APPENDIX: COVID-19 and Education Disruption in Ontario: Emerging Evidence on Impacts

Appendix A: Partial Reopenings of School Boards Spanning Multiple Regions

	25 January 2021 Reopening	1 Feb 2021 Reopening
Boards with All Schools Reopened	▪ Limestone District School Board ▪ Renfrew County District School Board ▪ Hastings and Prince Edward District School Board ▪ Bruce-Grey Catholic District School Board ▪ Renfrew County Catholic District School Board ▪ Algonquin and Lakeshore Catholic District School Board ▪ Bluewater District School Board	▪ Catholic District School Board of Eastern Ontario ▪ Conseil des écoles publiques de l'Est de l'Ontario ▪ Conseil scolaire de district catholique de l'Est ontarien ▪ Conseil scolaire de district catholique du Centre-Est de l'Ontario ▪ London District Catholic School Board ▪ Ottawa Catholic District School Board ▪ Ottawa-Carleton District School Board ▪ Thames Valley District School Board ▪ Upper Canada District School Board
Boards with Partially Reopened Schools	▪ Kawartha Pine Ridge District School Board ▪ Trillium Lakelands District School Board ▪ Upper Canada District School Board ▪ Catholic District School Board of Eastern Ontario ▪ Peterborough Victoria Northumberland and Clarington Catholic District School Board ▪ Conseil des écoles publiques de l`Est de l`Ontario ▪ Conseil scolaire catholique Providence ▪ Conseil scolaire catholique Mon Avenir ▪ Conseil scolaire de district catholique du Centre-Est de l'Ontario	▪ Conseil scolaire catholique Providence ▪ Conseil scolaire Viamonde

There was a phased and partial reopening of schools between 8 and 21 September 2021. There are no provincial documents detailing the strategy, dates, or specific boards and schools affected. Hence, we are unable to display them here. This table only shows reopening for affected boards for the 25 January 2021 and 1 February 2021 reopening because the concerned PHUs had boards spanning multiple regions.

Appendix B: Overview of International Large-Scale Assessments of Learning During COVID-19, from June 2020 to March 2021

Location, Timing of Assessment & Authors	Subjects Assessed	Age & Number of Participating Students	Impact on Learning	Equity Findings
Belgium, June 2020 Maldonado, J.E. & DeWitte, K. (2020)[1]	Dutch and Math, Standardized tests	Grade 6 402 Catholic schools in Flemish Belgium	Lost 0.19 SD in math & 0.29 SD in Dutch, compared to cohort one year earlier	Within school and between school differences based on maternal education, neighbourhood income, financial support to families, and home language
Netherlands, February and June Engzell, P., Frey, A., & Verhagen, M. D. (2020)[2]	Math and Literacy, Standardized tests	Primary school (ages 8-11) 350,000 students	One-fifth (two months) of a year's learning, equivalent to full time out of school	Losses 60% greater in students whose parents had low education, despite good broadband/device distribution
England (NFER) September/October Rose, S., Twist, L., Lord, P., Rutt, S., Badr, K., Hope, C., & Styles, B. (2021)[3]	Reading and maths, Standardized tests	Primary (6 & 7 year-olds) 6000 students	Two months learning in autumn 2020 relative to matched cohort 2017	Gap between students eligible for Free School Meals (FSM) and those who are not, widened to 7 months vs. 6 months in 2019
England (GL Assessment) Brzyska, B., Fernandes, C., & Gallacher, T., (2020) September/October	Math, Science, English, General Reading Classroom assessments	Primary and Secondary Cohorts between 312,00-56,000 students	Significant drops in age-standardized scores – especially in math (6.6/100) and science (5.5/100)	Larger gaps in primary than secondary; Differences between high and low poverty schools in science and math but not English and Reading
England (Renaissance) Renaissance Learning & Educational Policy Institute (2021) September/October *Similar results in a parallel study in the United States[4]	Reading and Math Diagnostic/ Placement Assessments	Primary and Secondary >1 million students	Between 1.6 and 2 months in reading, And up to 3 months in math	Marginally smaller losses in secondary; Greater losses in schools with high proportion of FSM: 2.2 months vs. 1.5 months in low proportion

