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## Teacher Pipeline Concerns: Supply, Demand and Diversity

*By Leah Sutton, Policy Analyst*

Evidence confirms what is likely intuitive to most policymakers: **High-quality teachers are essential for the success of students and schools**. Teachers educate the future workforce and are inextricably linked to the prosperity of our state and nation. That's probably why the teacher pipeline—the process through which teachers are recruited, trained, hired, and retained—has received so much attention from education experts and elected officials in recent years.

Despite research, advocacy and policy aimed at strengthening the teacher pipeline, **a combination of demographic factors has resulted in a nation wide teacher shortage**. Growth in student enrollment coupled with reductions in class sizes have increased the demand for teachers across the country. Meanwhile, as the economy has rebounded from the Great Recession, the supply of teachers has diminished. More and more teachers are leaving the classroom for other employment opportunities, and fewer students are enrolling in teacher preparation programs, greatly reducing the pool of teachers available to fill vacant positions.
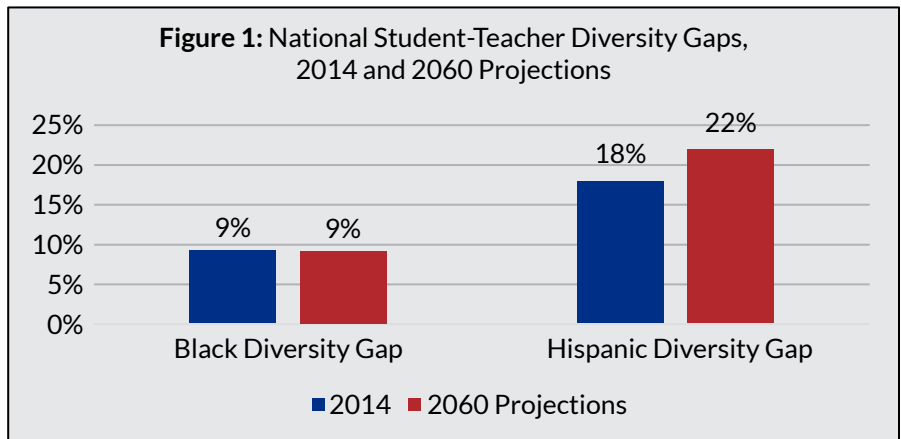
Unfortunately, **experts expect the teacher shortage to worsen in the coming years**, especially in high-needs schools and in hard-to-staff subject areas like special education.[1] In North Carolina, a number of school districts began the 2016-2017 school year with teaching vacancies, and the state reports chronic shortages in the areas of middle and high school math, high school science, and special education.[2]

In addition to an overall shortage of teachers, the current teaching population is not representative of the diverse students enrolled in our schools. Although the **student population has become increasingly diverse, the teacher workforce remains overwhelmingly white**. This discrepancy is called the **diversity gap**, and a growing body of research suggests that **closing the diversity gap between teachers and students may help schools close the achievement gap between students of color and their white peers**.

As policymakers endeavor to address the teacher shortage as a whole, they should also consider the research around teacher diversity and explore policies that aim to increase the achievement of our minority students. This issue of *coNCepts* examines the diversity gap in North Carolina and highlights the need for a strategic solution that can bring more minority candidates into the teaching profession.

## Teacher Diversity: A Nationwide Concern

Numerous reports have documented the widening diversity gap in our nation's schools. The latest report, a 2016 analysis of national demographic data by the Brookings Institution, finds that while the student population of the United States is now more than 50 percent minority, the teacher workforce is only 18 percent minority. Though the number of minority teachers in the United States has more than doubled in the last two decades, **the diversification of the teacher workforce has been dramatically outpaced by the diversification of the nation's student population**.

