EDUCATION POLICY INITIATIVE *at* CAROLINA

# The Academic Credentials of Teacher Education Candidates and Graduates in North Carolina

In this policy brief we assess the academic credentials of those entering teacher preparation programs (TPPs) at UNC system institutions, compare the academic credentials of teacher education graduates with non-education majors, and investigate a policy mechanism to help TPPs recruit more academically-competitive candidates. We find that: (1) the academic competitiveness of students admitted into UNC system TPPs is on the rise; (2) across institutions, there is significant variation in the academic credentials of those admitted into and completing teacher education; (3) within institutions, the academic credentials of teacher education graduates are comparable to those of non-education graduates; and (4) scholarship loan recipients, particularly North Carolina Teaching Fellows, are more academically-competitive than teaching candidates without any scholarship loans. Taken together, these results suggest that:

1. UNC system TPPs are admitting academically-competitive students, particularly in relation to non-education students at the same university.
2. Some UNC system institutions may need to increase selectivity. To balance rising admissions standards and efforts to prepare a diverse teacher workforce, TPPs and accreditation agencies should consider a wider set of admissions criteria beyond academic performance.
3. Policymakers play a significant role in attracting individuals to teacher education and the teaching profession.

## Introduction

Concerns about the academic ability of teachers have long shadowed the teaching profession, with many viewing teaching as having a lower status than other licensed professions. These concerns are informed by research documenting a decline, during the last decades of the 20th century, in the academic credentials of those entering teaching and showing that higher-scoring college graduates (SAT/ACT scores) are less likely to enter teaching. This matters since academic ability is one of the few observable teacher characteristics that consistently predicts—albeit modestly—student achievement.

In this context, teacher preparation programs (TPPs) have been under pressure—from independent organizations, state governments, and national accreditation agencies—to raise admissions standards. For example, in its most recent teacher preparation report, the National Council on Teacher Quality found that only 35 percent of undergraduate programs and 9 percent of graduate programs met its Selection Criteria standard. New accreditation standards, issued by the Council for the Accreditation of Educator Preparation (CAEP), require that TPPs ensure an average grade point average (GPA) of 3.0 and an average score on nationally normed assessments (e.g., ACT, SAT, GRE) in the top 50 percent for entering cohorts.[1] For reference, in 2013, an SAT score of 1010 was at the 50th percentile nationally. From the perspective of North Carolina, these accreditation and policy pressures encourage us to examine the academic credentials of candidates admitted into and completing TPPs at UNC system institutions. Therefore, in this policy brief we (1) assess the academic credentials of those admitted into UNC

[1] CAEP recently amended these admission standards. The previous version of these accreditation requirements called on TPPs to scale up performance standards for nationally normed assessments such that cohort average scores would be in the top 50 percent by 2016-17, the top 40 percent by 2018-19, and the top 33 percent by 2020.

system TPPs; (2) compare teacher education graduates with non-education graduates on their respective campuses; and (3) consider how state policy and programs can help TPPs recruit more academically-competitive candidates.

## Background

This policy brief focuses on UNC system institutions—the largest supplier of teachers to North Carolina public schools (NCPS)—given the availability and consistency of data tracking academic credentials at the time of program admission (e.g. high school GPA, SAT/ACT scores) and throughout students' tenure in UNC system institutions. Specifically, two data files contribute to these analyses. The first file identifies candidates admitted into undergraduate-level programs for initial teacher licensure at UNC system institutions. These data allow us to assess the academic credentials of entering cohorts, compare the academic credentials of candidates at different UNC system institutions, and examine how academic credentials vary by licensure area. The second file details the academic credentials of teacher education and non-education UNC system graduates. These data allow us to compare education graduates to their non-education peers. Together, these data provide a narrow snapshot of teacher education and a broader view of teacher education within the university.

