School Enrollment Changes in North Carolina During the COVID-19 Pandemic

In this research brief, we examine changes in fall 2019 to fall 2020 enrollment in North Carolina schools. Our analyses consider changes in enrollment by school sector, the distribution of enrollment changes, and how enrollment is related to characteristics of districts, schools, and students. From our analyses there are five key takeaways: (1) Traditional public schools saw sizable enrollment declines in fall 2020, while charter and home schools experienced increased growth; (2) Enrollment losses were largest in kindergarten with smaller declines in other elementary and middle school grades; (3) Enrollment decreases were spread broadly across the state, but some districts and schools experienced particularly large declines and may be more at risk for funding and operational concerns; (4) Enrollment declines were larger among urban and less economically distressed districts and among schools with higher state report card grades and lower concentrations of economically disadvantaged and students of color; and (5) Different student subgroups show different patterns of transitions, with white students and non-economically disadvantaged students more likely to exit public schools, while Hispanic students had fewer entries into public schools and Black and economically disadvantaged students had more transitions to virtual schools. These findings should inform policymakers and educators as they address educational concerns created by the pandemic. In particular, policymakers should be aware of funding and operational challenges among schools with reduced enrollment and the potential for increased segregation and concentrations of poverty.

Introduction

As the 2020–21 school year approached, North Carolina families faced tough choices about the schooling of their children. COVID-19 had closed schools for the final months of the 2019–20 school year and districts were making decisions about whether to open under a hybrid model or with fully remote instruction. Shifts to remote instruction in the spring had caused many problems for families, including a lack of technology and internet access, worrying about their children’s academic development, and struggling to balance school, work, and childcare responsibilities. Against these struggles, families needed to weigh the health risks of their children returning to in-person schooling. In this uncertainty, families had to make choices about whether their children would return to the school they previously attended, switch to a different school (e.g. a virtual school, a charter, or a private school), or begin home schooling.

Individually, these schooling decisions are critically important to students’ academic learning, social-emotional development, and receipt of social supports. Collectively, these enrollment decisions have broad implications for educational outcomes. School enrollment is the largest determinant of school funding, and although North Carolina did not penalize schools for enrollment drops in 2020–21, losses of students may result in future funding challenges for schools. Likewise, shifts away from traditional public schools may have longer-term impacts on the growth of charter, private, and home schools in the state. Changes in enrollments for particular groups of students may also cause imbalances in certain grade levels (i.e. a small kindergarten class
followed by a very large class), affect racial and socioeconomic segregation, slow educational progress (e.g. if students are unable to access needed services), and lead some students to become disconnected from school.

Motivated by the critical need to understand the impacts of COVID-19 on schools and students, we use administrative data from the North Carolina Department of Public Instruction (NCDPI) to assess enrollment changes in K–12 public schools. In particular, we address the following questions: (1) What are the changes in enrollment by education sector? (2) How are enrollment changes distributed across districts, schools, and grade levels? (3) How are enrollment changes related to characteristics of districts and schools? and (4) What are the characteristics of students no longer enrolled or newly enrolled in public schools or who transitioned to virtual schools? With these analyses, we provide a rigorous and nuanced perspective on K–12 enrollment changes to inform conversations around school funding, student achievement, and equity.

Background

In this research brief, we focus on fall 2020 enrollment in North Carolina schools and how that differs from expected enrollment. Specifically, we calculate enrollment changes in two ways. First, using data from fall 2019 and fall 2020, we calculate enrollment changes as the percentage difference in enrollment between the two years. This approach is straightforward and easy to understand but does not account for trends in enrollment. For example, certain districts may have been experiencing steady enrollment increases in recent years. Failing to adjust for such trends could result in an inaccurate depiction of true enrollment changes. Therefore, as a second approach, we use five years of pre-pandemic data to identify enrollment trends by district, school, and grade level. We adjust for these trends by calculating the percentage change in enrollment from fall 2019 to fall 2020 for each district, school, and grade level. From that basic calculation, we subtract the average percent change in fall-to-fall enrollment across the previous five years. With this approach, we identify differences between fall 2020 enrollment and expected enrollment had trends continued.

