

Alternative Certification in Higher Education: New Initiatives in South Carolina

**WORKING PAPER SERIES I:
Setting the Baseline for South Carolina**

RESEARCH TEAM

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SEPTEMBER 2019



+ INTRODUCTION AND RATIONALE

The 2018-19 school year began as the previous year with classrooms nationwide without certified teachers. In South Carolina, there were approximately 621 vacancies compared to 500 just one year ago for the 2017-18 school year as reported by the Center for Educator Recruitment Retention and Advancement (CERRA, 2018). In addition, a review of enrollment in teacher education programs across the nation indicates that the number of individuals entering traditional certifying programs has declined from what to what from when to when. In response to these events, policy makers are considering ways to increase the pipeline of qualified teachers, including the development of alternative teacher certification pathways that are offered by higher education institutions.

+ OVERVIEW OF THE CURRENT TEACHER SHORTAGE

In 2018, The State newspaper published a series on the growing teacher shortage in South Carolina, highlighting some of the reasons teachers are leaving the classroom and the effects on P-12 student education (Renner, 2018; Self, 2018; & Self & Dulaney, 2018). The series featured stories of teachers who left the profession or are considering leaving the profession for various reasons, including low pay, emotional strain of the job, and poor working conditions – issues that have long been associated with teacher attrition (Johnson & Birkeland, 2001). Other recent media coverage further highlights the factors contributing to teacher attrition nationwide. Time magazine featured similar stories of teachers, with graduate degrees and many years of teaching experience, working part-time jobs in order to make ends meet (Riley, 2018). Such publications have brought increased attention to the high-level work demands of the teaching profession and the corresponding concerns of teachers, often leading them to leave the classroom to pursue administrative positions or careers in other fields.

While there is no doubt that teacher shortages exist, there are questions as to who is most impacted by the shortages and where shortages are more likely to occur. The U.S. Bureau of Labor Statistics predicts there will be approximately 1.9 million job openings for teachers by 2024 (Vilorio, 2016). In contrast, Aragon (2016) cited federal data indicating a decline in teaching vacancies since 1999-2000. This decline is based on district reporting of vacancies. Aragon further explains that teacher production has increased since 1985 with the number of elementary and secondary teachers increasing 12%. It is plausible that these data do not reflect the actual need for qualified teachers but rather district reporting of positions, which may have decreased due to budget cuts.

In an interview with Education Week, Dan Goldhaber at the University of Washington’s Center for Education Data and Research explained that the shortage exists in “particular schools and school systems” (Viadero, 2018). Aragon (2016) suggests that shortages are prevalent in specific schools with large percentages of students of color and students who live in poverty. Schools located in rural and urban geographic areas and specific subject areas (mathematics, science, and special education) are also susceptible to shortages. Using 2010 Census data, the South Carolina Revenue and Fiscal Affairs Office reported that approximately 34% of South Carolinians live in rural areas. In 2014, 63 out of the 82 school districts in the state received a poverty index of 70 or higher (South Carolina Educational Policy Center, 2015). Given the demographics of the state, one can conclude that South Carolina is susceptible to a growing teacher shortage.

“States are continuing to rely more on various non-traditional programs to recruit working professionals into the teaching profession. In 1983, only eight states reported having an alternative route into the classroom. To date, every state has begun to identify and offer some type of alternative certification route to bring more teachers into the profession.”

+THE TEACHER SHORTAGE IN SOUTH CAROLINA

A review of the Annual Supply & Demand Reports published each year by CERRA provides insights into the teacher shortage in South Carolina. To better understand how the shortage has evolved in South Carolina, a discussion of the Fall 2010 and January 2019 reports is provided.

The 2010 report indicated that school districts had fewer allocated teaching positions than in previous school years, possibly due to budget cuts. The vast majority of districts in the state reported such losses, and the state's smallest districts were no exception. According to the report, two of South Carolina's smallest districts reported the largest reductions in teaching positions, mostly in early childhood and elementary. Districts reported 2,145 fewer positions compared to the 2009-2010 year and approximately 3,600 fewer from 2008-2009.

At the same time that districts reduced allocated teaching positions, districts also reported hiring more than 3,500 teachers. A third of the new hires in 2010 were new graduates of traditional teacher preparation programs while 23% of new hires had previously been employed by another district. Approximately 5% of the new hires completed an alternative certification program. The number of beginning teachers from the South Carolina Program for Alternative Certification for Educators (PACE) decreased by nearly 30%. Districts also reported filling available positions with teachers from outside the U.S., teachers who had previously retired, and teachers who were returning to teaching (79, 92, and 196 respectively). Despite the reduction in teaching positions (2,145) and the number of new hires to fill available positions (3,514), districts still reported 189 vacant positions at the start of the 2010-2011 school year, most of which were in high schools.

