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Outcomes for the Central Carolina Teaching Initiative in the 2017–18 and 2018–19 School Years

In this brief, EPIC presents initial results from our evaluation of the Central Carolina Teaching Initiative (CCTI) program. These analyses focus on the first two entry cohorts for the CCTI program—2017-18 and 2018-19—and compare outcomes for CCTI teachers versus traditionally prepared and other alternative entry teachers working in the same districts and schools. Overall we find that: (1) approximately 75 percent of CCTI entrants complete all program requirements; (2) CCTI completers feel very positive about their preparation experiences; (3) CCTI teachers perform comparably to traditionally prepared and other alternative entry teachers; and (4) CCTI teachers are more likely to return to the same districts and schools in the following year. These results can inform programmatic decisions for the CCTI and provide state officials with evidence regarding the effectiveness of district-run teacher preparation.

Introduction

Across the country, many states and school districts are looking for innovative ways to prepare teachers, especially to meet demand in high-need regions and subject-areas. Towards this end, one novel approach is granting school districts the authority to become teacher preparation programs (TPPs). Relative to a traditional model in which universities prepare teachers, there are several potential advantages in districts assuming this role, including the ability to meet specific subject-area needs and ensuring that teachers possess the content knowledge and pedagogical skills valued by the district.

Over the last decade, North Carolina has encouraged local school districts to take on this preparation role. The state has authorized Guilford County Schools and Charlotte-Mecklenburg Schools to operate their own alternative certification and residency programs—i.e. Guilford County Schools Alternative Certification Track and the CMS Teaching Residency. Furthermore, in 2016, the State Board of Education (SBE) issued a Request for Proposals for districts to initiate their own local alternative teacher preparation program and awarded this opportunity to Wake

County and the Central Carolina Regional Education Service Alliance (CCRESA). The CCRESA created the Central Carolina Teaching Initiative (CCTI) and since the 2017–18 school year, the CCTI has served as an alternative entry/residency program for teachers working in CCRESA school districts.

The enabling legislation for the local alternative teacher preparation program also directed the SBE to issue a Request for Proposals and select an independent program evaluator. In response, EPIC submitted an evaluation plan and was chosen as the evaluator for the CCTI. In this brief, EPIC provides initial evaluation results for the teachers served by the CCTI in the 2017–18 and 2018–19 school years. In particular, we address the following questions: (1) What percentage of participating teachers complete the CCTI program? (2) How do CCTI teachers perceive the quality of their preparation? (3) How effective are CCTI teachers? and (4) Do CCTI teachers remain in teaching? These results can inform programmatic decisions for the CCRESA and provide state officials with evidence regarding the effectiveness of district-run teacher preparation.

Background

In this brief, we focus on preparation practices of the CCTI program and outcomes for CCTI teachers in the 2017–18 and 2018–19 school years. During this time, the CCTI was an alternative entry¹ provider serving middle and high school teachers employed by CCRESA school districts.² To enroll program participants, the CCTI partnered with school districts in the CCRESA and recruited teachers who needed to complete an alternative entry preparation program. Importantly, this means that the CCTI did not recruit individuals into teaching. Rather, among teachers hired by CCRESA districts, the CCTI competed against other alternative entry providers to enroll participants. Once enrolled, the CCTI offered a two-year preparation program³ with three primary components: (1) 150 hours of coaching, mentoring, and professional development provided by district-based personnel; (2) 150 hours of coursework contact hours, fulfilled through evening courses during the school year, summer courses, and a spring symposium; and (3) teachers' satisfactory completion of a capstone, CCTI-created performance assessment.

For this evaluation, we identified several groups of middle and high school teachers to serve as comparison samples: (1) *traditionally prepared* early-career teachers (<3 years of experience) working in the same districts and the same schools as CCTI

teachers and (2) *other alternative entry* early-career teachers working in the same districts and the same schools as CCTI teachers. With these groups we can assess CCTI outcomes relative to their peers with traditional, university-based preparation and relative to those who entered teaching without having completed their licensure requirements. By limiting comparisons to teachers in the same districts and schools, we focus on the CCRESA and begin to account for district and school characteristics that may influence teacher outcomes.

