

FSU Tomorrow: Economic Transformation Through Teaching, Research, and Service

April 27, 2007

Our Region

Establishing the boundaries of FSU's service area or region is not a simple matter since we are linked to various other counties in multiple ways. Historically, because of educational outreach efforts, our service area or region has been defined in terms of our home county, Cumberland, and our five surrounding counties, Hoke, Robeson, Bladen, Sampson, and Harnett. From the perspective the economic zones within North Carolina Cumberland, is considered one the eleven counties that comprise the southeast economic development region. If we consider enrollment and recruitment of students, we have established partnerships with sixteen community colleges. Our top twelve counties from which we attract first-time students represent another service area.

The Base Realignment and Closings plan –BRAC – will have a very significant and long term impact on the counties surrounding Fort Bragg and we will discuss this development in much greater detail later in this presentation. For the purposes of responding to BRAC, Cumberland County and FSU are part of an eleven-county partnership that has been formed to respond BRAC.

As we discuss FSU's role in the economic transformation of this region, we will make reference to these various partnership and regional alliances. Most of our focus will be on our historical service area, which includes the Cumberland and our five adjacent counties, Hoke, Robeson, Bladen, Sampson, and Harnett Counties. Because of our geographical proximity, we believe that we have the greatest responsibility to these counties since our own social well being and economic prosperity is most closely linked to them.

1. EDUCATIONAL ATTAINMENT

In its 2007 report on the states' labor force demand and supply for 2007 – 2017, the North Carolina Commission on Workforce Development points to two key transformations that will affect workforce demands for the next ten years. The first transformation is the shift from an economy based on manufacturing to one “driven increasingly by knowledge-intensive, business service activities.” The second transformation is the growth of the service sector, which is creating a demand for both high paying jobs that require high skills and low-paying, low-skill jobs.

The citizens of FSU's service area are not well prepared to succeed in or contribute to these transformations. The single most important pre-requisite for participating in the new economy is high levels of educational attainment, which we do not have in our region.

Educational Attainment in our Region

According to the 2000 census, educational attainment in the six county region remains significantly below that of the state and nation. The educational attainment in Cumberland County is the highest of the region, with 20.2% holding a bachelor's degree or higher, though this rate remains below the average for North Carolina, which has a rate of 22.5%, and the nation, whose rate is 24.4%. In the surrounding counties, the rates range from a low of 10.9% in Hoke to a high 12.8 in Harnett. To raise the level of education attainment we must strive to break down some of the barriers to success that have traditionally prevented low-income students, academically underprepared students, and ethnic minorities from achieving postsecondary success.

Income – First Generation College Students

Students from high socio-economic backgrounds are much more likely to succeed in higher education than students from low-income families. The *Toolbox Revisited*, published in 2006, shows a direct correlation between socioeconomic status and degree completion, with students from the top socioeconomic quintile are more than twice as likely than students from the lowest socioeconomic quintile to complete a baccalaureate degree (79% vs. 36%) One of the contribution factors to this relationship is that low income students are much more likely to be the first in their families to enter college. Adjusting to the challenges of college are greater for

first-generation students than for students whose families are familiar with the postsecondary education setting.

In all six counties, the median family income remains below that of the state and the nation. Cumberland County has the highest median income, which is more than \$1,000 below the median family income for the state, which is \$46,335, and the nation, which is \$50,046. In the other counties, the average incomes range from a low in Robeson of \$32,514 to a high in Harnett of \$41,176. The percentage of families living below the poverty level ranges from a low of 11.3% in Harnett to 19.6% in Robeson, compared to 9% in North Carolina and 10.2% in the nation.

Academic Preparation

Academic preparation is one of the most important factors leading to post secondary success. SAT scores of students in this region suggest that they are less prepared than students in the entire state. The chart on the screen presents data from the North Carolina Department of Public Instruction on SAT scores for 2006. The percentage of students taking the SAT is consistently lower in the counties of this region than the state as a whole and average scores are lower in all six counties.

