

Focus on Communities



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Resurgence of the Idea Artist – A Georgia Perspective

What do Thomas Edison, Alexander Graham Bell, Benjamin Franklin, and Louis Braille have in common? They are examples of innovators who made a significant difference through the application of their own creative capital. The story of the innovator is nothing new and embodies fundamental principles upon which our country is founded, which, to put in Edison's words, include "hard work, stick-to-itiveness, and common sense." Although the catalytic role that the innovator plays in our economy has always existed, the potential for more and more individuals to play that role appears to be accelerating, and many of the associated opportunities remain unexplored.

Georgia is full of potential innovators who live in communities small and large, rural and urban. Many of these would-be innovators are independent inventors or idea artists, and include some who, like Edison, Bell, Franklin, and Braille, have big and inspirational dreams that are gestating and await fruition. However, many fail to turn their ideas into actual innovations.

Who are these idea artists? What are they inventing? What helps some of them succeed? And what are some

of their needs? To help answer these questions, Georgia Tech, through a pilot program sponsored by the U.S. Economic Development Administration, launched the first comprehensive survey of independent inventors statewide in 2007. The goal was to provide a better understanding of factors that have enabled or inhibited their innovation. Some key findings from this survey appear below.

THE IDEA ARTISTS

More than 300 independent inventors from 76 of Georgia's 159 counties participated in the survey. Although the Atlanta region accounted for more than half (53.8 percent) of the participating inventors, another 42.7 percent hailed from beyond the state's most urbanized region. Outside of **Atlanta**, the **Gainesville** region accounted for the second highest share of participants and the **Athens** and **Augusta** regions tied for the third highest share. Reviewing some key demographics about the survey participants yields insights into the independent inventor community.

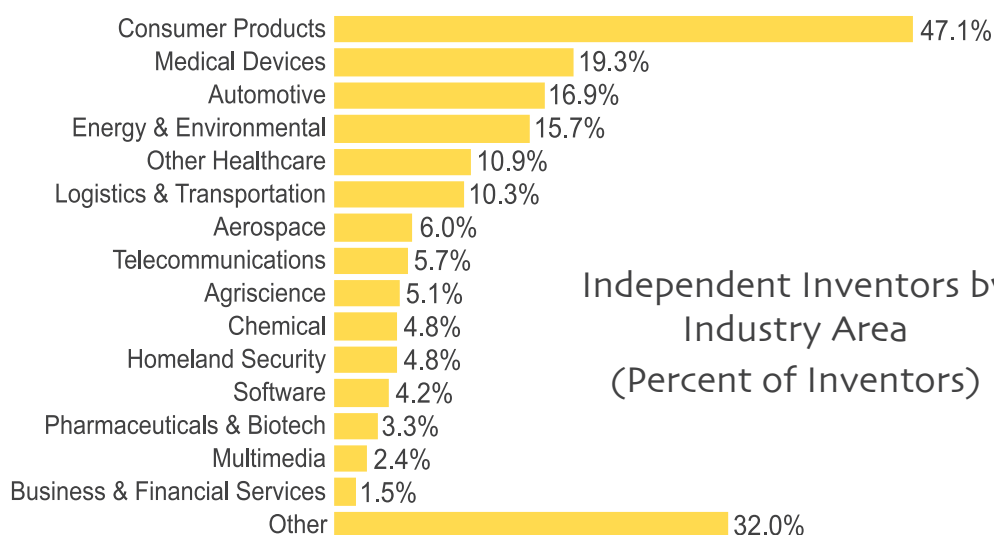
- Georgia's independent inventors appear to be well-educated overall. The vast majority – 92 percent – were at least high school graduates. More

than half (50.4 percent) had at least a four-year college degree, including over one-fourth (26.4 percent) who had earned an advanced degree.

- The median age group for the participating inventors was 55 to 64.
- The median household income range for these inventors was \$75,000 to \$99,000. This finding corresponds with the observations about education given that personal wealth tends to increase with level of education.
- The majority (80.4 percent) of Georgia's independent inventors participating in the survey were male.
- Although the majority (70.4 percent) of the inventors reported to be of Caucasian background, nearly one-fourth indicated they were of non-Caucasian background. African-Americans accounted for the second largest share (16.6 percent) of the participating inventors, while those of Asian or Pacific Islander descent followed, but to a distant degree, with the third highest share (3.6 percent).
- The largest share – more than one-fourth (25.4 percent) – of the participating inventors reported to hold management and professional occupations. Nearly one-fourth (23.9 percent) reported to be self-employed. Retirees accounted for the third highest share of participating inventors.