These calculations let us examine enrollment by sector (e.g. traditional, charter) and how enrollment changes are distributed across districts, schools, and grade levels. Furthermore, with these calculations, we assess the characteristics of districts and schools experiencing enrollment changes. In these analyses, we focus on rurality (urban versus rural), district opening status (hybrid versus fully remote), the economic health of the county, and measures of school performance and demographics. Finally, we use student demographic and program participation data to detail the characteristics of students who (1) were enrolled in North Carolina public schools in 2019–20 but are no longer enrolled in 2020–21; (2) are new to North Carolina public schools in 2020–21; and (3) transitioned to district-operated virtual schools in 2020–21.

What are the Changes in Enrollment by Education Sector?

Fall enrollment in traditional public schools was relatively flat across the 2016–17 through 2019–20 school years. However, in fall 2020, enrollment in traditional public schools fell by nearly 2.5 percent — from 1.43 million students in fall 2019 to 1.39 million students in fall 2020. By comparison, total enrollment in charter schools has been on the rise. Over the last five years, fall enrollment in charter schools has increased by approximately 7–13 percent, annually. In fall 2020, charter school enrollment increased 9 percent — from approximately 108,000 students in fall 2019 to 118,000 students in fall 2020. This growth may be

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1 Fall 2020 enrollment data, provided by NCDPI, was pulled from the Powerschool data portal at the end of September 2020. This data differs from enrollment data for the other school years we analyze, which is provided at the end of the school year and may include information on demographics and identification for special programs from later in the school year. We acknowledge that students enrolling in North Carolina public schools after the beginning of the school year may not be included in our fall 2020 data.

2 Enrollment data for the 2015–16 to 2019–20 school years is provided at the end of the school year by NCDPI and includes indicators for whether each student was enrolled in a particular school at six different points in the school year. We limit our data to students who are marked as in membership for “first day fall” in order to create the greatest comparability to data from fall 2020.

3 Please see nccommerce.com/grants-incentives/county-distress-rankings-tiers for the 100 county economic health ratings.

4 This excludes students in the 12th or 13th grades in 2019–20.


6 These data are simple percent changes in fall-to-fall enrollment and do not adjust for enrollment trends.
The University of North Carolina at Chapel Hill

Figure 1: Enrollment Changes Over Time for Traditional Public Schools, Charter Schools, and Home School

<table>
<thead>
<tr>
<th>Year</th>
<th>Traditional Public School</th>
<th>All Public School</th>
<th>All Charter</th>
<th>Existing Charter School and Grades</th>
<th>Home School (estimated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016–2017</td>
<td>15%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017–2018</td>
<td>10%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018–2019</td>
<td>5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019–2020</td>
<td>0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020–2021</td>
<td>-5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: This figure displays percent enrollment changes over time for all North Carolina public schools, traditional public schools only, all charter schools, existing charter schools and grades, and home schools (estimated).

attributable to existing charter schools enrolling more students (in existing grades or new grade levels) and/or new charter schools opening. Therefore, we also display percent enrollment changes for existing charter schools and grade levels — i.e. the change from the previous year within schools and grades within schools that were operating in both years. For existing charter schools and grades, enrollment changes were relatively constant (between 2.5 and 3.3 percent) for the previous school years but increased to 4.8 percent for 2020–21. These data reveal that increases in charter school enrollment are due to both increased enrollment in existing charter schools/grades and the opening of new charter schools.

While the final numbers are not yet available, preliminary data from the North Carolina Department of Administration indicates that the rate of home schooling is also on the rise.7 Between July 1, 2019 and November 1, 2019, the Department of Administration received 6,220 notices of intent to operate a home school. By comparison, during the same period in 2020, they received 16,790 notices of intent.8 Using these data, coupled with the number of home schools and the estimated number of home school students for the 2015–16 to 2019–20 school years, we estimate the number of home school students in the 2020–21 school year.9 This estimate suggests that home school enrollment increased over 12 percent in the 2020–21 school year compared to increases between 5 and 8 percent for prior school years. This represents an increase of approximately 19,000 students in home school in fall 2020 compared to increases of approximately 8,000 students in prior school years. Overall, the enrollment values in Figure 1, suggest that some families are pulling their children out of traditional public schools for other schooling options. This may have longer-term implications for enrollment in these sectors and further segregation in schools.

How are Enrollment Changes Distributed Across Districts, Schools, and Grade Levels?