The vacancies and open positions in 2010 can be attributed to the attrition experienced by the districts. More than 4,600 teachers left their positions with about 12% of them moving on to teach in other South Carolina districts or assuming administrative or other education positions in the state. Though the majority of teachers who left were first-time retirees, approximately 10% of those who left their positions had one year of teaching experience (185 primary/elementary, 135 middle, and 143 high school). Thirty-five percent of teachers leaving their positions reported having five years of experience or fewer. Of the teachers with five years or fewer (1,624 in total), approximately 14% went on to teach in another district, 5% left the teaching profession, and 7% went on to teach in another state.

Table 1. Comparison of the 2010 and 2019 CERRA Report Data

CERRA REPORT FOR:	2010	2019
Reduction in allocated teaching positions from the previous year	2,145	530
New hires reported by districts	3,514	7,600
% of new hires graduating from traditional teacher preparation programs	33%	24%
% of new hires completing an alternative certification program	5%	8%
Vacant positions at the start of the school year	189	621
Teachers leaving their positions at the end of the year	4612	7,339
Teachers with five years or fewer experience leaving their positions	1,625 (35%)	2,596 (35%)
Teachers with five years or fewer experience leaving to teach in another SC district	222 (14%)	848 (32%)
Teachers with five years or fewer experience leaving the profession	84 (5%)	188 (7%)
Teachers with five years or fewer experience teaching outside of SC	108 (7%)	150 (6%)
Teachers with five years or fewer experience leaving the professional for job related reasons	Not Reported	105 (4%)
Teachers with one-year of experience leaving their positions at the end of the year	462 (10%)	935 (12%)
First-year teachers who left to teach in another district	73 (16%)	246 (26%)
First-year teachers who left the teaching profession	17 (3%)	67 (7%)
First-year teachers who left to teach outside of SC	20 (4%)	43 (4%)
First-year teachers leaving the profession for job related reasons	Not Reported	43.2 (4%)

The January 2019 report indicates that districts reported a slight decrease in allocated positions, which may be due to two districts' failure to submit data. Of the teachers hired for 2018-2019, 41% were new to the profession, while 59% were new to the districts but had prior teaching experience. Of the new hires, only 24% were graduates of traditional teacher preparation programs. Though noted as an increase from the previous year, the number of new teachers graduating from traditional teacher preparation programs has decreased by 32% since the 2012-2013 school year, contributing to the gap in qualified teachers needed to fill classroom vacancies.

Notably, CERRA's 2019 Report indicates that the number of teachers leaving their positions had grown each year. The 2017-2018 school year saw 7,339 teachers leaving their positions for various reasons, an almost 60% increase from 2010. For 2017-2018, 27% of the teachers who left their positions went on to teach in another district in South Carolina. Among those with five years of teaching experience or less (2,596 in total), 32% left to teach in another position in South Carolina while 6% went on to teach outside of South Carolina, 7% changed professions, and 4% identified job related reasons for leaving, including salary, administrative support, and lack of preparation (2019). The 2019 Report highlights "a growing disparity between the rate at which teachers are entering the profession and the rate at which they are leaving it" (CERRA, 2019, p. 7). The conclusion can be made that the state's shortage problem is very much a retention problem. The more than 600 vacant positions at the start of the 2018-2019 school year may very well have been filled with teachers who chose to leave at the end of the previous year. Teachers who left cited a variety of reasons for their decisions to leave at the end of the 2017-2018 school year, including job related factors (3%) and family-related factors (17%). Five percent of the teachers reported changing professions while others stated they hoped to pursue advanced degrees or a position in education in the private sector or at the postsecondary level. Not including the 26% who were retirees, the more than 5,000 teachers choosing to leave their positions created vacancies for districts beyond what may have been needed to accommodate student growth. As noted in the January 2019 report, these vacancies cannot be filled solely with teachers from traditional preparation programs. The SC Commission on Higher Education indicates that approximately 6.9% of the bachelor's degrees awarded in 2015-2016 were in the field of education, and the number of teacher education program completers in SC has declined by more than 30% since 2012. Consequently, because of attrition, declining education graduation rates, and K-12 enrollment growth, school districts are "compelled to rely on alternative programs" (CERRA, 2019, p. 7).

The CERRA Reports indicate that South Carolina must prioritize the retention of teachers, not just recruitment. Teachers are leaving their positions for various reasons which suggests that administrators and district personnel should focus on retaining quality teachers. A recent ACT study of high school students showed a decline in the number of high school students interested in pursuing careers in teaching. When asked why they were not interested in teaching as a career, high school students cited various reasons. Low salary was cited by the majority of students. Other reasons included few opportunities for career development, lack of respect for teachers, and the pressures of standardized testing (Croft, Guffy, & Vitale, 2018). South Carolina has seen a decline in recent years regarding the number of students earning bachelor's degrees in education. In 2016, 6.9% of the bachelor's degrees awarded by higher education institutions in SC were for degrees in education. In 2010, 9% were awarded for degrees in education. In 2010, education was the second highest discipline in which bachelor's degrees were awarded while in 2016 education was ranked fourth behind business, management, marketing; biological and biomedical sciences; and health professions (South Carolina Commission on Higher Education, 2011; 2017). Further, CERRA gathers data on Teacher Cadets and whether they intend to pursue careers in teaching after completing the program. Since 2015, the percentage of Teacher Cadets indicating they plan to teach has declined from 41% to 35% (CERRA, 2015-2019). Given the decline in high school students entering the teacher pipeline, it is critically important to support and retain those who choose to enter the profession.

