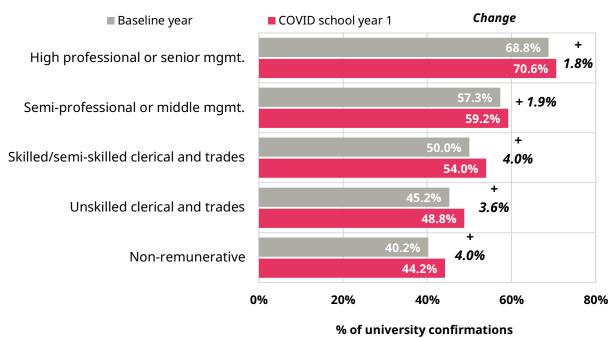
Parental Occupation

Sociology has well-developed approaches to classifying occupational complexity in terms of SES, which are highly correlated with patterns of postsecondary access. Students whose parents are in high professional or senior management roles were most likely (though certainly not guaranteed) to pursue university after year 4 of high school in both the baseline year and COVID-19 school year 1. Across *all* occupational categories, there was an increase in the percentage of students confirming university in Ontario in COVID-19 school year 1. However, there were much greater increases (double or more) for students whose parents worked in traditionally less-skilled fields. Were it to continue, this trend would contribute to closing gaps in postsecondary access.



Figure 3: University Confirmations by Parental Occupation, Baseline Year versus COVID School Year 1

University Confirmations by Parental Occupation, Baseline Year vs. COVID School Year 1



Baseline year = 2018/2019; COVID school year 1 = 2019/2020; n(Baseline year) = 16,781; n(COVID school year 1) = 16,860.

Numbers may vary depending on the response rate for individual questions.

Race

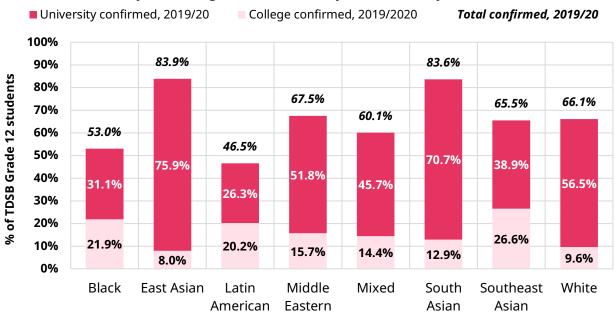
The TDSB was the first board in Canada to monitor differences in students' experiences and outcomes on the basis of race, as recommended by advocacy groups and the Ontario Human Rights Commission (Ontario Human Rights Commission, 2005). This monitoring is now required under the *Anti-Racism Act of Ontario* (S.O. 2017, c.15) and other boards are starting to collect this data, though most have not yet published it. Persistent gaps in outcomes and experiences across racial groups raise concerns that there may be issues of systemic discrimination underlying the differences. Identifying these issues may allow targeting of resources or identification of specific barriers.

There are considerable differences between racial groups in the rate at which graduating students proceed to pursue university. In fall 2020, 75.9% of East Asian 4-year graduates confirmed acceptance at an Ontario university, while only 31.1% of Black students did the same. There is less of a gap when looking at college and university together: 83.9% of East Asian and 53% of Black students confirmed university *or* college in fall 2020. Understanding the barriers behind these transitions — including policy-amenable issues like curriculum that supports access to a full range of postsecondary options — is a critical equity issue that should be monitored in the context of a response to COVID-19.



Figure 4: University and College Confirmations by Racial Identity, COVID Year 1



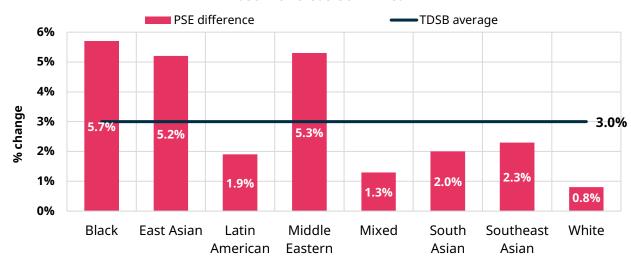


Baseline year = 2018/2019; COVID school year 1 = 2019/2020; n(Baseline year) = 16,781; n(COVID school year 1) = 16,860 Numbers may vary depending on the response rate for individual questions.