For these analyses we focus on candidates recently admitted into and completing programs—those admitted in the 2009-10 through 2013-14 academic years and graduates in the 2011-12 through 2013-14 academic years. Our assessments of candidates entering undergraduate-level TPPs focus on SAT scores and high school GPA; our assessments of UNC system graduates (education versus non-education) focus on SAT scores, high school GPA, and cumulative GPA at UNC system institutions. By pairing high school and university GPA with SAT scores, we provide a more comprehensive perspective on academic achievement. Throughout much of our study period, the minimum admissions requirements for UNC system institutions were high school GPAs of 2.3 and SAT scores of 750; the current minimum admissions requirements are high school GPAs of 2.5 and SAT scores of 800.

## Who is entering teacher education programs in the UNC system?

Table 1 displays a set of academic ability measures for those entering undergraduate level TPPs during the 2009-10 through 2013-14 academic years.[2] Here, for both high school GPAs and SAT performance, it is clear that the academic competitiveness of those entering UNC system TPPs is on the rise. During this time the average high school GPA has increased by 0.25 points, the average SAT score has risen by 30 points, and the average SAT percentile has increased from 54 to 59.[3] For those admitted into TPPs in the 2013-14 year, 67 percent had SAT scores in the top half of the national distribution, 53 percent had scores in the top 40 percent of the national distribution,

Table 1: Credentials of Admitted Teacher Education Candidates (Cohort Level)

| Cohort | HS GPA | Avg SAT Score | Avg SAT Percentile | % in Top Half | % in Top Forty | % in Top Third |
|---|---|---|---|---|---|---|
| 2009-10 | 3.49 | 1041.51 | 53.82 | 56.98 | 43.19 | 32.28 |
| 2010-11 | 3.60 | 1044.85 | 54.52 | 57.44 | 43.82 | 33.01 |
| 2011-12 | 3.65 | 1057.59 | 56.48 | 61.14 | 48.54 | 36.10 |
| 2012-13 | 3.71 | 1060.36 | 56.80 | 62.86 | 48.64 | 35.37 |
| 2013-14 | 3.73 | 1071.00 | 58.98 | 67.24 | 53.36 | 40.05 |

Note: This table presents data on the average high school GPA and SAT performance of UNC system undergraduates entering teacher education programs during the 2009-10 through 2013-14 academic years.

[2] We place students into academic year cohorts based on the first time they declare for teacher licensure. Approximately 8, 13, 43, 35, and 1 percent of these records come from first-year, second-year, third-year, fourth-year, and fifth-year undergraduates, respectively.

[3] Overall, high school GPAs are available for 87 percent of this sample, SAT scores are available for 78 percent of this sample, and SAT percentile values are available for 94 percent of students with a SAT score. These percentages of available data, particularly for SAT scores, vary by UNC system institution because during the study period institutions were not required to report SAT scores for transfer students.

and 40 percent had scores in the top third of the national distribution. These values are up from 57, 43, and 32 percent, respectively, for the entering cohort in 2009-10. Overall, these results are representative of recent research showing that the academic credentials of those certified to teach and those entering teaching has increased since 2000.

Pooling data for students in the 2009-10 through 2013-14 entering cohorts, Table 2 displays the same set of academic ability measures for each UNC system institution. Here, we note the diversity of university missions within the UNC system and how those missions are embodied in the characteristics of admitted students and graduates. There are sizable differences in academic credentials across universities that suggest potential challenges in meeting national accreditation requirements (CAEP) and preparing a diverse teacher workforce for North Carolina. Essentially, the six institutions with the lowest high school GPAs, SAT scores, and SAT percentile values are the UNC system's five historically black colleges and universities (HBCUs)—ECSU, FSU, NCA&T, NCCU, and WSSU—and UNCP, an institution that historically serves a Native American population. While values for these academic measures have increased in more recent cohorts, as it stands, the average SAT percentiles for these six institutions are below CAEP's requirement of the top 50th percentile. Only three institutions—NCSU, UNCA, and UNCCH—have average SAT percentiles in the top third of the national scoring distribution. Given the racial/ethnic composition of these universities, these results seemingly pit two teacher workforce priorities against each other—a highly-competitive workforce and a diverse workforce for a diverse student population. Meeting both of these priorities may require a broader definition (beyond academic ability) of TPP selectivity.

