

How Do Charter Schools Affect the Supply of Teachers from University-Based Education Programs?

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Overview

Debates about charter schools center on their immediate effects on students who attend them and how charter schools affect nearby traditional public schools. However, as the charter sector has continued to grow, a broader range of possibly unintended effects become relevant. This study is one of the first to examine the possibility that charter schools affect the teacher pipeline. We focus specifically on how charter schools affect the number of traditionally prepared teachers who receive a bachelor's in education.

Using data from 290 school districts with at least one commuter college nearby, we analyze the effect on the traditional teacher pipeline from schools of education. We draw the following conclusions:

- Increasing district charter school enrollment by 10% decreases the supply of teachers traditionally prepared with a bachelor's in education by 13.5-15.2% on average.
- Charter-driven reductions in the supply of traditionally prepared teachers are most apparent in elementary, special education, and math education degrees. This is consistent with the fact that charter schools mostly serve elementary grades, express interest in subject matter experts (e.g., math majors), and are less likely to assign students to special education.
- These charter-driven reductions are concentrated in metropolitan areas and are largest among Black teachers.

Given how central teachers are to the educational process, any effect on the teacher pipeline is important. The vast majority of U.S. teachers still come from university-based schools of education, and these teachers stay in the profession longer than those who are not traditionally prepared, which makes these declines noteworthy. A larger point is that charter schools change the entire schooling market in ways we are only beginning to recognize.

Background

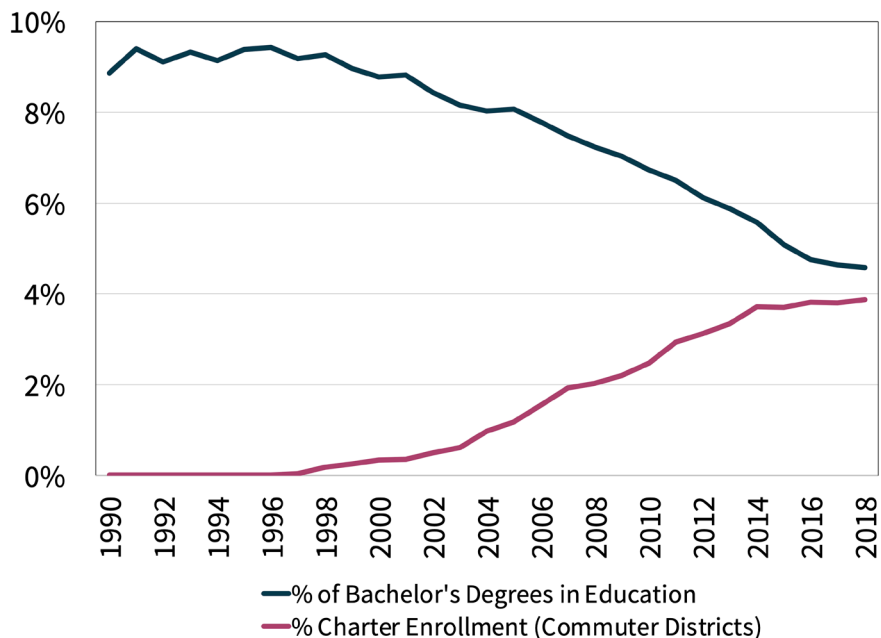
For most of the nation’s history, almost all teachers were prepared through university-based schools of education. Students graduated from these programs with bachelor’s degrees in education, studying subject matter content (e.g., math) and the craft of teaching that material (i.e., pedagogy), in addition to the usual broad education that comes with any bachelor’s degree. Graduates of these programs, which state governments generally authorize as official teaching programs, could then be readily certified to teach. We describe these teachers below as “traditionally prepared teachers.”

However, over the past half-century, traditional teacher preparation has come under attack. These programs take many years to complete, which makes it harder for people to enter teaching. Even for those willing to make that commitment, some have criticized these programs for focusing on educational philosophy and offering less preparation for content knowledge and practical teaching skills, such as classroom management. [Surveys](#) of teachers indicate that they do not feel adequately prepared to teach.