USA (NWEA) September/October Kuhfeld, M., Tarasawa, B., Johnson, A., Ruzek, E., & Lewis, K. (2020)[5]	Reading and math, standardized tests	Grades 3-8 4.4 million	Reading comparable to previous years; Math decline of 5-10% relative to previous years. Growth lower than expected; 2x the number of students losing ground.	Missing students disproportionately from Black and Hispanic student groups. Weak evidence of lower reading scores in those groups.
USA (Curriculum Associates) Curriculum Associates, (2020). Fall, 2020[6,7]	Reading and math, classroom assessments	Grades 1-8 149,000 math, 109,000 reading In person only	Students 1% more likely to place below grade level in reading 2020 than historical record; 6% more likely to be behind in math	Students in grades 1-3 further behind than students in grades 4-8 In math, 44% of grade 3 students in schools with more than 50% BIPOC students 2 years behind grade level vs. 29% of schools with less than 25% BIPOC students. 39% of grade 3 students 2 years behind in math in low-income schools vs. 25% in higher-income schools.
USA (Ohio State Exams) Fall, 2020 Kogan, V., & Lavertu, S (2021)[8]	Reading State Standardized Exams	Grade 3 Census	Overall decline of 0.23 SD, roughly equivalent to one-third of a year.	Decline greater in schools that were fully online vs. hybrid or in-person. Greatest declines in counties where unemployment is highest. Decline for Black students almost half a year.
USA DIBELS/Amplify Fall, 2020 mClass/ Amplify. (2021)[9]	Reading diagnostic – or video interaction	K-3 400,000 students	Percentage of children 'well-below grade level' increased across all grades – biggest change in grade 1, 27% in 2019, 40% in 2020	No info.
California - PACE Fall, 2020 Pier, L., Hough, H. J., Christian, M., Bookman, N., Wilkenfeld, B., & Miller, R. (2021)[10]	English Language Arts and Math, Classroom assessments	Grades 4-8 50,000 students	Lower growth compared to previous years – roughly 10%.	Largest gaps in younger children. English Language Learners lost roughly 30%, at all ages in both subjects
England – Juniper Summer and Fall 2020 Juniper (2021)[11]	Reading, writing and math – classroom assessments	Levels 1-6 Cohorts ranging in size between 862,436 (fall 2019 math) and 143, 158 (summer 2020 math)	In summer 2020, across the board drop of 20% of students working at or above age-adjusted levels. Substantial gains after in-school instruction resumed in fall 2020.	Worse outcomes for youngest students. Students receiving Pupil Premium (ever qualified for Free school meals, Looked After children) & students accessing Special Education services scored lower than average; gaps in attainment grew; less gain back in fall.

England (RS Assessment) Blainey, K., & Hannay, T. (2021) Nov/Dec, 2020 [12,13]	Reading; Math; Grammar, Punctuation & Spelling (GPS) – Classroom assessments	Primary 250,000 students	2 months learning in GPS; 1 month in reading & math relative to similar 2019 cohort Gains relative to September: catch-up during in-person learning over fall	Younger children, those eligible for public support, and those attending schools in 'deprived areas' further behind.
USA – Policy Analysis for California Education December, 2020 Domingue, B. W., Hough, H. J., Lang, D., & Yeatman, J. D. (2021)[14]	Oral Reading fluency – recorded in person or video	K-3 250,000 tests (multiple sessions)	Slower growth than would be expected; by grade 2-3, 30% behind expectations. Some evidence of catch-up relative to early fall.	Schools with previously lower achievement have disproportionately lower growth and more missing students.

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