

**Report to the  
2008 North Carolina General Assembly  
Joint Legislative Education Oversight Committee**



**The University of North Carolina  
Strategic Initiatives Reserve  
2006-07**

First appropriated in 1999, the Strategic Initiatives Reserve is used by the President of the University to encourage multi-campus initiatives, take advantage of promising opportunities, and address system-wide issues and concerns. Beginning in the 2005-07 biennium, the previous annual appropriation of \$4 million was reduced to \$3.3 million – all \$3.3 million was allocated to projects during the 2006-07 fiscal year. Projects and collaborative efforts funded from this Reserve are identified below.

### **UNC Acceleration of Technology Project (ACT) – \$188,700**

The second year of funding for a three-year proposal was provided for the UNC Acceleration of Technology Project led by North Carolina State University. The purpose of this initiative is to create a roadmap for UNC campuses pioneering promising UNC intellectual property (IP) technology for economic commercialization. The project provided: (1) training for personnel in campus technology transfer offices focused on the analysis and identification of emerging technology applications; (2) support in the evaluation of campus IP portfolios to determine properties ripe for start-up ventures; and (3) technical support in the development and implementation of ACT business and academic models. The project has focused on eight UNC campuses: Appalachian State University, East Carolina University, North Carolina A&T State University, North Carolina State University, UNC Asheville, UNC Charlotte, UNC Greensboro and Western Carolina University. Scientists, industry experts, and entrepreneurs have assisted in a systematic assessment of potential innovations at the campuses. Those technologies that appear to have commercial potential are being further evaluated for specific product and service applications. Recommendations for licensure and/or spin-out potential are being prepared and delivered in an ongoing fashion. ACT is now beginning the next phase of commercialization by helping each campus build a network with local businesses, government, and non-governmental support agencies.

### **UNC Research Development Initiative – \$300,000**

The second year of funding was provided for a system-wide Research Development Initiative led by UNC Charlotte for improving the available research infrastructure at all UNC campuses including a pilot project with a goal of increasing university/business collaborations. UNC campuses are breaking down barriers and creating an image of being “Open for Business” allowing companies to feel more natural in their relationships with campuses and allowing the

campuses to leverage industry interaction. Specifically, to position a campus for greater opportunities with business and industry the campus must: 1) improve institutional processes for business partner transactions; 2) proactively develop focused communication for industry relationship-building; 3) integrate economic development into the research system; and 4) leverage relationships with Boards and affinity groups. These criteria were derived through an iterative review of current processes and interviews with industrial organizations.

**International Institute for Natural Biotechnology and Integrative Medicine (IINBIM) Initiative – \$120,000**

Funding was provided to the International Institute for Natural Biotechnology and Integrative Medicine Initiative in western North Carolina to create an academic, research, and economic cluster focused on natural products. The purpose of the Institute is to capture the region's unique diversity in ecology, plant life, and people and to combine these strengths with North Carolina's leadership in bioscience. These actions are part of an economic strategy centered on the worldwide market for natural products. The goal is to brand the region as the premier center for the research and development, cultivation, manufacture, and marketing of high-quality natural products. This initiative is now formally established as the Bent Creek Institute at the North Carolina Arboretum with administrative offices on the western campus of the NC Biotechnology Center. To date, the Institute has been successful in leveraging this support to obtain funds for hiring staff with international reputations in the field and for meeting critical equipment needs. The Institute has also established the Bent Creek Germplasm Repository, which will gather and house medicinal herbs.

**UNC-CH Health & Aging – \$24,424**

Strategic Initiatives funds were used to support a study of opportunities in western North Carolina for economic development in support of health and aging. Plans were developed for building on healthcare and retirement-related regional assets through partnerships among UNC Asheville, Western Carolina University, the UNC Health Care System, the UNC-CH School of Medicine, the Mountain Area Health Education Center, Mission Health System, and the NC Community College System. There is a growing need for new and existing services, delivery systems, technologies, and products that will meet the needs of a rapidly increasing aging population comprised of people over the age of forty currently living in or relocating to the

region. The feasibility study and a business plan for the creation of the North Carolina Center for Health and Aging was completed and presented to President Bowles on June 12, 2007.

### **NCSU Delivers – \$125,000**

Strategic Initiatives Reserve funding was provided to the Office of Public Affairs at North Carolina State University to develop a strategy for making the unique offerings and strengths of that institution better known to the citizens of the State and nation. Building on recently completed market research, this branding initiative will focus on specific "thrust areas" where the university can demonstrate its leadership role in addressing issues of global concern. Those issues include (1) strengthening economic development in our State and nation (modeled on the success of the Centennial Campus); (2) saving energy and promoting the sustainable use of resources; and (3) demonstrating educational innovation in the science, technology, and mathematics disciplines. NCSU matched the Strategic Initiatives funding.