Minority populations

Minority students have lower rates of degree completion than white students. *The Toolbox Revisited*, which followed 1992 high school graduates for 8 ½ years, showed that 67% of white students earned a degree, compared to 52% of African-American students and 45% of Hispanic students. We are all well aware that NC's population is becoming more diverse, but our region is projected to much more diverse than the state as a whole. By 2015, racial and ethnic minorities will comprise 26% of the overall population. By 2015, only Harnett will have lower percentage of minorities than the entire state (25.5% vs. 26%). In the other counties, the racial and ethnic minorities will comprise 64.7% of Robeson County's population, while in Bladen the minority population will be 38.8%. In Bladen, in Hoke 45.9%, and in Sampson 29.9%. Of the six counties, Cumberland, the region's most populous county, will experience the most significant change as minority populations will grow from 43.9% in 2005 to 47.1% in 2015.

We already have a number of programs in place to address the academic preparation of the students in this region. The focus of all of these programs is on strengthening preparation of students for the university.

Addressing Educational Attainment – Pre-College Programs

We have a rich history at FSU of precollege programs aimed at strengthening students' preparation for college. Upward Bound, Educational Talent Search, the Mathematics Science Education Network, and GEAR UP all provide advisement and academic support for students in high school and junior high with the goal of strengthening their preparation for college.

One of our most promising recent initiatives is the Cross Creek Early College High School, which is located on the FSU campus and is completing its second year of operation. The vast majority of these students are minority and qualify for free lunch, but they are the top performing school in the county on end of grade tests.

The Fire Science program is a collaborative effort between Cumberland County high schools, Fayetteville Technical Community College, and FSU that prepares a pathway for students to earn their degree. This plan is potential model for other curricula.

Our precollege outreach efforts are also targeted at adult learners. The Educational Opportunity Centers Program assists students who are 19 years or older in their efforts to enter postsecondary education. EOC provides counseling and assistance with the college and financial aid application process.

Addressing Educational Attainment – More Recent and Proposed Efforts

We are in the process of launching several other initiatives designed to overcome barriers to educational attainment. The University – Community Alliance for Math and Computer Science, funded by NSF, will increase the pipeline of minority students entering the Science

Technology Engineering and Mathematics (STEM) disciplines. The P-16 Math Science initiative will work with regional schools to improve student preparation for college in these disciplines. We are also developing and will launch soon a comprehensive effort to increase the pipeline of males entering postsecondary education. It is well known that the percentage of males in higher education is declining in comparison to females. This is an especially acute problem for African-American males. We will launch several SAT boot camps for regional high schools in an effort to improve preparation for college.

Addressing Educational Attainment – University Programs

FSU has a long history of providing university programs that target the needs of first generation and underprepared students after they enroll at FSU. Our University College provides a wide array of programs for first and second year students, including advisement, academic support, and enrichment. One of the most promising is our CHEER Program (Creating Higher Expectations for Educational Readiness) which enables students to strengthen academic skills and adjust to the university in the summer school session immediately preceding their freshman year. So far, participants in this program are significantly outperforming non-participants in terms of retention, GPA, and hours earned even though participants' SAT scores and high school GPAs tend to be lower than non-participants. In recent years we have implemented Learning Communities – which are a set of courses linked thematically that enroll a common cohort of students - are having a positive impact on retention.

Enhancing Delivery of Instruction and Programs

We are enhancing delivery of instruction in an effort to improve student success. While much of our instruction will continue to be classroom, face-to-face, instruction, we are working to enhance instruction through engaging pedagogies and the use of web-enhanced instruction inside and outside the classroom. There is a growing body of literature that shows that increasing levels of student engagement has an especially significant positive impact on minority students and academically underprepared students. (The 2006 report from the National Survey of Student Engagement – NSSE- for example shows that strengthening engagement increases the

likelihood of second year retention for all students, but has an especially significant impact on minority students. Similarly, strengthening engagement is linked to improved first year GPAs for all students, but has a greater impact on students entering with 950 SAT scores than those entering with 1150 SAT scores. Engagement appears to have a compensatory effect for students who are underprepared for higher education. See the report *Connecting the Dots* from the NSSE Institute.)

Research also shows that experiential learning through internships and service learning projects – experiences that enable students to apply what they know to real-world situations. We seek to expand these opportunities for our students. We are also developing hybrid courses – blend of online and face to face. For example, students attend class one day a week but complete work online a second day of the week. Done well, hybrid courses can increase student engagement outside of class. To expand access we are increasing our online offerings of courses and programs. Another strategy for expanding access is the increased use of interactive TV.

