THE UNIVERSITY OF NORTH CAROLINA

Annual Report on Teacher Education



The University of North Carolina General Administration

Fall 2012

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I. EXECUTIVE SUMMARY

UNC teacher education programs are responding to teacher quantity and quality challenges through several strategic efforts aimed at preparing more and better teachers and school leaders for the public schools of North Carolina; recruitment, preparation (traditional, 2+2, alternative), new teacher support, and teacher quality research. The results of these efforts are evidenced in research findings and in the increase of teachers eligible for an initial teaching license produced by UNC schools, colleges, and departments of education over the past five years.

The General Assembly approved legislation that requires the Board of Governors of the University of North Carolina to provide a comprehensive annual report on teacher education efforts. The legislation GS 116-11 (12d) states:

(12d) The Board of Governors shall provide a comprehensive annual report on teacher education efforts at The University of North Carolina. The report shall include information about teacher education and recruitment, 2+2 initiatives, distance education programs focused on teacher education, and professional development programs for teachers and school administrators. The teacher education report shall be due on April 15 of each year to the Joint Legislative Education Oversight Committee and the State Board of Education.

This report provides information about teacher supply and demand trends at national and state levels, detailed information about the productivity of initially licensed teachers by UNC's fifteen teacher education program, teacher recruitment efforts to meet supply/demand, distance education programs focused on teacher education, and 2+2 initiatives in collaboration with community colleges. The report also addresses the status of programs offering professional development for teacher and school administrators.

II. TEACHER EDUCATION AND RECRUITMENT

The University of North Carolina (UNC) has made important decisions in strengthening the systems' commitment to prepare more and better teachers and school leaders for public schools across the state. As a result, significant accomplishments in establishing accountability plans for teacher recruitment and preparation have advanced the University's progress in addressing this strategic priority.

TEACHER ENROLLMENT GROWTH PLAN AND PRODUCTIVITY GOALS

UNC has established a rolling five-year accountability plan to increase the supply of new teachers available to address the state's needs. Projection models through 2020-2021 for overall and high-need areas have been prepared to guide institutional planning efforts. The projections are updated periodically to capture economic trends. As the system takes action in expanding institutional goals, major attention will continue to be focused on preparing more teachers in mathematics education, science education, middle grades education, and special education. Moving forward with the accountability plans, Education and Arts & Sciences academic units will have a shared responsibility for meeting the goals established for mathematics and science high-need licensure areas, as well as a responsibility to assist in meeting the overall campus teacher productivity goals. Results from the established teacher recruitment plans are reported in the remainder of this report.

TEACHER RECRUITMENT

The UNC Teacher Recruitment Initiative was launched to develop a strategic plan to coordinate teacher recruitment efforts across the University. To accomplish this task the University initially partnered with Noel-Levitz, a leading authority in the US in optimizing enrollment management on higher education campuses. The purpose of the effort was to consider perceptions of the teaching profession in developing a system-wide plan for teacher recruitment aligned to and coordinated with the UNC Teacher Education Enrollment Growth Plan. The research question addressed through the study was targeted directly at recruitment

to the teaching profession; What are the attitudes, motivations, and primary sources of influence of prospective teachers that are behind North Carolina's teacher supply and demand data and trends? The study had two primary components, an assessment phase designed to gain a better understanding of the current situation and a planning phase that translated initial findings into actionable strategies to meet North Carolina's teacher supply and demand needs.

The assessment phase of the study included market research targeted at six specific population segments; college-bound high school juniors and seniors, bachelor's and advanced degreed adult populations in North Carolina (i.e. mid-career professionals that could transition into the teaching profession), community college students, all undergraduate students on UNC campuses, high school guidance counselors, and military personnel and their spouses. The assessment phase also included focus sessions conducted with campus representatives from teacher education and enrollment/admissions offices, financial aid offices, K12 representatives (teachers, principals, and superintendents), and other educational representatives in NC.

Results from the study have been used to identify critical strategies for inclusion in an overall plan for teacher recruitment. Each UNC institution has prepared a campus-based plan that is aligned to the overarching system recruitment plan and also aligned to the enrollment growth targets for their respective campus. As a result of UNC's Teacher Recruitment initiative, the most recent teacher productivity data for 2010-2011 reflects a substantial increase in the number of teachers eligible for initial licensure produced by UNC schools, colleges and departments of education over the past five years.