THE INVENTIONS

When asked what motivated them, the independent inventors cited reasons related to their job more than any other – including a need, problem, or potential efficiency recognized because of the inventor's line of work, with such reasons accounting for 29.6 percent of all responses given. Factors relating to making their personal life easier were



the second most frequently mentioned. Money was mentioned as a motivator only to a slight degree.

Inventors were asked to note the industrial areas in which they've created inventions. Not surprising, nearly half (47.1 percent) of the participants reported to have invented items in the consumer products area. Regarding non-consumer products categories, medical devices and equipment (19.3 percent), automotive (16.9 percent), and energy and environmental (15.7 percent) ranked prominently in terms of inventors reporting products in these areas. Of note, several of the other more frequently cited product areas are compatible or supportive industry areas to these three.

These findings imply a certain level of independent creativity occurring within key industry sectors of Georgia's economy and perhaps might provide some indication for "emerging" growth sectors. Although it is difficult to ascertain why these industrial areas account for such levels of creativity without further investigation, this data suggests that Georgia may hold some advantages in these areas.

Independent Inventors by Industry Area (Percent of Inventors)

A CLOSER LOOK AT SUCCESS

Overall, reported experiences by inventors revealed that approximately one-third of inventors achieved some level of commercial success through independent production and sales, licensing, and/or sale of a patent.

Although more than half (59.2 percent) reported they'd not achieved success at the time of the survey, approximately 31.4 percent of the inventors said they did experience some commercial success for at least one of their inventions. Another 9.4 percent declined to say whether they've been successful.

Approximately one-fourth (25.1 percent) of the inventors said they had achieved commercial success through independent production and sales for one or more of their patented products, which suggests they directly wrapped some type of business enterprise around their invention. These inventors accounted for the vast majority (79.8 percent) of those reporting success. Licensing patents to another entity appeared to be the second most successful vehicle to commercialization, as 8.8 percent of all inventors – or

more than one-fourth (27.9 percent) of successful inventors – reported they had realized success through such a path for one or more of their inventions. Another 4.5 percent reported they had achieved success through assigning or selling one or more of their patents to another entity.

THE NEED

Most (70.2 percent) of the independent inventors indicated that they had inventions requiring further design or other assistance to make them viable products. The inventors were asked to specifically describe the top three needs by Georgia inventors generally. Although money was not cited as a leading motivator among independent inventors participating in the survey, it was mentioned most frequently as a top need by the inventor community. Needs relating to marketing and manufacturing assistance rounded out the top three. Regarding help with manufacturing, the inventors often sought assistance in finding a manufacturing partner for outsourcing rather than directly manufacturing the product themselves.

Inventors gave top marks for prior help received relating to various types of intellectual property assistance or advice – patent application, patent or trademark search, legal consultation, and trademark registration. They provided lowest marks to certain

types of business assistance such as human resources, accounting, information technology, and management and technical assistance. These may signal specific opportunities to explore for providing future assistance given that more than 75 percent of the independent inventors reporting commercial success cited independent production and sales of their product as their vehicle.

KEY IMPLICATIONS

Why consider independent inventors in your strategies for economic development? Collectively, these inventors account for a larger share of patents than those owned by a single corporation or entity, including major research universities, and many have reported to have realized some commercial success. In addition, patent generation is accelerating among these inventors, and it appears there may be untapped potential for commercialization, business creation, and existing-industry innovation.

Regarding the latter, take, for example, the significant interest expressed in partnering with a manufacturer. Many of Georgia's small-to-medium-sized manufacturers lack the budget and resources to directly invest in their own research and development. At the same time, many of the state's independent inventors do not have an interest in directly manufacturing their product or running a business, but could partner with a manufacturer and become an actual R&D resource.

The following are some things to keep in mind from reviewing the experiences of Georgia's independent inventory community.

1. A significant level of creativity and product development is being expressed by individuals across Georgia, and this activity is increasing.

2. Many inventors are “serial” inventors in that they are repeatedly inventing products, rather than being content with one “item of passion.”

3. Georgia's inventors are developing technology-based inventions, many outside the domain of universities or other typical launch pads.