Both proxy graduation rates and postsecondary confirmations increased across all racial groups between the baseline year and COVID-19 school year 1, although growth was very uneven across racial groups.

Figure 5: Percentage Change in PSE Confirmation by Racial Identity, Baseline versus COVID Year 1

Percentage Change in PSE Confirmation by Racial Identity, Baseline versus COVID Year 1



Baseline year = 2018/2019; COVID school year 1 = 2019/2020; n(Baseline year) = 16,781; n(COVID school year 1) = 16,860 Numbers may vary depending on the response rate for individual questions.



The greatest increases in university confirmations were among Black students (4.5%) and East Asian students (4.9%). By contrast, the greatest increases in proxy graduation rates were among Southeast Asian (8.3%), Latin American (5.8%) and Middle Eastern students (5.1%). Despite much higher rates of proxy graduation, there were relatively limited changes in the rate at which these students indicated an intention to access university (by applying and confirming acceptance). Strikingly, there was only a 0.3% gain in university confirmations for Latin American students.

The rate at which most groups indicated an intention to access college in COVID-19 school year 1 also increased relative to the baseline year, but by much less — which is unsurprising, given the limited overall change in college confirmations. For White students, the most numerous group in the TDSB, college confirmations actually declined. We note that many students apply for college in year 5 of high school, so it will be important to monitor the pathways of this group of students moving forward.

Overall, gaps in proxy graduation rates were closed more significantly than gaps in postsecondary confirmations during the COVID-19 school year 1, which highlights the importance of a specific focus on the transition from K-12 to postsecondary; Boosting graduation rates may be necessary, but it does not appear to be sufficient to increase postsecondary applications and confirmations of acceptance.

Special Education Needs and Disability

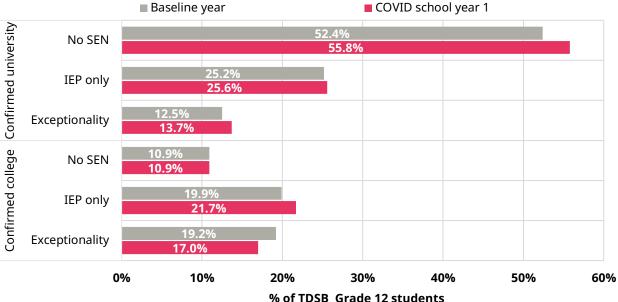
Approximately one-fifth of TDSB students are defined as having special education needs (SEN) and this group saw the smallest increases in postsecondary confirmations during the study period. There is considerable complexity in the special education system, and very significant differences between school boards. In the TDSB, fewer than half of students with SEN have an identified exceptionality through the formal Identification, Placement and Review Committee (IPRC) process. Other students have SEN addressed less formally through accommodations and program modifications set out in an individual education plan (IEP), usually developed by school staff, without necessarily requiring a psycho-educational assessment (Brown et al., 2017). Academic outcomes for the two groups of students (defined exceptionality versus IEP-only) are very different. Students defined as "gifted" also go through the IPRC process, and have a defined exceptionality, but are not included in this analysis.

Between the baseline year and COVID-19 school year 1, year-over-year proxy-graduation rates increased slightly for both students with an IEP only and students without SEN. There were negligible changes in proxy graduation for students with defined exceptionality. Year-over-year postsecondary confirmations increased for students with SEN, although at a much lower rate than those without. Perhaps most notably, students with an IEP only saw a 0.1% increase in university confirmations.



Figure 6: Confirmed University and College by Special Education Status, Baseline versus COVID Year 1

Confirmed University and College by Special Education Status, Baseline versus COVID Year 1



Baseline year = 2018/2019; COVID school year 1 = 2019/2020; n(Baseline year) = 16,781; n(COVID school year 1) = 16,860

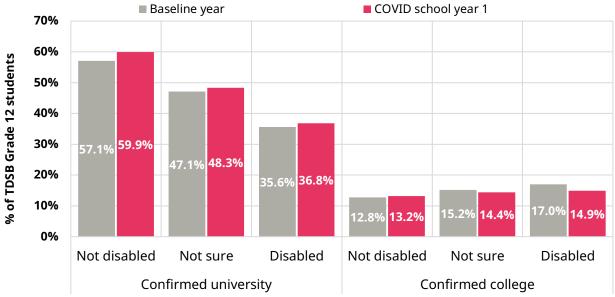
Often, there is a presumed equivalence between students with SEN and those with disabilities; a key insight of critical disability studies is that institutional recognition may be at odds with self-identification (Parekh & Brown, 2020), and indeed, that the consequences and construction of disability are deeply connected to the social environment in which people operate. It is also worth noting, as a matter of design, the special education system in Ontario is both under- and over-inclusive with respect to disability, a protected ground under the *Ontario Human Rights Code*. Gifted students, many without disabilities, receive services within the system; and many students with mental illnesses, a recognized ground for disability, do not readily find support within it.

