



Educator Attrition and Hiring in North Carolina Public Schools During the COVID-19 Pandemic

Introduction

As schools confront the challenges created by the COVID-19 pandemic, engaged and effective educators are essential to K-12 students' academic and social-emotional recovery. As such, since the summer of 2020, we have been studying the impact of the COVID-19 pandemic on North Carolina's teachers and school leaders.¹ It is important to understand how the pandemic has influenced educator attrition and hiring in North Carolina and to identify where educator attrition is particularly problematic.

With this brief, we leverage seven years of administrative data from the North Carolina Department of Public Instruction (NCDPI) to address two research questions:

- (1) How does educator attrition and hiring during the pandemic compare to prior years?
- (2) What is the distribution of educator attrition across North Carolina school districts?

Relative to other studies on educator attrition during the pandemic, our work is unique in several ways, including a focus on teachers and principals, examining attrition separately within and between school years, considering the relationship between attrition and hiring, and investigating variation in attrition across school districts. To our knowledge, we are also the first to assess educator attrition and hiring into the 2022-23 school year. We provide these granular and up-to-date analyses with the hope of helping state and local education officials strengthen educator pipelines and further support the educator workforce.

Background

To address our research aims we use seven years of employment records—2016-17 through 2022-23—for educators in North Carolina public schools (NCPS).² Specifically, we use September employment records to identify individuals working as a teacher or principal in NCPS at the start of an academic year and then use September employment records from the following academic year to determine whether that individual remains in the same role. We code educators as leavers if they are teaching or serving as a school principal in September of a given year and are no longer in the same role in September of the following year.³ To deepen our analyses, we decompose the September-to-September attrition rate into two parts—attrition within the school year (leaving between September and May) and attrition between school years (leaving between May and September).

With employment records we also assess hiring trends in NCPS. In particular, with September employment records we identify teacher and principal entrants—i.e. those working as a teacher or principal in NCPS in September of a given year who were not employed in that role in NCPS in the previous September. For a given September, we identify the total number of teacher and principal entrants and calculate the percentage of these entrants relative to the total number of teachers or principals in NCPS in the previous September. We compare attrition and entrant rates over time to examine the relationship between educator attrition and hiring in NCPS.

¹ Please see <https://epic.unc.edu/wp-content/uploads/sites/1268/2021/09/Teacher-and-Principal-Attrition-During-the-COVID-19-Pandemic-in-North-Carolina-June-2021.pdf> and <https://epic.unc.edu/wp-content/uploads/sites/1268/2022/09/Teacher-and-Principal-Attrition-During-COVID-19.pdf> for our earlier analyses of educator attrition in North Carolina.

² Our analyses include traditional (non-charter) public schools in North Carolina.

