

NC STATE University

College of Education

2007-2008 Annual Report

June 20, 2008

College Mission: *The College of Education is a voice of innovation for learning across the life span. We prepare professionals who educate and lead. Our inquiry and practice reflect integrity, a commitment to social justice, and the value of diversity in a global community.*

College Vision: *To be a nationally ranked, research-intensive, professional college of education with distinction for work in teaching and learning in technology-enabled environments.*

Submitted by

Kathryn M. Moore..... Dean
Gerald Ponder Associate Dean for Academic Affairs
Samuel S. Snyder Associate Dean for Research & Administration

Unit Heads

Carol E. Kasworm Adult and Higher Education
Ellen S. Vasu..... Curriculum and Instruction
Robert C. Serow Educational Leadership and Policy Studies
Ellen McIntyre..... Elementary Education
John E. Penick Mathematics, Science, and Technology Education
Glenn M. Kleiman..... William & Ida Friday Institute for Educational Innovation

Changes in Service Environment

1. **Increased attention to improving the quantity, quality, and geographic distribution of public school teachers.** The College of Education has taken an aggressive and strategic approach in tackling the critical shortage of qualified classroom teachers throughout the state of North Carolina, both through our traditional undergraduate programs and through lateral entry/NC Teach programs, preparing more than 500 license completers in 2007, a 60% increase since 2002.
2. **Pre-college Pipeline Efforts.** Our pre-college MSEN program continues to expand, adding Johnston County and possibly Durham. We participated in a national Urban-Serving Consortium project that netted about \$8,000 in additional one-time scholarships for graduates of the program. We also supported 21 high school students in the Leadership Institute for Future Teachers, a 5-day, on-campus camp.
3. **Preparation of School Leaders.** The School Leadership Program has added a new cohort in Rocky Mount to join three other MSA cohorts serving 3 districts. We continue our MSA and EdD customized programs in Wake County and Durham public schools.
4. **Support for New Teachers.** Alan Reiman prepared a detailed report for the Education Deans' Council of UNC outlining the issues and challenges of supporting new teachers. He has also developed a Beginning Teachers Perceptions of Success Inventory that is in use in several school districts.
5. **Graduate Study.** The College remains the 3rd largest provider of advanced degrees at NC State. We also offer one of the few totally on line master's degrees in training and development, and our EdD degree program in Charlotte is being redesigned into an executive-style weekend format. Three of our largest graduate programs underwent formal review this year.

Compact Plan 2007-2010: Progress toward implementation

1. **21st Century Teacher Education.** In response to continuing pressure to prepare more, future-ready teachers, particularly in STEM fields, we have hired two senior faculty, one in math education and another in science education, and a more junior individual in technology education. We have strengthened and expanded our formal partnerships with 6 school districts in Northeast NC to provide professional development to middle school teachers and district leaders. We continue to lead the UNC campuses in the number of math teachers we produce, rank third in science and third in the production of middle school teachers—all high needs areas for the state. A Coordinator of Teacher Education Recruitment position was created to support the university's commitment to broadening its efforts to address teachers in high need subject areas and the disproportionately low number of teachers of color entering the teaching profession. The first Noyce Mathematics Education

Teaching Scholars and the first Burroughs Wellcome Fund Scholars were selected this spring for 2008-09. The Noyce Scholarships aim to increase the number of highly qualified mathematics teachers while the Burroughs Wellcome Fund scholarships targets prospective science teachers. All teacher preparation curricula are undergoing “re-visioning” for the 21st century, as per NC Department of Public Instruction mandate.