These criticisms led to changes in policy that now allow alternative preparation routes. Some of these programs are offered by universities (e.g., in the form of teaching certificates for students majoring in other fields). Students can complete these programs in as little as a summer. A [growing share](#) of alternative programs are online-only and offered by for-profits.

Although teachers who have obtained a bachelor’s degree in education still make up most of the teacher workforce, a downward trend has emerged in the last decade. From 2007 to 2016, the number of new teachers with an undergraduate education degree decreased by 20% (see Figure 1). Meanwhile, the number of teachers coming from alternative routes is rising quickly, but not enough to offset the national teacher shortage. Today, about [one in five](#) classroom teachers come from an alternative preparation program, with the remainder coming from traditional routes.

Figure 1. The Annual Share of Education Degrees Has Been Gradually Declining While Charter Enrollment Has Been Increasing



Notes: % bachelor’s degrees in education refers to the share of education degrees among all bachelor’s granted over time.

Research on the quality of teachers from traditional and alternative teacher pipelines generally finds limited differences in quality. However, these studies do not appear to reflect the growing online and for-profit preparation programs or the fact that traditionally prepared teachers stay longer once they enter the classroom. This is important given the harmful effects of teacher turnover on schools and students.

At the same time alternative certification has grown, charter schools have expanded, and 7% of students attend charter schools nationally. This raises the question: might the rise in charter schools be related to the rise in alternative preparation and certification? A quarter of charter school teachers report having alternative qualifications in lieu of an education degree, and understanding how charter entry impacts the supply of traditionally prepared teachers is an important consideration for stakeholders and policymakers.

Figure 1 shows a visual connection or correlation between the teacher pipeline and charter school growth, but that could be a coincidence. To examine this further, we compared the trends in the teacher pipeline in districts that eventually had more than 10% of their students enrolled in charter schools with districts that never had charter schools. Since the choice of 10% enrollment share is arbitrary, we also analyzed the data for almost every threshold from 1-20%. These results are discussed later. We focus especially on school districts that have commuter colleges (i.e., those colleges where at least 30% of students live off-campus), as new teacher graduates of these colleges are more likely to seek out jobs in the communities where they already live.

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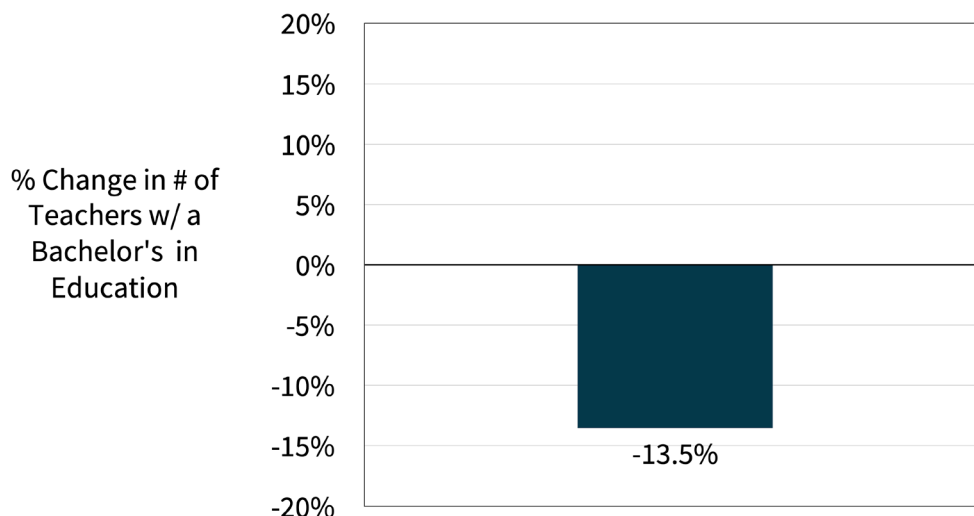
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How Do Charter Schools Affect the Number of Traditionally Prepared Teachers?