+ TEACHER RETENTION

As districts report more vacancies at the start of each new school year (189.75 in 2010; 550 in 2018; 621 in 2019), the retention of the current teaching population is critical to addressing the state's teaching demands. Recruitment into the profession is an important part of addressing the teacher shortage, but the impact of attrition cannot be overlooked. Although recruiting and retaining quality teachers is a concern for many schools, high-poverty schools often have higher turnover rates than schools that are located in more affluent communities. These schools are often the first jobs of beginning teachers who may then leave to pursue more attractive positions once they have experience. As such, these schools are challenged with finding and replacing qualified teachers each year, a problem that Ingersoll (2001) describes as a “revolving door.” It is estimated that teacher turnover costs districts more than \$4 billion dollars in 2005 (Zhang & Zeller, 2016). Research has examined not only the financial costs of turnover but also the potential loss of quality teachers and instruction for students. Ronfeldt, Loeb, and Wyckoff (2013) found that high rates of teacher turnover negatively impact student achievement, particularly in those schools with high numbers of Black and low-performing students. They suggest that turnover may negatively impact the overall school environment as turnover can disrupt teacher relationships and collaboration. Researchers agree that a qualified teacher is the main influence on the academic achievement and success of students; yet, the impact of filling vacancies and hard to staff positions with inexperienced and underqualified teachers must be recognized as well (Carver-Thomas, D. & Darling-Hammond, L., 2017).

Improving teacher retention requires educators and policymakers to better understand the factors that contribute to attrition and implement policies and practices that address these issues. Through their study of new teachers' career decisions, Johnson and Birkeland (2001) emphasized the importance of providing an engaging, supportive environment for beginning teachers. They conclude that beginning teachers are likely to leave the profession or change schools “unless their experiences with students and colleagues are rewarding” (p. 606). Johnson and Birkeland's study examined the experiences and decisions of teachers they categorized as “leavers, movers, and stayers.” The “leavers” (those who left the profession) reported feeling overwhelmed and ineffective as teachers, having administrators who were unsupportive, teaching assignments in subjects that were uncomfortable, having multiple daily preparations, lacking essential resources, and failing to find support and collegiality among teachers at the school. The “movers,” those teachers who transferred to other schools, experienced similar frustrations and opted to look for schools with more supportive environments.

Ingersoll and May (2012) examined national data in their study of turnover rates of mathematics and science teachers to ascertain reasons for teacher shortages and the school characteristics that seem to correlate with high rates of turnover. Ingersoll and May concluded that shortages in mathematics and science are a result of attrition, particularly turnover before retirement eligibility, not merely a failure to recruit enough mathematics and science teachers into the profession. They found that teacher turnover rates vary significantly among schools and sometimes within the same district. Additionally, urban schools with high rates of poverty and large numbers of minority students “were among the school characteristics most correlated with mathematics and science teacher turnover” (p. 446). Ingersoll and May also explain that job dissatisfaction, student discipline, and problems within their schools were factors that contributed to teachers' decisions. Although they found that turnover was significant in high-poverty, high minority schools, Ingersoll and May explained that the majority of teachers left these schools to work in schools with similar demographics. These teachers were not simply leaving to find jobs with different student populations. As such, Ingersoll and May concluded that leadership and school organization are important school characteristics for keeping teachers in their positions. They suggested that further research is needed to determine the school characteristics, policies, and practices that would promote teacher retention, particularly in high needs schools.

Brill and McCartney's (2008) review of research supports the importance of teacher retention efforts as the key to addressing the shortage. Improving teacher workload; encouraging shared leadership and supportive, collegial relationships; adequate facilities and resources; effective induction and mentoring programs; and productive, professional working communities positively affect teacher retention.



CERRA's Pre-Collegiate Programs

"THE FIRST PRE-COLLEGIATE PROGRAM AIMED AT PROMOTING EDUCATION AS A CAREER CHOICE IN SOUTH CAROLINA IS AT THE MIDDLE SCHOOL WITH THE PROTEAM CURRICULUM [FROM CERRA]."

+ INITIATIVES TO COMBAT THE SHORTAGE

Nationwide, legislative efforts to fill every classroom vacancy with a qualified teacher are underway. Increased tax programs to fund teacher raises, pre-collegiate initiatives to promote the teaching profession, grow your own initiatives, financial incentives, and alternative certification programs have been among the strategies used to recruit more teachers into the classroom (Kini, 2017). Since the mid-1980's, South Carolina has offered innovative pre-collegiate programs to engage students as early as middle school to consider education as a future career. The focus of these programs is to provide engagement with mentor teachers and university faculty in ways that encourage students to enter a teacher education program. The first pre-collegiate program aimed at promoting education as a career choice in South Carolina is at the middle school with the ProTeam curriculum ("ProTeam Overview," 2019). CERRA reports that during the 2016-17 school year more than 1,000 middle school students in 30+ schools completed ProTeam.