The TDSB student census asks students if they've been identified by teachers or a doctor as having a disability; less than a third of students with SEN self-identified with a disability (Parekh & Brown, p.358).

Students who identify as disabled (about 9% of grade 12 students) were, again, less likely to apply to postsecondary and confirm acceptance, especially at a university, than students who didn't. Students with disabilities saw smaller gains in university confirmations between the baseline year and COVID-19 school year 1 than those who did not identify as disabled. Worse, there was a *decline* in students with disabilities confirming offers from colleges.

Figure 7: University and College Confirmation, by Self-identified Disability, Baseline versus COVID Year 1

University and College Confirmation, by Self-identified Disability, Baseline versus COVID Year 1



Baseline year = 2018/2019; COVID school year 1 = 2019/2020; n(Baseline year) = 16,781; n(COVID school year 1) = 16,860 Numbers may vary depending on the response rate for individual questions.

These findings suggest that the gap in postsecondary access for students with SEN — particularly, those who have gone through the more formal IPRC process, and those who self-identify as disabled — actually increased during COVID-19 school year 1, unlike most other historically disadvantaged groups.

School-level factors impact postsecondary applications and acceptances

A core insight of ecological theory is that student outcomes are influenced not only by individual efforts, ability and backgrounds but also by school-level factors (see Lerner & Castellino, 2002; Raudenbusch & Willms, 1995). The TDSB has used a multidimensional index to estimate the relative impact of external challenges facing each school, called the Learning Opportunities Index (LOI) since 2009. It is updated periodically and the most recent is based on data from 2020 (Toronto District School Board, 2021). The LOI includes average family income in a school, percentage of families whose income is below the low-income measure, percentage of families receiving social assistance, percentage of adults with low education, percentage of adults with university degrees and percentage of single parent families. Schools which score low on the index face considerable external challenges; schools with a higher score face fewer challenges. It is important to note that in the TDSB, most grade 12 students live outside the neighbourhood of the school they attend, which results in lower overall levels of polarization by income, relative to many large urban boards in the United States.

We wanted to know whether students attending schools that face greater external challenges were more affected by COVID-19-related disruptions. Accordingly, we merged the LOI with our student data set for COVID-19 school year 1 and the baseline year using school attended as of

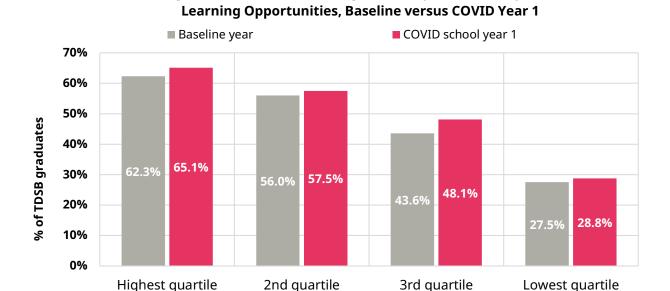
Grade 12, year 4. We then divided the student body into four quartiles, based on the LOI of the school they attended. That is, the first quartile is the group of students who attended the most affluent schools, and the lowest quartile is the group of students attending the least affluent/most challenged schools.

There is a marked contrast between students in the least affluent schools and those in the other quartiles, both in terms of gaps in graduation and confirmation of postsecondary acceptance, and in terms of changes in student outcomes between the baseline year and COVID-19 school year 1. In the lowest quartile (least affluent), 55.6% of students accumulated at least 30 credits, meeting our proxy-graduation requirement. By contrast, 72.4% of those in the third quartile, 77.9% of those in the second quartile, and 83.4% in the highest quartile (the most affluent) were eligible to graduate after four years. Although credit accumulation increased for all students, the increase in the lowest quartile was 2.6%, well below the TDSB average of 3.5%. Thus, the gap in proxy graduation between the least and most affluent schools actually increased between the baseline year and COVID-19 school year 1.

