

## Report to the Chancellor 2016-2017

The NC State College of Education transforms lives, schools, and communities across North Carolina and beyond through the highly qualified educators, counselors, leaders, and other educational professionals we prepare; the highly impactful research our faculty and students conduct; and the highly relevant resources and services we offer. What drives the college is a shared mission to ensure the educational success of all students and to reduce achievement gaps.

We address the most pressing educational issues in North Carolina, and we are focusing our strategic priorities to make a greater impact. By building on our successes in research, teaching, and engagement to advance our mission and moral imperative, we are leveraging digital education; promoting literacy education and science, technology, engineering and mathematics (STEM) education; forging strong, interdepartmental collaborations and cohesion; building vibrant, supportive external partnerships; and developing educational leaders. Our work has never been as important or urgent, and we are committed to harnessing our reputation, resources, and research to expand access to education.

Nationally, the U.S. News & World Report ranks the College of Education in the top 15 percent among graduate education programs, and the higher education program is ranked No. 19.

### **1. *Enhance the success of our students through educational innovation.***

We provide experiential learning experiences and relationship-driven learning environments that prepare students to be scholar leaders and life changers. We launched our new Scholar Leader Ph.D. programs to improve the impact our graduates will have on policy and practice. The inaugural cohort of 77 Ph.D. candidates are spread across three programs that will equip them with deep content knowledge in their speciality areas, as well as a broad skillset in research and policy, equity and diversity, technology and innovation, global understanding and impact, and multimodal community.

Our students' achievements also reflect how we are a magnet for talent and a catalyst for innovation. Three Ph.D. students in the Department of Teacher Education and Learning Sciences received NSF Graduate Research Fellowships Program (GRFP) Awards in STEM Education in Learning and Research. The NSF granted only 35 awards in this category, and the College of Education was one of only two of its kind in the nation to receive as many as three awards.

At least seven other students received national and international awards for their research, leadership, and service. Dozens more presented at national conferences or authored posters and papers for presentation, including six doctoral students who presented at the 2017 STEM Education Spring Research Symposium and three undergraduate and five graduate students who will present at the American Psychological Association in August 2017. Fifteen faculty supervised 30 undergraduates who received funding through the Provost's Professional Experience Program.

Our students receive further support through fellowship or scholarship programs. We recruited nine STEM Education Undergraduate Fellows who work with faculty mentors on research projects, and we created awards to recruit students to online graduate programs. The NSF-funded Noyce Mathematics Education Teacher Scholarship (METS) program has also provided scholarships to four graduate and nine undergraduate students since 2013 to prepare them to teach in high-needs school districts.

Among innovations in the classroom, we piloted a Google Classroom to prepare K-12 teachers on how to use a learning management system and provide real-time feedback to support project-based pedagogy. We're also creating a collaborative workspace for doctoral students to stimulate interdisciplinary scholarship. Updates to the Media Technology and Resources Center (METRC) will also provide a more conducive space for collaboration and digital teaching and learning.

### *A Day in METRC: Future Teachers Learn How to Integrate Technology into the Classroom*

College of Education students learn how to integrate "making" -- creating through technology -- into their instruction with the help of METRC's MakerSpace, which has resources such as Tinkercad, Sphero and 3-D printers. Before METRC closed for summer renovations, a group of elementary education majors taking ELM 420: Teaching Science in the Intermediate Grades spent a class learning about METRC's technologies and how to use them in their lessons to engage students and foster STEM

skills. “Due to the importance of technology in our world, and in the world of our future students, it is important for us to know how to use these new technologies,” student Casey Bohnenblusch said. “As teachers, we will be able to help students explore what’s out there and expose them to opportunities they can use in their future careers.”

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

Externally funded research continues to be a priority, with strong support for faculty scholarship. Two-thirds of faculty are grant active and have already received \$15.8 million in new research funds this year, surpassing the record for new awards established in FY16. The support from our research office has translated into a 45 percent success rate for proposals, maintaining a 40 percent or above award rate that started in FY10. Our research expenditure is also at a new high -- and 8 percent above last year.

To enhance the success of our new researchers, the college reconceptualized the new awardee initial meeting in FY17 to support an integrated approach to budget management, reporting systems, human resources and technology. In partnership with the college’s IT team, we strengthened our work on data management and data security, offering further structures to support PI compliance.

National honors for faculty in 2016-17:

- Jere Confrey, Distinguished University Professor of Mathematics Education, was named NC State’s first American Educational Research Fellow.
- Patricia Marshall, a professor of multicultural studies, received the National Association for Multicultural Education’s 2016 Carl A. Grant Research Award.
- Joy Gaston Gayles, an associate professor of higher education, received The Ohio State University’s Maude A. Stewart Award for her work in higher education and student affairs.
- John Nietfeld, a professor of educational psychology, was a Core Fulbright Scholar who traveled to Estonia to continue his research on self-regulated learning and metacognition.
- Stanley Baker, a professor of counseling education, received the North Carolina Counseling Association’s Ella Stephens Barrett Excellence in Leadership and Counseling Award.
- Michelle Falter, assistant professor of English language arts education, was awarded the Nilsen/Donelson Award from the National Council of Teachers of English.