In this section, we consider the distribution of enrollment changes across districts, schools, and grade levels in North Carolina. With these analyses we assess whether certain districts/regions were particularly impacted by enrollment declines, provide further details on the magnitude of enrollment changes for districts and schools, and examine how enrollment changes varied by grade level.

Figure 2 presents adjusted changes in district-level enrollments in fall 2020.10 These data are from traditional public schools only (excluding charters). Overall, this analysis shows that enrollment losses were widespread across the state and not concentrated in a few districts. We find that most districts experienced adjusted enrollment declines between 0–5 percent, with many districts in the Triangle, Triad, and Charlotte regions experiencing 2.5–5 percent enrollment drops. A small number of districts, in the northeast and far western parts of the state, experienced adjusted enrollment declines greater than 5 percent. Lastly, Figure 2 shows departures from existing trends.

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7 The North Carolina Department of Administration also tracks the number of students attending private schools. These data are not yet available for the 2020–21 school year.
8 Data provided by the Department of Administration in response to a public records request.
9 The North Carolina Department of Administration tracks the number of home schools and estimates the number of home school students in each year, but data for 2020–21 are not yet available. In order to estimate the number of home school students for the 2020–21 school year, we assume that the number of new home school students increased proportionally to the number of notices of intent to operate a home school for the 2019–20 and 2020–21 school years.
10 As districts in different areas of the state are experiencing different rates of ongoing enrollment growth or loss, adjusted changes in enrollment more accurately capture departures from existing trends.
that 21 districts experienced adjusted enrollment gains for fall 2020 — mostly between 0–2.5 percent. Many of the districts experiencing adjusted enrollment gains are small and located in rural areas.\(^\text{11}\)

Figures 1 and 2 focus on average enrollment changes and do not consider the variance of such changes across districts and schools. As such, Figure 3 presents the distribution of enrollment changes by showing the mean, median, 25th and 75th percentile, and the range (excluding outliers).\(^\text{12}\) These distribution data come from both basic and adjusted enrollment calculations. At the district level, we find less variance in fall 2020 enrollment changes. For example, in our adjusted enrollment calculation the median enrollment change is -1.6 percent and the range into which nearly all districts fall is -6.4 to 3.5 percent. Given that schools are much smaller than districts, there is more variation in fall 2020 enrollment changes at the school level.\(^\text{13}\) In particular, adjusted enrollment changes for traditional public schools are -4.3 percent at the median, with a range of -25.7 percent to 16.5 percent. Lastly, at the far right of Figure 3, we display the variance in fall

\(^{11}\) Many of the districts experiencing adjusted enrollment gains have experienced downward trends in enrollment for the previous years, so the change in enrollment in fall 2020 may not represent a gain in actual raw numbers of students.

\(^{12}\) Outliers are excluded from the range using the standard definition of a data point as an outlier if it is more than 1.5 times the interquartile range from the boundary of the interquartile range (i.e. the 25th or 75th percentile). At the district level there are 5 and 3 outliers, among traditional public schools there are 122 and 164, and among charter schools there are 27 and 24. This means that for charters fewer than 15% of schools are outside the range shown and for traditional public schools and districts fewer than 10% are outside the range shown.

\(^{13}\) Some schools may experience enrollment losses due to the opening of new schools in their district or nearby charter schools. The new schools report for the 2020-21 school year on the NC Educational Directory and Demographical Information Exchange (EDDIE) shows the opening of 8 charter schools, 11 traditional public schools, and 11 virtual schools within LEAs.
2020 enrollment changes for existing charter schools and grade levels. Without adjustments for enrollment trends, the median enrollment change is 2.6 percent, with a range from -12.8 to 22.4 percent. After adjusting for enrollment trends over time, the median enrollment change for existing charter schools/grades is -0.3 percent, with a range of -18.7 to 16.3 percent. These analyses show that even where overall enrollment losses were smaller (e.g. charter schools, districts overall) some schools and districts saw large enrollment losses that, if sustained, may cause future funding and operational concerns.

Figure 4 presents changes in fall 2020 enrollment — pooling data for traditional and charter schools — by grade levels. Whether calculating simple percent changes or percent changes adjusted for recent enrollment trends, we find sharp declines of approximately 9.5 percent in kindergarten enrollment. This translates to approximately 11,000 fewer students enrolled in kindergarten in fall 2020. To the extent that these families delayed kindergarten entry, rather than completing kindergarten in private or home school settings, this indicates that the 2021–22 kindergarten cohort may be especially large. Schools may need to prepare for increased staffing and other needs at the kindergarten level for the 2021–22 school year. Other grade levels show more modest enrollment changes. Enrollment in grades 1–5 is down approximately three percent, while adjusted enrollment in grades 6–8 is down two percent.

