

Report to the Chancellor
2018-2019

As a rapidly evolving college grounded in its land-grant mission, the NC State College of Education has emerged as a research powerhouse that leads the way in solving North Carolina’s most pressing educational problems. We prioritize and direct our teaching, research and outreach efforts to strengthen communities, foster a STEM-prepared workforce, and open up doors of opportunities for underserved children and families. Developments over the 2018-2019 academic year have advanced our capacity and ability to play an even greater role in ensuring the well-being of all North Carolinians. For the second straight year, we set new records in grants awarded, research productivity, and gifts and pledges received. We also had an increase in new student enrollment for the second straight year, and we expanded initiatives such as Wolfpack WORKS and introduced new partnerships such as an Associate in Science (Teacher Education Concentration) with Johnston Community College and Johnston County Public Schools. Cumulatively and collectively, these advances are allowing us to amplify our mission and reach to improve the educational outcomes of all learners.

Our peers recognize us as a global leader in education. In the *U.S. News & World Report’s* 2020 Best Graduate School rankings, we tied at No. 32 among public graduate colleges of education in the nation, marking the second year in a row the college has hit a new high in these rankings. In addition, we debuted at No. 92 in the world on the *Times Higher Education* World University Rankings’ list of best colleges for education degrees.

1. Enhance the success of our students through educational innovation

One testament to our effectiveness is our ability to attract and prepare extraordinary educators. We are the top destination choice for many of the state’s most promising future educators. We are preparing nearly a third of all Teaching Fellows in North Carolina, for example. We welcomed our first cohort of Teaching Fellows in August 2018 when the N.C. General Assembly reestablished the program; the 23 first-year, transfer and Master of Arts in Teaching and licensure-only students were the largest cohort among

the five colleges. In August 2019, the size of our program will nearly triple when we welcome 52 new Teaching Fellows and bring our total number of Teaching Fellows to an anticipated 75, making us the home of the largest group of Teaching Fellows in North Carolina. Of those who applied to be Teaching Fellows in 2019, half of the 219 applicants (110) listed us as their first choice.

At the graduate level, an independent report published in the February 2019 *Notices of the American Mathematical Society* identified NC State as the largest producer of doctoral degree recipients in mathematics education in North Carolina and the fifth largest producer in the nation. In addition, two of our graduate students were awarded NSF Graduate Research Fellowships: Stephen Gibson will explore how media consumption and sense of racial identity impacts the sense of belonging by African Americans, and Danielle Scharen will focus on identifying how teachers are navigating district-imposed practices of incorporating literacy and science instruction. Two doctoral students were also selected as members of the NC State Graduate School's Preparing the Professoriate program for 2019-2020: Sarah Karamarkovich in educational psychology and Deidre Kelly in technology, engineering and design education.

Another measure of our success is alumni outcomes, which includes the honors our graduates receive. In the past academic year, our alumni were named the National School Psychologist of the Year, N.C. Principal of the Year, N.C. Charter School Teacher of the Year, Durham Public Schools' Teacher of the Year and Johnston County Public Schools' Outstanding First-Year Teacher. Within the Wake County Public School System alone, our alumni won the system's top three honors: Principal, Teacher and First-Year Teacher of the Year awards.

We continue to refine our programs to ensure the professionals we prepare are equipped to deal with the emotional stressors they face today. We have added coursework and professional development workshops around topics such as sexual harassment, school violence and self-care. We are also implementing new ways to encourage students to work in underserved areas. We held our first in-state cultural immersion trip during spring break to introduce 24 pre-service teachers to four tier-one and tier-two counties in Eastern North Carolina. Before the trip, the students did a deep dive into data about each district. While on the trip, they visited innovative K-12 schools, interacted with county administrators and teachers, and engaged with community leaders and business partners to better understand the infrastructure of how collective impact supports postsecondary success.

