“EVERYTHING A UNIVERSITY DOES IS ECONOMIC DEVELOPMENT,” SAYS DR. Andrew Brod, economist and director of UNCG’s Bryan School’s Office of Business and Economic Research (OBER). Brod’s recent analysis of the university’s economic impact—$1.22 billion annually and more than 13,000 jobs—is measurable, concrete evidence of what people have known for quite a while: There is no ivory tower where students and professors stay tucked away, engaged in intellectual pursuits with no relevance to the real world.

The reality is that colleges and universities have always shaped society beyond their walls. Each year, students graduate and join the ranks of the employed; working with the larger community is standard for faculty, although in more recent years, “community” has expanded to include a regional and global outreach. As a business enterprise, a university creates jobs and generates revenues while being a major purchaser of commodities.

The intrinsic value of higher education remains a core purpose of what some label a “paper key” that unlocks the world. At the roots of UNCG’s School of HES is what continues to be the three-part mission of the UNC System: teaching, research and service.

In 1946, the HES Foundation Board was founded upon those goals and a partnership between business and education. Margaret Edwards, head of the Home Economics Department of what was then Woman’s College, ventured across the state to meet with business leaders in their respective communities. “[This] positively affected public policy and the quality of North Carolinians’ lives,” remarks Dr. Laura S. Sims, dean of HES.

Current HES Foundation Board president Robin Britt, who is executive director of Guilford Child Development, Inc. in Greensboro, echoes this sentiment. During his speech at the board’s 60th anniversary gala last fall, he noted that the board’s formation “was acclaimed as a step forward in improving living conditions which would help industry along with individual citizens.” Current board members, made up of alumni and friends from the different fields representative of the five departments, continue to strengthen and support HES with their time, experience and resources and provide guidance in the stewardship of donations.

Universities and industry working together isn’t new. What is new, over the last 25 years and in the 21st century most especially, is the growing, deliberate and competitive pursuit of such collaborations, and what the expectations and outcomes are. In the powerful realm of economic development, perched within the larger global economy, colleges and universities are redefining their roles and responsibilities. What are some of universities’ most basic roles? Graduating educated, creative individuals; engaging in research and technology transfer; and improving the community are three important, interdependent ones.
We educate the people who start new companies, who educate our children, who care for us in the hospital, lead our nonprofits.…

Universities Generate a Trained Workforce

“Universities produce educated people,” Brod reminds. Human capital is one of universities’ largest commodities, and part of their new responsibility is “learning how to train and educate people appropriately. …Training can be a commodity in itself.” Businesses often look not only for graduates who are knowledgeable but also creative, with an entrepreneurial spark.

Robert McDowell, Microsoft’s vice president for Information Worker Business Value, spoke about properly training workers during his keynote address for UNCG’s inaugural Corporate Expo held last fall. McDowell stressed that universities must be more responsive and efficient in meeting industries’ needs. “Business has to be the voice of the customer,” he says. “We’ve seen the business world reinvent itself in the last 10 years, and we’ve seen the way government is done change quite dramatically,” says Leslie Boney III, associate vice president for UNC System’s Economic Development & Public Service.

This approach is already firmly in place within HES’s departments through advisory boards, committees and associations made up of distinguished business professionals. “You have to keep a close watch on each profession,” Britt says. “Things are changing so fast… it’s imperative that the worker being turned out of universities is positioned to perform not with [how industry was] five years ago, but now. Part of being effective is being cognizant of changes taking place and what those changes represent.”

HES’s Consumer, Apparel, and Retail Studies (CARS) Department boasts the oldest board, established in 1984. Its 20-member board guides and influences the department’s curriculum to keep it in step with industry trends; the department’s name change away from the term “textiles” was also a result of utilizing the board’s vast depth of industry knowledge.

The Nutrition (NTR), Social Work (SWK) and Human Development and Family Studies (HDFS) departments formed advisory committees in the 1990s. The Department of Interior Architecture (IARC) created its board in 2001.