Table 1 presents descriptive data on CCTI and comparison sample teachers in the 2017–18 and 2018–19 school years. In 2017–18, 81 teachers—working in 63 schools and 12 districts—entered the CCTI program; in 2018–19, another 68 teachers—working in 50 schools and 9 districts—entered the CCTI program. For the 2017–18 and 2018–19 school years, combined, Table 1 shows that our comparison samples consist of 1,344 traditionally prepared teachers and 805 alternative entry teachers working in the same districts as CCTI teachers and 669 traditionally prepared teachers and 357 alternative entry teachers working in the same schools as CCTI teachers.⁴ Demographically, those in the CCTI program are older than their peers in the comparison samples and are more likely to be a teacher of color than their traditionally prepared peers.

Table 1: Characteristics of CCTI and Comparison Sample Teachers

	CCTI 17-18 COHORT	CCTI 18-19 COHORT	TRADITIONALLY PREPARED: SAME LEA	ALTERNATIVE ENTRY: SAME LEA	TRADITIONALLY PREPARED: SAME SCHOOL	ALTERNATIVE ENTRY: SAME SCHOOL
Unique Teachers	81	68	1344	805	669	357
Unique Schools	63	50	197	184	92	86
Unique Districts	12	9	13	13	12	13
Female	71.60%	70.59%	71.14%	64.43%	73.16%	68.26%
Teacher of Color	56.79%	50.00%	24.05%	56.98%	23.85%	53.41%
Age	35.14	34.19	28.09	31.92	28.06	31.92
1st Year Teacher	61.73%	67.65%	36.60%	40.56%	36.19%	42.79%
2nd Year Teacher	33.33%	30.88%	31.26%	29.77%	32.08%	24.11%
3rd Year Teacher	4.94%	1.47%	32.14%	29.67%	31.73%	33.10%
Licenses Held						
Elementary	0.00%	1.47%	5.97%	3.60%	17.90%	7.11%
Exceptional Children	23.46%	13.24%	11.10%	15.70%	10.95%	16.11%
Career-Technical Education	16.05%	22.06%	8.18%	13.80%	6.71%	12.80%
Middle Math/Science	14.81%	16.18%	18.01%	15.80%	12.60%	11.61%
Middle ELA/Social	6.17%	10.29%	21.16%	12.80%	16.73%	12.80%
Secondary Math/Science	16.05%	19.12%	19.83%	12.00%	18.14%	10.90%
Secondary ELA/Social	4.94%	10.29%	25.14%	11.20%	22.14%	10.66%
Arts	8.64%	2.94%	8.51%	4.30%	8.13%	4.27%
Health/PE	0.00%	1.47%	2.38%	0.60%	2.24%	0.95%
Foreign Languages	4.94%	4.41%	1.88%	2.50%	0.94%	2.13%

Note: This table displays characteristics of CCTI teachers in the 2017–18 and 2018–19 cohorts (separately) and characteristics of the traditionally prepared and alternative entry teachers in our comparison samples (combined across the 2017–18 and 2018–19 school years).

Table 2: School Characteristics of CCTI and Comparison Sample Teachers

	CCTI TEACHERS	TRADITIONALLY PREPARED: SAME LEA	ALTERNATIVE ENTRY: SAME LEA	TRADITIONALLY PREPARED: SAME SCHOOL	ALTERNATIVE ENTRY: SAME SCHOOL
Economically-Disadvantaged	57.86	45.24	51.41	55.85	58.87
Racial/Ethnic Minority	68.34	62.19	69.94	67.73	71.61
Performance Composite	47.29	53.97	48.27	48.63	45.18
Exceeds Growth	15.62	22.39	22.19	18.33	22.70
Meets Growth	38.84	35.92	36.45	36.43	33.33
Does Not Meet Growth	45.54	41.69	41.37	45.24	43.97

Note: This table displays characteristics of the schools in which CCTI and comparison sample teachers worked in the 2017–18 and 2018–19 school years