Lastly, Table 3 displays high school GPAs and SAT performance data for a select number of distinct licensure areas or licensure area groupings.[4] Overall, these data show differences across licensure areas, with candidates

Table 2: Credentials of Admitted Teacher Education Candidates (University Level)

| University | HS GPA | Avg SAT Score | Avg SAT Percentile | % in Top Half | % in Top Forty | % in Top Third |
|---|---|---|---|---|---|---|
| ASU | 3.83 | 1089.17 | 61.65 | 73.54 | 59.82 | 44.54 |
| ECU | 3.58 | 1023.89 | 51.46 | 52.34 | 34.95 | 22.62 |
| ECSU | 3.16 | 930.90 | 34.53 | 23.25 | 12.40 | 6.20 |
| FSU | 2.98 | 903.24 | 32.79 | 17.64 | 12.94 | 8.23 |
| NCA&T | 2.94 | 891.77 | 29.91 | 16.13 | 9.36 | 4.18 |
| NCCU | 2.95 | 908.46 | 31.58 | 19.15 | 11.69 | 6.82 |
| NCSU | 4.01 | 1134.32 | 67.60 | 84.36 | 70.16 | 55.59 |
| UNCA | 3.88 | 1160.45 | 72.29 | 87.68 | 79.80 | 66.50 |
| UNCCH | 4.38 | 1270.25 | 84.74 | 98.52 | 96.12 | 92.99 |
| UNCC | 3.65 | 1032.56 | 52.76 | 54.71 | 36.78 | 25.53 |
| UNCG | 3.60 | 1050.64 | 55.24 | 58.49 | 44.26 | 31.84 |
| UNCP | 3.12 | 964.59 | 41.96 | 32.64 | 22.68 | 15.12 |
| UNCW | 3.66 | 1096.95 | 63.23 | 78.15 | 65.98 | 49.27 |
| WCU | 3.48 | 1025.92 | 51.44 | 50.30 | 35.18 | 24.21 |
| WSSU | 3.12 | 915.58 | 34.46 | 20.63 | 11.64 | 6.35 |

Note: This table presents data on the average high school GPA and SAT performance of UNC system undergraduates entering teacher education programs during the 2009-10 through 2013-14 academic years.

[4] Middle grades includes those with licenses in language arts, math, science, and social studies; secondary includes those with licenses in English, math, science, and social studies/history; arts includes art, music, theater, and dance.

Table 3: Credentials of Admitted Teacher Education Candidates (Licensure Area Level)

| Licensure Areas | HS GPA | Avg SAT Score | Avg SAT Percentile | % in Top Half | % in Top Forty | % in Top Third |
|---|---|---|---|---|---|---|
| Elementary | 3.57 | 1020.13 | 50.85 | 51.15 | 36.59 | 24.54 |
| Middle Grades | 3.76 | 1088.75 | 61.64 | 72.63 | 57.80 | 44.27 |
| Secondary | 3.78 | 1112.65 | 64.53 | 76.57 | 63.93 | 50.74 |
| Exceptional Children | 3.60 | 1042.23 | 55.46 | 62.16 | 46.52 | 30.69 |
| Arts | 3.70 | 1087.88 | 60.65 | 68.28 | 55.24 | 43.14 |
| Foreign Language | 3.59 | 1062.22 | 56.28 | 61.11 | 50.00 | 40.87 |
| Health/PE | 3.37 | 985.02 | 44.81 | 39.93 | 24.40 | 14.50 |

Note: For a select number of licensure areas, this table presents data on the average high school GPA and SAT performance of undergraduates entering teacher education programs during the 2009-10 through 2013-14 academic years.

in certain licensure area categories, such as middle grades or secondary grades, having higher high school GPAs, SAT scores, and SAT percentile values. While consistent with previous research on academic credential differences across licensure areas/schooling levels, these results may have broader implications for TPPs and new accreditation requirements. Essentially, TPPs with larger shares of their admitted candidates in certain licensure areas may be better positioned to meet new admissions standards.