Conversely, enrollment in high school grades (9–12) is up nearly two percent. Compared to earlier grade levels, high schoolers may be more affected by the secondary effects of the COVID-19 pandemic on grading and graduation requirements. Perhaps as a result, there is considerable variation in the changes in enrollment across high school grades. Taking into account differences in cohort sizes, 9th grade had very little change in enrollment, while 10th and 11th grades saw an increase in enrollment between 2 and 4 percent. Finally, enrollment in 12th grade fell in the fall of 2020. More evidence is needed to more fully understand the effect of the COVID-19 pandemic and various accommodations made in spring 2020 on the grade progression and enrollment of high schoolers.

### How are Enrollment Changes Related to Characteristics of Districts and Schools?

To deepen our understanding of enrollment changes, we assess whether certain types of districts and schools experience larger enrollment declines. At the district level, Figure 5 displays adjusted changes in fall 2020 enrollment by rurality, economic designation (i.e. Tier 1, 2, and 3 counties), and whether the district opened the 2020–21 school year with Plan B (hybrid) or Plan C (fully remote) instruction. Overall, there are two key takeaways from these data. First, urban and economically stronger districts (Tier 3) experienced larger adjusted enrollment declines. For example, adjusted enrollment was down -0.60 percent in Tier 1 counties and -2.55 percent in Tier 3 counties. This suggests that decisions about whether to exit or delay entry into traditional public schools may be related to economic well-being and/or a greater

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14 Many charter schools continue to add new grade levels after opening. Focusing on existing grade levels within existing charters better reflects enrollment changes that may be influenced by the pandemic rather than planned growth in the grade ranges served by schools.

15 Variation in cohort size can result in differences in the number of students enrolled in a particular grade year to year. In particular, North Carolina changed the cut-off date for kindergarten entry in 2009 resulting in a smaller cohort of students in 11th grade during the 2020–21 school year. We calculated a set of enrollment changes that adjust for these differences in cohort size to more accurately reflect the changes in enrollment in high school due to COVID-19.
availability of other educational options (e.g. charter schools and private schools). Second, there was a minimal difference in adjusted enrollment changes between districts opening with Plan B versus Plan C instruction. Here, it is important to remember that these results are based on enrollment data pulled at a particular point in fall 2020. It is possible that enrollment data from later in the school year, as districts changed their opening status, would show greater differences in adjusted enrollment.

To extend these district-level analyses, Figure 6 (page 7) presents adjusted changes in fall 2020 enrollment by school characteristics: the percent students of color, the percent economically disadvantaged, and the school performance grade. These data are for traditional public schools and charter schools. The top panel of Figure 6 indicates that adjusted declines in fall 2020 enrollment were smallest in schools with the highest concentrations of students of color — approximate declines of 4.5 percent versus more than 6 percent for schools with fewer students of color. The middle panel of Figure 6 shows that adjusted enrollment declines were larger for schools with the lowest and highest concentrations of economically disadvantaged students. Finally, the bottom panel of Figure 6 illustrates sharp differences in adjusted enrollment declines by school performance grades. Schools earning an ‘A’ performance grade experienced adjusted enrollment declines of nearly 7.5 percent in fall 2020. By comparison, adjusted enrollment declines were less than 5 percent in schools rated ‘B-F’. These patterns are largely consistent with patterns among districts, suggesting that more advantaged schools saw larger losses in enrollments, possibly due to a greater availability of other enrollment options for their students.

What are the Characteristics of Students No Longer Enrolled or Newly Enrolled in Public Schools or Who Transitioned to Virtual Schools?

In this section, we extend our analysis by describing the students who either exited North Carolina public schools, entered North Carolina public schools, or transitioned to a virtual option within their district. For each of these transitions, we examine the percent of students within subgroups of Black, Hispanic, white, Limited English Proficiency (LEP), exceptional, economically disadvantaged, and non-economically disadvantaged students who exited, entered, or transitioned to virtual schools.