In addition, we are creating more affordable pathways to earn a teaching degree. We formalized our partnership with Johnston County Public Schools and Johnston Community College to pilot an Associate in Science (Teacher Education Concentration) degree. Through the partnership, Johnston County residents will complete their Associate in Science (Teacher Education Concentration) from Johnston Community College. If they complete the program with at least a 3.0 GPA, they will matriculate into a teacher preparation program at NC State. As the students work toward completing their bachelor's degree, they will receive field-based experiences in Johnston County. They will also have an advantage in securing a full-time teaching position with Johnston County Public Schools after they graduate.

We continue to implement activities to recruit diverse students, too. We had 86 high school students attend our second STEM Education Day, and we began to develop an undergraduate diversity recruitment event called SHIFT: Summit Honoring and Inspiring Future Teachers that we will hold in October 2019.

An Inside Look at Teaching in Eastern North Carolina

Twenty-four undergraduate students from the NC State College of Education spent the first half of their spring break meeting with K-12 students, teachers and administrators in rural and underserved districts in Eastern North Carolina. During this We Teach for N.C. Alternative Spring Break trip, the group toured primary and secondary schools, helped students with classroom assignments, shared their college experiences and attended panel sessions featuring school leaders from Craven, Lenoir, Onslow and Wayne counties. "Future educators are the key in changing the world and making it a better place for all. I hope through opportunities like We Teach for N.C. our students begin to understand their importance in the role of being an educator," said Crystal Espey '11, '18 MSA, coordinator of the NC State Teaching Fellows.

2. Enhance scholarship and research by investing in faculty and infrastructure

We continue to experience growth in research productivity since adopting an integrated approach toward supporting faculty research and scholarship. Our faculty and research associates are currently engaged in 124, \$90.8 million-funded active research projects -- the most of any college or school of education in North Carolina. Our total research expenditures were over \$18.2 million as of June 30, 2019, which represents an increase of nearly 20% from last year and which is our highest amount of expenditures since at least FY2000.

To further support our faculty and their scholarly activities, we completed renovations and opened two new learning and research spaces on Poe Hall's ground floor: the STEM Education Innovative Teaching Lab and the Engineering and Design Education Research and Video Lab. The STEM Education Innovative Teaching Lab is an interactive learning space that fosters collaboration and problem-solving through its deconstructed classroom approach. Located next to this teaching lab is the Engineering and Design Education Research and Video Lab. Equipped with top-of-the-line recording technology, this lab allows researchers to capture learning as it occurs through real-time data collection via video and audio and to conduct detailed analyses that will reshape teaching and learning, particularly as related to engineering and design. The two new labs reflect our commitment to connect research to practice, to increase students' experiences in technology-rich learning environments, and to create innovative spaces that highlight a forward-looking vision for education.

We also have been intentional to improve our research communications and create multiple ways for our faculty's work to be shared within the college and across the state, nation and world. Our faculty published six books, three textbooks and 154 journal articles or book chapters in the past academic year, as well as delivered 320 research presentations. They were also cited or featured over 40 times in international media outlets, including CBC Radio, PBS Newshour, *The New York Times* and *Science* magazine. In addition, they developed several briefs for state legislators; delivered presentations to statewide education leaders; and hosted on campus several key influencers, including Rep. Craig Horn, Senator Mike Lee and Senator Erica Smith; policy advisors for Senator Phil Berger; and First Lady Kristen Cooper and her staff.

In recognition of their research and innovation, our faculty received numerous awards in the past academic year. Teya Rutherford, an assistant professor of educational psychology, received an NSF Early Faculty CAREER grant to further study how motivation functions to support students' in-the-moment choices during learning. Professor Margareta Thomson completed her work as a U.S. Fulbright Scholar in Romania, and Teaching Professor Diane Chapman spent two weeks on a Fulbright Specialist trip to Kosovo, where she helped a university modernize their pedagogy. Other honors include Associate Dean of Faculty and Academic Affairs Lee V. Stiff receiving the National Council of Teachers of Mathematics' Lifetime Achievement Award and Professor Sylvia Nassar receiving the American Counseling Association's Arthur A. Hitchcock Distinguished Professional Service Award. In addition, Paola Sztajn, associate dean for research

and innovation, was named to the inaugural class of NC State's Provost Faculty Fellows. Through her Faculty Innovation and Entrepreneurship project, she will investigate the set of behaviors and rewards used in higher education, such as metrics, operating procedures and reappointment, promotion and tenure (RPT) to encourage faculty innovation, creativity and entrepreneurship.