## How do education graduates compare against non-education graduates?

For UNC system students completing their undergraduate degrees in the 2011-12, 2012-13, and 2013-14 academic years, Table 4 provides a comparison of academic ability measures for education graduates versus graduates of all other programs. Looking within universities, average high school GPA and cumulative GPA values are often higher for education graduates versus their non-education peers. This suggests that education graduates are competitive—on measures related to coursework success—with non-education graduates at their respective institutions at entry into higher education and upon graduation. We note, however, that these differences in cumulative GPA may be attributable to differences in the rigor of education coursework versus coursework in other undergraduate programs. Comparable to Table 2, there is also significant variation in GPA values across institutions. For example, the average high school GPA values for education graduates range from 2.87 (FSU) to 4.46 (UNCCH), with an average of 3.68 for the UNC system; for non-education graduates, high school GPAs range from 2.90 (FSU) to 4.35 (UNCCH), with an average of 3.68 across all institutions.

Table 4 shows that education graduates at six institutions (ECSU, NCA&T, NCCU, UNCG, UNCP, and WCU) have higher SAT scores than their non-education peers. For the remaining institutions, the average SAT scores of non-education graduates are higher; however, these differences are generally modest and indicate that the SAT performance for education graduates is comparable to non-education graduates at the same institutions. For education graduates, average SAT scores range from 859 (ECSU) to 1264 (UNCCH) with an average score of approximately 1055 across all institutions. Similarly, the average SAT scores of non-education graduates range from 850 (ECSU) to 1291 (UNCCH) with an average score of 1096 across the UNC system. Like the GPA data, average SAT scores for both sets of graduates display substantial variation, with a difference of more than 400 points between the highest and lowest scoring institutions.

## The Academic Credentials of Scholarship Loan Recipients

State policymakers can help TPPs recruit more academically-competitive candidates in multiple ways. Here, we focus on one policy mechanism: scholarship loan programs (both merit and need-based) to attract individuals into teaching and defray the costs of teacher preparation—which may be particularly important given the rising costs of higher education and concerns with teacher pay.

Table 4: Comparing UNC System Education Graduates with Their Non-Education Peers

| | HS GPA | | SAT Scores | | Cumulative UNC GPA | |
|---|---|---|---|---|---|---|
| University | Education | Non-Education | Education | Non-Education | Education | Non-Education |
| ASU | 3.83 | 3.70 | 1091.54 | 1115.33 | 3.44 | 3.11 |
| ECU | 3.53 | 3.43 | 1018.54 | 1026.97 | 3.38 | 3.02 |
| ECSU | 2.94 | 2.94 | 858.94 | 850.04 | 3.26 | 2.98 |
| FSU | 2.87 | 2.90 | 864.64 | 868.11 | 3.28 | 3.16 |
| NCA&T | 3.23 | 3.12 | 927.33 | 911.62 | 3.33 | 3.01 |
| NCCU | 3.30 | 2.94 | 937.21 | 866.91 | 3.35 | 2.96 |
| NCSU | 4.08 | 4.10 | 1133.40 | 1176.03 | 3.33 | 3.15 |
| UNCA | 3.94 | 3.72 | 1149.55 | 1152.82 | 3.13 | 3.07 |
| UNCCH | 4.46 | 4.35 | 1264.48 | 1290.67 | 3.43 | 3.23 |
| UNCC | 3.64 | 3.54 | 1024.98 | 1050.44 | 3.48 | 3.05 |
| UNCG | 3.62 | 3.49 | 1045.40 | 1036.91 | 3.49 | 3.13 |
| UNCP | 3.49 | 3.23 | 969.66 | 933.17 | 3.38 | 2.97 |
| UNCW | 3.62 | 3.61 | 1076.66 | 1120.80 | 3.55 | 3.16 |
| WCU | 3.71 | 3.47 | 1049.94 | 1032.91 | 3.60 | 3.20 |
| WSSU | 3.02 | 3.03 | 888.30 | 898.09 | 3.23 | 3.27 |
| **UNC Total** | **3.68** | **3.68** | **1054.80** | **1096.00** | **3.43** | **3.12** |

Note: For the 2011-12, 2012-13, and 2013-14 graduating cohorts, this table displays data comparing teacher education graduates with their non-education peers at each UNC system institution and across all institutions.