Expanding Delivery of Instruction and Programs for Adult Learners

Improving the educational attainment of students in this region also requires us to eliminate barriers for access of adult learners. We have a strong commitment to adult learners and have taken steps to facilitate their transition into higher education. These students' schedules usually do not conform to the standard work day so we have extended hours for some of our key service offices, such as Admissions, Financial Aid, the Bursar, the bookstore and others.

For many years we have offered weekend and evening classes to accommodate the scheduling needs of adult learners. We have found that adult learners prefer shorter terms of instruction during which they can earn credit over a shorter duration of time. So, we developed 8-week terms that have proven very effective.

Adult learners need extensive academic advisement. We currently provide an array of advisement services for adult learners, including coordinators that visit community college campuses on a regular basis. Our advisement services are currently located in three distinct units of the university and so in an effort to improve efficiency and effectiveness we consolidating our advisement services into one center that will open in fall 2007.

As part of our efforts to facilitate enrollment of adult learners we are offering courses on community college campuses and have developed dual enrollment agreements. The advantage of dual enrollment is that students have a clearly defined set of courses they must complete at the community college and at FSU, which ensures that they do not waste time taking unnecessary courses. Currently our dual enrollments are in criminal justice, B-K education, and fire science, but we intend to expand these offerings over the next five years.

2. ECONOMIC TRANSFORMATION THROUGH TEACHING AND ACADEMIC PROGRAMS

Eliminating barriers to access is essential to increasing the levels of educational attainment of the people of our region. Access is not enough. We must also ensure that students develop the skills and knowledge they need to succeed in and contribute to the economic transformation of the region. In this regard we are concerned with both the core academic and “soft” skills that are infused throughout the curriculum as well as major programs.

One of the most significant development of the past decade has been the recognition that the skills and knowledge traditionally associated with the liberal arts - including communication, speaking, reasoning, quantitative skills, knowledge the sciences, culture, values -- have increased significance in the light of economic and social challenges of the 21st century. This point was made in the Pappas Group’s report commissioned by HB 1264. It has been the focus of the multi-year *Greater Expectations* project of the Association of American Colleges and Universities (AAC&U). At least part of the reason for this estimate is that since specialized knowledge is changing rapidly, our graduates need to be prepared for continuous learning. The skills and knowledge associated with the liberal arts provide the foundation for continuous learning.

Employer Needs

One component of *Greater Expectations* project is “Liberal Education and America’s Promise” (LEAP) which is seeking to identify the specific learning outcomes that are most

essential to the new global economy. When they asked employers were asked to identify the skills they look for most in prospective employees the cited items like ability to work in teams, critical thinking, oral and written communication.

Meeting the Needs

In 2005, we initiated a review of our core curriculum in the light of the growing body of new literature about the importance of core academic skills. Faculty members have helped to delineate a set of learning outcomes for all students which are at the proposal stage. As part of this review process, we are also devising assessment strategies to ensure that these learning outcomes are developed throughout a student's academic career – not just in the first two years as was once the perception.

Since the year 2000, we have administered the National Survey of Student Engagement (NSSE). The NSSE is based on decades of research that indicates that the single greatest predictor of student development and learning is the degree to which students involved in “educationally purposeful activities” inside and outside the classroom. In view of research that shows that the benefits of engagements for minority students and students who are less well prepared, we at FSU consider feedback from the NSSE vital to our efforts to improve student success. The NSSE measure the level of engagement, including soft skills, such as leadership, collaboration, and teamwork. While these skills are developed within the classroom they are also supported by a wide array of programs offered by the Division of Student Affairs (see below).

Another assessment we have implemented in conjunction with the core review process is the Collegiate Learning Assessment (CLA), which assesses students' writing and analytical reasoning skills and their ability to apply these skills to real-world situations. We tested 300 first year students in fall 2005; we just completed testing half of those students this semester. When we receive the results next fall, we will have feedback on the extent to which we are helping students improve these skills. We will use these results to strengthen instruction. In spring 2009 we will retest this same group of students.