The potency of higher education is magnified when individuals active within their respective industries are mentors to college classes. “We’ve seen the business world reinvent itself in the last 10 years, and we’ve seen the way government is done change quite dramatically,” says Leslie Boney III, associate vice president for UNC System’s Economic Development Research, Policy & Planning. “Universities must change too, and the question is how we change.” Boney asserts one way to change is to increase direct engagement with business. “We need conversations with those who are hiring our graduates,” Boney continues. “We must pair what professors want students to be able to do with what businesses need employees to know.”

Libby Smith, policy director of the North Carolina Department of Commerce, agrees. “To attract good jobs, you must have skilled workers.” She says she sees “a more thoughtful partnering” between institutions of higher learning and industry. “Sectors within education, business and government are being more strategic in working together. For instance, UNC System President Erskine Bowles and NC Community College System [NCCCS] President H. Martin Lancaster are coordinating efforts to accomplish even more together.”

Each system represents, in effect, a major corporation. The UNC System has a student enrollment of almost 200,000 students (and is expected to hit 235,000 by 2012), more than 37,000 employees (almost 30,000 faculty members) and a budget that exceeds $6 billion. Nearly 800,000 students are enrolled in 58 community colleges across the state, making NCCCS one of the largest community college systems in the country. Its employees total 51,000 (more than 20,000 faculty), and its budget is almost $395 million.

“President Bowles and President Lancaster knew one another and already had a good rapport from their days in politics,” says Keith Brown, NCCCS’s associate vice president of Planning, Accountability, Research & Evaluation. “Workforce development and training have always been communities’ mission, and President Bowles realizes this needs to be held up as a primary role of universities.” Brown says he’s excited to see increased collaboration between two-year and four-year institutions.

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From Bowles’ inauguration speech on UNCG’s campus in April 2006, he is quoted as saying, “We educate the people who start new companies, who can be our children, who care for us in the hospital, manage our companies, preach in our churches and lead our nonprofits.”

Universities Engage in Technology Transfer

Technology transfer means transferring ideas, information, methods, techniques, tools or technology from its creator to potential users. A basic example is when a professor conducts research and the results are published, whether in academic, industry-specific or mainstream publications. Ultimately, the results may have more far-reaching consequences in the form of additional studies, policy, change, new programs, licensing of intellectual property to existing companies or lead to the formation of new entrepreneurial businesses.

UNC campuses brought over $940 million in external grants into the state in fiscal year 2003. UNCG’s external funding for research, public service and creative work totaled $31.4 million in fiscal year 2005–2006, external funding for HES, by way of contracts and grants, accounted for more than $13 million—almost 40%—of that amount. Much of this research activity was directly targeted to meet economic, health and social needs within North Carolina. Per Brod’s data, UNCG’s research accounts for $102.2 million statewide. “The university conducts research that is directly applicable to economic development,” Brod says. “Professors consult and collaborate with businesses and sometimes work with nonprofits. Universities can research…and then find a way to make a company out of it. And it’s not always technology in the form of high-tech stuff. It could be an educational program that becomes a product.”

UNCG is already fully participating in commercializing intellectual property. Its Office of Technology Transfer, established in 2002, connects professors’ research, entrepreneurial
groups, venture capital sources and even other institutions of higher learning. Several projects have evolved into licenses sold to companies; recently, UNCG research on alcohol abuse prevention spawned the creation of a new start-up company; Director Jerry McGuire shares that university-wide, faculty, staff and students are increasingly involved in “innovation disclosure”—recording innovations that may have potential beyond initial research. “Nutrition faculty are involved in some interesting projects,” notes McGuire as one example. “Dr. Michael McIntosh is pursuing patents on some of his work…and he has some sponsored research.”

Within this same realm, the entrepreneurial capital, UNCG’s OBER performs applied research in economic policy and business practice, using the Bryan School of Business faculty’s expertise, UNCG’s Office of Research and Public/Private Sector Partnerships oversees and advances the university’s research mission, economic development and federal relations. Last fall, the UNCG Economic Development Council was created to foster partnerships between academic research and the public/private sector. “All of HES’s departments and centers are involved in or have the potential to be engaged in economic development,” notes Dean Sims. Many HES faculty receive grants to conduct studies important to society and the economy. NTR faculty are constantly involved in gathering data to improve human health and well being, studies run the gamut from focusing on postpartum mothers, preventing childhood obesity and Dr. McIntosh’s continued work with conjugated linoleic acid (CLA) and its role in reducing fat synthesis and storage in human fat cells.