Figure 2 shows that charter entry reduced the number of new traditionally prepared teachers, presumably because charter schools are less inclined to hire teachers from those programs. In districts with commuter colleges that eventually reached 10% enrollment in charter schools, the share of teachers with a bachelor's in education declined by an average of 13-15% percent. This effect, as with all the others reported in this brief, is statistically significant.

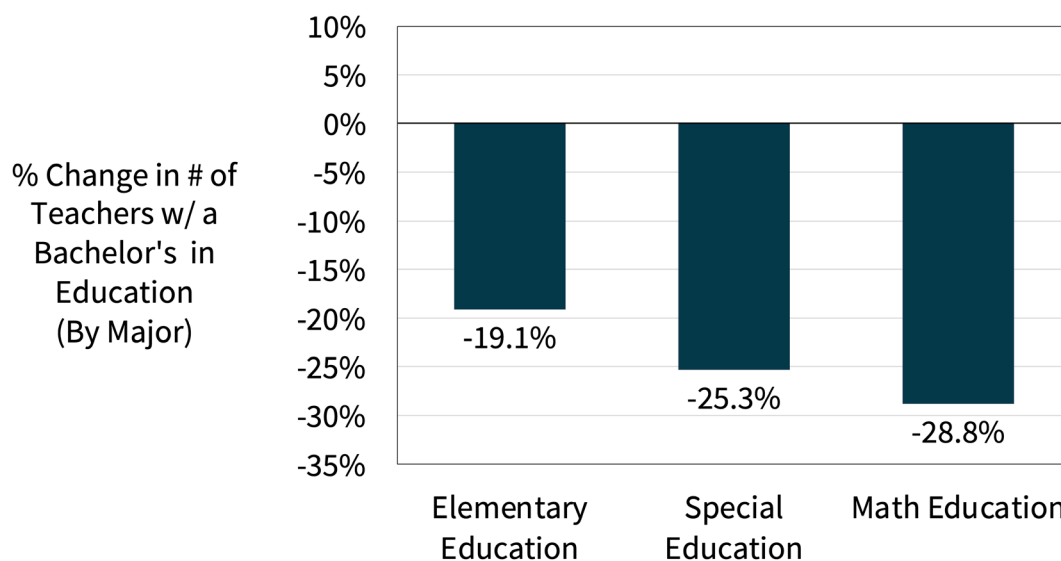
Figure 2. Charter Schools Reduce the Supply of Teachers with a Bachelor's in Education



We also carried out a similar analysis for other charter share thresholds and found similar effects, especially when the threshold is higher, as we would expect.

We can also break these numbers down by the specific type of education major. Figure 3 shows that the reductions are concentrated among elementary education, math education, and special education.

Figure 3. Charter Schools Significantly Reduce the Supply of Teachers with a Bachelor's Specializing in Elementary, Math, and Special Education