**Figure 1:** National Student-Teacher Diversity Gaps, 2014 and 2060 Projections



According to population projections from the United States Census Bureau, by 2060 the student population will be even more diverse than it is today. These projections suggest that without considerable intervention in teacher preparation, recruitment and retention policies, the diversity gap will continue to widen. The report predicts that between 2014 and 2060, the diversity gap will persist for black students and will worsen for Hispanic students **(Figure 1)**.[3]

## Diversity and Student Achievement: A Summary of the Research

A growing body of research suggests that a diverse teacher workforce can help increase the performance of minority students. A number of experimental studies have found that students of color score higher on standardized tests when they are taught by teachers of color.[4] One such study examined student performance in North Carolina from 1994-95 to 2004-05 and found that minority students performed better in both reading and math when taught by a teacher of the same race, relative to years when they were taught by a teacher of a different race.[5] Researchers call this phenomenon **"role-model effects"** and argue that minority students benefit both academically and socio-emotionally from seeing minority adults in positions of authority.
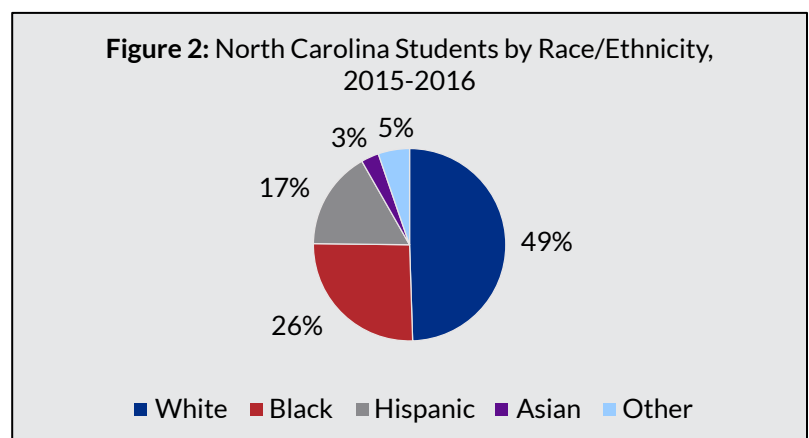
Research also indicates that increasing the number of teachers of color in a school has an overall positive influence on the performance of minority students, even when those students are taught by white teachers. Studies have shown that when a district's racial makeup of teachers is similar to the racial makeup of students, students have better scores on high-stakes tests like high school graduation exams.[6]

Together these arguments suggest that **diversifying the teacher workforce could help improve the academic performance of minority students, ultimately narrowing the racial achievement gap in schools.**

## Spotlight on North Carolina

As the United States student population has grown more diverse, so too has North Carolina's. In 2016, for the first time, the state's student population was considered majority minority **(Figure 2)**. White students now make up 49 percent of the student population, down from 53 percent in 2011. The fastest growing demographic groups are Hispanic students and Asian students, which have grown by 32 percent and 22 percent, respectively, since 2011.[7]

The substantial and persistent achievement gap between students of color and their white peers signals the importance of these demographic changes to the success of the state's education system. Results from the 2015 National Assessment of Educational Progress (NAEP) indicate that, on average, proficiency levels for black and Hispanic students are 30

**Figure 2:** North Carolina Students by Race/Ethnicity, 2015-2016

percentage points and 23 percentage points behind proficiency levels for white students, respectively **(Figure 3)**.[8] **As minority students become a larger percentage of the state's student body, addressing the needs of these student populations will be critical for preventing a decline in the state's overall student performance.**