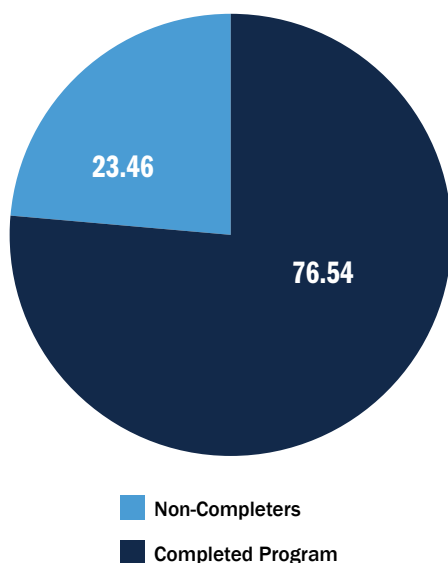
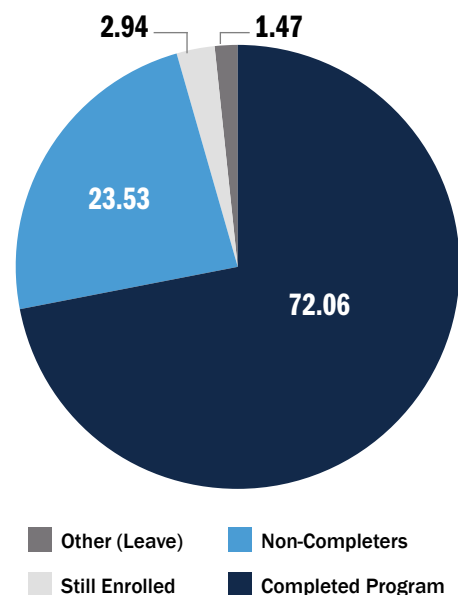
Regarding teaching licenses, we find that CCTI teachers are more likely to possess an exceptional child, career-technical education, or foreign language license. Relative to those with traditional preparation, CCTI teachers are less likely to hold licenses in ELA/English or social studies.

Table 2 displays characteristics of the schools in which CCTI and comparison sample teachers worked in the 2017–18 and 2018–19 school years. On average, CCTI teachers worked in schools in which 58 percent of students were economically-disadvantaged, 68 percent of students were a racial/ethnic minority, and the performance composite was 47 percent. Over 45 percent of these schools did not make expected student achievement growth. School characteristics for our comparison groups are generally similar—given their employment in the same districts and schools as CCTI teachers. However, relative to CCTI teachers, traditionally prepared teachers in the same districts worked in schools with fewer economically-disadvantaged and racial/ethnic minority students and with higher performance composites.

What percentage of teachers complete the CCTI program?

Figure 1 illustrates the percentage of CCTI participants, in the 2017–18 and 2018–19 entering cohorts, who have completed the program. Among the 81 entrants in the first CCTI cohort (2017–18), 62 teachers (76.5%) have completed all programmatic requirements. Of these 62 completers, 47 have also passed their state required licensure exams.⁵ Among the 19 non-completers in the first cohort, 11 resigned from teaching (overall or from a participating district), four were dismissed from the program, and four chose not to complete program requirements.

Sixty-eight teachers were part of CCTI’s second cohort (entering in 2018–19). Of these teachers, 49 have completed all programmatic requirements (72.1%), two are still in the program, one is on family medical leave, and 16 are non-completers. Among the 49 completers, 25 have already passed their state required licensure exams; among the 16 non-completers, 10 resigned from teaching (overall or from a participating district), one was separated from employment, and five were dismissed from the program.

Figure 1: Program Completion Rates for CCTI**CCTI Cohort 1: 2017-18 Entrants****CCTI Cohort 2: 2018-19 Entrants**

Note: This figure displays program completion percentages for CCTI teachers in the 2017–18 and 2018–19 entering cohorts.

How do CCTI teachers perceive the quality of their preparation?

To assess teachers' perceptions of their preparation program, EPIC partners with the North Carolina Department of Public Instruction (NCDPI) and administers an annual survey to early-career teachers. This survey has two main sections—one section asks early-career teachers to rate the quality of their preparation program (i.e. *How well did your teacher preparation program prepare you to...*) and the other section asks early-career teachers to report their opportunities to learn and practice key teaching tasks (i.e. *In your teacher preparation program, how much opportunity did you have with the following...*). Factor analyses indicate that these survey items identify three constructs: (1) *instruction* (i.e. survey items on planning, instruction, and assessment); (2) *creating supportive learning environments* (i.e. survey items on expectations, procedures/classroom management, and relationships); and (3) *teaching diverse learners* (i.e. survey items on instructing exceptional children, English learners, gifted students, etc.). In our evaluation of the CCTI, we report survey results for these three constructs.