The pattern in terms of postsecondary confirmations is even more marked. In the baseline year, only 27.5% of the students in lowest quartile confirmed an offer of admission to university, compared to 62.3% of highest quartile. In COVID-19 school year 1, the proportion of university-bound students from lowest quartile increased only about 1.3%, from 27.5% to 28.8%, while the proportion in highest quartile increased from 62.3% to 65.1%. As we have consistently observed across the data, the increase in university confirmations was the greatest in the lower-middle (third) quartile an increase of 4.5% to 48.1%. Thus, the 3% average increase in university confirmations was not equitably distributed, in that the students attending the least-affluent schools had the least benefit, and the very considerable gap actually increased.

Figure 8: Percentage of Graduates Confirming University Admission by School-level Learning Opportunities, Baseline versus COVID Year 1

Percentage of Graduates Confirming University Admission by School-level



Baseline year = 2018/2019; COVID school year 1 = 2019/2020; n(Baseline year) = 16,781; n(COVID school year 1) = 16,860

School-level learning opportunities

There are likely complex reasons for this trend, which may include a convergence of all the school factors that are so closely related to SES: early secondary streaming and lower achievement; greater concentration of students with SEN, which is now in itself very strongly related to junior grade streaming; and student mobility (e.g., attending secondary alternative schools or specialized programs, which cumulatively have a tendency to increase polarization in the student body) (Toronto District School Board, 2020b).

Traditional Predictors of Postsecondary Access: Some Changes for Students with Middle Achievement

(least challenge)

Prior to COVID-19, the TDSB's composite Grade 9 achievement indicator had been shown to have strong predictive power for both graduation and postsecondary access and success (Brown, Davies & Chakraborty, 2019). For this indicator, students are grouped into low, medium, high and very high achievement. Students with low achievement are those who did not accumulate eight credits by the end of Grade 9. Students with medium achievement have 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 were able to use this variable to compare both proxy graduation and postsecondary confirmations in 2019 and 2020 by using Grade 9 data from 2015/16 for the baseline year, and from 2016/17 for COVID-19 school year 1. For both cohorts, Grade 9 achievement data was available for 85% of students, as the rest entered TDSB after Grade 9.

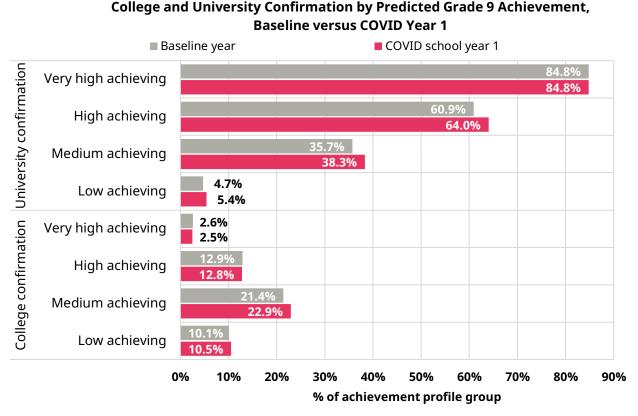


(most challenge)

In report 1, we looked at proxy graduation and found a considerable increase for medium achieving students in COVID-19 school year 1, relative to the baseline year (6.9% greater). Students with high achievement also showed a 2.9% increase. There was relatively little difference between the two cohorts for students with very high or low achievement.

The considerable differences observed in four-year graduation were broadly similar, but weaker, for postsecondary confirmations. High- and medium-achieving students were somewhat more likely (3.1% and 2.6%, respectively) to confirm university in fall 2020 than the group with a similar achievement profile in 2019. Medium-achieving students were also more likely to confirm college in 2020 than in 2019.

Figure 9: College and University Confirmation by Predicted Grade 9 Achievement, Baseline versus COVID Year 1



Baseline year = 2018/2019; COVID school year 1 = 2019/2020; n(Baseline year) = 16,781; n(COVID school year 1) = 16,860

Discussion

Looking at the cohort as a whole, six months into the COVID-19 pandemic in 2019/20 there was actually an increase in the percentage of TDSB graduates who confirmed university acceptance, and the rates at which students confirmed college acceptance were consistent with the previous year.