In addition, our faculty were cited in numerous national publications, including The Atlantic, The Wall Street Journal, USA Today, Inside Higher Ed, and The Washington Post.

In personnel changes, Paola Sztajn was appointed associate dean for research and innovation; John Lee as interim head of the Department of Teacher Education and Learning Sciences; Penny A. Pasque as head of the Department of Leadership Education, Policy, and Human Development; and Lee V. Stiff as interim associate dean for academic affairs. In addition, the college hired four assistant professors in English Language Learning, Equity in Special Education, STEM Education, and Leadership in Public Science -- the latter as part of the Chancellor's Faculty Excellence Program. We also hired a professor of practice for Community College Leadership.

### *Making Student Success a Global Effort*

Jere Confrey, the Joseph D. Moore Distinguished University Professor of Mathematics Education, is integrating high-quality STEM education into the curriculum of a school for Mayan girls in Panajachel, Guatemala. She works alongside two nonprofits — Teachers2Teachers (T2T) and Starfish Impact — to give young Guatemalan women educational support. T2T supplies professional development to teachers around the world, while Starfish provides educational access and other opportunities to young women from disadvantaged communities. “Together, we’re committed to working with local teachers to broaden their skills and to create more student-centered classrooms,” said Confrey, a 2017 American Educational Research Association Fellow — the first from NC State.

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

College of Education faculty have reached beyond typical education-related fields to collaborate with researchers on interdisciplinary projects focusing on geospatial analytics, electronics manufacturing innovation, agriculture, human health, and bioenergy engineering. A large portion of new external funding focused on two strategic areas: school principal preparation and the digital classroom. Through school principal preparation initiatives, we work to serve schools and communities that have traditionally been overlooked in North Carolina. In partnership with some of the state’s most underserved communities, faculty have received three grants in the past year totaling \$4 million to improve under-resourced schools through effective leadership. Through the digital classroom initiatives, our faculty have had 18 projects

funded, totaling \$4.4 million. These projects focus on supporting digital learning, implementing digital teaching in classrooms, school connectivity and curriculum development. Other funded research projects are addressing the state's needs to equip students with STEM skills, as well as helping educational leaders and policymakers make informed decisions, including:

- The \$3 million-funded NSF-funded Project ATOMS, under the direction of Assistant Professor Temple Walkowiak, focuses on enhancing elementary teacher education and student achievement in science and mathematics.
- Led by Assistant Professor DeLeon Gray, the \$1 million NSF-funded iScholar develops tools and procedures for using motivation data to improve instructional effectiveness in STEM fields.
- The Positive Behavior Intervention and Support (PBIS) in North Carolina is a longitudinal study to examine the implementation of a new PBIS-related policies in North Carolina public schools. Professors Edward Sabornie, Patricia Marshall, and Cathy Crossland lead the study.
- Through Promoting STEM Interests and Careers through FAME [Families and Museums Exploring], Professor Gail Jones is partnering with three museums in North Carolina to engage families and underserved youth in grades 3-5 in technologies and STEM careers.
- Professor Eric Wiebe leads two projects: ENGAGE: A Game-Based Curricular Strategy for Infusion Computational Thinking into Middle School Science and PRIME: Engaging STEM Undergraduate Students in Computer Science with Intelligent Tutoring Systems.

We have also expanded our certificate programs. We added certificates in Technical Education for Community College instructors and Special Education: Implementing Multi-Tier System of Supports, the state's first 100 percent online program of its kind. In addition, we are developing a certificate for Informal Science Education and working with the College of Natural Resources to add a certificate in Environment Education.

### **Impacting High-Need Schools by Redesigning Principal Preparation Programs**

Since 2010, the College of Education has received more than \$22.6 million in external grant funding to support the Northeast Leadership Academy, which trains leaders to work in high-need, rural schools in northeastern North Carolina. New funding has allowed NELA to expand its work, and today

engages in over a quarter of the state's counties. "NELA is based on research that demonstrates how school leaders retain effective teachers and create a school culture of achievement," said Professor Bonnie Fusarelli, who directs NELA and is a University Faculty Scholar. Since graduating its first cohort in 2012, NELA has produced 33 principals and 63 assistant principals. These graduates make rapid improvements. Eighty-three percent of NELA's first-year principals met or exceeded growth in high-need schools. In comparison, only 75 percent of experienced principals across all North Carolina schools reached the same level of performance.