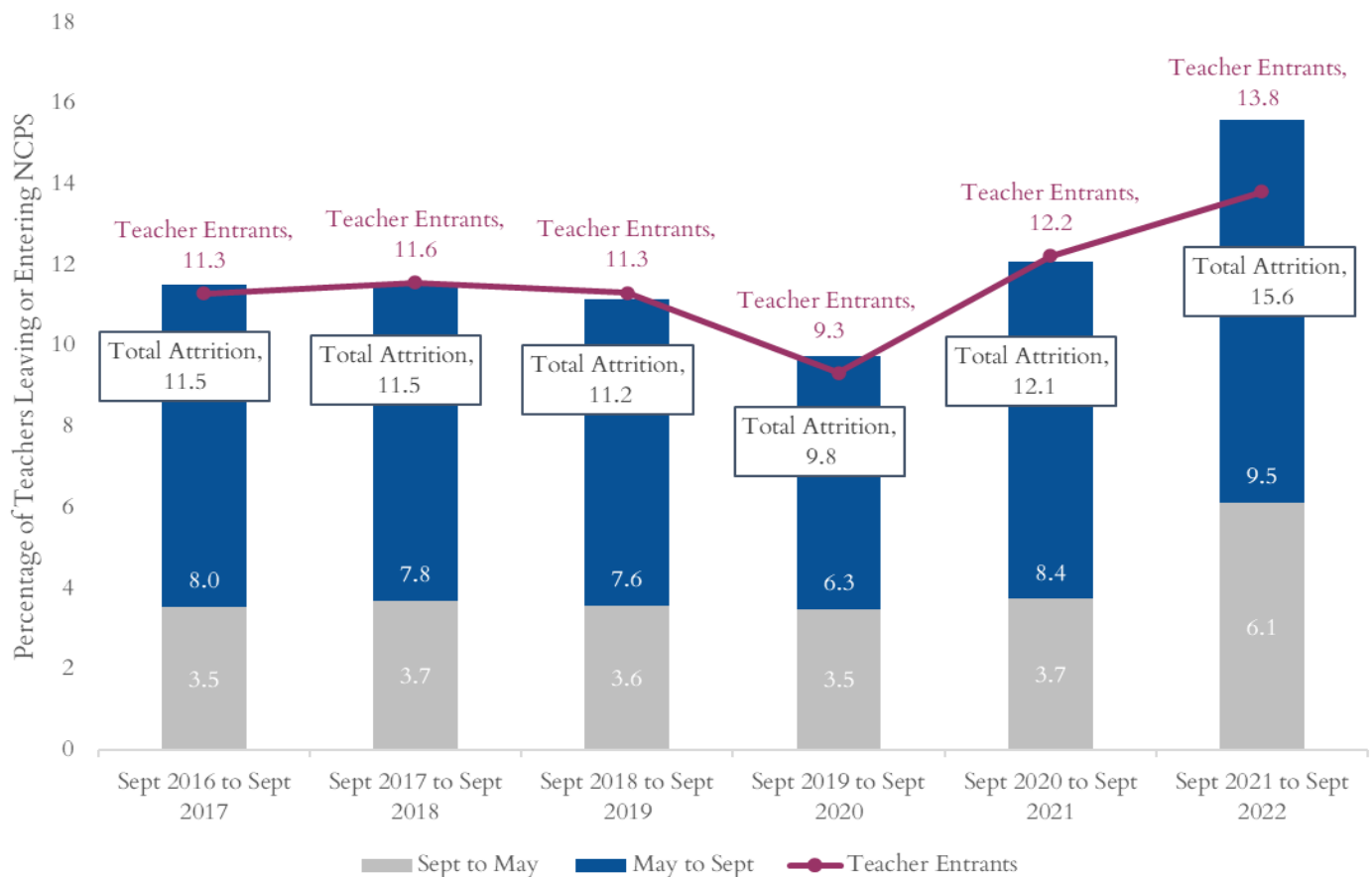
³ Our definition of teacher attrition differs from that used in NCDPI's *State of the Teaching Profession* report. NCDPI identifies a teacher as leaving only if they are not in any other certified position in NCPS. If teachers move to another position (e.g. assistant principal), NCPDI identifies them as retained. We identify a teacher as leaving if they are no longer *teaching* in NCPS in the following September.

How does educator attrition and hiring during the pandemic compare to prior years?

Figures 1 and 2 show that educator attrition in NCPS was either relatively stable (teachers) or on a downward trajectory (principals) prior to the COVID-19 pandemic. Between September 2019 and September 2020—covering the initial months of the pandemic—teacher and principal attrition fell to 9.8 and 10.4 percent, respectively. Since September 2020, teacher and principal attrition in NCPS has been on the rise. Teacher attrition increased to 12.1 percent between September 2020 and September 2021 and further increased to 15.6 percent between September 2021 and September 2022.⁴ That is, 15.6 percent of the teachers in NCPS in September 2021 were no longer teaching in NCPS in September 2022. To put this increase into perspective, we note that each percentage point increase in

attrition represents approximately 1,000 additional individuals no longer teaching in NCPS. Nearly 5,500 more teachers left teaching in NCPS between September 2021 and September 2022 as compared to the period from September 2019 to September 2020. Principal attrition increased to 12.5 percent in September 2021 and 17.5 percent in September 2022.⁵ This means that nearly one out of every five principals in September 2021 was no longer a principal in NCPS in September 2022. Beyond the increase in September-to-September attrition rates, there was also a sharp rise in within-year educator departures during the 2021-22 school year. Approximately 6 percent of teachers and 7 percent of principals left their role in NCPS between September 2021 and May 2022. This type of attrition may be especially challenging for school stability and student achievement.

Figure 1: Teacher Attrition and Hiring in NCPS—September 2016 to September 2022



Note: This figure displays teacher attrition (overall, within-year, and between-year) and hiring rates between September 2016 and September 2022.