Our overarching goal is to make sure that we are providing those core skills that will enable our students to succeed in and contribute to the economic transformation of the region.

Student Development Activities for “Soft Skills”

The list presented earlier of skills valued by employers include several “soft skills” such as leadership, teamwork, the ability to work with others. The Division of Student Affairs offers a variety of programs enable students to work together and develop essential leadership and collaborative skills.

In 2005-06, more than 900 students were involved in one or more types of leadership programs; 1,665 participate in health and wellness programs such as the Great American Smoke Out and AIDS Education programs. Another 481 students were involved in service project for the community, including working in an elementary school, feeding the homeless, and early voter campaigns. Nearly 3,000 students participated in career services activities, including 591 students involved in cooperative learning opportunities and internships.

Addressing State and Regional Needs Through Degree Programs

We recognize the importance of enabling all our students to develop the core academic skills and the “soft skills” that are valued by today’s employers. We also strive to provide degree programs that are needed in the region and the state. We identify areas of need by reviewing reports on workforce needs from various agencies, monitoring employment trends, administering surveys to students and prospective students, seeking suggestions from our various partners in the community, and by receiving feedback from our faculty and administrators who serve as consultants and as board members for various organizations.

The programs listed on the screen indicates how several recently established program are linked to needs of the region. We believe that the MIS and forensic science programs -- along with our Intelligence Studies program that is in the final stages of planning -- will take on increased significance in the with the growing defense industry in the region.

Some of these programs are being delivered through innovative means. The Fire Science Program is taught completely on line; students in the program complete internships in a setting in their home communities. Our newly established Criminal Justice program will be taught entirely online.

The computer science and accounting programs are not new programs at FSU, but both address gaps in the workforce between supply and demand as identified in the HB 1264. The demand is likely to grow as new industry emerges in response to BRAC.

We have recently implemented a Licensure Program in Teaching English as a Second Language, for which we anticipate increased demand with the increase in Hispanics in North Carolina.

Our graduate programs are especially aligned with needs of the region. The Social Work Program responds to severe shortage of social workers especially in rural regions. Because our graduate programs are part time, most of the graduates of these programs will remain in the region. In the past five years 124 students have earned the MSA degree from FSU. Seventy two of these students are currently serving as principal or assistant principal at one of the 88 schools in Cumberland County.

Our Graduates

In a recent survey of graduates we found that 71% said they are living and working in North Carolina; 86% of the respondents indicated that they were working in a job related to their major. We know that 17.6% of our graduates from 2002-2006 are enrolled in graduate school. We are working to improve our capacity

III. ECONOMIC TRANSFORMATION THROUGH RESEARCH AND SERVICE

FSU faculty members are conducting a variety of research projects, including studies in health disparities, criminal justice, mental health, and natural sciences. We are continuing in our efforts to strengthen the university's infrastructure to support grant writing.

The five Institutes that we will establish in the next five years will enable us to play an increasingly significant role in economic transformation. These institutes reflect distinctive features of our mission and respond to unique needs of the region.

Community Justice Institute – Address a wide range of issues related to justice, including social, political and economic conditions and relations between law enforcement and citizens. This institute builds upon research and service projects currently being conducted by faculty and students..

Entrepreneurship Institute – Economic transformation in the region will require start ups of new business. The growth of the defense industry in this region is expected to create new opportunities for entrepreneurs. This institute will support entrepreneurial efforts in the region by building upon the current work of the Fayetteville Business Center, which serves as an incubator for new businesses.

Excellence in Teaching Institute – In view of the historical importance of teacher education at FSU, it is appropriate for us to establish a center for research on and practical experience related to teacher excellence. This institute will become a resource for meeting the need for more and better teachers in the region and will be a catalyst for innovation in instruction for young children to adults.

Health Disparities Institute – This institute will address health needs of the region, offer programs and classes that increase health awareness by citizens of the region, and conduct research and service activities that reduce health disparities in the region.

World Service Institute – This institute will promote an awareness of the interconnectedness and interdependence of this region and other communities throughout the world.. This institute will promote a number of study broad initiatives providing FSU students with exposure to other cultures around the world.