Figure 7 (page 7) shows the percent of students, overall and within each subgroup, who attended North Carolina public schools in the 2019–20 school year but were not enrolled in the fall of 2020. We compare these values to the percent

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16Percent students of color and percent economically disadvantaged come from the 2019–20 school year. Because there were no standardized tests (EOGs/EOCs) in 2019-20, school performance grades come from the 2018-19 year.

17Data on economic disadvantage is not available for the 2020-21 school year so is not displayed for students who entered North Carolina public schools in 2020-21.
Figure 6: Enrollment Changes in Fall 2020 by School Characteristics (Traditional and Charter Schools)

<table>
<thead>
<tr>
<th>Percent Students of Color</th>
<th>Lowest Quartile</th>
<th>Second Quartile</th>
<th>Third Quartile</th>
<th>Highest Quartile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Enrollment</td>
<td>-6.06%</td>
<td>-6.01%</td>
<td>-6.37%</td>
<td>-4.53%</td>
</tr>
<tr>
<td>Black Students</td>
<td>-6.27%</td>
<td>-4.86%</td>
<td>-5.37%</td>
<td>-6.47%</td>
</tr>
<tr>
<td>Hispanic Students</td>
<td>-6.41%</td>
<td>-4.94%</td>
<td>-4.91%</td>
<td>-4.87%</td>
</tr>
<tr>
<td>White Students</td>
<td>-5.72%</td>
<td>-5.16%</td>
<td>-5.13%</td>
<td>-5.38%</td>
</tr>
<tr>
<td>Economically Disadvantaged</td>
<td>-5.81%</td>
<td>-5.24%</td>
<td>-5.21%</td>
<td>-5.16%</td>
</tr>
<tr>
<td>Non-economically Disadvantaged</td>
<td>-5.81%</td>
<td>-5.24%</td>
<td>-5.21%</td>
<td>-5.16%</td>
</tr>
</tbody>
</table>

Note: This figure displays percent enrollment changes in fall 2020 by characteristics of schools. Based on school level data from 2019–20, we divide schools into quartiles based on the percent of students of color and percent of low-income students. School performance grades come from 2018–19. We display adjusted percent enrollment changes (adjusting for recent enrollment trends). The data include traditional public schools and charter schools.

Figure 7: Students Exiting within Subgroups for 2018–19 to 2019–20 and 2019–20 to 2020–21 (Traditional and Charter Schools)

<table>
<thead>
<tr>
<th>Overall Enrollment</th>
<th>5.24%</th>
<th>5.16%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black Students</td>
<td>3.77%</td>
<td>5.37%</td>
</tr>
<tr>
<td>Hispanic Students</td>
<td>4.25%</td>
<td>4.96%</td>
</tr>
<tr>
<td>White Students</td>
<td>4.94%</td>
<td>6.47%</td>
</tr>
<tr>
<td>LEP Students</td>
<td>5.01%</td>
<td>6.14%</td>
</tr>
<tr>
<td>Exceptional Students</td>
<td>5.01%</td>
<td>5.64%</td>
</tr>
<tr>
<td>Economically Disadvantaged</td>
<td>4.52%</td>
<td>5.38%</td>
</tr>
<tr>
<td>Non-economically Disadvantaged</td>
<td>4.97%</td>
<td>5.81%</td>
</tr>
</tbody>
</table>

Note: This figure displays the percent of students within each student subgroup in the 2018–19 and 2019–20 school years who were not enrolled in North Carolina public schools in the subsequent school year. Students in grades 12 or 13 in the initial year are excluded. The data include traditional public schools and charter schools.
of students who attended in the 2018–19 school year but were not enrolled in the fall of 2019.\textsuperscript{18} By comparing to the percent of students exiting between 2018–19 and 2019–20, we can assess the extent to which the number of exits between 2019–20 and 2020–21 were unusual. Overall, the percent of students exiting is very similar across the two pairs of years examined — 5.24 percent between 2019–20 and 2020–21 versus 5.16 percent between 2018–19 and 2019–20. However, there are notable differences between student subgroups. Black, Hispanic, LEP, exceptional and economically disadvantaged students were all less likely to exit between 2019–20 and 2020–21 (relative to between 2018–19 and 2019–20), with differences in the percent exiting between -0.63 and -1.60 percentage points. In contrast, white students are 1.53 percentage points more likely to exit and non-wealthy disadvantaged students are 0.84 percentage points more likely to exit between 2019–20 and 2020–21. Similar to the analysis of changes within districts and schools, this analysis suggests that more advantaged students may be more likely to exit public schools.