Drake Presents to N.C. State Board of Education on the Principal Pipeline in N.C.

Timothy Drake, Ph.D., assistant professor of education leadership and policy, is the principal investigator on a \$5.1 million Wallace Foundation grant to research the practices and policies that best support the development of highly-effective school leaders. In May, he participated on a panel to present his research and discuss the condition of the principal pipeline and principal preparation in North Carolina at the invitation of the N.C. State Board of Education. He shared how the expectations of principals have changed in recent years and called for a state-wide articulation of a school leadership pipeline. "The principal pipeline is only as healthy as the teacher pipeline, and many of the same obstacles for teacher recruitment apply for principal recruitment (e.g., salary, amount of work, perceived status of the profession)," he said. Drake is also working with the N.C. Department of Public Instruction to develop a state-wide Leadership Development Dashboard for both school districts and institutions of higher education. The LDD will provide streamlined access to information on assistant principals and principals to help districts make more informed hiring and placement decisions and to help university programs evaluate the effectiveness of their programs.

3. Enhance interdisciplinary scholarship to address the grand challenges of society

Faculty are drawing on research to shape their instruction and outreach efforts, as well as to develop evidence-based best practices that address the state's most pressing educational challenges. We received a three-year, \$12,266,816 grant -- the largest in our history -- from the N.C. Department of Public Instruction to expand our Wolfpack WORKS literacy initiative, which is informed by a set of 10 evidence-based literacy practices. Wolfpack WORKS began in summer 2018 to provide intensive, literacy-specific induction support to all first- and second-year K-2 teachers in 16 high-need school districts in North Carolina. With the new grant Wolfpack WORKS will continue to provide support for all current teachers as they move into their second- and third-year of teaching, while also serving a new cohort of first-year teachers coming into the partner schools. This will bring the number of beginning teachers the program is expected to serve up from 170 to over 240.

We also continue to advance efforts to narrow the “skills gap” and support technical training and workforce development. We received a three-year, \$2 million grant from the ECMC Foundation to establish the CTE Research Program at NC State and strengthen postsecondary Career and Technical Education (CTE) research. In addition, we made progress on the launching of the Belk Center for Community College Leadership and Research (in planning). In its first year, the center hosted its inaugural Statewide Community College Leadership Conference. Forty-three of the 58 community college presidents and 33 Board of Trustees chairs in North Carolina attended. They discussed the challenges and opportunities community colleges face to support the state’s economic growth, and they analyzed data and brainstormed next steps in eight region-specific working groups.

We also continue to lead the transformation of digital learning and expand access to STEM opportunities. Through our Friday Institute for Educational Innovation’s N.C. Digital Learning Initiative, we are developing the state’s long-term strategy that sets directions and priorities, supports innovation and provides resources to enable the state’s educators and students to benefit fully from digital-age teaching and learning. Our Friday Institute also continues to expand its Computer Science for All Initiative to create additional opportunities for students through computer science education.

To help in-service teachers improve their instruction, our Friday Institute reached 2,648 educators in 47 states and 76 countries through its Massive Open Online Courses (MOOCs) for Educators. Courses covered various disciplines, including Teaching Foundational Reading Skills, Teaching Mathematics With Technology, Learning Differences and Problem Solving in the Digital Age.

Helping Administrators Better Understand Early Literacy Practices

The Wolfpack WORKS initiative, in collaboration with the N.C. Department of Public Instruction, is expanding as it enters its second year of providing literacy-specific induction support to beginning K-2 teachers in 16 high-need school districts in North Carolina. Ann Harrington, Ph.D., teaching associate professor of reading education and co-principal investigator, said one of the goals for Wolfpack WORKS in its second year is to begin looking at early literacy approaches from not just the classroom level, but the district level as well. A series of meetings were held in June 2019 for district leaders, including superintendents and assistant superintendents, as well as for building-level administrators, including principals, assistant principals and school-based coaches and interventionists. “Not all principals have experience in an

elementary school classroom or a full understanding of what's involved in teaching elementary literacy," Harrington said. "If we are all building upon some common understandings about early literacy instruction, it will just provide more support for those teachers and the children they serve."