2. **Distance and Extended Learning.** We created the College Distance Education Office; hired a director, a coordinator, and administrative support; and have moved aggressively to a more centralized, coordinated effort in distance education, summer sessions, and alternative licensure programs. In 2007-08 the Alternative Licensure Office expanded its NC TEACH program to three new areas: Host sites were created in the rural areas near Rocky Mount, Sanford, and Fayetteville. These new sites increased the annual number of NC TEACH license completers from 55 to 158. As a result of targeted marketing the student diversity in this program rose from 18% minority status to 36%. Program enrollees pursuing a license in STEM areas have risen from 15 students to 52. Three new DE programs were submitted for approval to both the graduate school and UNC-GA. The MSA program expanded in 2007-08 as well, targeting high-need, rural areas near Rocky Mount and in Vance County. Approximately 35 additional participants have been recruited from these areas.
3. **Research and Graduate Studies.** A graduate-level option for initial teacher licensure and master’s degree, the MAT, was proposed, has passed all campus reviews, and has been forwarded to UNC-GA for review and approval. The Adult and Higher Education department proposed a new PhD program to replace the on-campus EdD, and the plan has passed College review. Management of grants and contracts will be facilitated by a soon-to-be-hired Assistant Director of Research Management, a newly created position in the Office of Fiscal Operations and Research Management.
4. **Infrastructure Improvements to Poe Hall.** Several significant renovations to Poe Hall are recently completed or underway. The Student Academic Success and Advising Center (a 7-office, reception area, and conference room facility) that will accommodate academic advisers and student engagement professionals is complete and awaiting furniture for the fall 2008 opening. The College Media Center and several adjacent spaces are undergoing extensive renovation to accommodate in a more open, pleasant, and contemporary environment newly expanded collections, enhanced curriculum and multi-media materials, and educational technology equipment for use throughout Poe Hall. Technology education laboratory spaces are receiving a summer facelift and refurbishment as we continue to update these facilities for 21st century teaching and learning. A dedicated teaching space for elementary education is also being renovated and upfitted with increased

technology for use beginning in the fall. Finally, the design phase is now complete for updating and upgrading laboratory spaces for math and science education, with the actual renovation to take place in 2008-09.

Diversity: Initiatives and Progress.

Anona Smith Williams received the NC State Administrator Diversity Award. Norma Quinones was appointed Assistant to the Dean for Diversity. She will lead a diversity curriculum audit, work with the Committee on Multicultural Initiatives and Diversity (COMID), assist in providing faculty development opportunities in diversity, and advise academic programs on developing diversity curricula and experiences. In honor of Black History Month, the Office of Student Involvement and COMID hosted a weeklong celebration of diversity. Events included faculty and student lectures, panel discussions, and a movie/discussion session. The College will sponsor its 6th Leadership Institute for Future Teachers (LIFT), a residential, one-week camp for rising high school seniors interested in teaching. LIFT participants are also prepared to be competitive for the Teaching Fellows Scholarship; of the participants from 2006 who applied for the Teaching Fellows Scholarship, 75% were selected as Teaching Fellows finalists. The College supports students of color in their progress toward degree completion. End-of-year data comparisons reflect minimal disparities between the academic performance of College African American students and their White counterparts. The cumulative end-of-year grade point averages for African American and White students were 2.75 and 3.08, respectively. With regard to first-year CED students, African American students' GPA performance was 2.74, above the NCSU African American average of 2.52. The College of Education aggressively seeks to attract students of color to enter teacher education programs. For the fall, the College will admit 20 students of color. In a diversity program serving external constituencies, the Center for Research in Mathematics and Science Education Pre-College Program serves more than 450 middle- and high-school students from traditionally underrepresented populations with activities designed to encourage pursuit of a college education and careers in science, math, engineering, technology, and education.