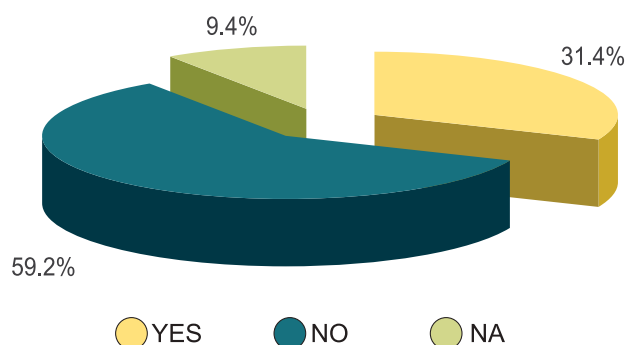
4. Independent inventors possess similar characteristics in terms of socio-economics and other qualities and have their own culture as a “community of people,” yet they appear disconnected from each other and from available resources.

5. The needs of the independent inventor community are diverse and largely not met, and there is a huge appetite among the independent inventor community for greater help.

6. Being an independent inventor and being an entrepreneur are not the same thing. Independent inventors do not necessarily possess the skills, talents, or desire to become entrepreneurs.

7. Given that creativity and innovation will continue to be imperative assets, the independent inventor represents a major untapped economic development opportunity. Nurturing and fostering creative talents among individuals who may be potential inventors and innovators should be a key component of any community-based strategy focused on workforce and human capital development from elementary school to college and beyond. ●

Independent Inventors Achieving Commercial Success



Special Feature

A STEM Grows in Rural Georgia

Developing scientific and mathematical skills is vital for competing in the global economy. To improve education in these disciplines and, by extension, to foster development of a better-skilled workforce, Georgia Tech's Enterprise Innovation Institute and Center for Education in Science, Mathematics and Computing in 2006 developed an initiative called STEM, for science, technology, engineering, and math. Activities are shaped by local economic development goals, meaning that chambers, employers, educators, and others select aims based on long-term achievements such as upgrading the workforce.

Supported by the Georgia Rural Economic Development Center (GREDC), the initiative has two pilot communities: **Douglas-Coffee County** and **Swainsboro-Emanuel County**.

The endeavor seeks to serve a diversified group of students, regardless of whether they plan to pursue post-secondary education at a technical college or a four-year institution or even if they're not going on to college, and it specifically targets students at risk for losing interest in or dropping out of school. The effort strives to leverage the widespread interest among most youth in technology, as demonstrated by their affinity for entertainment devices such as iPods and video games, and better prepare them

with technical skills in the workplace. Beyond that, the plan is to teach students lifelong skills in critical thinking, creativity, and problem-solving.

"The STEM initiative enlightens students about the broad array of rewarding career opportunities available to them in science, technology, math, and engineering that they did not know existed," says Tech's Hortense Jackson, STEM project director.

Among activities planned for 2008:

- The two counties are developing outreach programs to encourage middle and high school student interest in math and science via robotics. School assembly programs will showcase and demonstrate robotics applications.

"My experience at Georgia Tech was a once-in-a-lifetime opportunity. The hands-on activities and the fantastic instructors made learning fun. It's something I'll never forget."

—Swainsboro High School student participant in the 2007 field trip



Emanuel County students attend a workshop at Georgia Tech's Klaus Advanced Computing Center to learn how to program robots.

among other things, they will visit research and robotics labs on the Tech campus. Swainsboro-Emanuel County students undertook this activity in 2007. "Robots," notes Jackson, "are a great way to inspire students to learn about math, science, and technology."

In addition, Georgia Tech will conduct teacher training to strengthen robotics programs, specifically LEGO and VEX, in the two counties. Also, participating classrooms in Coffee and Emanuel counties will be connected to and paired with mentoring schools elsewhere in Georgia that have successful track records with STEM initiatives. This will enable participants to share their LEGO and VEX ideas, training, and projects; in short, to learn from one another.

"Preparing for a skilled workforce is critical if we hope to find success in our competitive global economy," says JoAnne Lewis, president of the Douglas-Coffee County Chamber of Commerce and Economic Development Authority. "We applaud Georgia Tech and GREDC for their efforts to bring opportunities to students through STEM, particularly in rural Georgia." ●

- Georgia Tech staff are coordinating a series of field trips to local industries that will enable dozens of students to see and learn about real-world examples in robotics and automation.