Initial career decisions are often made early in the high school years as students identify "Personal Pathways to Success" under the career clusters of the Education and Economic Development Workforce Act (EEDA, 2015). The pre-collegiate Teacher Cadet program is the most common curriculum used to attract talented high school students to pursue education as a career. The dual enrollment course provides an academic incentive for college credit through partnerships with local colleges and universities. Throughout the program, academically talented high school juniors and seniors engage in curriculum and field experiences designed to introduce teaching as a career. In addition to the goal of recruiting future teachers, the curriculum also emphasizes the development of a sense of advocacy for public education for the students who complete Teacher Cadet and go into other professions. In more than 30 years of offering Teacher Cadet, 60,000+ students have completed the curriculum.

The full impact of teacher recruitment efforts at the pre-collegiate level is unclear as the number of students who move through these programs into the profession is difficult to track given the limited access to state databases on teachers. Table 1 shows the number of students who participated in ProTeam and then went on to take the Teacher Cadet course in high school. It should be noted that ProTeam is not accessible in every district and matriculation data on those who complete Teacher Cadet and then graduate from a teacher education program in SC are currently unavailable. While it is difficult to currently assess the impact of pre-collegiate programs on enrollment and completion of teacher education programs, these programs are an essential part of teacher recruitment as they raise students' awareness of the benefits and importance of the profession.

Table 2: *From ProTeam To Teacher Cadet*

School Year	# of Teacher Cadets	# of Cadets who indicated participation in ProTeam
2017-18	2,973	99
2016-17	2,909	82
2015-16	2,652	110
2014-15	2,683	102
2013-14	2,545	83

To further create a pipeline from the pre-collegiate programs to traditional teacher education majors, in 1999, the state of South Carolina added to the pre-collegiate awareness with a collegiate incentive program: the South Carolina Teaching Fellows Program (“Teaching Fellows Overview,” 2019). Each year hundreds of talented high school seniors complete a rigorous application and interview process for the opportunity to be identified as an SC Teaching Fellow. Funded by the general assembly, this program provides up to \$24,000 in fellowship money that is used to support tuition and teacher leadership activities during pre-service education programs at the college level. Teaching Fellows graduates are required to work in public schools for up to four years, or one year for every year they receive the fellowship award. Initial research from CERRA (2018) shows the effectiveness of this program as Teaching Fellows retention rates are reported at 77% beyond the four-year requirement for satisfying the fellowship agreement. Despite the positive impact of Teaching Fellows, access to the fellowship is limited to 200 entering college students annually at a limited number of select institutions.

With the rising costs of tuition (Bohatch & Daprille, 2018) additional financial support like the SC Teacher Loan are viewed as an incentive. The Teacher Loan specifically addresses critical need, hard to staff content areas and geographic regions by providing traditional college students up to \$15,000 and career changers up to \$50,000 toward college tuition. In return, graduates repay their loans with service in critical need areas that are annually identified by the state. National efforts such as the Teacher Loan Forgiveness Program are also available for those who meet the specified criteria (Federal Student Aid: An Office of the U.S. Department of Education, n.d.).

In addition to the Teacher Loan program, the SC Legislature introduced the Rural Recruitment Initiative (RRI) in the spring of 2016 to provide districts identified as the most difficult to staff due to their geographic location with additional funds to support recruitment and retention efforts. One example of how districts utilize RRI funds is offering signing bonuses. While signing bonuses have not been identified as a major key to retention (David, 2008) the recent Supply and Demand report (CERRA, 2019) indicated that RRI district vacancies decreased when comparing Fall 2017 and Fall 2018 numbers. In one RRI district, the number of vacancies decreased from 52 in 2017-2018 to 29 at the beginning of 2018-2019. While only one district is represented, this decrease may indicate that additional financial incentives have a positive impact on teacher recruitment, specifically in hard to staff areas of the state.

Despite the combined effects of pre-collegiate, collegiate, and various financial incentive programs in our state, there is still an ever-widening gap between the number of teachers entering the profession each year and the number leaving (CERRA, 2019). Our state and others must continue to look at every possible incentive and strategy at various points of entry into the profession.