All of the institutes build upon current program and service activities, but they will help to focus our research and service on distinct regional needs. Some of their more specific functions will be:

- Collecting and disseminating data about key indicators;
- Guiding the review of existing programs to ensure their relevance to regional needs and recommending new programs in light of changing conditions;
- Bringing together researchers and citizens to address and propose solutions to problems in the region.
- Directing a wide range of service activities, including internships, service learning, and other real world experiences for students.

The institutes will enable FSU to play an increasingly vital role in the economic transformation of this region.

4. STRENGTHENING PARTNERSHIPS TO SUPPORT ECONOMIC TRANSFORMATION ACTIVITIES THAT MEET REGIONAL AND STATE NEEDS

Though a system-wide approach to economic transformation is a new initiative, HBCUs have long been catalysts for economic change in their communities. FSU began its foray into economic transformation in the mid-nineties with the overall goal of promoting community economic development by stimulating, creating, and nurturing locally owned and operated small businesses. The outcome was development of a small business incubator, creation of a community based economic development non-profit organization, and a retail plaza. However, that work has been focused in our home county and more specifically, in the City of Fayetteville. In order to add economic transformation activities to the educational related outreach in our historical service area, the University must strengthen existing partnerships to meet these new demands for resources and services.

Meeting New Demands

The Bronco Development Corporation, our community based economic development non-profit organization will continue to play a role in developing and managing our community redevelopment efforts. An economic development advisory board with faculty, staff, community partners and business community partners as members is in the planning stage. That group will be assist with development of an economic development strategic plan to guide our current and future activities. Our sponsored programs office is expanding its staff to support the submission of additional grant proposals related to the Institutes, efforts to pursue government contracting opportunities and provide more resources for faculty interested in economic transformation public service related initiatives.

Challenges

This community faces unique challenges that create opportunities for change. Opportunities exist to lure higher skilled, higher wage, technology based emerging industries to an area too dependent on declining industries and the military. The growth at Ft. Bragg will place additional strain on an inadequate transportation infrastructure in addition to social services and the school system. Competition for talent exists although Cumberland County has a positive quality of life because new job creation is concentrated in metropolitan areas.

Existing Economic Partnerships

To address these challenges we are increasing our efforts to garner support for our current and future economic transformation activities by strengthening existing relationships and partnerships in the educational community, business community, at city hall, and Ft. Bragg. Examples of these existing efforts are:

- participation in the Cumberland County Business Council small business initiative
- the award winning collaboration between the City of Fayetteville and FSU which resulted in a fire station on University-owned property and accompanying degree program in fire science
- serving on the County Workforce Development Board and engaging in discussions of how four-year institutions can better assist with their efforts
- developing programming for a local education channel with FTCC, Cumberland County Schools and Ft. Bragg schools
- housing the Institute for Community Leadership-a partnership between the city, county, school system, and local institutions of higher education to provide board development training for individuals who would not otherwise have access

- implementing an intelligence studies outreach program with Cumberland County Schools which included visits to four Cumberland County High School by a traveling panel of intelligence professionals from the FBI, CIA, NSA, and Army
- engaging the Defense and Security Technology Accelerator, an federal and state funded incubator to foster innovation in defense, security and intelligence technology, to assist with curriculum and internship development for the development of a baccalaureate program in intelligence studies
- planning a community resources event in Roland, NC (Robeson County) in collaboration with the NC Dept of Commerce and the office of representative Garland Pierce

New Partnerships

Most of our community redevelopment and now, economic transformation efforts have been concentrated in the City of Fayetteville. We will continue to promote activities in this area, but recognize that other municipalities in Cumberland County have fewer resources and have not looked to FSU as a resource to assist with these needs.

- One example is Spring Lake. A community that is over 50% minority and home to an industrial park and underutilized HUB Zone, Spring Lake's leadership recognizes it has needs related to the promotion of business development.
- And, though we work with enlisted and active duty military, veterans and retired military outreach can focus on taking advantage of federal small business support programs for this population through the institute for entrepreneurship and business center.
- Defense industries drawn to this area by the presence of Ft. Bragg and the pending BRAC are focused on areas such as military preparedness and homeland security and will have

educational and business support needs that we can address. In addition, these businesses can provide internships opportunities for our students.