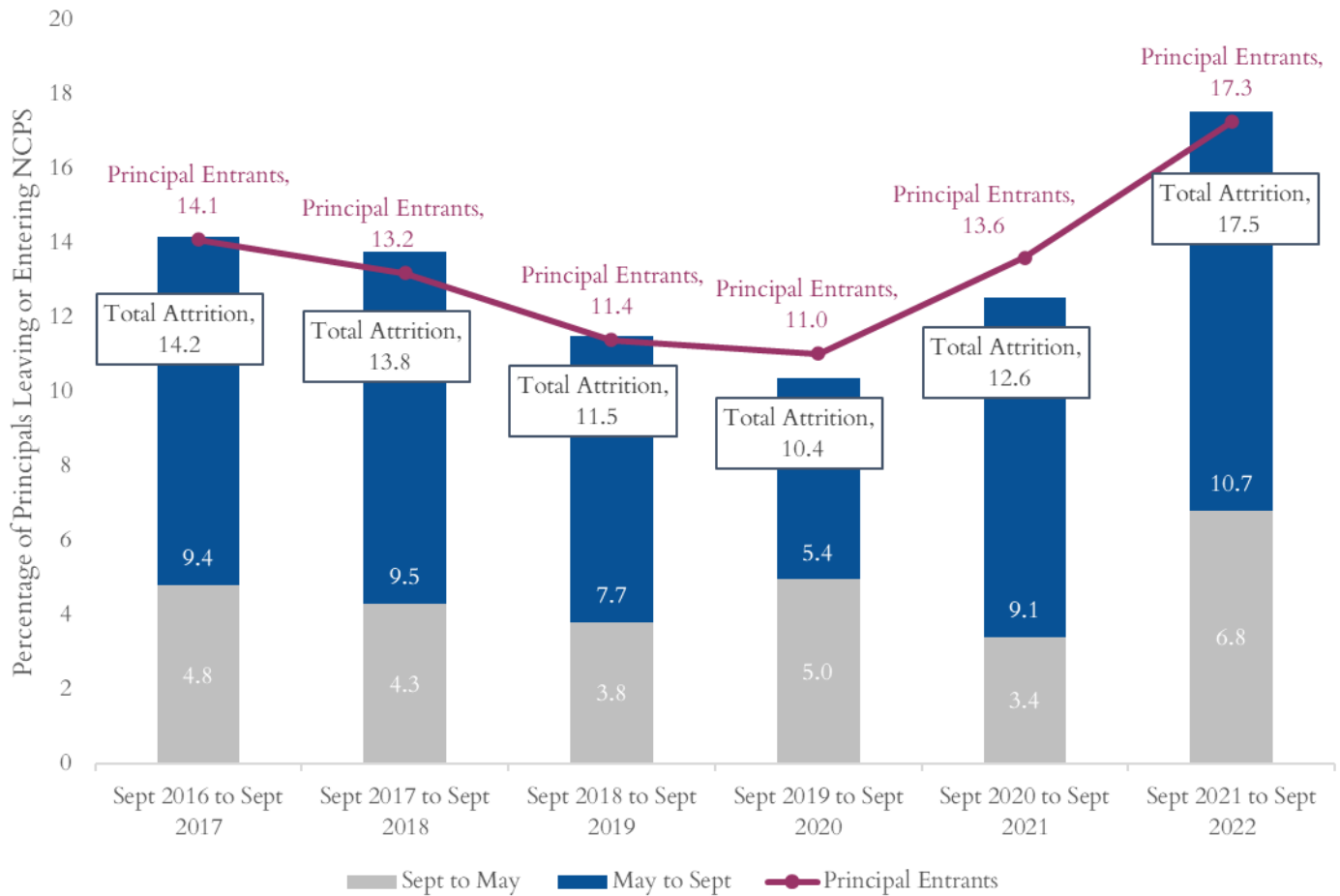
⁴ We found that 13.7 percent of the teachers in NCPS in September 2021 were no longer in any certified position in NCPS in September 2022. This difference in attrition rates—15.6 percent to 13.7 percent—indicates that some individuals leaving teaching in NCPS transition to another position (e.g. instructional coach or assistant principal) rather than exiting NCPS entirely.

⁵ We found that 10.2 percent of the principals in NCPS in September 2021 were no longer in any certified position in NCPS in September 2022. This difference in attrition rates—17.5 percent to 10.2 percent—indicates that many individuals leaving the principalship in NCPS transition to another position rather than exiting NCPS entirely.

Turning to educator hiring, data in Figure 1 show that throughout our study period the percentage of teacher entrants has generally been commensurate with the teacher attrition percentage. For example, 11.5 percent of teachers left NCPS between September 2017 and September 2018 and approximately the same percentage (11.6 percent) were entrants in September 2018. This is not the case in September 2022, where there was a 1.8 percentage point gap between the attrition and hiring percentage in NCPS. Relative to prior years, this suggests that more

schools were unable to replace exiting teachers by the start of the 2022-23 school year. Data in Figure 2 indicate that there is less concern about vacant principal positions. This reflects the depth of the principal pipeline in North Carolina, where over 10,000 individuals hold a principal license but are not currently serving in a principal position. However, many of the individuals holding principal licenses currently serve as teachers, so filling gaps in school administration (i.e. assistant principals, principals) may contribute to attrition from teaching roles.