Figure 8 shows the percent of students, overall and within each subgroup, who entered North Carolina public schools in the fall of 2020 compared to students who entered in the fall of 2019.\textsuperscript{19} Overall, there was a 2.5 percentage point decrease in the percent of students who entered in the fall of 2020 compared to the fall of 2019. This decrease translates to more than 26,000 fewer new students in fall 2020. This change varies somewhat across student subgroups, with Black and white students both seeing decreases of approximately 2 percentage points in the percent of entering students. Hispanic students saw a 4.08 percentage point decrease in the percent of entering students. We also present changes in the percent of newly entered students among those identified as LEP and exceptional. However, we present these changes with caution as they may represent reductions in the number of students being identified as eligible for these services rather than actual reductions in enrollments. We observe a 1.5 percentage point decrease in the percent of entering students who are identified as exceptional\textsuperscript{20} and a greater than 13 percentage point decrease in the percent of entering students among those identified as LEP. This large change in the number of

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\textsuperscript{18}Students in 12th or 13th grade in the 2019-20 and 2018-19 school years, respectively, are excluded from this analysis as they would not be expected to remain enrolled in school in the subsequent year.

\textsuperscript{19}Students were considered to “enter” if they did not attend North Carolina public schools in the previous school year (2019-20 and 2018-19, respectively). Some of these students may have attended North Carolina public schools previously.

\textsuperscript{20}We also note that a larger percentage of exceptional students who remained enrolled between the 2019-20 and 2020-21 school year were not identified as exceptional in the second year compared to the previous pair of years (24% no longer identified as exceptional in fall 2020 compared to 9% no longer identified in fall 2019).
entering students among those identified as LEP may reflect that entering students simply have not been identified as needing services at the point in the 2020–21 school year at which our data was recorded. These data identify a role for policymakers and educators to ensure that students in need of English language services are being properly identified and supported in remote and hybrid settings. This analysis suggests that the losses in enrollment in North Carolina public schools are driven primarily by fewer new entrants rather than increased exits, except among white and non-economically disadvantaged students, for whom both an increase in exits and a decrease in entry are factors.

The final analysis in this section, shown in Figure 9, examines the percent of students within each subgroup who transition into virtual schools. These data are only available within districts that opened a new virtual school for the 2020–21 school year. Eleven stand-alone virtual schools were opened in nine districts for the 2020–21 school year. Within these districts, 6.22 percent of students who were enrolled in the 2019–20 school year transitioned to district operated virtual schools in fall 2020. The percent of students making this transition was higher among Black and economically disadvantaged students — greater than 7 percent of each group transitioned to virtual schools. Conversely, fewer LEP, white, non-economically disadvantaged, and Hispanic students made this transition, with the lowest percentage among LEP students (3.59 percent). This pattern is notably different from the pattern for students who exited North Carolina public schools, with white and non-economically disadvantaged students more likely to exit North Carolina public schools and less likely to attend district operated virtual schools than other student groups. It is unclear whether this pattern of transitions to virtual options will generalize to other districts where the virtual option is associated with a base school or whether these patterns of virtual enrollment will sustain after the pandemic. However, taken with the other results in this section, these results suggest that enrollment changes during the pandemic may increase racial/ethnic and socioeconomic segregation with different subgroups of students making different enrollment choices.

Students in 12th or 13th grade in the 2019-20 and 2018-19 school years, respectively, are excluded from this analysis as they would not be expected to remain enrolled in school in the subsequent year.

Many districts operated virtual options associated with their traditional in person schools as part of district wide participation in Plan C or as an option available to families in districts with hybrid learning plans.

Figure 9: Students Transitioning to Virtual Schools within Subgroups 2019–20 to 2020–21 (Traditional Public Schools in Districts with New Stand Alone Virtual Schools)

Note: This figure displays the percent of students within each student subgroup in the 2019–20 school year who entered a virtual school in the 2020–21 school year as a percentage of the number of students within that subgroup in districts with new virtual schools. Students in grades 12 or 13 in the initial year are excluded. The data include traditional public schools only in districts opening a new virtual school in the 2020–21 school year.