Specifically, we consider the (1) North Carolina Teaching Fellows program, a competitive, merit-based scholarship loan program which funded its last entering cohort of teaching candidates in 2011-12 and (2) a suite of other teacher scholarship loans, including the Millennial Teaching Scholarship Loan (for candidates at ECSU, FSU, and WSSU), the Future Teachers Scholarship Loan (a two-year scholarship to attract candidates into hard-to-staff licensure areas), and the Prospective Teacher Scholarship Loan. In comparison to admitted teaching candidates without a scholarship loan, Table 5 shows that, on average, Teaching Fellows have high school GPAs approximately 0.75 points higher, SAT scores nearly 125 points higher, and SAT percentile values nearly 20 percentage points higher. Other scholarship loan recipients are more similar to their peers without scholarship loans, but still have higher high school GPAs and slightly higher SAT scores. Overall, while many of these scholarship loan recipients may have entered TPPs without the financial inducement, these results suggest that policymakers have an important role in attracting more academically-competitive candidates to teacher education.

## Discussion

Given the connections between teacher academic ability and performance, we investigated the academic credentials of those entering UNC system TPPs and compared the academic performance of UNC system education graduates with that of non-education graduates at the same institutions. These analyses produced several notable results with implications for TPP practice and state policy. First, despite the recent drop in teacher education enrollments at UNC system institutions—system-wide enrollments are down by more than 30 percent since 2010—the academic competitiveness of those admitted into TPPs is on the rise. Second, some UNC system institutions may need to increase selectivity—particularly on nationally normed

Table 5: Credentials of Admitted Teacher Education Candidates (Scholarship Loan Recipients)

| | HS GPA | Avg SAT Score | Avg SAT Percentile | % in Top Half | % in Top Forty | % in Top Third |
|---|---|---|---|---|---|---|
| Teaching Fellows | 4.25 | 1162.29 | 72.13 | 91.95 | 80.97 | 66.27 |
| Other Teacher Scholarship Loans | 3.89 | 1054.61 | 55.94 | 61.36 | 43.21 | 29.62 |
| No Scholarship Loan | 3.53 | 1039.59 | 53.67 | 56.31 | 42.74 | 31.24 |

Note: This table presents data on the average high school GPA and SAT performance of Teaching Fellows, other scholarship loan recipients, and all other teaching candidates (no scholarship loans received) during the 2009-10 through 2013-14 academic years. Other scholarship loans include the Millennial Teaching Scholarship Loan, the Future Teachers Scholarship Loan, and the Prospective Teacher Scholarship Loan.

assessments—to meet CAEP's admissions standards. Third, within universities, the academic credentials of teacher education graduates are comparable with those of their non-education peers. These differences in academic credentials across institutions, coupled with the similarities in academic credentials within institutions, highlight the need to consider how applicant pools differ across universities. More broadly, this suggests a need to consider more expansive measures in TPP admissions (beyond academic credentials) that can ensure the quality of admitted students while also promoting a diverse teacher workforce for a diverse population of North Carolina students. Examples of these alternative admissions criteria could include measures of conscientiousness, grit, or motivation for teaching. Lastly, we highlight the role of policy in attracting competitive students to TPPs. Policymakers can help TPPs recruit outstanding future teachers by providing recruitment incentives (e.g. scholarship loans), competitive teacher salaries, an environment of high expectations with professional autonomy, and opportunities for meaningful career advancement and learning.

# For more research on this topic

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