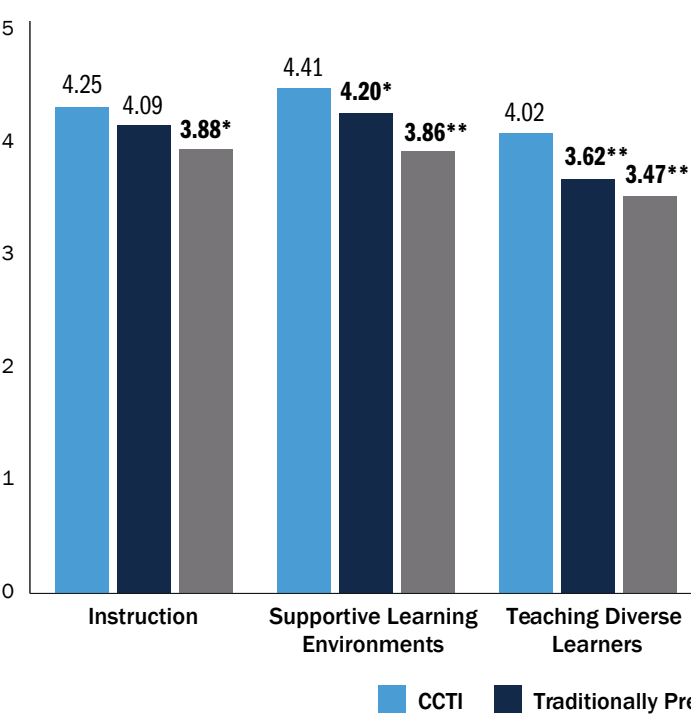
For these analyses we compare the survey responses of CCTI program completers (from the 2017–18 or 2018–19

entering cohorts) with those of traditionally prepared and other alternative entry teachers who are working in the same districts as CCTI completers.⁶ It is important to note that these comparisons are limited to survey *respondents* and may not generalize to the full population of program completers.⁷ As such, these results should be interpreted cautiously.

Regarding perceptions of preparation quality, Figure 2 shows that CCTI respondents felt well prepared to teach. For the *Instruction*, *Supportive Learning Environments*, and *Teaching Diverse Learners* constructs, the average values for CCTI respondents were 4.25, 4.41, and 4.02, respectively (between *well* and *very well*). Relative to their traditionally prepared peers, CCTI respondents had significantly higher values for the *Supportive Learning Environments* and *Teaching Diverse Learners* constructs. CCTI respondents had significantly higher values than other alternative entry teachers for all three constructs.

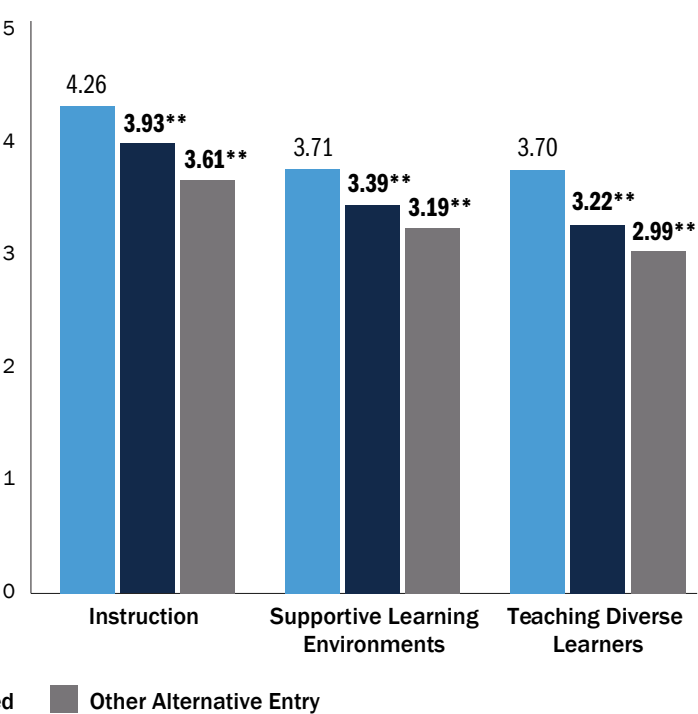
Figure 3 indicates that CCTI respondents had many opportunities to learn and practice key teaching tasks during their program. For the *Instruction*, *Supportive Learning Environments*, and *Teaching Diverse Learners* constructs, the average values for CCTI