TEACHER SUPPLY AND DEMAND AT THE NATIONAL AND STATE LEVEL

The critical shortage of teachers available to fill elementary and secondary classroom vacancies has captured the attention of education leaders and policy-makers at national and state levels for more than a decade. Public elementary school enrollment (prekindergarten through grade 8) is projected to increase by 7 percent between 2010 and 2019. Public secondary school enrollment (grades 9 through 12) is expected to increase 4 percent between 2010 and 2019. Overall, total public school enrollment is expected to increase 6 percent

between 2010 and 2019 (US DOE, 2003, 2009, 2010). Concerns about teacher shortages and workforce supply and demand have been written about extensively since the early 1980s (National Commission on Excellence in Education, 1983, 1996, 1997, 2003). As a result of improved research and data collection at national and state levels, a clearer picture of the teaching labor force has emerged. Analysis of this information reveals elementary and secondary school teachers are the second largest degreed occupation in the United States, making up 4% of the entire civilian workforce (Ingersoll, 2003; USDOE, 2003, 2009, 2010). In 2010, 3.2 million practicing public school teachers and 0.5 million private school teachers were employed in kindergarten through twelfth grade classrooms across the nation (US DOE, 2010). North Carolina alone employed just over 100,500 elementary and secondary school teachers in 2009-2010. The number in North Carolina is projected to increase to over 110,000 by 2017 (UNC Workforce Analysis, 2011). The magnitude and size of the public school teaching workforce, kindergarten through twelfth grade in North Carolina and across the nation is considerably large. Responding to school staffing issues at a local district level or policy associated with teacher supply and demand at a state or national level is an enormous and complex challenge for educators and leaders charged with the responsibility. Supplying the number of appropriately qualified elementary through secondary teachers that meet the needs of North Carolina's 115 school districts and 2,512 public and charter schools is a highly decentralized and complex challenge for local educators and for state policy makers.

Analysis of supply and demand trends in the teacher labor market is particularly complex when viewed nationally. Ingersoll (2003) estimates that approximately one third of the nation's teaching workforce "transitions into, between, or out of schools" annually, characterizing the phenomenon as a "revolving door" of workforce flows (p. 11). Coincident to, and in part a result of the effect of workforce flows described by Ingersoll, American schools hired 284,000 new teachers in 2006 (US DOE, 2009). By the year 2018, the number of new hires in schools is expected to increase 26% at the national level to 357,000 (US DOE, 2009). Ingersoll (2010) further describes two significant trends about the national teaching force; the graying effect and the greening effect. The graying effect depicts the modal age of employed teachers as 41 in 1987-1988 compared to the modal age of 55 in

2007-2008 twenty years later. More specifically, the age distribution of the teaching force is now two-peaked; 24-28 and 54-60. The younger peak (24-28) reinforces the second trend. The greening effect is evidenced by the change in years of teaching experience, from the modal years of experience in 1987-88 at 15 years, to the modal years of experience 2007-2008 at 1 year. These trends dramatically impact the national labor market and add further complexity to responding to school staffing issues.

Workforce analysis completed each year by UNC General Administration (UNCGA) projects the annual number of newly licensed teachers needed in North Carolina based on historical data and it identifies other reliable labor market supply sources in the State that regularly contribute to teacher supply and demand (UNC Workforce Analysis, 2011). North Carolina's projections in 2010-11 were at 12,350 or the need for approximately 12,000 additional teachers each year to fill classroom vacancies. Within five years the number will increase to almost 14,000 (UNCGA, 2011). The need for new teachers in North Carolina is driven by two factors; student population in the state and the need to replace teachers who leave. Of these, replacing leavers is the primary factor (90% +/-) influencing teacher supply and demand. Approximately 33 percent of North Carolina's supply of new teachers is prepared by constituent institutions of the University of North Carolina (UNC), the state's single largest supply source of new teachers (UNC Teacher Quality Research – Teacher Portals Analysis, 2012). UNC's fifteen professional teacher preparation programs prepare approximately 4,400 prospective newly licensed teachers for the State each year. Results from the workforce study have been used to justify and substantiate the expansion of teacher productivity goals with each of UNC's fifteen campuses that have accredited teacher education programs.