SWK faculty are impacting society via various research endeavors; one of the most recent examples is Dr. Melissa Taylor’s research on the treatment of the mentally ill within prison systems.

Dr. Nancy Nelson Hodges, an associate professor and CARS’s graduate studies director, has been researching North Carolina’s textile and apparel industries. Backed by North Carolina Agricultural Research Service Funding and USDA approved, the $166,500 award began in 2002. Nelson Hodges will complete her findings in October. “The media paints a starkly involved in gathering data to improve human health and well being. Studies run the gamut ranging from focusing on postpartum mothers, preventing childhood obesity and Dr. McIntosh’s continued work with conjugated linoleic acid (CLA) and its role in reducing fat synthesis and storage in human fat cells.

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“No doubt that asset of research and development within the university have dramatic consequences on economic development,” says Britt. “The more a university is intentional to contributing to that and using resources to expand, the more impact it has.”

Starting with the youngest citizens—children—UNCG conducts critical research with far-reaching implications for families. Its Child and Family Research Network had its initial meeting mid-April to facilitate collaboration and enhance scholarship, teaching and service within an interdisciplinary community. HES faculty are involved in numerous studies in this arena. Britt points to Dr. Deborah Cassidy’s work—and numerous multi-million dollar grants—for the HDFS department’s five-star rating system that rates child care centers throughout North Carolina’s one hundred counties. Cassidy and co-investigators Dr. Linda Hestenes, Dr. Steve Hestenes and Child Care Education Program (CCEP) Director Sharon Mims serve as coordinators. What began as funded research has evolved into an entity with huge repercussions for North Carolina’s childcare sector, and it serves as a model for other states. “It has an impact of its own in terms of people it employs around the state.” Beyond that, Britt stresses that even more important is the effect it has by enhancing programs’ quality, environments and classrooms of young children. “Kids are prepared so they can exceed in school…and in life.” We’ll highlight some of HES’s efforts with children and child care in the next section.

Looking closer at partnering with other institutions of higher learning, UNCG and HES are actively involved in such ventures. “One of the first and most successful efforts of such partnerships for us was the establishment of the Joint Masters of Social Work program,” says HES Dean Sims. Begun in 1999 between HES’s SWK Department and NC A&T State University (NCA&TSU), the unique program pools the resources of both institutions including faculty and library privileges, with classes held on both campuses; the degree is granted jointly by the institutions (dual degrees in public health and social work are possible). In 2004 NCA&T and UNCG began plans for Gateway University Research Park for research, training and development to keep the region competitive. Areas of research are Nanotechnology, Biotechnology, Nuclear Science and Engineering, Health Genetics, Food and Nutrition, Environmental Sciences, Electronics and Human Factors. IARC recently created the Center for Innovation in Interior Architecture (CIIA), an education and research arm of the department. Once the park is complete, CIIA will house an interior product development studio in a proposed 8,000-square-foot, state-of-the-art design facility. The CIIA program has already been building partnerships with industry and with other institutions of higher learning to establish mutually beneficial relationships with concepts and products that contribute to community outreach and collaboration.

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opportunities are everywhere, not just part of one field.” For higher education not only to encourage it but also to partici-
pate in it is key to rapid growth. “What is especially exciting to
think about is that now you don’t have to be in a big city
to have a successful business. There’s a level playing field in that
gard. And all the “players” are becoming proactive: universities
are reaching out, and the business community is reciprocating.
The Piedmont Triad Partnership (PTP) and the Greensboro Partnership already have identified collaboration with higher
education as a major goal in their economic-development
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education as a major goal in their economic-development
and universities will be key for all communities” in the future;
they want to talk with the dean in terms of flow of graduate
student and faculty, and the importance of the university
for CNNC to further its projects.
"HES’s theme of children runs across all levels: academic
courses, research, centers and programs both on campus, such
as the five-star rated CCEP, and in the community. “Through
a partnership with UNCG and Guilford Child Development’s
pre-K program with schools, we serve nearly 2000 children
who are vulnerable to school failure,” Britt shares. “They are receiving very high-quality instruction from a program that is
evidence-based that the university is implementing for our
teachers—Head Start and public schools—and this is making
major improvements in our classroom.” This program began
with a partnership between NCA&TU and UNCG and is
now being expanded to include several other colleges and
universities.
Across the United States, there is increasing realization
of the economic importance of child care. In 2001, two studies
about its economic impact could be found; by 2003, 19 were
in progress. Good quality child care doesn’t only matter to
parents and children; it has significant ramifications for the
business sector: it can increase labor productivity and recruit-
mort and reduce absenteeism and turnover.