+ THE NEED FOR ALTERNATIVE PROGRAMS

States are continuing to rely more on various non-traditional programs to recruit working professionals into the teaching profession. In 1983, only eight states reported having an alternative route into the classroom (Editorial Projects in Education Research Center, 2004). To date, every state has begun to identify and offer some type of alternative certification route to bring more teachers into the profession (<http://www.nea.org/tools/16578.htm>). Many such programs, Teach for America, SC Program for Alternative Certification for Educators (PACE), and Arkansas Professional Pathway to Educator Licensure (APPEL), allow individuals with a bachelor's degree to work in schools as the teacher of record while completing course work to earn a teaching license (Lincove et al., 2015). While the programs are producing teachers, there is some debate regarding the effectiveness of these programs in preparing and retaining qualified teachers. Researchers have investigated whether these programs lead to better student achievement, higher quality instruction, and greater retention than traditional preparation programs. Studies have produced mixed results. Lincove and colleagues' analysis indicates little difference among preparation routes and student achievement, leading them to conclude that "advocating for or against any particular TPP type seems foolhardy" (p. 429). However, Jang and Horn (2017) summarized several studies that found that teachers prepared through alternative routes had less content knowledge than those who completed traditional routes. In addition, the lack of a full supervised teaching experience prior to entering the classroom was noted as a design flaw of alternative programs. The impact of the lack of knowledge and pedagogy and a supervised teaching experience can be seen in the retention of alternatively certified teachers. While the quality of alternative certification programs continues to be debated, the retention of alternatively certified teachers of current programs to meet the needs of the teacher shortage cannot.

To address shortages within their own districts, local school districts in South Carolina have begun to develop partnerships with the State Board of Education to grow their own workforce. The Greenville Alternative Teacher Education Program (GATE) and TeachCharleston programs are both district embedded opportunities for local employees to obtain certification through a cohort model that provides professional development through a teacher residency model of on the job training. Each of these programs offer a basic training, two-week program prior to entry into the classroom as a teacher of record for candidates that possess degrees in specified areas of need who have successfully passed all licensure exams (South Carolina Department of Education). It should be noted that the on the job training described by the district programs in SC does not meet the criteria of a teacher residency model which requires teaching alongside a master teacher as defined by the Learning Policy Institute (Guha, et al., 2017).

Given the reliance on alternative certification programs, policymakers and teacher educators should examine existing literature to strengthen efforts to not only recruit but also retain teachers. Studies suggest that teachers cite a variety of school-based factors as reasons they choose to leave the profession or change schools including low salary, lack of administrative support, challenging student behavior, feelings of isolation and failure, and lack of input in school-wide decision making. Conversely, working with a mentor who teaches the same grade/subject, receiving administrative support, opportunities for collaboration with other teachers, and access to necessary instructional resources are factors that teachers have indicated contribute to their decisions to continue in their schools and in the profession (Ingersoll, 2001; Johnson & Birkeland, 2003; O'Connor, Mallow, & Bisland, 2011). Many of the structures identified as impacting the retention of teachers are not found within the alternative certification programs currently offered in South Carolina. Candidates receive minimal training in pedagogy and classroom management and are placed in classrooms as teachers of record without clinical experiences under the guidance of strong cooperating teachers. Therefore, a review and analysis of alternative and traditional teacher education programs was completed to identify program elements that have been shown to impact teacher quality and retention.

+ METHODOLOGY

To research the alternatives to traditional educator preparation programs, a systematic review of research on the need for and impact of alternative programs was completed. The initial objectives of the review were the following:

- Identify the need for alternatives in addition to traditional educator preparation programs
- Identify current trends in alternative institutes of higher education (IHE) programs
- Identify existing non-IHE programs available in South Carolina
- Identify alternative program components that have been shown effective in preparation and retention of program completers
- Review the policies on alternative certification in SC and other states

A systematic search of studies found in the Commission on Higher Education's Request for Proposals for the 2018-2019 school year and Title II federal data on program providers was completed. In addition, research from The Learning Policy Institute, a well-established source of independent, professional research focused on improving education policy and evidence based practices (Learning Policy Institute, 2019) provided a reliable source of data on teacher preparation nationwide. Following this initial review, an online search of alternative certification programs was completed using search engines and search directories. Available sources were then evaluated by keyword, date of the work, verification of reliability, and the authority of the author(s). From these sources subsequent searches were completed on the initial objectives listed above. A synthesis of the findings of the studies was cross referenced to determine the key factors of the alternative programs offered in South Carolina and beyond that are effective in the preparation and retention of program completers. Current policies on alternative certification in South Carolina and beyond that impact the role that institutions of higher education hold as alternative certification providers were also referenced.

+ INSTITUTES OF HIGHER EDUCATION'S ROLE IN ALTERNATIVE CERTIFICATION

In 2015, the U.S. Department of Education (ED) identified 26,589 teacher preparation programs in the United States. Of these, 70% were traditional IHE programs, 20% were alternative IHE programs, and 10% were alternative programs not at IHEs. This includes at least 5,000 alternative IHE providers with Texas being identified as the state preparing the most teachers through alternative IHE programs (ED, 2016). However, Title II data identifies the University of West Florida, Relay School of Education in New York, and the University of North Carolina at Charlotte as the institutions enrolling the most candidates into their alternative IHE programs. In North Carolina, the alternative route to certification is designed for career changers who successfully complete the Praxis II licensure exams (Content area and Reading). Candidates with passing scores must secure a teaching position and are subsequently recommended for lateral entry by the district that hires them. Once accepted, the lateral entry teacher must partner with a Regional Alternative Licensing Center, like UNC-Charlotte, to complete an individual plan of study of required coursework (Public Schools of North Carolina, State Board of Education, Department of Public Instruction, n.d.). This process is similar in design to the SC-PACE program, the alternative certification program administered by the State Department of Education. Like North Carolina, PACE requires candidates successfully complete licensure exams prior to any formal instruction in content and pedagogy. PACE candidates begin as the teacher of record in classrooms before any formal mentoring or coaching alongside a master teacher has occurred. Unlike alternative certification in North Carolina, PACE does not partner with IHEs to deliver required coursework (SC Department of Education, n.d.).