TRACKING UNC TEACHER PRODUCTIVITY OVER A FIVE-YEAR PERIOD

The most recent UNC teacher productivity data for 2010-2011 reflects a substantial increase in the number of teachers eligible for initial licensure produced by UNC schools, colleges and departments of education over the past five years. The overall rate of traditional teacher education graduates, graduate-level initial licensees, and alternative licensure completers increased from 4,003 in 2006-07 to 4,436 in 2010-2011 (see Table 1). Whereas

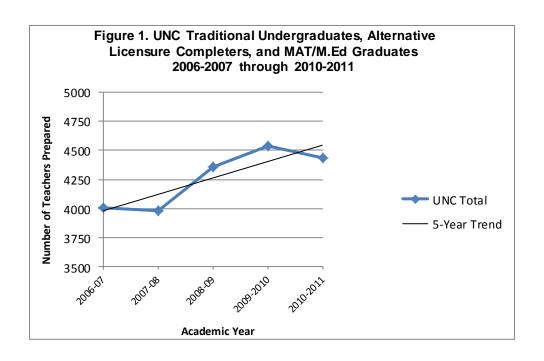
the overall trend suggests a relatively steady rate of increase, there was a slight decline from 4,538 in 2009-2010 to 4,436 in 2010-2011. This decline is most likely attributable to effects of the economic downturn and budget reductions at the campus level.

Table 1. UNC Traditional Undergraduates, Alternative Licensure Completers, and MAT/M.Ed Graduates 2006-2007 through 2010-2011

2000-2007 till odgil 2010-2011										
Campus	2006-07	2007-08	2008-09	2009-2010	2010-2011					
ASU*	465	475	580	609	552					
ECU	737	751	796	799	743					
ECSU*	50	56	72	74	79					
FSU	133	108	141	170	129					
NCA&T	87	52	108	94	107					
NCCU	141	203	126	130	116					
NCSU	320	279	362	313	394					
UNCA*	66	59	72	80	83					
UNC-CH	175	174	190	169	172					
UNCC	595	623	566	627	676					
UNCG*	492	414	451	519	427					
UNCP	153	151	122	176	196					
UNCW	354	334	396	390	378					
WCU	206	273	330	335	322					
WSSU	29	31	43	53	62					
UNC Total	4003	3983	4355	4538	4436					

General Notes:

- 1) 2010-2011 academic year includes the terms SII10, F10, S11, SI11
- 2) Traditional undergraduate and MAT/M.Ed data from UNC institutional data files
- 3) Data pulled using certification flags in student data files
- 4) Alternative completer data only includes individuals the institution recommended for licensure
- 5) MAT/M.Ed grad. are initial licensure completers and are not double counted in alt. completer totals



Teachers eligible for initial licensure in high-need areas (mathematics education, science education, middle grades education, and special education) have increased significantly as well, from 1,006 to 1,452 over this same period of time (see Table 2). This increase represents an important shift in focus from responding to overall statewide licensure needs to a more focused strategy on meeting the most critical needs of K12 schools across the state. Despite trying economic times, campus recruitment efforts remain successful and continue to contribute to UNC's overall goal of preparing more and better teachers and school leaders for North Carolina's public schools.

Table 2. High Need Licensure Areas: Mathematics, Science Middle Grades and Special Education 2006-2007 through 2010-2011

Campus	2006-07	2007-08	2008-09	2009-10	2010-11
Mathematics (Middle & Secondary)	256	225	327	357	336
Science (Middle & Secondary)	188	183	281	267	301
Middle Grades (Includes Math & Science)	196	166	414	492	420
Special Education	366	321	345	352	395
UNC Total	1006	895	1367	1468	1452

UNC TEACHER QUALITY RESEARCH

To better investigate the preparation of teachers prepared by UNC institutions, a teacher quality research strategy has been identified. Three separate models have been developed to track teacher education graduates' entry into the field, retention and persistence once employed, and impact on K12 student achievement. The research assesses the impacts of other sources of teachers, such as those who pursued "alternative" routes into the teaching profession and those who come from other states to teach in North Carolina's public schools. Findings from these assessments have focused attention on programs and routes into teaching that are raising achievement to identify best practices for teacher preparation programs. In addition, the findings have identified programs and routes that need improvement in the state's efforts to adequately prepare students for college and work. Finally, the research has begun to identify other factors, such as out-of-field teaching assignments or preparation programs that are particularly effective with specific group of students, which can be targets of reform or models to be emulated in the efforts to improve student achievement. The results are being used to drive policy changes, program improvements, and decisions for teacher education program quality throughout UNC institutions and K12 schools in the state. Results from the latest portals analysis are highlighted below.