Scott Whitaker
The absence of quality child care can bring about even steeper, long-term effects. At its heart is human development. “We have to look at the flip side,” Britt urges. “Kids arrive [at public school] not prepared...that frustration can boil over into antisocial behavior and create all kinds of problems.” Problems that sometimes lead to juvenile detention or worse. Britt says that society can fund good early childhood education programs to close the readiness gap or spend much more money on long-term problems that too often threaten to shadow those children (and the communities in which they live) throughout their lives.

Studies in the last three years have repeatedly shown that the internal rates of return for early care and education investments are high both locally and regionally. Child care advocates are being joined by economists in reinterpreting such programs “expenditures” as investments in economic development. Britt says that HES, under the leadership of Dean Sims, is “doing dramatic things” in this area. He says quality child care and early childhood education “enhance and empower the community. To prepare children for life is an important social and economic contribution. In the information age, we need the best and brightest,” and he stresses that we can’t afford anything less. “(North Carolina’s) Governor Mike Easley and everyone collectively is working hard to determine what must be done to offer the same opportunities to all of our kids,” Smith of the Commerce Department says. “Children are the workforce of the future. They must be successful for us to be successful in the global marketplace.”

“Over the last 10 years in particular,” Boney notes, “the UNC System and a number of colleges and universities across the country have begun to put in place ongoing initiatives in different activities that are related to the broad notion of economic development. Those activities range from very applied hands-on, direct service-related activities to an increased emphasis on translating innovation and research out of the laboratories and minds of professors and into the marketplace.”

“Last May we declared it a strategic priority of the UNC System to participate in and help to lead in the economic transformation of the state,” Boney adds. “Erskine Bowles gave this status statement: the state get through what he described as the ‘economic tsunami’ we are facing.”

“What we’ve done over the last few months,” Boney continues, “is to try to bring together a group of representatives from each of the 16 campuses to begin putting the flesh on the bones of that strategic priority.”

“The UNC System is a clear leader in forging alliances with business and industry, and UNCG has demonstrated its commitment to this vision,” Chancellor Sullivan is quoted as saying during her remarks at UNCG’s Corporate Expo. “In addition to continually improving our core educational programs, UNCG is already pursuing joint initiatives with a variety of universities, businesses and other organizations. We are partnering with county governments for economic development, starting business incubators that will pay dividends well into the future, and creating courses that develop skills and interests into inventive and savvy entrepreneurs.”

Among UNCG’s “High Priority Goal Clusters for 2006- 2007” is what was deemed a highest priority goal cluster for research in 2006-2007 to facilitate economic development and research funding: “Establish and maintain collaborations and alliances among academic institutions, Action Greensboro, economic development agencies and industry.”

In February 2007, the UNC Board of Governors launched University of North Carolina Tomorrow. The 18-month initiative will determine how the campuses can best meet the needs of the state and its people over the next 20 years. The commission includes business, education, government and nonprofit leaders from across the state. This “task force,” Boney says, “will examine the way that public policy and the NC Community College System to participate in and help to lead in the economic transformation of the state.”

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“A rendering of the UNC Nutrition Research Building provides a taste of the future for North Carolina. —courtesy of Castle & Cooke

country who excel in math and science. “With Mr. Murdock’s passion for health and nutrition, compatibility with North Carolina agriculture business and general partnerships with tech and notch universities, [the biotechnology concept]…continues to yield more and more potential,” Lynne Scott Saffrit, Castle & Cooke president and project manager, has said. —Emily Sarah Lineback

**A rendering of the UNC Nutrition Research Building provides a taste of the future for North Carolina. —courtesy of Castle & Cooke **