> *"The pool of available teachers of color barely supports the current level of diversity in the teacher workforce, much less keeps pace with a young population which is growing increasingly diverse."*[9]
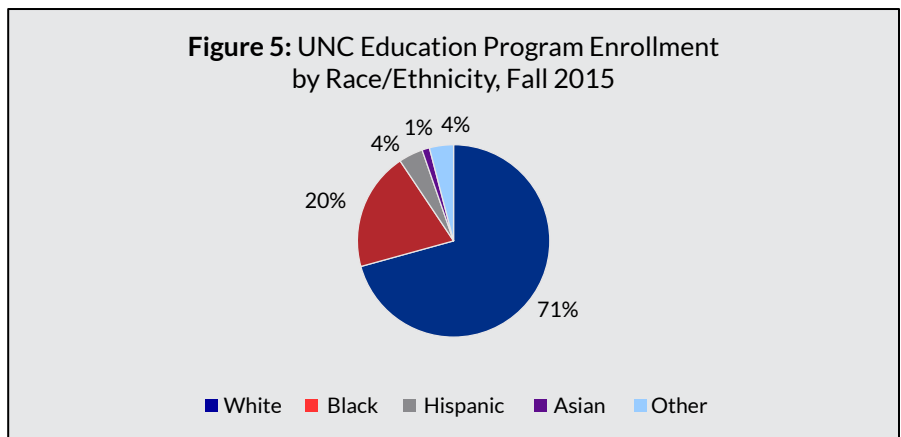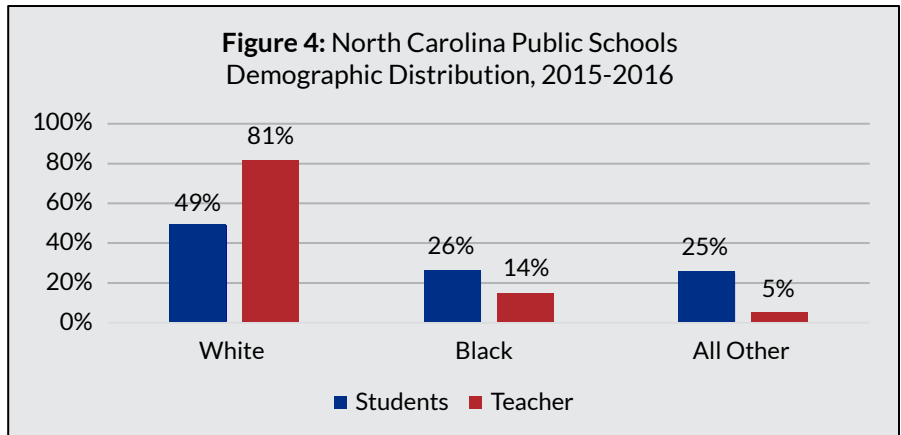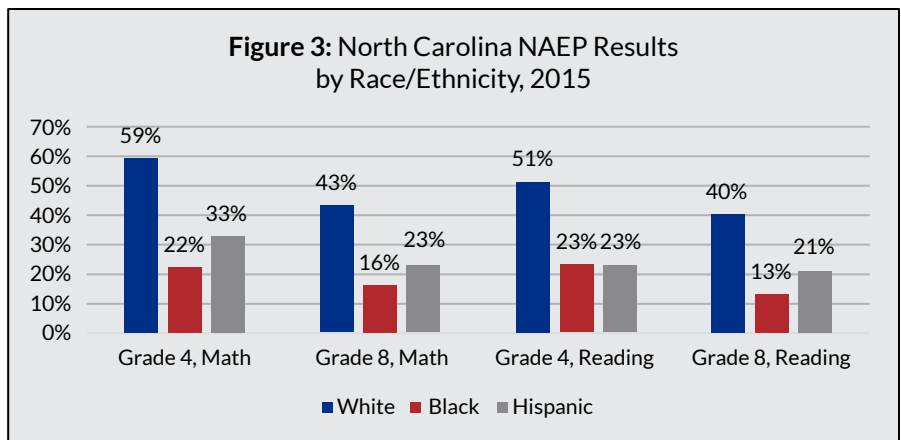
Meanwhile, the state's teacher workforce, like the nation's as a whole, remains predominantly made up of white teachers **(Figure 4)**. In 2016, the diversity gap between black students and black teachers was 14 percentage points, while the diversity gap between "all other" students and "all other" teachers was 20 percentage points.[10] Even though the number of teachers identified as "all other" has increased by more than 80 percent in the past 10 years, **the pace of teacher diversification in North Carolina still falls markedly behind the pace of student diversification**.