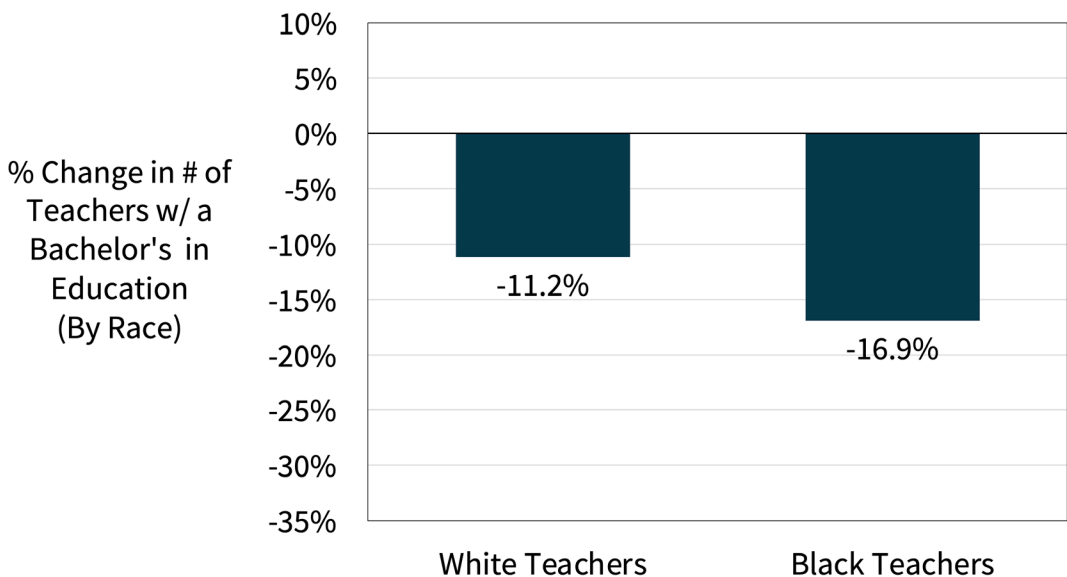
These patterns make sense based on what we know about charter schools. They are more likely to serve elementary schools. They prefer hiring subject-matter majors (e.g., math majors instead of math education majors), and they are [less likely](#) than traditional public schools to assign the same student to special education services.

Because these patterns align with other established facts about charter schools, this gives us more confidence that all the results reflect actual effects of charter schools.

How Do the Effects Vary Across Race and Geographic Areas?

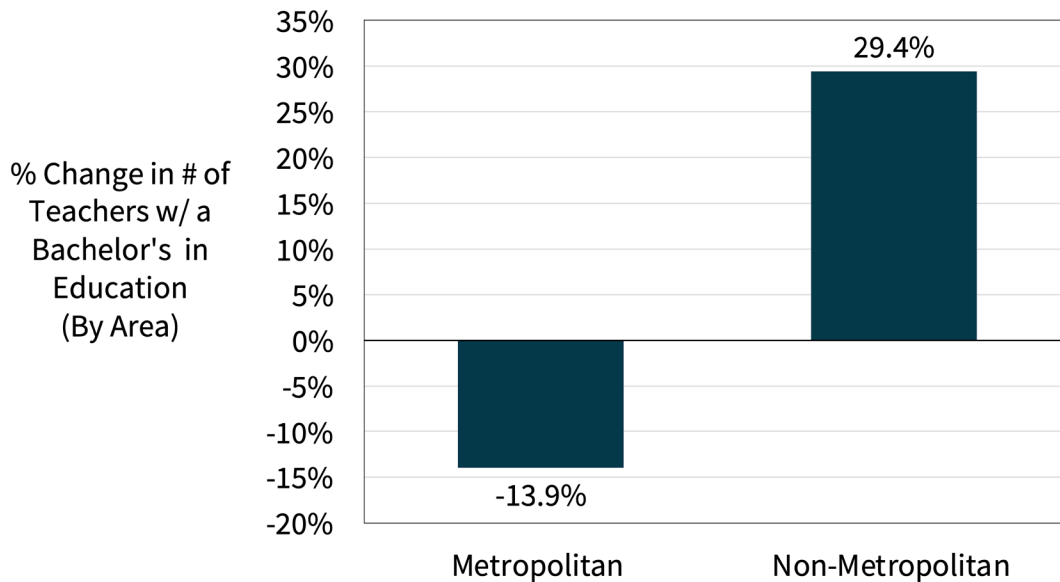
Our data allow us to break the result down further. We examined effects on the number of teachers of different racial groups and found that the effects exist for both white and Black teachers. The effect was larger for Black teachers – a 17% drop versus 11% for white teachers (Figure 4).