Figure 2: Perceptions of Preparation Program Quality



Note: This figure displays survey responses for teachers' perceptions of the quality of their preparation program. The question stem was *How well did your teacher preparation program prepare you to*. Answer choices were *Not Addressed* (1), *Not Well* (2), *Somewhat Well* (3), *Well* (4), and *Very Well* (5). Based on factor analyses, we report data for three survey constructs—*Instruction*, *Supportive Learning Environments*, and *Teaching Diverse Learners*. We test for statistically significant differences between (1) CCTI and traditionally prepared teachers and (2) CCTI and other alternative entry teachers. * and ** indicate statistically significant differences at the 0.05 and 0.01 levels, respectively.

Figure 3: Perceptions of Opportunities to Learn and Practice Teaching Tasks



Note: This figure displays survey responses for teachers' perceptions of their opportunities to learn and practice key teaching tasks during their preparation. The question stem was *In your teacher preparation program, how much opportunity did you have with the following*. Answer choices were *No Opportunities* (1), *Few Opportunities* (2), *Some Opportunities* (3), *Many Opportunities* (4), and *Extensive Opportunities* (5). Based on factor analyses, we report data for three survey constructs—*Instruction*, *Supportive Learning Environments*, and *Teaching Diverse Learners*. We test for statistically significant differences between (1) CCTI and traditionally prepared teachers and (2) CCTI and other alternative entry teachers. * and ** indicate statistically significant differences at the 0.05 and 0.01 levels, respectively.

Table 3: Teacher Evaluation Results (NCEES) for CCTI and Comparison Sample Teachers

	LEADERSHIP	CLASSROOM ENVIRONMENT	CONTENT KNOWLEDGE	FACILITATING STUDENT LEARNING	REFLECTING ON PRACTICE
CCTI vs Teachers in the Same District					
CCTI vs Traditionally Prepared Teachers	-0.074+	-0.096+	-0.000	-0.043	-0.016
CCTI vs. Alternative Entry Teachers	0.008	-0.043	0.057	-0.001	0.022
CCTI vs Teachers in the Same Schools					
CCTI vs Traditionally Prepared Teachers	-0.071	-0.076	-0.032	-0.036	-0.035
CCTI vs. Alternative Entry Teachers	0.069+	0.042	0.091*	0.039	0.088*

Note: This table displays results from NCEES models comparing CCTI teachers versus (1) early-career traditionally prepared teachers and (2) other alternative entry early-career teachers. Comparisons are limited to teachers working in the same districts (top panel) or the same schools (bottom panel). +, *, and ** indicate statistical significance at the 0.10, 0.05, and 0.01 levels, respectively.

respondents were 4.26, 3.71, and 3.70, respectively (where *some opportunities* is a level '3', *many opportunities* is a level '4', and *extensive opportunities* is a level '5'). Relative to their traditionally prepared and other alternative entry peers, CCTI respondents had significantly higher values for all three constructs.