UNC Undergraduate Prepared Teachers

- Source Largest source of teachers in North Carolina public school classrooms 32% of workforce (32,030) in 2009-10
- Stay for 3 years Approximately 80% stay for 3 years
- Stay for 5 years Most likely to stay for 5 years (over 70% persist for at least 5 years)
- Impact/Quality Performance is slightly better than average

Out of State Undergraduate Prepared Teachers

- Source Second largest source of teachers in North Carolina 23% of workforce (23,126) in 2009-10
- Stay for 3 years Approximately 65% stay for 3 years
- Stay for 5 years Much less likely to stay for 5 years (50% persist for at least 5 years)
- Impact/Quality Least effective source of teachers in North Carolina. They perform worse where highest concentrated –elementary grades. This is connected to the reading performance in North Carolina.

Alternative Entry Prepared Teachers

- Source Third largest source of teachers in North Carolina 15% of workforce (14,958) in 2009-10
- Stay for 3 years Approximately 55% stay for 3 years
- Stay for 5 years Much less likely to stay for 5 years (40% persist for at least 5 years)
- Impact/Quality Performance is below average. Perform worse where they are highest concentrated – in High School.

NC Private Undergraduate

- Source Fourth largest source of teachers in North Carolina 13% of workforce (12,298) in 2009-10
- Stay for 3 years Slightly less than 80% stay for 3 years
- Stay for 5 years Persist at rates similar to UNC undergraduates approximately 70% persist for at least 5 years)
- Impact/Quality Performance is slightly below average (graduate preparation perform above average)

Visiting International Faculty

- Source Eighth source of teachers in NC-1% of workforce (918) in 2009-10
- Stay for 3 years slightly less than 50% stay for 3 years
- Stay for 5 years Less than 5% persist for 5 years
- Impact/Quality perform slightly above average. More effective in elementary and MG reading

Teach For America

- Source Smallest source of teachers in North Carolina public school classrooms—
 0.50% of workforce (466) in 2009-10
- Stay for 3 years Approximately 30% stay for 3 years
- Stay for 5 years Less than 10% persist for 5 years
- Impact/Quality Most effective source of early-career teachers in North Carolina

The next UNC Teacher Preparation Program Effectiveness report will be produced this year (2012-13) and a new Teacher Portals report will be produced next year (2013-14). Our plan is to produce these two substantive reports every other year.

III. DISTANCE EDUCATION PROGRAMS FOCUSED ON TEACHER EDUCATION

In 2001 the General Assembly approved legislation to provide \$2 million to support teacher education programs offered through distance education (SL 2001-424, §31.7). Due to budget cuts in previous years (prior to 2011-12) the allocation has been reduced from the original \$2M to \$1,801,861. The allocation of funding for each institution offering a teacher education program is based on the generation of fundable teacher education (or "CIP13") distance education semester credit hours (SCHs); undergraduate and graduate distance education SCHs, including distance education e-learning SCHs. The legislation specifies that the funding should be directed to "distance education that does not require campus residency," therefore regular term e-hours are not included in the distribution formula.

SUMMARY OF ACTIVITIES

The Teacher Education Distance Education (TE/DE) funding has enabled UNC's fifteen teacher education programs to initiate and continue a wide variety of activities that have resulted in increased access to their programs through distance learning (e.g. courses being delivered at off-campus sites) and e-learning (e.g. online or a blended delivery of course offerings). These funds continue to help UNC teacher education programs strengthen and expand the partnerships between their campuses and community colleges in their regional vicinity. Other examples of fund utilization include enhancement of technology at off-campus sites, professional development for faculty involved in the development of online courses, efforts to increase enrollments in teacher education programs and meet the established campus goals for producing teachers in highest need licensure areas, and the purchase of equipment and materials to support faculty in various ways.

Collaboration with Community Colleges, Public Schools, and Arts and Sciences Faculty

Many of the UNC teacher education programs have utilized their Teacher Education Distance Education funding to enhance and/or expand collaboration with community colleges, public schools, and arts and sciences faculty. Partnership activities included the delivery of courses at community college campuses (established sites as well as new sites),

establishment of new 2+2 sites and bi-lateral articulation agreements, and the implementation of innovative programs geared toward the lateral entry teacher population.