Enrollment data from the state's public schools of education, the largest supplier of teachers to the state's public schools, suggests that **the lack of diversity in the state's teacher workforce will continue in the years to come**. In 2015, enrollment in University of North Carolina (UNC) System education programs was 71 percent white, 20 percent black and only four percent Hispanic **(Figure 5)**.[11, 12]

**Figure 3:** North Carolina NAEP Results by Race/Ethnicity, 2015

| | White | Black | Hispanic |
|---|---|---|---|
| Grade 4, Math | 59% | 22% | 33% |
| Grade 8, Math | 43% | 16% | 23% |
| Grade 4, Reading | 51% | 23% | 23% |
| Grade 8, Reading | 40% | 13% | 21% |

**Figure 4:** North Carolina Public Schools Demographic Distribution, 2015-2016

| | Students | Teacher |
|---|---|---|
| White | 49% | 81% |
| Black | 26% | 14% |
| All Other | 25% | 5% |

**Figure 5:** UNC Education Program Enrollment by Race/Ethnicity, Fall 2015

| Race/Ethnicity | Percent |
|---|---|
| White | 71% |
| Black | 20% |
| Hispanic | 4% |
| Asian | 1% |
| Other | 4% |

## Challenges

Due to North Carolina's geographic diversity and the state's uneven population growth, the rates of diversity in student and teacher populations vary tremendously from district to district and from region to region. The teacher-student diversity gap is often most pronounced in rural and urban schools that serve high concentrations of minority students. Increasing diversity may be especially challenging for rural schools that frequently struggle with more severe teacher shortages because of isolation and sluggish economic conditions.
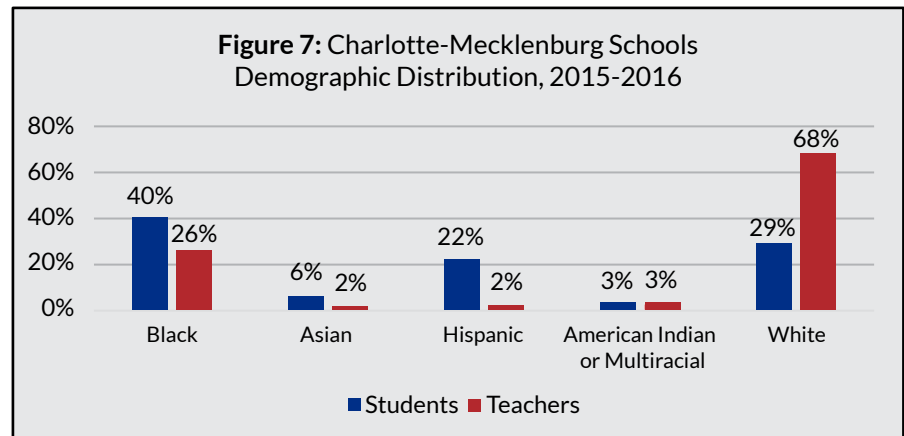
High teacher turnover coupled with decreasing enrollment in the state's public schools of education will also present a serious challenge to policymakers who wish to strengthen and diversify the teacher pipeline in the years to come. Teacher turnover in North Carolina has increased in recent years, exacerbating the state's teacher shortage and making strategic efforts to diversify the workforce more difficult. The state's teacher attrition rate reached its highest level in 2015 when 14.8 percent of teachers left their positions.[13] Additionally, enrollment in the state's public schools of education has decreased by 30 percent since 2010.[14]

Because the teacher shortage and diversity gap is uneven across North Carolina's various geographic regions, it may be difficult to achieve a statewide solution. The state's urban areas often experience a wider diversity gap because they teach high concentrations of minority students. However, these areas may also have an easier time recruiting new teachers because of their ability to offer sizeable local salary supplements.

For example, Charlotte-Mecklenburg Schools employs a more diverse teacher population than the rest of the state. The district reports that black teachers make up 26 percent of their teacher workforce, compared to 14 percent of the state workforce. However, because black students make up 40 percent of the district's student population, the district actually has a wider diversity gap than the state as a whole **(Figure 7)**.[15]

**Figure 7:** Charlotte-Mecklenburg Schools Demographic Distribution, 2015-2016

| | Black | Asian | Hispanic | American Indian or Multiracial | White |
|---|---|---|---|---|---|
| Students | 40% | 6% | 22% | 3% | 29% |
| Teachers | 26% | 2% | 2% | 3% | 68% |

## Notable Recruitment Efforts in North Carolina

Most school districts and schools of education recruit new teachers through individual, localized efforts. However, a number of state and national level teacher recruitment programs have made intentional efforts to attract minority candidates to the teaching profession.