Studies comparing teachers who have completed alternative and traditional certification programs have provided differing results. Some studies have found that alternatively certified teachers perform as well as traditionally trained teachers in regard to student achievement, while others have found that traditionally prepared teachers' students performed better on standardized assessments. For example, Clotfelder et al., (2010) compared the performance of NC high school students on end of course tests and reported that students performed higher when taught by teachers with traditional preparation. However, Lincove et. al (2015) found no statistically significant difference between the performance of students taught by teachers that completed traditional teacher preparation programs when compared to alternative program completers. Other studies have found that traditionally certified teachers have better knowledge of curriculum and pedagogy, a higher sense of self-efficacy, and job satisfaction. Research studies have identified a positive association among these factors and student achievement (Jang & Horn, 2017).

While studies vary in their conclusions, the reality is that more teachers are entering classrooms through varied routes to help districts meet their staffing needs. As we recognize that alternative programs will continue to produce teachers, programs should consider structures that can lead to better prepared teachers. Selectivity of participants has been identified as one factor that may predict alternatively certified teacher success (Jang and Horn, 2017) and should be a key component as IHEs are becoming more involved in the development and delivery of alternative programs. Policymakers should revise regulatory guidelines to ensure that alternative programs are evaluated regularly and equally (DeMonte, 2015). In Texas, one of the leading states in the number of alternatively prepared teachers, the legislature recently passed SB892, requiring alternative programs to provide a more rigorous set of requirements prior to their participants entering the classroom (US Department of Education, 2015). In addition, and possibly most important is that SB892 would require all alternative programs to report on the number of completers and data on indicators of how well they perform in the classroom (i.e. student achievement data).

+ PROMISING PRACTICES IN SOUTH CAROLINA

In March of 2019, the State Department of Education took the first step to allow IHEs to apply to become alternative certification providers. The Alternative Route and Program Approval Process and Standards reflect Section 59-43-51 of the current Code of Laws in South Carolina. This regulation grants the State Board of Education the rights of approval for educator preparation programs recruitment, application/ admittance, and preparation of candidates through alternative route preparation programs.

Even before these guidelines presented an option for IHEs in SC to be alternative providers, in the Fall of 2017, one IHE had begun to research and develop an innovative model that places the responsibility of alternative certification within educator preparation providers (EPP). The Alternative Pathways to Educator Certification (APEC) Center at Columbia College was established as a Center of Excellence in Alternative Certification in the Summer of 2018. APEC is a uniquely designed alternative pathway to certification that combines the appeal and feasibility of current alternative pathways to certification with the research-based practices in content, pedagogy, coaching, and collaboration currently embedded in high-quality teacher preparation programs. Unlike existing alternative pathways in the state, the APEC Center targets instructional assistants within partner districts to promote a “grow your own” initiative similar to those well-developed, successful programs like SC Centers for the Re-Education and Advancement of Teachers in Special Education and Related Service Personnel (CREATE) (www.sccreate.org). Furthermore, the model incorporates specially designed course modules and mentoring experiences to address research-based factors known to contribute to teacher retention.

APEC is designed to address beginning teachers' perceptions of the competencies and skills needed in alternative certification training, including the following: (a) courses that emphasize more practical applications of theory, particularly in the area of classroom management; (b) intentional selection and extended training of mentors; and (c) increased classroom visits with specific and immediate feedback (O'Connor, Malow, & Bisland, 2011). Additional components that have been reported critical to high quality alternative preparation include opportunities to observe other teachers with a semester or longer in practice teaching which allows participants to develop instructional methods, strategies, and learning theory (Ingersoll, Merrill, & May, 2014); more focus on effective pedagogy (Koehler, Feldhaus, Fernandez, & Hundley, 2013); and meaningful professional development and cohort support (Brill & McCartney, 2008). The field experience component of the APEC Center follows a work embedded teacher residency model that engages participants in a year-long field experience, connecting coursework to classroom experiences (Guha, Hyler, & Darling-Hammond, 2007). Further development of the model will incorporate Teaching Rounds which have been designed in teacher education programs to enrich teacher candidates' experiences in the field. This practice involves small groups of candidates, practicing teachers, and college faculty observing in classrooms with follow-up conversations about the observation (Reagan, Roegman, & Goodwin, 2017). The APEC Center has adapted this model to include observations, conversations with the teacher observed, and larger discussions with the cohort during Professional Learning Seminars.