Instructional Program Advances and Program Review

In fall 2007 programs in Math, Science, and Technology Education and in Educational Leadership and Policy Studies underwent Graduate School program reviews. In Adult and Higher Education we received UNC approval for an MS in HRD (formerly Training & Development) and campus approval for a graduate online certificate in E-Learning administered jointly in AHE and Curriculum and Instruction. The Department of Elementary Education received governance authority for the MEd in Elementary Education, rectifying one of the areas of concern raised by the State Evaluation Committee following NCDPI review in spring 2007. In preparation for an NCATE Focused visit on Standard 2, Assessment, in fall 2009, the Knowledge Management and Assessment unit has been developing a

scalable web-based assessment system for managing the assessment needs of the college. The system, known as SAGE (System of Assessments Guiding Education), is progressing rapidly. Currently, beta test for the undergraduate module is slated for mid summer. The system will roll out for undergraduates in the early fall and for graduate students in late fall. In addition, an e-portfolio module is under development to meet the 2010 state requirement of electronic portfolios for licensure candidates. The College and its teacher and school leadership education programs also prepared for the "re-visioning" process slated for 2008-09. This process is occasioned by new Professional Teaching Standards and Executive Educator Standards passed by the State Board of Education in 2007. The largest instructional program advance in 2007-08 was developing and passing through the College Graduate Studies Committee and the Administrative Board of the Graduate School a new degree, the Master of Arts in Teaching (MAT). When implemented in spring 2009, the MAT will provide a graduate path to initial teacher licensure in the areas of social studies education, English education, science education, mathematics education, technology education, middle grades education, elementary education, and special education.

Research

During the fiscal year, College of Education faculty significantly increased grant activity, submitting more than 90 proposals to date (vs. 71 in 06-07) requesting a total of \$45 million. Grant funding has also increased significantly. To date, 29 proposals have been awarded totaling nearly \$8 million (vs. \$3 million in 06-07), with approximately \$20 million in requested funding still pending. Through these research initiatives, faculty apply their expertise to finding solutions to educational issues that will have an impact across the state and nation. Several important areas of research can be highlighted: 1) The Friday Institute is leading the implementation of a state-funded pilot project which provides high-speed network connectivity to K-12 schools in North Carolina. This effort is the first phase of a project designed to bridge the digital divide by ultimately reaching all K-12 schools across the state. 2) The College is addressing the urgent national need to increase the number of science majors through a study on the effects of college on degree attainment for women and underrepresented minorities in the sciences. The study examines factors that influence degree attainment and whether particular college experiences have a greater impact on degree completion for some gender/ethnicity groups than for others. 3) Faculty research efforts are supporting teachers through the development of a diagnostic system used to assess students' understanding and knowledge of key math concepts in grades 3-8. The project will help to identify students' difficulties in understanding these key concepts and will investigate the diagnostic system's effects on student and teacher learning. The goal is to provide instructional guidance to teachers, particularly those serving the needs of educationally disadvantaged students. 4) The College is providing cutting edge professional development to middle school science and math teachers in high-

need school districts in NC. The project contributes to teacher retention, content knowledge and workforce preparedness by engaging teachers in inquiry-based, technology-infused math and science lessons through sustained professional development and structured follow-up support.

Extension

In addition to the extension and engagement efforts reported elsewhere throughout this document, College of Education faculty engaged in a wide variety of outreach activities including serving as consultants for schools, museums, the Department of Public Instruction, and a planetarium; on professional association councils or committees; or on advisory boards, boards of directors, and scholarship committees for schools and school districts in the state; presenting workshops and making presentations in schools around the State and beyond. College faculty, for example, worked extensively with NCDPI personnel in revising and drafting new descriptors for the NC Standard Course of Study, especially in STEM areas. Our faculty developed a variety of instructional materials including CD ROMs and websites. In Adult and Higher Education, the National Initiative for Leadership and Institutional Effectiveness provided technical reports for 32 community colleges around the country, the National Hispanic Fellows Leadership Program provided reunions and support for community college leaders in 6 states, and the Department Chairs Institute provided programs for 27 community colleges in NC and across the nation. The College maintains more than 30 "Online Tools for Schools," including LabWrite, Nurturing Mathematics Dreamkeepers, and MEGA (Middle Educators Global Activities). MEGA connects approximately 850 educators from school systems across North Carolina to NC State faculty and students through an active email network and quarterly professional development workshops. The Capital Area Writing Project, a National Writing Project site in its 25th year, serves K-12 fellowship teachers in an intensive summer institute designed to help them improve as teachers of writing. The SUCCEED in Mentoring Program provided consultation and novice teacher mentor training to a dozen colleges or universities and to school systems in 10 counties. The elementary education program has formal partnerships with five Raleigh area schools, and the Friday Institute provided technology infusion workshops on 21st century skill development to teachers in six districts in northeast North Carolina. The Institute and the Department of Educational Leadership and Policy Studies operate the Innovative Leaders Academy to provide consultation and training in site-based problem solving for teams of teachers and administrators from these same six districts. Finally, SAY Village students served over 150 public school at-risk students during 2007-08. Activities and programs included an all expense paid trip to Washington DC, several on-campus activities including a Welcome Day designed to ignite students' interest in the college experience, a trip to the State Fair and countless hours of mentoring and assessment activities.