4. Enhance organizational excellence by creating a culture of constant improvement

We continue to introduce and refine programs to meet the state's need for highly-qualified educators, especially in content areas facing teaching shortages such as STEM and special education. We added a Special Education Dual Licensure program in our Elementary Education undergraduate program, and we established a sub-plan in our Education General Studies degree focused on Learning Design and Technology. This plan provides students with an accelerated bachelor's/master's pathway in Learning Design and Technology. In addition, we added three 100% online degree programs: Master of Arts in Teaching, Master of Education in New Literacies and Global Learning and Master of Education in STEM Education with concentrations in Science Education, Mathematics and Statistics Education, and Technology, Engineering, and Design Education.

Philanthropic investments are allowing us to enhance learning and expand opportunities for our students, which impacts children and families across the state. A \$25,000 gift from the W. Trent Ragland, Jr. Foundation provides scholarships to support a fifth cohort of teachers seeking a master's in New Literacies and Global Learning with a specialization in K-12 reading. Another gift from an anonymous donor led to the establishment of the Student-Teaching Mini-Grants Program to help student-teachers purchase supplies and resources like robotics, battery packs, graphic novels and more to enrich their instruction. To date, an estimated 2,467 North Carolina public school students have been impacted by the resources 23 student-teachers have purchased with the grants. In all, we received over \$5.78 million in gifts and pledges from 896 donors. That dollar amount is the highest for the college since at least 2002. With the help of donors, we provided scholarship support to 119 graduate and 88 undergraduate students in 2018-19.

In addition to the record year in giving, we set a new high in the *U.S. News & World Report* rankings thanks in part to an improved marketing and communications infrastructure that has increased the college's visibility and better communicated its work and outcomes. We tied at No. 45 out of 392 colleges of education in the nation in the *U.S. News'* 2020 Best Graduate School Rankings. In addition, our Educational

Leadership program was ranked No. 22 in the nation in *U.S. News'* Educational Administration and Supervision speciality category.

In personnel changes, Carla C. Johnson joined the college as an associate dean and executive director of the Friday Institute for Educational Innovation. Also joining us were eight new faculty in the fields of educational leadership, applied developmental sciences, mathematics education, social studies, higher education administration and literacy education.

NC State College of Education Up 14 Spots in U.S. News' Rankings Since 2017

The NC State College of Education tied at No. 45 in the *U.S. News & World Report's* 2020 Best Graduate School Rankings among all 392 graduate colleges of education in the nation. Among just public colleges of education, the NC State College of Education is tied at No. 32. This is the third year in a row that NC State Education has improved in the *U.S. News'* rankings and the second year in a row that the college hit a new high in the rankings. The college has jumped 14 spots in the rankings since the 2017 edition. "Our continuous improvement in the *U.S. News'* rankings is a reflection of the growing national awareness that we are a research powerhouse positively impacting education," Dean Mary Ann Danowitz said. "These rankings are a credit to the incredible work that our faculty and staff are doing to advance our college's land-grant mission to solve the most challenging educational problems facing North Carolina and the nation." The college has made gains in recent years in the peer and superintendent assessment ratings, and its faculty continue to be the most active education researchers in North Carolina.

5. Enhance local and global engagement through focused strategic partnerships

We are a strong college leading the way in North Carolina in large part because of the effective partnerships we have developed. With The Innovation Project (TIP), a collaborative of 24 public school districts in North Carolina, we have established two programs to ensure students in high-needs districts have excellent teachers. Through an NSF grant, the N.C. Master Teacher Fellows Program will prepare, support and retain 19 master teachers of mathematics in six high-needs public school districts. Through another TIP partnership, we graduated our first cohort of NC State TIP Teaching Scholars in May 2019. Four students will receive a \$10,000 financial award from their district for committing to work for at least two years in Onslow, Cabarrus or Lenoir counties. Our second cohort of NC State TIP Teaching Scholars is comprised of eight students who will graduate in December 2019 and May 2020.