Implementing FSU Economic Transformation Activities

These defense and non-defense related industries will benefit from our economic transformation activities that apply research and teaching to regional needs.

- We have just returned from meetings with our Senators and their staff to gain financial support for establishing an electron microprobe lab on campus. This joint venture with UNC-Pembroke will bring a piece of equipment to this region that will assist with developing research skills of our high school, undergraduate and graduate students, assist the military with research and businesses with quality control and research development.
- This community has recently applied for a Workforce Innovation in Regional Economic Development (WIRED) grant through the US Department of Labor that addresses reinventing the supply-driven workforce process by fusing demand-based workforce requirements with education and workforce training programs to develop the talent supply to meet the requirements of emerging industries.
- FSU interns are currently assisting the Downtown Development Division of the CCBC with business retention, recruitment and marketing activities.
- And, as Dr. Young mentioned, the Institutes will also address local needs.

Other activities address workforce development. We are currently engaged in targeting displaced workers through degree completion and continuing education partnerships with the County Workforce Development Office.

The University remains committed to increasing opportunities for small and minority-owned businesses. The Fayetteville Business Center and Bronco Square remain crucial pieces of our

efforts to assist small and minority owned businesses. Bronco Square is unique in that the average age of the business owners is thirty and most of the businesses are first time ventures. The development of a certificate program in entrepreneurship and franchising offered through our continuing education department will serve as a resource for similar entrepreneurs. A proposed HUB Academy will focus on identifying construction related businesses who can tap into the over \$1B in construction dollars available due to housing and headquarter construction at Ft. Bragg and improvements at Cape Fear Valley Medical Center.

We are moving forward with community redevelopment efforts by locating the FSU bookstore at Bronco Square; locating the Institutes in the community instead of on campus; developing an HUD/HBCU proposal to address community resource needs and offering to assist with development of the master plan for Murchison Road redevelopment.

Addressing the BRAC Impact

The full impact of the 2005 Base Realignment and Closure remains a mystery to this community although we are actively involved in planning efforts. The closure of Fort McPherson just outside Atlanta, Georgia and transfer of the U.S. Army Forces Command (FORSCOM) and the U.S. Army Reserve Command (USARC) to Fort Bragg will bring and estimated 24,000 military and military family members as well as civilian employees (7800 military, 14,000 family members, and 1800 civilian employees). One of the biggest lessons learned by educational institutions affected by the 1995 BRAC was to as early as possible identify opportunities for the University and its stakeholders. For example, identifying areas where minority entrepreneurs can compete to expand their business with the federal agencies housed at Ft. Bragg. We are in the process of developing resource relationships with the Pentagon, Ft. McPherson, base education liaisons, and other educational institutions. At the local

level we are participating in planning through attendance at BRAC Regional Task Force meetings (full membership is limited to county representatives) and through our membership on the state BRAC Partners committee. Potential areas of need include graduate programs for officers seeking promotions and undergraduate and graduate courses and programs to assist the local workforce in qualifying for civilian jobs. We are also looking to market continuing education opportunities to officers, dependents and civilians.

Enhancing Quality of Life

In addition to tax rates and educational opportunities, quality of life is one of the deciding factors when considering a move. As this region markets itself to the residents in the surrounding area of Ft. McPherson and as the regional partners vie for these new residents, this issue becomes more important. Since economic transformation is spurred by the influx of people to an area as residents or frequent visitors we must provide offerings that will increase their willingness to return. To that end we intend to address this issue by increasing the frequency of popular programming and events like the distinguished speakers and fine arts series and developing more joint community programs like hosting the Fayetteville Symphony on campus and offering continuing education programs like Experience China.

Summary

Economic Transformation activities at FSU will be conducted within a framework that is responsive, reliable and focused on:

- Continuing to serve the City of Fayetteville
- Becoming a resource to other municipalities in Cumberland County
- Extending resources to historical service areas

This will be accomplished by:

- Strengthening existing partnerships
- Developing new partnerships
- Applying research and teaching to regional needs
- Focusing on niche areas of workforce development
- Increasing opportunities for small and minority owned businesses
- Implementing community development activities in the surrounding area
- Addressing the BRAC impact