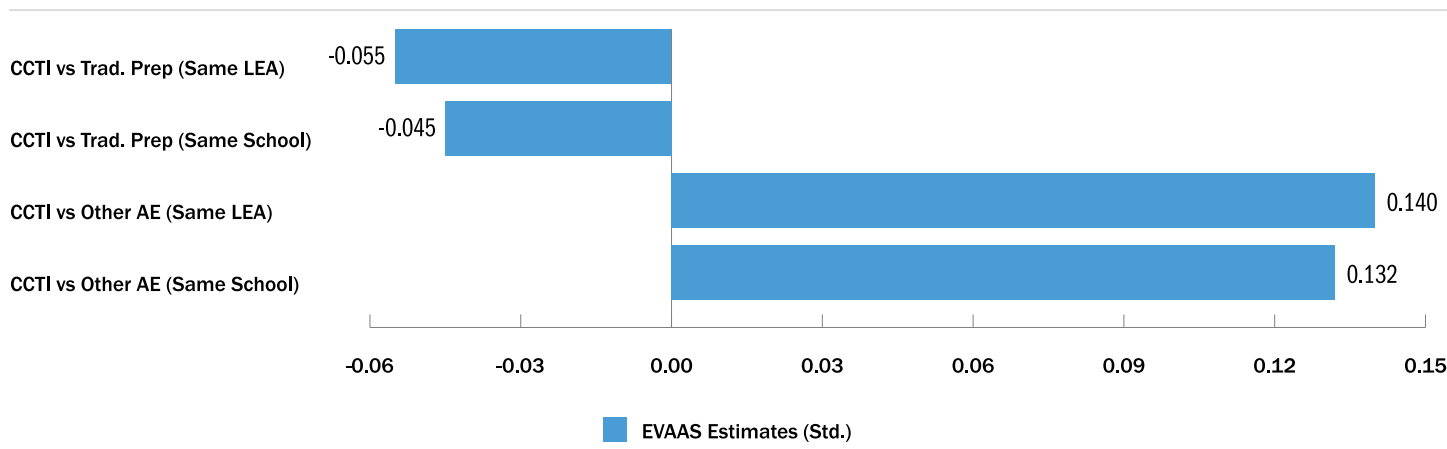
How effective are CCTI teachers?

We assess the effectiveness of CCTI teachers with two performance measures: ratings from the North Carolina Educator Evaluation System (NCEES) and value-added estimates from the Education Value-Added Assessment System (EVAAS). For NCEES, we estimate separate models for each of the state's five professional teaching standards—Leadership, Classroom Environment, Content Knowledge, Facilitating Student Learning, and Reflecting on Practice. For value-added, we estimate models in which the outcome measure is EVAAS estimates standardized within year and test (e.g. Math I, 8th grade science) across all teachers in North Carolina public schools. In our main models, we combine data from the 2017–18 and 2018–19 years and control for teacher demographics, teacher experience, and school characteristics.⁸

Table 3 presents NCEES results for CCTI versus comparison sample teachers. The top panel of Table 3 shows that, relative to traditionally prepared teachers working in the same districts, CCTI teachers earn lower evaluation ratings on the Leadership and Classroom Environment standards. There are no statistically significant differences in the ratings of CCTI teachers and other alternative entry teachers working in the same districts. Comparing teachers working in the same schools, the bottom panel of Table 3 indicates that CCTI teachers earn higher ratings than other alternative entry teachers on the Leadership, Content Knowledge, and Reflecting on Practice standards. Evaluation results for CCTI teachers are negative but not statistically significant when compared to those of traditionally prepared teachers working in the same schools.