We also developed a partnership with the State Employees' Credit Union (SECU) Foundation to expand Pathway to Practice NC, our joint online program with the UNC-Chapel Hill School of Education that is designed to help residency-licensed teachers clear their licenses. Through a \$200,000 grant from the SECU Foundation, we are creating new training modules that will allow teachers to work towards specialized licensures in either elementary or special education. The grant will also provide scholarships for 10 North Carolina teachers to complete the modules. As of May 31, 2019, this program enrolled 65 middle and high school residency-licensed teachers from 28 counties; six have already completed the program.

We are also working across the globe to improve instruction and student success. Alumni Distinguished Graduate Professor Hiller Spires, Associate Professor of Educational Psychology DeLeon Gray and Assistant Professor of English Language Arts Education Michelle Falter conducted the New Literacies Teacher Leader Institute at the Hope Education Centre in Kitale, Kenya, to introduce teachers in the area to digital literacies and inquiry-based teaching. As a follow-up to this work, Dr. Gray conducted visits and teacher workshops in East African cities, including Nairobi, Kenya, and Toll Station, Kenya; and Dr. Falter made a second visit to Kenya to establish a study abroad program called Kenya: Global Education, Literacy, and Culture. In a separate initiative, Assistant Professor of STEM Education K.C. Busch and Professor of Science Education Meg Blanchard travelled to the Galápagos Islands to help bring professional development opportunities to educators there as part of Education for Sustainability for Galápagos, a public-private partnership that involves multiple universities, agencies and non-profit organizations.

Our faculty are helping to broaden the perspective of current and pre-service teachers, too. Professor of Learning Design and Technology Kevin Oliver, Professor Emeritus of English Language Arts Education Ruie Pritchard and Associate Professor of Literacy Education Angela Wiseman led a professional development program through which 20 in-services teachers from Chatham, Durham, Orange and Wake counties explored Prague for two weeks in July 2019. This program leverages technology to help Triangle-area teachers and their students develop a greater understanding of diverse cultures.

Developing Master Mathematics Teachers in High-Needs Public School Districts

The NC State College of Education will help strengthen the leadership skills and instructional practices of 19 high school mathematics teachers in six high-needs public school districts in North Carolina through a new program funded by the National Science Foundation. As part of the North Carolina High

School Master Teacher Fellows Program, 19 math teachers will develop into master teachers who impact over 15,000 students in Cabarrus, Edgecombe, Mount Airy, Rockingham, Sampson and Wayne school districts. “We are excited about the opportunity to support these talented teachers,” said Ann McColl, CEO of The Innovation Project (TIP). “This program is an important part of a growing partnership with the NC State College of Education that allows us to creatively and effectively address a critical need in our partner school districts.” During their five years in the program, the 19 Master Teaching Fellows will deepen their understanding of the mathematics they teach and effective mathematics teaching practices. Specific experiences will include completing an online graduate certificate program in mathematics teaching and learning or a master’s program, attending a week-long summer professional development institute each year, working collaboratively to apply for National Board Certification, and completing an online mentor training program. “The goal of the program is to prepare high school mathematics teachers to be leaders and mentors in their schools and districts and within the state of North Carolina,” said Karen Hollebrands, Ph.D., Alumni Distinguished Undergraduate Professor at the NC State College of Education and principal investigator on the project. “An additional goal of the project is to retain highly qualified experienced mathematics teachers.”

Looking to the Future

As a land-grant college, we will remain intentional to empower students, strengthen communities and boost the state’s economy. A particular focus will be on deepening connections and creating seamless pathways between K-12 schools, community colleges and four-year institutions. We will draw on our strengths and work in a variety of ways to support the myFutureNC goal of having 2 million adults in North Carolina hold post-secondary degrees or credentials by 2030. We will assist schools and community colleges in ensuring we have learners who are workforce-ready. Other particular areas of emphasis will be in computer science, the digital transformation of teaching and learning, STEM education and literacy.