### **Innovative Marketing of Intellectual Property – \$65,000**

Funding was awarded for a pilot project designed to improve the speed with which university-created technology makes it into the marketplace and creates jobs. The funding produced four-minute and one-minute videos demonstrating six UNC technologies (two each from NC State University and UNC-Chapel Hill, and one each from East Carolina University and NC A&T State University). These videos were then shared with campuses and directly delivered to the personal digital assistants (PDA's) of prospective investors. Preliminary feedback indicates both interest in the discoveries and in the concept of using this means to deliver information about university-created technologies.

### **Guilford County Schools Mathematics Partnership Initiative – \$155,450**

Funding was provided for a partnership among Guilford County Schools, NC A&T State University, and the University of North Carolina at Greensboro to enhance student achievement in high school mathematics. Further funding was provided by the Bryan Foundation, the Weaver Foundation, the Cemala Foundation, and Toleo. Beginning in year one and continuing in years two and three of the project, mathematics teachers in nine identified high-risk high schools are able to increase their salaries by \$17,000 to \$18,000 annually in an effort to attract highly skilled math teachers that are teaching in their field. Teachers are receiving a \$9,000 market-based

adjustment (Algebra I teachers receive an additional \$1,000), and an additional \$4,000 if their students achieve at least 1.5 years growth in the end of course and advanced placement tests within the academic year. They also receive \$4,000 for successfully completing a rigorous professional development curriculum over the summer. Teachers are being mentored throughout the year by university faculty and both teachers and their mentors have been provided laptops to facilitate communication. Highlights to date are:

- Incentive Pay – All teachers received a \$9,000 market-based adjustment for the 2006-07 academic year (Algebra I teachers received an additional \$1,000). A bonus of \$4,000 was awarded to thirty-four of the seventy (49%) teachers based on 1.5 years growth or better of their students' performance. Sixty-seven teachers received \$4,000 for successfully completing the 2007 Summer Mathematics Institute.
- Recruitment and Retention – In the 2006-07 academic year, all mathematics teachers participating in the pilot were highly qualified. Only fourteen of the seventy-one teachers did not return to teach in the second year. These teachers either left the school or were transferred to other non-pilot schools due to teacher or principal choice, or due to failure to meet the value-add criteria (student achievement) of the program. All fourteen open positions in 2006-07 were filled with certified teachers. Also, four additional teachers were hired in the pilot schools due to increased student enrollments, bringing the total number of participating teachers in 2007-08 to seventy-five.
- Summer Mathematics Institute – A ten-day, fifty-six hour Summer Mathematics Institute was held from July 30, 2007 through August 10, 2007, with a focus on Algebra I, Algebra II, Geometry, and intensive mentoring. As a part of the summer institute, teachers were administered a mathematics pre-test and a mathematics post-test. Sixty-seven of the sixty-eight teachers passed the post-test.
- Mentoring – The project calls for hiring a team of five mentors, at least three of whom must have background in mathematics content. The other members of the mentoring team have backgrounds in classroom management and/or leadership/discipline skills. All mentors were hired by the end of September 2007. Mentor training occurred the last week of September, with actual mentoring beginning in October. The first set of teachers mentored were those teachers who passed but scored below 80% on the summer institute

post-test. All mathematics teachers and mentors are required to participate in a learning community/seminar series that meets monthly. Ten sessions have been scheduled for 2007-08. In between sessions, the teachers and mentors will communicate with each other through the wireless laptops via an online Blackboard forum.

### **Kenan-Flagler Leadership Program for Priority High Schools – \$75,000**

Funding was provided to the UNC-CH Kenan-Flagler Business School to develop a leadership program for priority high schools, as identified by Judge Howard Manning, to help school leaders: 1) develop skills necessary to increase student achievement; 2) measure school success over time; 3) recognize areas of concern; 4) implement effective change rapidly; 5) create change in a safe, nurturing, collaborative environment; 6) recognize the urgent necessity to improve teaching and learning in their schools; 7) manage resources, information, and instruction; and 8) lead students and teachers to higher levels of performance.

During 2006-07, staff of the Kenan Institute were involved in twenty-two days of training for fifty-one leaders from seventeen turnaround (high risk) high schools (Cohort 1) and ten days of training for fifty-four leaders from eighteen turnaround high schools (Cohort 2). Institute staff participated in pre-training development of course materials, lectured in training sessions, and provided on-site assistance to the schools in the development and evaluation of a business plan for each school. As a result of this involvement, training participants received information on how to apply the principles of business leadership to the operation of a school and then develop a business plan for their school.