- In 2016, the UNC General Administration launched *Teach Now for North Carolina*.[16] The website aims to increase enrollment at the 15 UNC System schools of education by connecting prospective teachers with the education programs that fit them best. The website features testimonials from a diverse group of current North Carolina teachers.[17]

- The nonprofit organization **Profound Gentlemen**, founded in Charlotte in 2015, aims to increase the recruitment and retention of male teachers of color by creating a network of support for current and prospective teachers. The organization, which provides in-person and online resources, reports that 96 percent of its members will continue on as educators during the 2016-2017 school year.[18]

- **Teach for America**, a nationwide teacher recruitment and placement organization serving eastern North Carolina, Charlotte and Greensboro, now boasts more than 400 corps members across North Carolina. Teach for America places emphasis on recruiting individuals who "share the racial and/or economic backgrounds of the students underserved by public schools" and reports that 50 percent of its current corps members identify as people of color.[19,20]

- **North Carolina Teaching Fellows**, a scholarship and training program for future teachers which ended in 2015, sought to attract highly-qualified minority students to the teaching profession. According to a 2015 report, those efforts paid off, and the existence of the program "increased the likelihood that students in North Carolina would be taught by talented and well-prepared minorities."[21]

## Root Causes of the Diversity Gap

As policymakers consider potential solutions to the diversity gap, it is important to examine the underlying causes of this issue. According to the Brookings Institution, there are four key factors that contribute to the lack of diversity in the teacher workforce:[22]

1. **A smaller proportion of minority populations earn college degrees.** A disproportionately low number of black and Hispanic students enter college and earn degrees. Low rates of minority college completion exclude a large portion of the minority community from becoming teachers.

2. **Interest in a teaching career among minority college students and graduates is lower than for white students.** Many alternative licensure programs have made concerted efforts to recruit minority candidates to the teaching profession; however, the bulk of the nation's teachers come from traditional teacher preparation programs at four-year colleges and universities. Those programs are disproportionately comprised of white students.

3. **Black and Hispanic teachers are hired for teaching jobs at lower rates than white teachers.** White education majors are hired for teaching positions at slightly higher rates than their minority peers. In addition, minority education majors have lower passing rates on teacher licensure exams than their white peers, presenting another barrier to entry for prospective teachers of color. Importantly, a research study in North Carolina found no link between scores on licensure exams and teacher effectiveness.[23]

4. **Black and Hispanic teachers are retained in teaching jobs at lower rates than white teachers.** Nationally, retention rates for minority teachers are lower than those for white teachers. However, minority teachers are retained at higher levels than white teachers when employed in high-poverty schools.

The nationwide teacher shortage has created an imperative for reform of the teacher pipeline. These reforms will require policymakers to craft strategic solutions that ensure the recruitment and retention of a high-quality workforce. While undergoing this work, policymakers would be wise to pursue solutions that also attempt to narrow the diversity gap and attend to the points in the teacher pipeline where minority teachers exit or are excluded from the profession.

## Considerations for NC Policymakers

**Key Points:**

- North Carolina is experiencing a pronounced teacher shortage—with more severe shortages in the following subject areas: middle and high school math, high school science, and special education.

- There is a substantial diversity gap between North Carolina's student population and its teacher workforce.

- Research suggests that employing a diverse teacher workforce could help close the racial achievement gap.

- Both the teacher shortage and the diversity gap are uneven across the state, with some areas experiencing more severe shortages and/or gaps than others.

- Efforts to strengthen the teacher pipeline in North Carolina will need to consider a number of important factors, one of which is **diversity**.

**Questions for Reflection:**

- Do our local teacher recruitment efforts attempt to address the lack of diversity in the teacher workforce? If not, how can state leaders help districts realize the potential impact teacher diversity could have on minority student achievement?

- How can state and local leaders craft teacher recruitment policies that value and promote teacher diversity?

- Why do minority students enroll in schools of education in lower numbers than white students? How can universities attract talented minority candidates to the profession?

- What school- and system-level conditions contribute to high teacher turnover? What changes can be made to increase retention of all teachers, especially those who identify as persons of color?

- What can the Department of Public Instruction, the UNC Board of Governors, and the North Carolina General Assembly do to promote the diversification of the teacher workforce? How can these bodies work together to address the diversity gap?

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