The findings in this paper underscore the importance of having Canadian data to understand the distinct impacts of COVID-19 on both a national and provincial level. The stark differences between U.S. and Canadian trends in this report — reflecting differences in society, culture and policies that shape students' postsecondary pathways — underscore that is not safe to



extrapolate directly from outcomes in the U.S., while also making the dramatic shortage of Canadian educational data (addressing both students' experiences *and* outcomes) a pressing policy concern in its own right. The findings in this report are based on only one of Ontario's 72 school boards. Though TDSB is an extremely diverse board that represents more than 12% of Ontario students, the need for broader, longitudinal, comparable data at the jurisdictional level is acute, especially in the context of such a major shock to the system.

A central context for this report on the immediate impact of COVID-19-related educational disruption is the pattern of considerable gaps in postsecondary access which existed long before COVID-19. Given that university confirmations increased, and college confirmations held steady, we sought to understand the impacts of an overall increase in postsecondary applications and confirmations of acceptance for subgroups which have historically experienced lower levels of access. We note there are barriers to access that persist between the confirmation and enrolment phases which are beyond the scope of this report but require examination as well.

We found that most subgroups benefitted at least somewhat, in terms of postsecondary confirmations, from the increases in proxy graduation during COVID-19 school year 1. Some traditionally disadvantaged groups — graduates whose parents have not gone to university, whose parents' occupational status is lower, and Black students — had an increase in confirmations during COVID-19 school year 1 that exceeded board-wide averages. That said, other important groups of students — students with SEN, students who identify as disabled, Latin American students and Southeast Asian students — saw increases in postsecondary confirmations that were far below board-wide averages. For those groups, gaps in access actually increased during the initial COVID-19 period. Similarly, when examined at the school level as opposed to the student level, gaps also increased between schools facing high socioeconomic challenges and those facing low socioeconomic challenges.

This research affirms a need to monitor the ways different subgroups are experiencing COVID-19. Broadly, we know that COVID-19 has tended to have particularly powerful impacts on racialized communities, and people living with lower incomes and disability (Statistics Canada, 2021).

Inequalities in postsecondary confirmations, especially university, are at this point, more pronounced than inequality in proxy graduation rates. This report highlights the relative disconnect between changes to graduation rates and postsecondary confirmations; many groups which saw very striking increases in proxy graduation rates (Southeast Asian students, and medium-achieving students) did not see a corresponding increase in university or college confirmations. The disconnect works both ways: students defined as having SEN — particularly, those with identified exceptionalities — saw an increase in postsecondary confirmations greater than the increase in proxy graduation rates. To date, the explicit goals of the K-12 system in Ontario have focused primarily on graduation. Unfortunately, while graduation is a key step on the way to postsecondary access, this COVID-focused report underscores the general point that gains in graduation do not automatically translate into comparable levels of postsecondary access. Many groups of historically disadvantaged students continue to get lost in this key transition.

An intentional focus on postsecondary preparedness in K-12, and closer working relationships between K-12 and postsecondary, will be required to ensure graduation does not continue to be



a falling-off point for many young adults from traditionally disadvantaged groups. There is a broad literature that looks at factors affecting postsecondary pathways, and which highlights issues such as family and cultural norms and expectations; student finances (both the cost of postsecondary and the availability of resources to pay for it); students' academic preparation; and friction in the application process (see Finnie et al., 2008; Roderick et al., 2008). It is likely that policy solutions to address this drop-off will require engagement from both K-12 and postsecondary institutions and programs.

Traditional predictors of postsecondary access — particularly, Grade 9 achievement — appear to have been less dramatically affected by the education disruptions associated with COVID-19 than proxy graduation rates. Our previous report (Gallagher-Mackay & Brown, 2021) described K-12 policy conditions specific to spring of 2020, which included a freeze on grades and modified approaches to assessment. These conditions were less salient when it came to students' postsecondary decisions; longer-term achievement patterns shaping students' academic preparedness and their perception of options may have shaped decision-making, even where graduation increased for students whose high school achievement was not as consistent and strong.

This report represents a measure of educational good news in the pandemic: unexpected large-scale empirical evidence that COVID-19's immediate impact on postsecondary access was an increase in the number of students indicating an intention to attend university, and maintenance of the percentage of students doing the same for college. The overall increase in proxy graduation particularly benefitted some important demographic groups who have historically been underrepresented in postsecondary, closing important gaps. This data speaks to both students' resilience, and to a set of institutional supports and overall societal expectations that were able to maintain access to this important pathway in the face of a considerable shock to the education system.