<table>
<thead>
<tr>
<th>Subgroup</th>
<th>Percent Transferring</th>
<th>Percent Transferring to Virtual School Within Subgroup</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Enrollment</td>
<td>6.22%</td>
<td>6.22%</td>
</tr>
<tr>
<td>Black Students</td>
<td>7.57%</td>
<td>7.57%</td>
</tr>
<tr>
<td>Hispanic Students</td>
<td>5.83%</td>
<td>5.83%</td>
</tr>
<tr>
<td>White Students</td>
<td>5.22%</td>
<td>5.22%</td>
</tr>
<tr>
<td>LEP Students</td>
<td>3.59%</td>
<td>3.59%</td>
</tr>
<tr>
<td>Exceptional Students</td>
<td>5.98%</td>
<td>5.98%</td>
</tr>
<tr>
<td>Economically Disadvantaged</td>
<td>7.14%</td>
<td>7.14%</td>
</tr>
<tr>
<td>Non-economically Disadvantaged</td>
<td>5.34%</td>
<td>5.34%</td>
</tr>
</tbody>
</table>
Key Findings and Implications

The COVID-19 pandemic continues to have wide ranging, disruptive effects on schools across the state and the nation. Amidst health concerns, the balancing of work and parental responsibilities, and the new challenges of fully remote or hybrid instruction, many families have been forced to rethink decisions about the schools their children attend. These decisions matter to the educational success of individual students and have broader implications for school funding, achievement, and equity. To better understand these schooling decisions, we investigated enrollment changes in North Carolina schools in the 2020–21 school year. These analyses reveal several noteworthy findings with implications for policy and practice.

Enrollment changes in fall 2020 varied considerably across different school sectors. Traditional public schools enrolled nearly 35,000 fewer students in fall 2020 than in fall 2019. In contrast, between fall 2019 and fall 2020, enrollments in charter schools grew by nearly 10,000 students and enrollments in home schools increased by approximately 19,000 students. These shifts suggest that COVID-19 may exacerbate existing enrollment declines for traditional public schools and accelerate growth in other sectors.

Exploring the distribution of enrollment changes, we found that enrollment losses affect most districts and schools in North Carolina. While many of these losses were relatively small, certain districts and schools experienced much larger enrollment declines. If sustained, these enrollment losses may cause funding and operational concerns. The largest enrollment declines occurred in kindergarten, with more modest enrollment drops in other elementary (1–5) and middle grades (6–8). These results may have longer-term implications if younger students do not return to public schools in future years. Conversely, these results also suggest that public schools may need to prepare for an influx of new students, especially kindergarteners, in 2021–22.

Geographically, these enrollment losses were spread across the state, with a pattern of slightly larger losses in the Triangle, Triad, and Charlotte regions where more of the state’s urban districts are located. In keeping with this result, an analysis of enrollment losses by district and school characteristics suggests that changes in enrollment are related to characteristics of the population. Urban districts and districts that were the least economically distressed (Tier 3 counties) experienced larger enrollment losses than other districts. Likewise, schools with the fewest students of color, the fewest low-income students, and the highest state report card grades had larger enrollment declines. These differential losses may worsen school segregation and lead to higher concentrations of students from historically marginalized populations in schools.

Finally, student level analyses show that subgroups exited and entered public schools at different rates in 2020–21. Similarly, subgroups had different rates of transferring to virtual schooling options. White and non-economically disadvantaged students were more likely to exit public schools, whereas Hispanic students experienced a decrease in new entries into public schools and Black and economically disadvantaged students had an increased likelihood of transitioning to virtual options. Once again, these differential patterns of movement create concerns about increased racial/ethnic and socioeconomic segregation in schools. In particular, the loss of non-economically disadvantaged students may contribute to concentrations of poverty and reductions in school funding associated with average daily membership. Policymakers should monitor the effects of these enrollment shifts to ensure that schools have the necessary resources to provide an adequate education for all students as they recover from the pandemic.
For More on This Topic


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EPIC is an interdisciplinary team that conducts rigorous research and evaluation to inform education policy and practice. We produce evidence to guide data-driven decision-making using qualitative and quantitative methodologies tailored to the target audience. By serving multiple stakeholders, including policy-makers, administrators in districts and institutions of higher education, and program implementers we strengthen the growing body of research on what works and in which context.

Our work is ultimately driven by a vision of high quality and equitable education experiences for all students, and particularly students in North Carolina.