+ FINDINGS

The teacher shortage in SC has been evidenced through the annual data provided by CERRA. These data along with the studies previously cited suggest that attrition and low enrollment in traditional, teacher preparation programs are contributors to the shortage. The CHE data referenced previously indicate that there are fewer graduates who actually complete degrees in education. As such, fewer graduates from traditional teacher preparation programs leads to fewer qualified candidates available to fill district positions. The state implementation of programs like ProTeam, Teacher Cadet and Teaching Fellows to engage middle and high school students in pursuing careers in teaching combined with hiring incentives (i.e. district level signing bonuses and hiring of international teachers to attract career changers and experienced teachers) prove to be temporary and perhaps inadequate responses to a larger systemic problem. Without efforts to create additional certification routes and improve teacher retention, the state will continue to see the gap widen between qualified teachers and teaching positions.

Alternative certification programs like APEC can increase the number of qualified teachers entering classrooms. With the approval process and standards provided by the State Department of Education in the 2018-2019 academic year, other IHEs can begin to develop quality alternative programs that can ensure teachers are well-prepared when they enter the classroom. As evidenced in studies examining the preparation of alternatively certified teachers, programs should include instruction in classroom management, learning theory, and pedagogy while providing extensive time in classrooms with support and guidance from a quality mentor teacher (Ingersoll, Merrill, & May, 2014; O'Connor, Malow, & Bisland, 2011). Although programs like PACE, GATE, TFA and others are able to quickly qualify candidates to fill open vacancies in districts, the long-term retention of these candidates should be carefully studied. Such programs that lead to certification without extensive training and preparation are not long-term solutions given the retention data available.

+ RECOMMENDATIONS

Therefore in light of these findings, the following recommendations are provided to advance the state of South Carolina in efforts to increase the capacity of highly qualified educators.

1. Continue retention efforts to fully impact the growing teacher shortage.

This past year, SC Governor Henry McMaster pledged to “change everything” in our struggling schools, including how our state is failing not only her students but also her teachers (Shain, 2019). While financial incentives to increase teacher pay have received broad support and much discussion from various groups, teachers who have chosen to leave their positions identify job related factors such as support and working conditions as reasons for their decisions (CERRA, 2019). Further research regarding the reasons SC teachers leave their positions is needed. The findings of these studies may lead to intentional professional development programming for administrators and mentor teachers to better support alternatively and traditionally certified teachers. Research studies cited previously indicate that poor working conditions and lack of administrator support are significant factors influencing teacher attrition. Districts should maximize resources at local public and private institutions for professional development opportunities for school leaders and teacher training of district employees. IHEs possess talent and resources that can support the efforts of professional development in our local districts.

2. Increase the candidate pool with additional, high quality, alternative certification programs offered in partnerships with IHEs.

State funds that are allocated to school districts could be used to support partnerships with IHEs and the preparation of alternatively certified teachers (i.e. funds could be used to support tuition reimbursement and professional conferences for alternatively certified teachers). Selectivity of candidates should be a priority to increase the likelihood of positive outcomes for completion and retention of alternative certifiers. The National Education Association discusses research suggesting that quality alternative programs should involve partnerships with IHEs, strong screening and selection of participants followed by strong curriculum, and supervision and mentoring prior to the assignment of participants to full-time teaching. IHEs with traditional preparation programs have the faculty and resources available to support alternative programs requiring curriculum and pedagogy coursework (NEA, n.d.). The Alternative Route and Program Approval Process and Standards of Section 59-43-51 provides the framework for such collaboration as preparation providers must have established partnerships with at least one school district.

South Carolina’s IHEs should also consider district partnerships to provide flexible offerings within traditional programs that allow district employees to pursue certification while maintaining full-time employment. IHE faculty should also consider providing work credit for classroom-based experiences in traditional preparation programs. The APEC Center’s initial efforts to recruit district employees into its pilot program has provided insights into an available pool of invested teaching candidates in the schools in which they serve. This potential is evident in our current APEC Fellows, some of whom have worked in their schools for more than 10 years. To better understand the background and experiences of our state’s instructional assistants, we have begun initial surveys of district employees who attend APEC Center Information Sessions. Initial results indicate that many instructional assistants possess Bachelor’s degrees or higher and have years of experience working in South Carolina’s schools and/or other child care agencies. Applicants have indicated that they were previously enrolled in traditional teacher preparation programs but changed their majors for various reasons including the inability to complete student teaching requirements due to their financial obligations to their families. The work-embedded teacher residency model developed by APEC provides one such example of a flexible program for eligible district employees.

3. Financial support through the continued focus on teacher salaries and initiatives such as the expansion of loan forgiveness programs should be considered for alternative certifiers and career changers.

These initiatives may also include loan forgiveness from previous degree coursework. Initial APEC applicant survey results suggest that instructional assistants have invested great time and financial resources to obtain certification and degrees through various for-profit and non-profit institutions. Such efforts have left these applicants with student loan debt and advanced degrees without South Carolina teacher certification. Current members of the APEC cohort continue to invest resources into their degrees and alternative certificate and may not qualify for forgiveness under current loan forgiveness guidelines. Therefore, the level of debt of alternative certifiers may negatively impact their ability to continue teaching with current teacher salary rates. Loan forgiveness opportunities and continued attention to teacher salaries are needed to impact recruitment and retention.