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

The College of Education reduced the number of doctoral degree options from five to three to reconceptualize its Ph.D. programs. By doing so, we provide our doctoral candidates a richer interdisciplinary experience that will enable them to have a broader impact on policy.

The college also held dozens of events and activities over the past year to foster an inclusive environment, including several Racial Climate Town Halls for students; Inclusivity and Anti-Oppression Training for 85 faculty, staff and doctoral students; and numerous professional development workshops for students to help prepare culturally-competent educators. Because of these commitments in equity, diversity, and inclusion, the college won a 2017 Chancellor's Creating Community Award.

The college is also developing a college-wide graduate student recruiting initiative. We shifted program matriculation times to fall and summer except for cohort programs with defined sequences, we implemented a tracking system, and we held our first open house for 120 prospective graduate students.

With a strong giving year, the college is poised to continue its momentum. As of May 31, total gifts and pledges reached \$4.9 million, bringing our commitments to the Think and Do the Extraordinary Campaign to \$15.2 million of its \$21 million goal. Philanthropic gifts from individuals jumped more than 300 percent, led by a \$1.5 million gift from Ann and Jim Goodnight to establish the college's first fully-endowed distinguished professorship. Gifts from faculty and staff have increased 365 percent.

#### ***Faculty Member Endows Scholarship to Benefit Underrepresented Groups in College of Education***

A College of Education faculty member endowed the Council on Multicultural Initiatives and Diversity Scholarship to provide need-based support to undergraduate students in the college from

underrepresented groups and who demonstrate a commitment to work with the African American community. "Having more diversity within our undergraduate population is important for the experience of all our undergraduates as they learn to be teachers in an environment that reflects the population of our state," said the faculty member. The scholarship is named in honor of COMID, a group of faculty, administrators, deans and students formed in 2007 to foster a diverse community within the college.

#### ***5. Enhance local and global engagement through focused strategic partnerships***

The College of Education continues to expand its partnerships in order to improve the lives of children and families around the state and world. In February, the college hosted its second Action Summit, which brought together community, education, business and government leaders to strategize on ways to improve postsecondary and career success for Wake County youth. The following month over a 130 male high school students participated in the Brothers United in Leadership Development Summit where they received leadership training and developed career and college readiness skills.

Through a UNC General Administration grant, the Friday Institute provided over 120 hours of professional development to 15 high school math teachers in Wake County. The institute also reached over 2,300 teachers from 63 countries through MOOC for Educators that the Hewlett Foundation funds.

The Friday Institute's other partnerships include with Duda Paine Architects to develop the new N.C. School of Science and Mathematics campus in Morganton, North Carolina; the N.C. Department of Public Instruction to implement the N.C. Digital Learning Plan; and Code.org, which has allowed the institute to become a professional development hub for secondary computer science teachers.

Globally, 11 undergraduates participated in a five-week student teaching experience in Beijing, China, at the Beijing Royal School (BRS). The program is part of a larger initiative with BRS, now in its seventh year, that has included scholarly and professional development activities for NC State faculty and students and BRS educators. Over 25 BRS educators have completed a master's through our New Literacies and Global Learning program through June 2017. Associate Professor Deniz Eseryel also has coordinated NC State's inter-institutional agreement with the Middle East Technical Institute to engage in the exchange of students and staff under the Erasmus+Programme.

### *130 High School Students Attend BUILD Summit to Connect, Get Leadership Training*

Kevin Smoot's basketball team might have been more successful this past season if he and his teammates had better connections with each other. That's one of the thoughts he had while participating in the Brothers United in Leadership Development Summit the College of Education held in March. The summit brought 130 male high school students together to receive leadership training and develop career and college readiness skills while building connections with each other and with college students, community leaders, and NC State faculty and staff. "The summit has made me rethink leadership," said Smoot, a sophomore at Enloe High School in Raleigh. "I thought leadership was just about setting the example. But leadership is about building connections."

### ***Looking to the Future***

The College of Education is intensifying its focus on addressing North Carolina's most pressing educational needs. These priority include preparing educators who positively transform classrooms, schools and other learning environments to increase engagement, equity, and performance; developing research and instructional programs to enhance technology-enhanced teaching across the lifespan; fostering strategic community engagement partnerships to promote inclusive learning and human development; and improving access to four-year universities.

To support these priorities, specific initiatives in the year ahead will include continuing to prepare highly effective STEM teachers across K-12; integrate literacy and STEM across the curriculum; develop exemplary practices to prepare teacher and administrative leaders to implement the N.C. Digital Learning Plan; launch an off-campus site to serve our community counseling program; expand The Literacy Space to serve struggling readers in the Raleigh area; implement an innovative program to place graduates in the highest-need communities; partner with community colleges on a pathways program; and design and deliver a competency-based online program for alternative teaching licensure in collaboration with UNC-Chapel Hill. Through these priorities and initiatives, we are poised to further position ourselves as the leading college of education in North Carolina.