- Teachers and students in both counties will attend the FIRST Robotics Competition, the goal being to stimulate student desire to compete in the event the following year.

- Students from Douglas-Coffee County will take a field trip to Atlanta where,

A Q&A with Debra Lyons, Director of the Governor's Office of Workforce Development

Debra Lyons, as director of the Governor's Office of Workforce Development, advises on workforce development policy and implementing initiatives to strengthen the state's workforce development enterprise. Her office provides a platform for collaboration among Georgia's principal workforce development stakeholders in the public and private sectors. It also provides staffing support for the State Workforce Investment Board, of which Lyons serves as director. Former owner of a training-related consulting firm, she recently served on the state board for Georgia's Department of Technical and Adult Education. Here, she discusses what her office is doing to build a better workforce.

FOCUS: What is the chief mission of your office?

LYONS: The chief mission of the Governor's Office of Workforce Development (GOWD) is to implement the Governor's workforce development vision and policy through the Work Ready initiative. Work Ready is an initiative being conducted in partnership with the Georgia Chamber of Commerce. It is designed to improve the job training and marketability of Georgia's workforce and drive economic growth for the state by assessing the "real world" skills of Georgia's workers and linking them to appropriate job training. It is our mission to help companies reliably match the right people with the right jobs.

FOCUS: How would you describe the dynamics involving Georgia's workforce?

LYONS: While unemployment in Georgia has been relatively low in recent years, competition is fierce, resulting in business and industry needing a workforce with greater talent. At the same time, Georgia's economic base is making the transition from a lower-skilled to a more knowledge-based workforce to meet the needs of the new global economy. Georgia's ability to enable our workforce to have a higher foundational skill level is necessary to keep companies innovating and productive. To make this happen requires a strong collaboration among business, workforce, education, and economic development partners.

FOCUS: What are key opportunities for improving Georgia's workforce?

LYONS: The opportunity for Georgia is to improve its workforce through a transformational strategy – one addressing the needs of job-seekers, businesses, and communities. We can address those needs by focusing on helping our workers develop skills in applied mathematics, locating information, and reading for information – as these skills are considered crucial for all employers. In doing so, we should shoot for nothing less than making Georgia's workforce the number-one asset for the state and its communities.

FOCUS: How is your office helping to take advantage of these opportunities?

LYONS: The Work Ready initiative includes four key elements:

1. A tool to assess Georgians according to contemporary workplace skills and



Debra Lyons

- aptitudes whereby they can earn a Work Ready Certificate, a new credential that confirms for employers the readiness of candidates for joining their team.

2. Removal of the guesswork required by employers to determine whether prospective employment candidates meet their needs through providing Work Ready Job Profiles customized to each employer's needs.

3. An initiative to recognize communities that are focused on helping their residents earn Work Ready certificates and are working to increase their high school graduation rate as Certified Work Ready Communities.

4. Fostering a regional approach to workforce development by designating Work Ready Regions where business, workforce, education, and economic development are devoting resources to develop talent pools aligned to Georgia's strategic industries.

FOCUS: What have been some key achievements/milestones of GOWD to date?

LYONS: We have made a lot of headway in a short time. Since January

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Partner Spotlight

Partner Spotlight from page 5

30, 2007, our state has seen more than 4,100 certificates earned. Nearly half (45.9 percent) of our state's 159 counties are actively seeking Certified Work Ready Community status. These 73 counties far exceed the goal we had of have 10 counties on board by the end of the sign-up period. Through our partnership with the Technical College System of Georgia, we now have more than 360 Georgia jobs profiled. In addition, there are more than 50 new companies and government agencies exploring the use of Work Ready Certificates and Work Ready Job Profiles to help them make better hiring decisions.

FOCUS: *You've referred to partnerships a couple times during this interview. How important are these and other partnerships in completing your mission?*

LYONS: Critically important. Partnerships are absolutely essential to achieving our mission of making Georgia's workforce its number-one competitive advantage. Work Ready is led by the Governor and could not be accomplished without the active partnership with the Georgia Chamber of Commerce, Georgia Power Company, local workforce investment boards (WIBs), and the Georgia Department of Labor Career Centers, as well as the state's economic developers, chambers of commerce, educational institutions, and business and industry.