However, any good news must be balanced by caution. It is important to note that the changes in this report relate only to the very earliest period of COVID-19 in Ontario — March to September of 2020 — and indeed, students attending university in fall 2020 may well have submitted applications before COVID-related school closures. By June 2020, 45% of secondary students surveyed by the TDSB expressed concern that they might be behind in their work, and 87% of teachers reported concern that students would have fallen behind in their learning (Toronto District School Board, 2020a). We do not know how the students who progressed into university and college fared there thus far, nor whether their progress was affected by lost learning opportunities during the pandemic. It is reasonable to expect that the disruptions to education — particularly, learning impacts relative to earlier cohorts, loss of a sense of school connection, and mental health impacts associated with extremely long school closure periods in Ontario during COVID-19 — will have ongoing and cumulative effects. Information about short term impacts — even if they are hopeful — is only a first step in understanding how the pandemic will affect these students over time.



References

- Brady, P., & Allingham, P. (2010). Pathways to university: The "victory lap" phenomenon in Ontario. *Canadian Journal of Educational Administration and Policy*, *113*, 1–25.
- Brown, R.S., Davies, S., & Chakraborty, N. (2019). *The University of Toronto-Toronto District School Board cohort study: An introduction.* Toronto: University of Toronto/Toronto District School Board. https://www.oise.utoronto.ca/depelab/working-papers/
- Brown, R. S., Tam, G., & Safari, A. (2017). *Grade 9 cohort special education, 2008-16, Fact sheet 4.* Toronto: Toronto District School Board.
- Canadian Occupational Projection System. (2019). *Inbalances between labour demand and supply (2019-2028)*. Ottawa: Government of Canada. http://occupations.esdc.gc.ca/sppc-cops/l.3bd.2t.1ilshtml@-eng.jsp?lid=29&fid=1&lang=en
- Chatoor, K., MacKay, E., & Hudak, L. (2019). *Parental education and postsecondary attainment:*Does the apple fall far from the tree? Toronto: Higher Education Quality Council of Ontario.
- Coleman, J. S. (1968). Equality of educational opportunity. *Integrated Education*, 6(5), 19–28.
- Colleges Ontario. (2020). Student and Graduate Profiles. *Environmental Scan*. Colleges Ontario. https://cdn.agilitycms.com/colleges-ontario/documents-library/document-files/2020%20ES%20-%20Student%20and%20Graduate%20Profiles 20200720205312 0.pdf
- Duncan, G. J., & Murname, R. (2011). Whither opportunity? Rising inequality, schools and children's life chances. Russell Sage Foundation.
- Eizadirad, A. (2020). Settling the score: Redefining accountability and closing the opportunity gap. *Our Schools/Our Selves*, *Summer/Fall*, 26–29.
- Finnie, R., Sweetman, A., & Usher, A. (2008). Who stays, who goes, what matters: Accessing and persisting in post-secondary education in Canada. Montreal: McGill-Queens University Press.
- Gallagher-Mackay, K., & Brown, R. S. (2021). The impact of school closures and emergency remote learning on grade 12 students in spring 2020: Preliminary findings from Toronto. Toronto: Higher Education Quality Council of Ontario.
- Gallagher-Mackay, K., Srivastava, P., Underwood, K., Dhuey, E., McCready, L., Born, K. B., Maltsev, A., Perkhun, A., Steiner, R., Barrett, K., & Sander, B. (2021). COVID-19 and education disruption in Ontario: Emerging evidence on impacts. Science Briefs of the Ontario COVID-19 Science Advisory Table. 20201;2(34). https://doi.org/10.47326/ocsat.2021.02.34.1.0
- Kendi, I. X. (2016, October 20). Why the academic achievement gap is a racist idea. *Black Perspectives*. African American Intellectual History Society. https://www.aaihs.org/whythe-academic-achievement-gap-is-a-racist-idea/