Faculty

Several College faculty members received significant recognition locally, regionally, nationally, and internationally. Glenn Kleiman was named to the NC E-Learning Commission. Ted Branoff was Chair of the Engineering Design Graphics Division of the SE American Society for Engineering Education and Immediate Past Chair of the Engineering Design Graphics Division of the ASEE. Aaron Clark received the Oppenheimer Award for best paper from the Engineering Design Graphics Division of the ASEE, served on the Board of the Outreach Division of the ASEE, and was Past President of the North Carolina Council for Technology Teacher Education. Aaron also serves as Editor of the American Journal of Educational Studies. Jeremy Ernst received the Early Career Leader award from the Council on Technology Teacher Education and was the Technical Foundation of America Scholar for 2007. Gail Jones served on the Board of Directors of the NC Science Olympiad. John Park served on the Board of Directors of the NC School Science and Mathematics Association; he was Vice President of the Society for Information Technology and Teacher Education. Alice Scales served as Vice Chair of the Engineering Design Graphics Division of the ASEE. Terri Varnado was named a 21st Century Leader Associate by the International Technology Education Association. Jack Wheatley served on the Council of the National Association for Science Teachers. Joy Gayles received the American College Personnel Association Emerging Scholar Award in 2007. Audrey Jaeger received the North Carolina College Personnel Association, Distinguished Scholar Award in 2007.

Students

During 2007-08 our incoming first-year students continued to demonstrate scholastic achievement and commitment to academic excellence, with an average high school GPA of 4.12 and almost half graduating in the top 10% of their high school class. Of the 27 students in the first Elementary Education cohort, 22 graduated with honors (6 *cum laude*, 8 *magna cum laude*, 8 *summa cum laude*). College of Education undergraduates continue to be involved in student organizations and hold various leadership positions across the campus. Our Teaching Fellows Program, Students Advocating for Youth (SAY) Living and Learning Village, and Determined Area Youth (DAY) all continue to engage students in opportunities that enhance their leadership skills and their ability to foster relationships that promote optimal learning experiences.

Fund-Raising

The College reached its \$15 million achieve! Campaign goal in January, six months ahead of schedule. Our efforts contributed to the successful completion of the \$1 billion goal for the University. Ten million dollars was used for the design and construction of the William and Ida Friday Institute for Educational Innovation on Centennial Campus. The College raised over \$1.5 million dollars for scholarships and fellowships to provide everlasting opportunities for

students to pursue their dreams of teaching in the 21st century. Included in that total was a \$50,000 donation given towards the endowment of a scholarship in the College. As we approach the end of the Campaign, we have raised \$628,986 in 2007-2008.

Administration

Changes: Lilia Collazo was promoted to Assistant Dean for Finance; Patricia Simmons has been appointed department head in Mathematics, Science and Technology Education, replacing Dr. John Penick who is returning to the faculty; Norma Quinones has been appointed Assistant to the Dean for Diversity and Multicultural Affairs and also will work in the Lateral Entry Office. Changes among the College faculty include one resignation one retirement, and nine new appointments: six assistant professors, two associate professors, and one professor.