FOCUS: *How will you measure success?*

LYONS: We have a rigorous process in place to monitor activities and results – for example, the Work Ready Certificate data being tracked for every county and by each demographic group on the number of certificates earned

and at what level (ranging from the minimum level of bronze to the highest achievement level of platinum). In addition, the GOWD aggregates data for the Work Ready Job Profiles being developed and the skill level needed for those jobs. By comparing the skill level of Georgians as denoted by their Work Ready Certificate outcomes and the skill levels needed by employers as determined through their Work Ready Job Profiles, the GOWD is working to determine the skills gap in Georgia. And knowing the skills gap is the first step to eliminating it.

The skills gap will be determined on a regional and state level. Through the Work Ready Regions initiative, the GOWD will be working with partners to close the skills gap by providing customized training that focuses on the gaps identified and will enable Georgians to move to higher skill levels. We'll be tracking the extent to

which this happens as those who have earned the Work Ready Certificate can be reassessed to earn a higher-level certificate (e.g., going from bronze to silver or gold).

FOCUS: *What advice do you have for local leaders and economic developers preparing their communities and regions for the future?*

LYONS: Successful workforce development requires that community leaders and those in the education, business, and industry sectors all come together and work jointly. The Certified Work Ready Communities initiative is an excellent tool for enabling them to do so effectively. As workforce development is more and more important to the future prosperity of businesses in our state, this voluntary initiative will help demonstrate a community's commitment to developing a talented workforce to meet current and future needs. ●

Greene Takes New Post

Todd Greene, CEcD, director of Community Policy and Research Services (CPRS), has left Georgia Tech but not economic development.



His new position is assistant vice president for community affairs at the Federal Reserve Bank of Atlanta where, among other tasks, he will build a new policy and research group focusing on economic development issues across the bank's six-state region.

Greene started at Georgia Tech seven years ago working on information technology projects, and became CPRS director in 2004.

Robert Lann has been named interim director of CPRS.



Leveraging Technology in Oglethorpe County

Information technologies are essential for community and economic development, but identifying, selecting, and using the most suitable ones can be difficult. Through its TechSmart program, Georgia Tech has developed a community technology road-mapping process that, when matched with a locale's vision, effort and, discipline, can help the area reach key community development goals by leveraging its technology assets. **Oglethorpe County** is a good example of how it works.

Oglethorpe County was the first locale with which Tech worked on this form of road-mapping, beginning in December 2005. This community provided an excellent setting for developing the road-mapping method and tools because the chamber of commerce's economic development director, Cary Fordyce, championed the effort, engaging a wide range of civic and business leaders to collaborate. An early lesson learned was the importance of an effective advocate.

Tech's approach focuses on the bottom-line benefits of information and communications technology and on the importance of collaboration in tapping these benefits. The work with Oglethorpe partners demonstrated that concentrating on particular applications is the best way for the people involved to understand those benefits. Here, the primary application proved to be digital media, which one might not expect in a small, semi-rural area. But the road-mapping process uncovered needs such as: (1) the community newspaper needing to compete in a dynamic media marketplace, (2) the schools needing to provide more information for students and parents, and (3) the chamber needing to engage volunteers.

Consequently, the county's road map focused on business applications of digital media. The starting point was a seminar put on by Georgia Tech with support from the OneGeorgia Authority that addressed the practical

and strategic issues such as how digital media can save time and serve customers, as well as practical issues such as the tools and systems for various applications. Community leaders learned about the components of digital media and how to invest in and manage them, and they learned about applications from the Tech team, technology firms, and each other.

These efforts have generated two initiatives. One is an online meeting and marketplace, or "agora," that provides collaborative digital media functions for the chamber, newspaper, schools, and other local enterprises. School Superintendent and TechSmart team member Jeff Welch observes, "We're developing a symbiotic relationship between the schools, business community, and citizens. Important to the schools is the fact that students involved in this process will be better prepared for the workplace, as we prepare the workplace of the future for the students."

The second initiative is a network to carry the data generated by digital media and other information and communication technology applications. The partners see this as infrastructure rather than a way to generate revenue, and they plan to develop it in conjunction with other physical infrastructure such as sewers, roads, and commercial real estate. They also are reaching out to other community stakeholders – agriculture, health care, industry, public safety, tourism – to make use of both components.