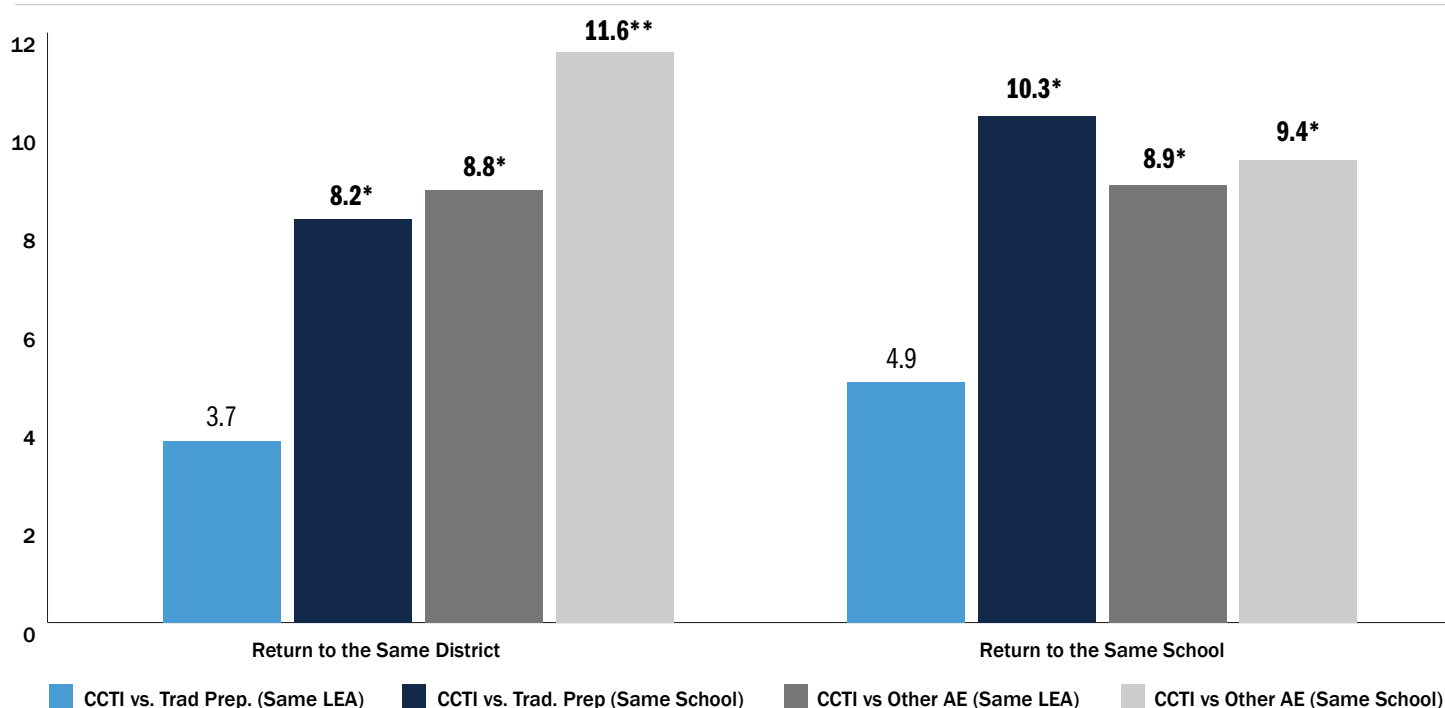
Figure 4 displays EVAAS results for CCTI teachers. There are no statistically significant differences in the value-added estimates of CCTI and comparison sample teachers (traditionally prepared or other alternative entry). However, it is important to note that, relative to other alternative entry teachers, the estimates for CCTI participants are positive and relatively robust in magnitude (approximately 14 percent of a standard deviation).⁹

Figure 4: Teacher Value-Added Results (EVAAS) for CCTI and Comparison Sample Teachers



Note: This figure displays results from EVAAS models comparing CCTI teachers versus (1) early-career traditionally prepared teachers and (2) other alternative entry early-career teachers. Comparisons are limited to teachers working in the same districts or the same schools. +, *, and ** indicate statistical significance at the 0.10, 0.05, and 0.01 levels, respectively.

Figure 5: Teacher Retention Results for CCTI and Comparison Sample Teachers



Note: This figure displays results from retention models comparing CCTI teachers versus (1) early-career traditionally prepared teachers and (2) other alternative entry early-career teachers. Comparisons are limited to teachers working in the same districts or the same schools. +, *, and ** indicate statistical significance at the 0.10, 0.05, and 0.01 levels, respectively.

Do CCTI teachers remain in teaching?

We assess the retention of CCTI teachers with two outcome measures: whether a given teacher returns to the same school district in the following year and whether a given teacher returns to the same school in the following year. For CCTI teachers in the 2017–18 entering cohort, we can examine these outcomes twice (i.e. returning in 2018–19 and 2019–20); for CCTI teachers in the 2018–19 entering cohort, we can examine these outcomes only once (i.e. returning in 2019–20). In our main models, we combine data from the 2017–18 and 2018–19 school years and control for teacher demographics, teacher experience, and school characteristics.¹⁰

Figure 5 presents retention results for CCTI versus comparison sample teachers. We find that CCTI teachers are more likely to return to the same district in the following year than other alternative entry teachers and than traditionally prepared teachers who are working in the same schools as CCTI teachers. For example, controlling for teacher and school characteristics, CCTI teachers are 8.8 percentage points more likely to return to the same district than other alternative entry teachers in the district. Similarly, we find that CCTI teachers are significantly more likely to return to the same school in the following year. This is true when comparing CCTI and traditionally prepared teachers working in the same school and when comparing CCTI and other alternative entry teachers.

Discussion

In this brief, EPIC presents initial results from our evaluation of the CCTI program. These analyses focus on the first two entry cohorts for the CCTI program and compare outcomes for CCTI teachers versus traditionally prepared and other alternative entry teachers working in the same districts and schools. Overall, we have several key findings.