Figure 4. Charter Schools Reduce the Supply of Black Teachers with a Bachelor's in Education More than White Teachers



We also find larger effects in metropolitan areas (Figure 5). This could be because there is a larger pipeline of alternatively prepared teachers in those areas, though we are not aware of research on this point. If there are few alternative sources of teachers outside metro areas, then charter schools may have little choice but to hire from local colleges and universities.

Figure 5. Charter Schools Reduce the Supply of Teachers with a Bachelor’s in Education in Metropolitan Areas More Than Non-Metro Areas



The above findings may be related. A disproportionate share of the Black population lives in metropolitan areas. Again, we also emphasize that all the effects reported in Figures 2-5 are statistically significant.

The fact that charter schools seem to increase the number of traditionally prepared teachers in non-metro areas is also noteworthy. As with most averages, the results can vary a great deal across locations and circumstances.

Conclusion

Given that teachers are the most critical resource for students, these findings have significant implications for both traditional teacher preparation programs and charter schools.

These discoveries highlight an opportunity for charter schools and traditional teacher preparation programs to collaborate more closely – particularly if the popularity of charter schools continues to rise. Working in coordination with each other might help offset the charter-driven decline in the pipeline of traditionally prepared teachers and interrupt the cycle of high turnover that has posed problems for charter schools.

With the rising cost of bachelor’s programs and declining teacher salaries, easing the accessibility of traditional preparation programs in charter-heavy areas may also help stimulate the teacher pipeline. Higher education institutions that offer undergraduate degrees in education could do more to partner with local districts to offer paid student teaching assignments or collaborate with state officials to provide additional scholarships to help boost enrollment in traditional teaching programs.

How Did We Carry Out the Analysis?

Our methodology, called difference-in-differences, allows us to compare the number of undergraduate education major completions before and after charters open in a district with at least one undergraduate education program. To help isolate the effect of charter entry from all other influential factors, we also compare changes in the teacher supply over time between districts that open charter schools and districts with no charter schools. Our analysis compares districts that have similar characteristics, including the number of education degree completers prior to charter entry and enrollment.

For our teacher supply analysis, we used annual institutional level data on the supply of certified teachers from the Integrated Postsecondary Education Data System (IPEDS) by the U.S. Department of Education from the 1990-91 through the 2018-19 school years. These data include degree completions, institution location, enrollment, admissions, and student demographics. Our sample includes school districts with at least one public or private four-year commuter institution (at least 30% of students living off-campus) nearby. If charter schools affect the new teacher supply, this effect will be most apparent among commuter students as they are more likely to seek out jobs in the local community where they already live. We find similar results when examining the effect of charter schools on non-commuter colleges.

Our main analyses focus on charter effects on the number of BA graduates with education majors. Since there might be other factors affecting the number of college graduates in total, we also carried out the same analysis but focusing on the ratio of the number of education major graduates to the number of all college graduates. These analyses yielded similar results and reinforce our confidence that we are seeing the actual effects of charter school entry.

For the charter entry analysis, we used data from the National Longitudinal School Database (NLSD) to assess charter entry by district. This data includes district-level demographics, enrollment, school type, test scores, and teacher salaries.

How Does This Relate To Other REACH Research?

Teacher policy is one of the five core policy levers in the current REACH agenda. A key premise of the current study is that charter schools hire and retain different kinds of teachers than traditional public schools. This premise is reinforced by our prior [study](#) in which we found that charter schools are better able than traditional public schools to keep their high-performing teachers. We also found that this advantage is offset by the fact that charter schools have much higher levels of turnover on average.

About the National Center for Research on Education Access and Choice (REACH)

Founded in 2018, REACH provides objective, rigorous, and applicable research that informs and improves school choice policy design and implementation, to increase opportunities and outcomes for disadvantaged students. REACH is housed at Tulane University with an Executive Committee that includes researchers from Tulane, Michigan State University, Syracuse University, and the University of Southern California.

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Corresponding Technical Paper

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