"Of course, this will not happen overnight, nor will it come without expense," says Greg Laudeman, TechSmart project director, "but Oglethorpe County has its road map and is on its way." ●

In Progress

Troup County Moves Ahead

The progressive integration of planning and economic development is not always easy, but in the long run lays the groundwork for dynamic efforts. Indeed, leaders from **Troup County** and the cities of **LaGrange**, **West Point**, and **Hogansville** continue collaborating to explore how to best leverage the growth coming to west Georgia. At the heart of their efforts is the desire to jointly promote a healthy balance of economic, environmental, and social development for the citizens, businesses, and institutions of the region. In other words, they are focusing on sustainable development.

To date, hundreds of Troup County stakeholders have provided input to create a vision and framework for the planning initiative. They've represented a wide range of interests, including

business, government, utilities, education, real estate, religion, judiciary, news media, and various civic organizations. Also included are Troup County's youth who are contributing through an effort conducted in partnership with county schools.

The region's leadership kicked off this strategic planning effort in June 2007, a process that will continue through June 2009. Georgia Tech, through its Enterprise Innovation Institute and Center for Quality Growth and Regional Development, is supporting the process with research and facilitation. Specifically, the Tech team is investigating strategies concerning future land use, redevelopment, human services, transportation, business growth, and workforce development, among other aspects. ●

WebFIT™ Update

Because many communities in Georgia are experiencing tremendous growth, Georgia Tech developed a unique and powerful tool to help decision-makers make informed choices about the fiscal impacts of growth. In 2003, **Gwinnett County** pioneered Georgia Tech's WebFIT™ tool, employing it to estimate the fiscal impact of its future land use plan. That initial project drew from earlier efforts in **Paulding** and **Fayette** counties and helped develop the Web-based software tool. Subsequently, Enterprise Innovation Institute (EI2) staff conducted an implementation project in **Houston County**. Because property valuation information contained in a county's tax digest must be merged with land use information (both current and future) in the county's geographic information system, not all communities are ready for this tool.

In the second half of 2007, two more counties started projects with EI2 to implement the tool – **Henry** and **Lowndes**. Each has requested additional features requiring further work

Expanding Local Capacity

Some three dozen residents in the southern part of **Atlanta** are completing an innovative training effort in economic development. The six-month program in community economic development, cosponsored by the Annie E. Casey

Foundation and The Center for Working Families, Inc., exposes participants to concepts, tools, techniques, and analysis that enable them to envision and design their own community.

The curriculum was designed by Georgia Tech's Enterprise Innovation Institute and the University of Georgia's Fanning Institute to include topics ranging from business attraction and public finance to small business and transit-oriented development.

Several program participants took a tour of Atlanta's BeltLine.

Instructors have come from the private sector, state and local government, non-profit organizations, and academia. Selected residents attend free of charge, but are expected to be involved in the strategic planning of a neighborhood space on University Avenue, namely a 31.4-acre brownfield site bordering the Atlanta Beltline expected to be available in September 2008.

This program demonstrates how economic development education can build neighborhood sustainability while creating a vision of resident choice.



on the software. So, with these projects WebFIT™ is getting an overhaul from the bottom up. Staff will add the ability to estimate the cost of expanding water and sewer to accommodate proposed development in a future land use plan. Fiscal impact analysis of an annexation also will become part of the tool.

To make it easier for users to update their data and run analyses, staff are also adding new ways for them to interact with the software. These entail the ability for users to upload revised historical data and any number of future land use plan scenarios from an Excel spreadsheet. The hope is that by letting customers develop their scenarios and maintain their historical data in a popular program like Excel, they will find it easier to use WebFIT™. Two further enhancements: WebFIT™'s reporting abilities are being expanded and the ability to download results to Excel is being added.

The new projects in Henry and Lowndes counties are well under way and should be completed in early 2008. ●

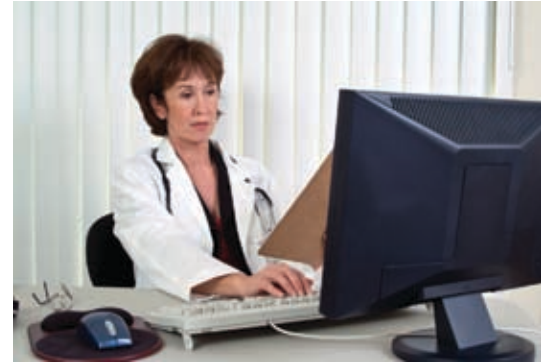
Based on enthusiastic responses from current participants, the sponsors have already decided to conduct a second session to run from March to September of this year.