### **NC Summer Ventures – \$200,000**

Strategic Initiatives Reserve funding was used to expand the Summer Ventures in Science and Mathematics (SVSM) program by sixty additional students. The program is a summer enrichment program for academically motivated high school students interested in a career in science or mathematics. Six campuses (Appalachian State University, East Carolina University, North Carolina Central University, UNC Charlotte, UNC Wilmington, and Western Carolina University) host the resident experience. SVSM supplements high school and university courses, taking students beyond the traditional boundaries of high school science and mathematics. A distinguished faculty of university professors and master high school teachers, working in

cooperation with science and mathematics professionals from other institutions, government, and industry, guides students through an academic program designed to provide experience in scientific inquiry and mathematical problem solving. Specifically, students learn experimental design, laboratory skills, instrumentation, mathematical modeling, strategies in mathematical problem solving and exploratory data analysis. Moreover, the students learn these basics while engaged in specific scientific and mathematical topics of interest to them.

### **UNC Online – \$250,000**

Funding was provided for UNC Online, an initiative designed to capitalize and expand upon existing online degree programs, certificates, and courses provided by UNC campuses. The initial focus of UNC Online is to serve students within the State with plans for expanding UNC offerings nationwide. Throughout the process, efforts are being made to ensure that online offerings are of equal quality with on-campus courses. Online classes are designed and taught by the same faculty who teach classes in on-campus degree programs. The UNC Online site was launched in June 2008, and offers 164 degree programs and approximately 1,500 courses.

### **NC Education Insight Project for Teaching and Nursing – \$135,817**

Funding from the Strategic Initiatives Reserve provided for the first steps in a joint data management system to link North Carolina's K-20 educational institutions and allow educational leaders to make informed decisions about funding priorities. The first focus will be on assembling data on teachers, allowing limited funds to be used to expand programs that produce the best teachers that meet the needs of the State. At the meeting of the joint governing boards of all four education sectors, the educational leaders determined the need for this longitudinal data system to be a top priority.

### **UNC Operational Assessment – \$1,010,609**

As a result of multiple poor financial audits of UNC institutions, funding was used to review and strengthen campus financial processes, systems, and personnel. The comprehensive study (which is ongoing at this time and is being led by professionals from Ernst & Young, LLP) encompasses the full spectrum of financial operations including business affairs, human resources, enterprise resource planning and system support, financial aid, and internal audit operations. The Ernst & Young professionals are assessing the current state of our “people,

processes, and technology” and will provide a roadmap to ensure that all campuses operate effectively with trained personnel, meet regulatory compliance needs, and optimize technology – including appropriate standardization of technology and business practices at UNC institutions. The final report will be completed in April 2008.

### **UNC Tomorrow – \$500,000**

Strategic Initiatives Reserves supported an eighteen-month initiative to determine how the campuses of the University of North Carolina can best meet the needs of the State and its people both currently and over the next twenty years. The twenty-eight member University of North Carolina Tomorrow Commission was composed of the State’s leaders in business, education, government, and nonprofit sectors. The Commission’s final report was issued in January 2008. A fourteen-member panel of UNC faculty experts, the UNC Tomorrow Scholars Council, provided research expertise and guidance to the Commission on major trends and issues facing the State. Public input was solicited through an online survey and a series of eleven Community Listening Forums held across the State. Now that the needs have been identified, work is underway to determine how the university will meet them.

### **President's Advisory Committee on Efficiency and Effectiveness (PACE) – \$125,000**

Funding was provided for the implementation of recommendations from the President's Advisory Committee on Efficiency and Effectiveness (PACE), a blue ribbon commission that recommended to the President on ways for the university to operate more effectively. Campuses are continuing to implement the medium-term to longer-term recommendations of the Commission. Examples of specific workgroups composed of campus personnel that worked collaboratively throughout the year are: the “facilities management” team which is leading system-wide participation in the APPA performance benchmarking survey to enable managers to make better decisions regarding facilities staffing and allocations of resources; the “dining” team which has collaborated with the National Association of College and University Food Stores (NACUFS) for professional peer performance analysis and contract management; the “bookstore” team which assisted in the establishment of a UNC textbook buyback consortium, and the “e-commerce” team which began a strategic sourcing initiative through the UNC MarketPlace website and is seeking a system-wide e-commerce solution to effect significant savings.



**UNC Press – \$25,000**

Through collaboration with members of the academic community and scholars working in the public sector, UNC Press has become the “press of record” for some of the best publications on North Carolina. Funding was provided to assess the capability of the organization and to provide strategies for future endeavors.