First, across the first two CCTI cohorts (2017–18 and 2018–19), we find that approximately 75 percent of entrants complete all program requirements—150 hours of coaching/mentoring and professional development, 150 hours of coursework, and the successful completion of a capstone performance assessment. This exceeds the minimum completion rate of 70 percent specified by the enabling program legislation. Second, responses to our statewide teacher preparation survey show that CCTI completers feel very positive about their preparation experiences. In particular, CCTI respondents rated the quality of their preparation and their opportunities to learn in the program as higher than both comparison groups. While positive, these responses should be interpreted cautiously given the possibility for bias in those who chose to respond to the survey.

Third, NCEES and EVAAS analyses show that in their first years of teaching, CCTI teachers perform comparably to other early-career teachers in their districts and schools. Specifically, estimates suggest that CCTI teachers may be slightly less effective

than traditionally prepared teachers and slightly more effective than other alternative entry teachers. Lastly, our most robust results show that CCTI teachers are more likely to return to the same district and school in the following year. These retention data are an important indicator of program success; however, it is unclear whether these differences are due to CCTI practices and/or characteristics of those who chose to enroll in the program. Further work is needed to assess retention outcomes for new CCTI cohorts and over longer periods of time.

In future evaluation reports, EPIC will continue to focus on the outcomes considered in this brief. There will be challenges to this on-going evaluation work, given North Carolina's recent decision to end final exams and the loss of all teacher performance data (NCEES/EVAAS) from the 2019–20 school year. These losses will limit EPIC's ability to report teacher performance results in subsequent analyses. Beyond the measures reported in this brief, future evaluation reports will also consider new outcomes—e.g., preparation costs—and describe programmatic changes as the CCTI transitioned

from an alternative entry to a residency preparation program. All of these analyses will be guided by a desire to provide the CCTI and state leaders with rigorous evidence to inform programmatic and policy decisions.

For More on this Topic

Goe, L. (2014). Alternative Routes to Teaching: What Do We Know About Effective Policies? American Institutes for Research. files.eric.ed.gov/fulltext/ED558026.pdf

Goldhaber, D. (2019). Evidence-Based Teacher Preparation: Policy Context and What We Know. *Journal of Teacher Education*, 70(2), 90–101.

Humphrey, D.C., Wechsler, M.E., & Hough, H.J. (2008). Characteristics of Effective Alternative Teacher Certification Programs. *Teachers College Record*, 110(1), 1–63.

Solomon, J. (2009). The Boston Teacher Residency: District-Based Teacher Education. *Journal of Teacher Education*, 60(5), 478–488.

Notes

- ¹ Given changes in North Carolina policy, the CCTI is now a residency preparation program and has made changes to some of its preparation practices.
- ² See the following for the list of school districts in the CCRESA: www.ccrea.net/about-us
- ³ The expected time for completion is two years, however, it may take teachers longer to satisfactorily complete CCTI program requirements.
- ⁴ Comparison sample teachers working in the same schools as CCTI teachers are also included in the counts of teachers working in the same districts as CCTI teachers.
- ⁵ Teachers regularly have three years to pass all of their licensure exams, however, with COVID-19, the state has granted teachers additional time to pass licensure exams.
- ⁶ All survey responses are from program completers—i.e. first-year teachers with traditional preparation and second- or third-year teachers with alternative preparation (including CCTI teachers). Survey responses from CCTI completers come from summer 2020; responses for traditionally prepared and other alternative entry teachers come from spring 2020.
- ⁷ 52.3% of CCTI program completers finished the preparation survey in summer 2020; response rates for the teacher preparation survey are typically 40–45 percent.
- ⁸ We use a district fixed effect when comparing CCTI teachers to their peers in the same district; likewise, we use a school fixed effect when comparing CCTI teachers to their peers in the same schools. Models without the fixed effects return comparable results.
- ⁹ To put this difference into perspective, the average difference in effectiveness between first and second-year teachers is approximately 15–22 percent of a standard deviation.
- ¹⁰ As with our teacher performance analyses, we also use a district or school fixed effect in these analyses.



Study Author: Kevin C. Bastian (November 2020)

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.

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