(For further information about this program, contact Kathryn Brice, Ph.D., at 404.894.3851 or kathryn.brice@innovate.gatech.edu. For background on the effort, see "Knowing the Territory" in the fall 2007 issue of *Focus on STIP* on this Web site: www.stip.gatech.edu.) ●

To Your Health

Health care – beset by an aging population, growing nursing shortage, declining reimbursements from insurers, increasing government regulation, need for greater capital investment in technology, and other factors – is under tremendous pressure to improve quality and efficiency. To help meet this challenge, Georgia Tech's Enterprise Innovation Institute recently formed a new unit to apply lean manufacturing principles, such as 5S and value stream mapping, to health care-related organizations. This could encompass everything from recordkeeping to lab tests to patient flow.

Directed by Frank Mewborn, the lean health care group will serve the needs of Georgia's 5,000 licensed health care services entities, ranging from hospitals, imaging centers, and laboratories to assisted living facilities, as well as physicians, pharmacies, and medical equipment suppliers. It will seek support from corporations, foundations, and state government to improve its reach in the state.



Lean principles hold promise for streamlining health care.

The rationale for launching the group came from Mewborn's success three years ago in developing lean training programs for the Athens Regional Medical Center, which were subsequently adapted by the American Hospital Association's Quality Center. Since then, several hospitals have heard of the programs and begun seeking similar assistance.

For more information, call Matt Haynes at 404.385.0767, or e-mail him at matt.haynes@innovate.gatech.edu. ●

Promoting Commerce in Kingsland

In 2005, Georgia Tech undertook a series of comprehensive assessments aimed at developing a strategic plan for diversifying the economy of **Camden County** and its cities. This effort was sponsored by the U.S. Department of Defense and conducted for The Camden Partnership, and it involved developing overnight visitor profiles for the city of Kingsland's Convention and Visitors Bureau (CVB).

The effort examined traveler origins and their preferences for lodging, dining, and activities, the idea being that such information would help convince prospective national and local developers to invest

in **Kingsland**. In a short span, the CVB subsequently achieved considerable success: (1) more than \$5 million have been developed in non-lodging assets, (2) the CVB has constructed a new visitors center, and (3) the number of lodging properties in Kingsland is expected to double within two years.

Use of the tourism analysis proved very successful, to the extent that a follow-on study has begun to update the 2005 profiles. The purpose is to ensure that the CVB provides investors with the freshest data possible. Tech researchers anticipate completing the project in the first half of 2008. ●

Science, Technology and Innovation Policy

Not Your Grandfather's Economic Development

In today's economy, innovation is not only for the factory floor; it works for economic development, too.

Reflecting that, the past fall semester saw another edition of Innovations in Economic Development Forum, presented by Georgia Tech's program in Science, Technology and Innovation Policy (STIP) and cosponsored by the Georgia Economic Developers Association. The purpose, says Todd Greene, CEcD, director of Community Policy and Research Services, is to bring together students, faculty, researchers, policy-makers, and practitioners to explore leading-edge topics in economic development.

The fall series entailed four monthly presentations under a thematic heading of "The Young and the Restless," a nod to contemporary business development in metro **Atlanta** undertaken by hip, urban, relatively youthful entrepreneurs whose enterprises range from tattoos to transportation to tunes.

In September, Flexcar's Kevin Planovsky recounted how the Seattle-based firm established in 1999 has spread to 12 metro markets and now has 80 fuel-efficient rental vehicles in Atlanta alone, mostly in downtown and midtown. By paying a membership fee, users can rent vehicles by the hour or day. According to Planovsky, it appeals mainly to students and people pursuing alternative lifestyles, but individuals can save money using this method instead of owning cars. Combined with mass



transit, it is a substitute for auto-based commuting, he said.

The following month brought in businessmen Rob Thompson and Mel Pinson from Atlanta's Little Five Points. The former, proprietor of Holy Mother Tattoo, and the latter, owner of Criminal Records, recounted the history of Little Five Points from prosperous mid-20th century neighborhood to seedy and crime-ridden turf in the 1970s to an "established nationally known business community" today where indy retailers vie with chains and residents rub shoulders with day-trippers. It has a business association, traffic problems, artsy and tech-savvy demographics, and distinctively bohemian flair.