Achievements: Three College programs received noteworthy national rankings in the *Chronicle of Higher Education's* "Top Research Universities Faculty Scholarly Productivity Index:" Science Education ranked 1st, Math Education ranked 5th, and Curriculum & Instruction ranked 8th. The NC State legislature allocated \$12 million on an annual, recurring basis for the NC School Connectivity project, a coalition of business and government partners led by the Friday Institute, to create and maintain a broadband education network for all schools in the state. The College and the Friday Institute, and 6 other partners, sponsored the Summit on US/China K-12 Education: Global Collaborations and Partnerships. National speakers addressed the value of US/China K-12 partnerships and North Carolina educators described current collaborations. A highlight of the day was the signing of an MOU between the NC BOE and the Jiangsu provincial department of education. The first cohort of elementary education majors (27 students) graduated in May 2008. The College celebrated American Education Week in November with several major events including a keynote address by Linda Perlstein, a noted Washington Post columnist and book author. The Friday Medal was awarded in November to Dr. Bettye Manchester, a leader of the statewide laptop project for the State of Maine; and in April to Dr. Donald Leu, a nationally recognized scholar of 21st century literacy skills. Ms. Linda Harrell was named Distinguished Alumna; she is the founder of the statewide Communities in Schools organization.

Recommendations and Concerns for the Future:

The College of Education continues its efforts to become a nationally recognized, research-intensive professional college with distinction in teaching and learning in technology-enriched environments. The recent UNC-Tomorrow Commission and NCSU Response focuses on work with public schools. In line with this greater visibility and responsibility, we make the following recommendations:

1. Enhance the resources of the College to respond to its enlarged role as a provider of STEM educators and a leader in work with public schools.
2. Continue improvements in faculty compensation and benefits. We remain at risk with regard to recruiting and retaining minority individuals in particular.
3. Continue to assist the College to publicize our work and increase the number of alumni and other donors. State funds cannot be expected to fund every need. The College has met and exceeded its \$15 million **achieve!** Campaign goal. With strong support internally and externally we plan to raise funds for additional scholarships and for additional endowed professorships to attract even more stellar students and faculty.
4. We share the University's vision to be an exemplary land-grant university for the 21st century. We believe such a vision calls upon the College to fulfill its goal of being a research-intensive professional school with statewide reach and national stature. The College is committed to contributing to the central thrusts of the University through improved and invigorated teaching, research and outreach programs. We are addressing the state's teacher shortage aggressively, particularly in STEM disciplines. However, there are also demands to address shortages of administrators, counselors, and community college personnel. We seek to play a vital role in meeting these challenges, and we are vigorously pursuing those activities most likely to garner individual, corporate, and governmental support.

NC State's goals include the following areas in which we are contributing directly:

Producing leaders: Current NC State Superintendent of Public Instruction June Atkinson, former NC State Superintendent of Public Instruction Mike Ward, and former US Assistant Secretary of Education and Mississippi State Superintendent of Schools Henry Johnson are College of Education Ed.D. graduates.

Creating educational innovation: The Friday Institute for Educational Innovation housed and supported the NC Virtual Public School and managed the \$12 million K-12 School Connectivity Project pilot, which together will eventually provide broadband connectivity to every school in the state and online accessibility to a broad menu of coursework, much of it not otherwise available to the target audiences. College faculty created Crystal Island, an interactive virtual gaming environment that teaches microbiology content from the NC Standard Course of Study. Approximately 350 8th grade students interacted with Crystal Island this year. The Friday Institute, in partnership with the North Carolina Department of Public Instruction and SAS, launched the NC 1:1 Learning Collaborative, designed to support K-12 schools and districts that are implementing programs in which every student and teacher has a laptop computer, desktop computer, or other computing device, with ready access to the internet.