- Lerner, R. M., & Castellino, D. R. (2002). Contemporary developmental theory and adolescence: Developmental systems and applied developmental science. *Journal of Adolescent Health*, 31(6), 122–135. https://doi.org/10.1016/S1054-139X(02)00495-0
- National Centre for Education Statistics (U.S.). (2012). Improving the measurement of socioeconomic status for the National Assessment of Educational Progress: A theoretical foundation. NCES.
- National Student Clearinghouse Research Center. (2021a). High school benchmarks: Fall 2020 college enrollment update for the high school graduating class of 2020: COVID-19 Special Analysis. National Student Clearinghouse. https://nscresearchcenter.org/wp-content/uploads/2021_HSBenchmarksCovidReport.pdf
- National Student Clearinghouse Research Center. (2021b). *Persistence and retention: Fall 2019 beginning cohort.* National Student Clearinghouse. https://nscresearchcenter.org/wp-content/uploads/PersistenceRetention2021.pdf
- OECD. (2013). Education at a Glance 2013: OECD Indicators. OECD. https://doi.org/10.1787/eag-2013-en
- Ontario Human Rights Commission. (2005). *Policy and guidelines on racism and racial discrimination*. OHRC. http://www.ohrc.on.ca/sites/default/files/attachments/Policy_and_guidelines_on_racism_and_racial_discrimination.pdf
- Ontario Universities' Application Centre. (2021). *Undergraduate application statistics*. OUAC. https://www.ouac.on.ca/statistics/ugrad-application-statistics/uapp-march/
- Parekh, G., & Brown, R. S. (2020). Naming and claiming: The Tension between institutional and self-identification of disability. *Canadian Journal of Disability Studies*, *9*(5), 347–379. https://doi.org/10.15353/cjds.v9i5.701
- Public Health Agency of Canada, Boyd, R., & Marshall, H. (2008). *The Chief Public Health Officer's report on the state of public health in Canada, 2008*. Chief Public Health Officer. https://www.deslibris.ca/ID/214634
- Quinn, D. M. (2020). Experimental effects of "achievement gap" news reporting on viewers' racial stereotypes, inequality explanations, and inequality prioritization. *Educational Researcher*, 49(7), 482–492. https://edworkingpapers.com/sites/default/files/ai20-237.pdf
- Raudenbusch, S. W., & Willms, J. D. (1995). The estimation of school effects. *Journal of Educational and Behavioural Statistics*, *20*(4), 307–335.
- Roderick, M., Nagaoka, J., Coca, V. M., Moeller, E., Roddie, K., Gilliam, J., & Patton, D. (2008). From high school to the future: Potholes on the road to college. Chicago Consortium on School Reform. https://consortium.uchicago.edu/publications/high-school-future-potholes-road-college
- Smith, L., Tuck, E., & Yang, K. W. (2019). *Indigenous and decolonizing studies in education:*Mapping the long view. Routledge.



- Statistics Canada. (2017). Does education pay? A comparison of earnings by level of education in Canada and its provinces and territories (Census in Brief). Government of Canada. https://www12.statcan.gc.ca/census-recensement/2016/as-sa/98-200-x/2016024/98-200-x2016024-eng.cfm
- Statistics Canada. (2021, March 15). *School closures and COVID-19: Interactive Tool.* https://www150.statcan.gc.ca/n1/pub/71-607-x/71-607-x2021009-eng.htm
- Toronto District School Board. (2020a). Return to School Surveys: Parents, Students and Staff (p. 14). TDSB.

 https://www.tdsb.on.ca/Portals/research/docs/School%20During%20the%20Pandemic/TDSBReturntoSchoolSurveyJul2020.pdf
- Toronto District School Board. (2020b). Secondary Program Review Interim Report (p. 31). TDSB. https://www.tdsb.on.ca/Leadership/Boardroom/Agenda-Minutes/Type/A?Folder=Agenda%2f20200520&Filename=6.1+(appendices).pdf
- Toronto District School Board. (2021). *The 2020 Learning Opportunities Index (LOI): Questions and Answers* (p. 21). TDSB. https://www.tdsb.on.ca/Portals/research/docs/reports/LOI2020.pdf
- Turcotte, M. (2015). *Political participation and civic engagement of youth* (No. 75-006–X; Insights on Canadian Society). Statistics Canada. https://www150.statcan.gc.ca/n1/pub/75-006-x/2015001/article/14232-eng.pdf
- UNESCO. (2020). UN Secretary-General warns of education catastrophe, pointing to UNESCO estimate of 24 million learners at risk of dropping out.

 https://en.unesco.org/news/secretary-general-warns-education-catastrophe-pointing-unesco-estimate-24-million-learners-risk