4. A thorough and systematic evaluation of all alternative certification programs should be mandated.

The current assessment and evaluation process required of education preparation providers (EPPs) should be expanded to include all certifying programs in our state, traditional and alternative. In addition, the state should begin tracking the performance and retention rates of teachers who complete the various alternative programs offered in the state. Until clear data tracking systems are in place for all certifiers, researchers will be unable to compare alternative and traditional certifiers using statistically reliable procedures. The initial district partnerships (MOAs) with the APEC Center will begin providing such data, though noted on a small scale in comparison to the total number of alternatively certified teachers annually produced in our state. Results of this data should be used to guide the requirements of alternative certification models to increase the likelihood of success for alternative certifiers.

5. Finally, education policymakers and the SC Department of Education should conduct a thorough review of all regulations and statues surrounding certification, including guidelines approved in Spring of 2019.

Research studies to determine the impact of certification requirements, particularly entrance exams for teacher preparation programs, would provide useful insights on the impact of these exams on the recruitment of quality candidates. As the state engages in increasing alternative certification programs, policymakers should consider optional entrance requirements for traditional teacher programs, particularly for candidates who are unable to pass initial entrance examinations. While not an initial focus of this research, our review of literature and our experience recruiting district employees for the APEC Program suggest that we are losing quality candidates due to their inability to pass initial entrance examinations. For example, several of our APEC Fellows majored in a certifying program but could not complete their program of study because they were unable to pass one or more parts of the Praxis I exam. Bennet, McWhorter, and KuyKendal (2006) suggest that Praxis I is an “inequitable” admissions tool as it doesn’t fully assess the range of abilities and attributes candidates, particularly candidates of color, possess. Further, these entrance exams assess the knowledge candidates bring with them to college which disadvantages potentially outstanding teachers because they may not have had access to rigorous, high quality K-12 education. Our state and others are offering alternative certification programs giving candidates the opportunity to teach following program completion. Many of these candidates are not required to pass a pre-professional licensure exam but are able to earn alternative certification because they have a bachelor’s degree and completed training offered through their alternative program. If optional entrance requirements were made available for traditional teacher preparation programs, candidates who struggle to pass entrance exams can continue in their programs and receive the clinical experiences, pedagogy, classroom management, and curriculum instruction needed to succeed in today’s classrooms. Further study into the impact of these entrance requirements may also lead to a better understanding of the impact of the current teacher certification policies and the identification of better indicators of the knowledge and skills that predict teacher potential. In addition, a review of recent policies to include the The Alternative Route and Program Approval Process and Standards and Section 59-43-51 of the current Code of Laws in South Carolina should take place as well. These guidelines are viewed as a first step toward collaboration with education preparation providers but may warrant additional review and revisions.

+ CONCLUSION

While the 2018-2019 school year was marked as the year of education in South Carolina (Schechter, 2019), few promising practices emerged with potential to impact the growing teacher shortage. In the fall 2017, the Commission on Higher Education began looking for innovative ways to address the teacher shortage by publicizing an open request for proposals to establish a Center of Excellence dedicated to the research and development of quality alternative certification programs offered through educator preparation providers (EPPs). Columbia College was awarded the Center in the Summer of 2018 and the APEC Center was established as the first alternative route program created and delivered by an IHE in South Carolina. The State Board of Education then approved the Alternative Route and Program Approval Process and Standards in the Spring of 2019 allowing additional EPPs to propose innovative, alternative programs like the APEC Center.

While these efforts are acknowledged as first steps in addressing the teacher shortage through the creation of additional alternative routes, policymakers should mandate a thorough and systematic evaluation of all alternative providers to ensure that the standards and evaluation process required of EPPs are also adhered to by alternative providers. As part of this evaluation, performance data on program completers' effectiveness in the classroom must be readily available to assist in identifying the components of alternative programs that are producing the best outcomes related to student achievement.

In addition to a review of the standards and candidate evaluation of each alternative program, education policymakers and the South Carolina Department of Education should consider a thorough review of all regulations and statues surrounding certification, to include recent guidelines approved in Spring of 2019. With each of these efforts in place, programs like APEC can be positioned to lead South Carolina out of the teacher shortage by combining the research-based pedagogy and content of traditional teacher preparation programs with flexibility afforded by alternative programs.

Although such initiatives may increase the available pool of qualified teachers for SC's school districts, policymakers should initiate policies designed to retain our school's most valuable resource: teachers. As indicated by the CERRA data, our state has a problem with teacher retention, not just recruitment. Failure to study and improve teacher salary and working conditions may cause recruitment strategies to fall short. As such, our state should look to IHEs as partners and leaders in alternative certification efforts, professional development and support for new and returning teachers, and research on effective policies and practices to ensure quality outcomes for the recruitment and retention of SC's teachers.

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