

# Further Fresh Perspectives on Georgia's Economic Development

Continuing a series started in 2005, three STIP summer interns presented results of their research in September 2008 at Technology Square. This year, the topics were the Port of Brunswick, better lighting efficiency, and nanotech policy initiatives. Attending the fourth annual readout session were some 50 economic developers, government officials, university researchers, and students.

Ashley Rivera, a master's degree student in Tech's School of Public Policy, researched several infrastructure improvements at the Port of Brunswick—harbor and channel deepening, bridge replacement, rail and road enhancements—to determine what impact these investments might have on economic development in the region and state.

She noted that Brunswick is a niche port, mainly serving autos, grains, and forest products, adding that although it is often considered small, Brunswick is the nation's sixth largest port for the new-car trade. Part of her research also involved comparative case studies of California's Port Hueneme and a two-nation facility in Europe, Copenhagen Malmo Port.

Among impacts of the infrastructure improvements, according to Rivera, were (1) a new rail connection enabling 98,000 additional cars to move through the port annually, (2) a highway overpass opening 900 acres for automotive-related development, and (3) deeper channels

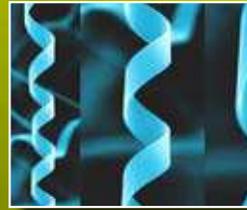
allowing larger vessels to use the port, thereby enhancing Brunswick's competitive position. Her analysis indicated that the various improvements should result in \$276 million in additional output, \$113 million in gross state product, and more than 2,500 full- and part-time jobs. She also suggested they offer opportunities for Georgia, such as exports of soy and wheat, autos, and wood pallets.

Ogundiran Soumonni, a doctoral student in the School of Public Policy, investigated and evaluated the potential for more efficient lighting to reduce energy consumption, alleviate environmental degradation, and foster economic development in Georgia. This entailed, among other aspects, (1) assessing prevailing technologies such as incandescent and fluorescent lighting, (2) calculating potential energy and cost savings and reduced carbon dioxide emissions from households shifting to more efficient lighting, and (3) comparing Georgia's lighting energy policies with those of California, New York, and North Carolina.

He determined that using more efficient lighting could save Georgia millions of dollars, and the state would see reduced greenhouse gas emissions and landfill tonnage. In addition, the state has a sizable lighting market that

could expand to generate more jobs and revenue. Indeed, he suggested Georgia could become a regional leader in the development and adoption of advanced lighting technologies, especially via such things as focusing incentives on manufacturers and creating a lighting research center. But he acknowledged barriers exist—for example, lack of a state energy efficiency policy, slow return on investment, lack of consumer awareness, and the current economic slump.

Rick McKeon, also a master's degree student in Tech's School of Public Policy, looked at state-driven initiatives to advance development of nanoscale technologies and enhance their economic development opportunities. Among states competing to become leaders in this emerging field, Georgia, he said, is highly positioned in terms of research and has some modest development under way. (See "Nanotech Rising" in the last issue of *Focus on STIP*.)



# Georgia Tech: A Knowledge Hub

Over the centuries, universities were first knowledge storehouses, collecting and harboring information and standing apart from communities, then became knowledge factories producing research and graduates. More recently, some have become knowledge hubs, generating technological innovation and economic development in their regions. This new transformational role and its impact, locally illustrated by Georgia Tech, is the subject of an article authored by STIP faculty members Professor Philip Shapira Shapira and Dr. Jan Youtie and appearing in *Research Policy* (volume 37, issue 8).

In the article, they discuss how university leadership, as well as programs that transcend academic, governmental, and industrial boundaries and create new relationships, has contributed to innovation, technology transfer, and economic development. They observe that an important aspect of this third model is the attention paid not only to

formal or codified knowledge—that which can be written and stored—but also tacit knowledge—embedded, hard-to-replicate capabilities. Among other things, such focus entails implementing strategies to attract talent, establish links, and add value.

In the case of Georgia Tech, they review the tenures of the three most recent presidents—Joseph M. Pettit, John P. Crecine, and G. Wayne Clough—spanning the years from 1972 to the present and discuss associated developments at the university. These include the Advanced Technology Development Center (ATDC) business incubator, the Microelectronics Research Center, a separate College of Computing, the 1996 Olympics, Technology Square in Midtown Atlanta, and campuses in Savannah, France, and Singapore, to say nothing of an exponential

increase in external research funding. In addition, the authors explore six boundary-spanning initiatives with which Tech has been involved: the Georgia Research Alliance, the Yamacraw Initiative, VentureLab, the Centers of Innovation, ATDC, and the Industrial Extension Service.

“Georgia Tech’s knowledge-hub activities,” they note, “have helped to create a regional climate which is attractive to companies, entrepreneurs, and talented people.” ●



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McKeon’s research involved identification, evaluation, and comparison of various states, including infrastructure, collaborations, industrial partners, and prominent researchers. He found that some states created centers, promoted start-ups, and fostered regional innovation clusters. Others implemented workforce development programs and public outreach campaigns. Still others leveraged their existing high-tech industries.

Among his recommendations for Georgia were (1) create a nano-related consortium or association, (2) continue recruitment of eminent scholars in nanotechnology, (3) develop additional infrastructure around the state and increase collaboration

among researchers, (4) establish funding for nanotech research projects and start-up firms, and (5) create workforce development and nano-specific degree programs.

“This year’s interns gave excellent presentations and handled questions well,” says STIP Executive Director Robert Lann. “Each intern thoroughly researched his or her topic and came up with sensible and insightful recommendations.”

The annual internships reflect Georgia Tech’s commitment to preparing the next generation of economic developers and building a bridge between today’s practitioners and innovative ideas in the field. Topics in past years have included

Hispanic entrepreneurship, the digital media industry, biofuels, and white-collar outsourcing, among others.

The intern selection committee comprised Dr. Cathryn Meehan, president of Southeastern Technical College; Greg Torre, director of the Georgia Department of Economic Development’s Small Business and Innovation Division; and Pat Sims, manager of Community Development-Metro at Georgia Power Company.

For more information about the STIP internship program, see page 6 or contact Robert Lann (404.894.3475, robert.lann@innovate.gatech.edu). To read the full project reports, go to [www.stip.gatech.edu](http://www.stip.gatech.edu). ●