Course Development and Delivery

Expanded course offerings are once again one of the most notable outcomes of the Teacher Education Distance Education funding. Many campuses have directed a portion of their TE/DE funds toward developing new online courses and/or courses designed to be delivered off-site, establishing entire new programs, transitioning traditional courses to an online format, increasing the scheduling flexibility of current course offerings, and/or initiating partnerships to provide creative distance education experiences for students.

Teaching Materials, Hardware, Software, Licenses, and Other Related Resources

Several teacher education programs have utilized a portion of their Teacher Education Distance Education funding to purchase supplies and resources to facilitate the logistics and delivery of e-learning and distance education courses. Items purchased with this funding ranged widely, including textbooks, curricular supplies, laptops, digital cameras, Polycom systems, and data storage devises.

Professional Development for Faculty and Staff

Teacher Education Distance Education funds also enabled teacher education programs to either offer professional development to their faculty and staff or send them to conferences or workshops focused on e-learning and distance learning issues. Professional development topics included instruction on utilizing technology for e-learning, guidance on developing online courses, and information about how to teach and evaluate online courses. Since new technologies are being used to develop and implement online courses, professional development is instrumental in order to maximize the use of these technological resources and facilitate the effective delivery of these courses.

Additional Personnel

A number of the distance education and e-learning initiatives undertaken by the teacher education programs have resulted in the need for additional personnel. Most of the

personnel who have been hired through this funding are focused on facilitating the collaborative work between the UNC campuses and the community colleges, but the specific roles of these staff members—and their level of responsibility—vary from campus to campus.

Recruitment Efforts

In response to the critical need for teachers and in keeping with the guidelines outlined for the use of the Teacher Education Distance Education funds, some campuses have developed targeted recruitment strategies, some with particular emphasis on non-traditional students. These efforts range from the development and distribution of brochures at community colleges to mentoring and enrichment programs for college-bound students to database development for recruitment contacts.

IV. 2+2 INITIATIVES

Funding from the UNC-NCCCS Partnership 2+2 Joint Initiative for Teacher Education has supported the development of online 2+2 degree programs in elementary education with concentrations in mathematics and science, special education, birth through kindergarten, middle grades education with concentrations in mathematics and science, secondary mathematics education, and secondary science education. These funds may also be used to support technology development, systems to track student progress in teacher education programs on a UNC campus, and to develop technology to support courses and 2+2 programs. As a result, the funding has helped to build data-based research systems for teacher preparation program improvement and for building greater capacity and accessibility within teacher education.

IDENTIFIED HIGH NEED PROGRAM AREAS FOR 2+2 DEVELOPMENT

NCCCS and UNC have previously collaborated to articulate online degree programs in communication, criminal justice, liberal arts, and business, with continuing discussion of other potential areas for online articulation. Based on these previous articulations the two systems agreed to focus resources on building online degree programs primarily in teacher education while targeting high-need licensure areas. This strategy has resulted in full four-year articulated online degree programs accessible from anywhere in the State that has been used to increase the number of teachers produced for public school classrooms. Program areas identified for online development are as follows:

- Secondary Mathematics Education
- Secondary Science Education (specific fields and comprehensive)
- Middle Grades Education (concentrations in Mathematics and in Science)
- Special Education
- Elementary Education
- Birth through Kindergarten

The overarching goal has been to have a pre-major agreement between the Community Colleges and the University serving each identified area so that students at

community colleges will know the sequence of courses that will prepare them to enter the upper-division education major.

STRATEGY FOR ADDRESSING PRIORITY AREAS

Two strategies have been implemented to address the identified priority areas referenced above; 1) support for individual campus 2+2 development efforts in the identified areas, and 2) collaborative development effort that will enable all campuses to utilize courses developed in the high priority areas of mathematics and science.

Strategy 1. In some of the identified program areas, such as, Birth to Kindergarten, Special Education, and Elementary Education, a significant number of courses were already developed in an online format on some campuses. For these areas and for campuses that had a program close to being available fully online, funding has been provided to complete the development and make those programs available fully online.

Strategy 2. In identified areas where few or almost no courses are available online, such as in mathematics and some sciences, the strategy adopted was to jointly develop a full set of courses for a degree which would be available for use by any campus. While these courses have been developed as part of unitary degree programs, many of the courses serve lateral entry teachers and others who hold a bachelor's degree in a subject area but who need additional course work in order to be certified.