Figure 2: Principal Attrition and Hiring in NCPS—September 2016 to September 2022



Note: This figure displays principal attrition (overall, within-year, and between-year) and hiring rates between September 2016 and September 2022.

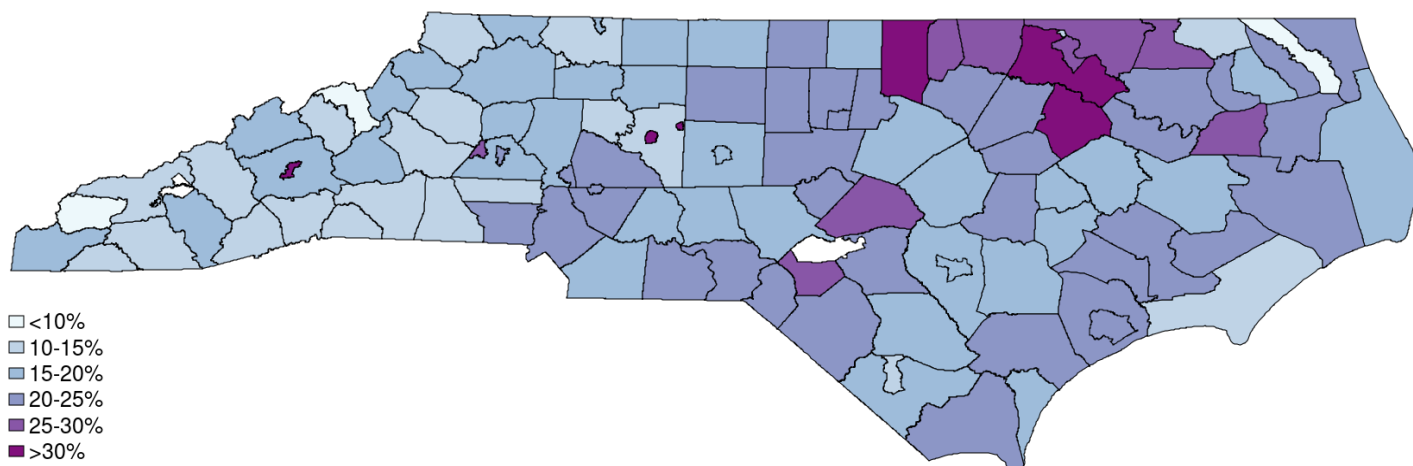
What is the distribution of educator attrition across North Carolina school districts?

To extend our attrition analyses, we examined the distribution of teacher attrition across North Carolina school districts. For this work, we assess district-level teacher attrition, where we define leavers as those who are teaching in a respective NCPS district in September of a given year and are no longer teaching in the same district in September of the following year.

Figure 3 displays a map of district-level teacher attrition rates in NCPS between September 2021 and September 2022. Overall, the average district-level teacher attrition

rate is 19.5 percent. By comparison, the district-level teacher attrition rate between September 2018 and September 2019—before the start of the pandemic—was 15.2 percent. We find that teacher attrition is particularly high in northeast North Carolina and is much lower, on average, in the western portions of the state. In total, the distribution of teacher attrition rates is as follows: six districts have attrition rates greater than 30 percent, nine districts have attrition rates between 25–30 percent, 37 districts have attrition rates between 20–25 percent, 38 districts have attrition rates between 15–20 percent, 22 districts have attrition rates between 10–15 percent, and three districts have attrition rates less than 10 percent.

Figure 3: District-Level Teacher Attrition Rates Between September 2021 and September 2022



Note: This figure displays district-level teacher attrition rates between September 2021 and September 2022. Teacher employment data are not available for Fort Bragg, Camp Lejeune, and the Qualla Boundary.

Discussion

Given the critical role of educators in helping students re-engage with school and recover academically, we continue to assess patterns of educator attrition and hiring in NCPS.

With our most recent work, we find that teacher and principal attrition in NCPS increased sharply between September 2020 and September 2022. In particular, attrition rates during our most recent period (September 2021 to September 2022) are much higher than in previous years, with elevated within and between-year attrition. This attrition highlights significant concerns regarding how churn in the educator workforce may adversely impact student academic and social-emotional recovery and

put additional strain on remaining educators. Likewise, data suggest that teacher hiring has not kept pace with teacher attrition in the most recent study year. Nearly 14,700 teachers left teaching in NCPS between September 2021 and September 2022; only 13,000 teachers entered the workforce during that time period. More classrooms without a permanent, fully licensed teacher will adversely impact student recovery. Lastly, it is important to note differences in the magnitude of attrition across districts. Some districts have relatively low teacher attrition rates between September 2021 and September 2022. For many other districts, teacher attrition is high. This may suggest the need for targeted and individualized solutions that address districts' unique educator pipeline challenges.

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