DEVELOPMENT EFFORTS AND SUPPORTING INITIATIVES

East Carolina University (ECU) was funded to develop Elementary Education and Special Education programs; ECU was also funded to develop a Birth through Kindergarten program; North Carolina Agricultural & Technical State University was funded to develop an Elementary Education program; UNC Pembroke was funded to develop Birth through Kindergarten and Special Education programs; and Western Carolina University has been funded to develop Middle Grades Education pedagogy courses.

Through the collaborative development strategy 16 middle grades mathematics concentration courses and 10 secondary mathematics education courses have been developed in an online format by mathematics and mathematics education faculty across the system. Funds provided to the University were also directed toward the development of the online middle grades science concentration courses, secondary science education courses, middle grades education pedagogy course development at East Carolina University and Western Carolina University, expanded support for middle grades and secondary education mathematics courses, and 2+2 integration efforts with the University of North Carolina Online.

NEXT STEPS FOR CONTINUED DEVELOPMENT AND IMPLEMENTATION

Future efforts with the UNC-NCCCS 2+2 E-Learning Initiative will focus on the continuation of science course and laboratory development and mathematics course development. This is a very time intensive process that requires close coordination with the campuses and participating faculty. The University will also utilize initiative funding to further develop the online community of faculty developers and online Instructors, and continued development of systems to track student progress and articulation through the online programs and into the public schools of North Carolina. There will need to be an emphasis placed on this aspect of the initiative in order to provide and expand on qualitative and quantitative outcome data.

TEACHER RECRUITMENT-ADVISOR NETWORK

UNC's teacher education programs have successfully reached many prospective teachers over the past decade and we continue to build and enhance our partnerships. However, there are areas in which we must improve our services, coordinate collective teacher recruitment efforts internal and external to our campuses, and extend outreach that would better assist in recruiting, licensing, retaining and further developing a quality teacher base for all of NC, especially high need districts. The UNC-NCCCS Joint Initiative for Teacher Education and Recruitment funds are provided to select campuses to meet specific

recruitment network needs through the employment of six teacher recruiter-advisor positions located on community college campuses.

This effort is one of the many ways the University of North Carolina has partnered with the North Carolina Community College System in responding to the state's teacher supply needs. Funds appropriated for this initiative were to support seven positions, based on community college campuses, with the responsibility to assist with increasing the number of certified teachers in NC public schools through recruitment, advising, and expanded access. Eight positions were originally funded; however the centralized coordinating position at UNC General Administration and one community college based position was eliminated as a part of prior budget reductions. Based on analysis conducted through the UNC teacher recruitment study and regional teacher supply needs, the remaining six positions have been placed (renewable on a three-year cycle based on supply/demand and established need) in northeastern NC (2 positions), southeastern NC (2 positions), the Charlotte-Mecklenburg area (1 position), and northwestern NC (1 position).

V. PROFESSIONAL DEVELOPMENT PROGRAMS FOR TEACHES AND SCHOOL ADMINISTRATORS

Prior to the consolidation of teacher education related legislative reports, an individual report on professional development for teachers and school administrators was prepared each year. The individual report was established to account for the professional development delivery of programs affiliated with the UNC Center for School Leadership Development (UNC CSLD) when it was first created. The Center has since been restructured and the individual professional development programs originally affiliated with the UNC CSLD no longer exist due to budget cuts or have been transferred to other education sectors (Those programs are: Principals' Executive Program, Model Teacher Education Consortium, central coordinating office for the North Carolina Mathematics and Science Education Network, North Carolina Teacher Academy, and the North Carolina Center for the Advancement of Teaching). The organization is being transformed to focus on the coordination of a statewide Educational Network of University-School Partnerships that furthers the strategic priority of the University to improve public K-12 education.

All UNC teacher education programs have established University-School Teacher Education Partnerships. Through the UNC Center for School Leadership Development (UNC CSLD) we are expanding these partnerships into a statewide educational network focused on recruitment, preparation, and support for transition into teaching and leadership roles. Virtually all school districts in NC are associated with one or more University-School Partnerships and under the new model; all would have the opportunity to participate. For UNC institutions, K-12 schools provide a venue for prospective teachers to receive early field-based experiences, clinical preparation, and an opportunity to apply school-based research. For K-12 schools, partnerships provide access to professional expertise, development, educational research, and best practices.

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