In November, Clinton Lowe, chairman of the Georgia Game Developers Association (GGDA), discussed growth of the video game industry with millions of players worldwide and millions of dollars in revenue. The GGDA, said Lowe, stages an annual trade show that he'd like to see the Southeast use as a platform. The Georgia Department of Economic Development's Asante Bradford noted that Georgia is home to more than 50 video game developers including large Chinese and Icelandic



game companies now operating from Atlanta.

December marked the final forum of the fall term, with Curtis Daniels III of Patchwerk Recording Studios explaining that the music industry has become established in Atlanta – "the Motown of the South" – and contrasts favorably with New York and LA with its smaller, yet more open and entrepreneurial environment and its much lower costs. But despite considerable energy, talent, and success, it remains below the radar in economic development and promotional terms.

According to Greene, the forums – having the same theme and same free admission – will continue this spring term with three sessions scheduled again for Technology Square in midtown Atlanta. "The power of the Innovation Forum is that it brings together economic developers and others to discuss how ideas of tomorrow can benefit communities today," Greene says.

For more information, visit stip.gatech.edu. ●

Elsewhere at Georgia Tech

A Model of Sustainability



Georgia's epic drought did not occur overnight, nor will it be eased that quickly, but the principles of sustainability offer an approach to solve this problem by combining a long-term time frame with a whole-systems outlook. Georgia Tech has a history of addressing water conservation as part of a comprehensive strategy to not only move the campus toward sustainability, but to serve as a resource for others wanting to do likewise.

The campus itself can be thought of as an educational model of a small city implementing sustainable practices. All new buildings on campus in the last several years have been built to strict environmental standards that include water conservation measures. Water fixtures, chillers, and boiler equipment in existing facilities have been upgraded. So, while building square footage has roughly doubled in the last seven years, water consumption has remained flat.

Landscaping practices also help save water. Native species are chosen for their reduced care requirements, including water. Water is collected from rooftops and chiller equipment for irrigation use. Georgia Tech has recently implemented, as part of the Campus

Master Plan, the EcoCommons. When implemented, this long-term plan will reduce the campus' discharge of storm water to Atlanta's overtaxed water treatment infrastructure. The plan includes several open water features to retain surface runoff so that it can be used for irrigation, groundwater recharge, and recreational and educational purposes.

Then there's water-related research. The Georgia Water Resources Institute was established in 1964 to improve management of water resources in Georgia and throughout the world. Its body of research is an invaluable resource to any community working to improve water resources management. Also, the Sustainable Design and Manufacturing group in the School of Mechanical Engineering has worked on several research projects regarding industrial water use. Recent efforts include improving the parts-cleaning processes in manufacturing operations to conserve water and minimize hazardous waste, and studying a coating that mimics the self-cleaning properties of the lotus flower. This "lotus effect" coating allows dirt particles to be picked up by rolling water droplets, thus providing continuous passive

cleaning by means of rainfall and water condensation. Ultimately, such coatings will eliminate the need to clean all sorts of surfaces – from cars to buildings to windows – saving large quantities of water and labor.

City and Regional Planning faculty are educating the next generation of planners on sustainable development practices. The way we build our towns and cities greatly affects how efficiently we use our resources, including water.

The Enterprise Innovation Institute helps businesses and municipalities save water and energy. Its energy and environmental specialists perform water conservation assessments separately and as part of their energy assessments for business, industry, and municipalities. It is not widely known, but electricity generation consumes enormous quantities of water, so saving electricity results in saving water. Among available services are seminars, audits, and management systems training. Staff also can develop customized monitoring tools that help identify potential problems and savings opportunities.

—Brent Verrill
Institute for Sustainable
Technology and Development

Energy and Enterprise

The global economy runs on energy, lots of it, and using it wisely is increasingly necessary for controlling costs. For more than 35 years, staff at Georgia Tech's Energy and Environmental Management Center (EEMC) have specialized in helping industry and other organizations throughout Georgia conserve energy and mitigate environmental impact. They conduct training and assessments, help with strategic planning, undertake problem-specific technical assistance, and develop tools and techniques such as management systems.

To learn more about EEMC's capabilities for companies in your area, contact Bill Meffert at 404.894.3844 or bill.meffert@innovate.gatech.edu.





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For more information on courses, contact Jennifer Freeman at 404.894.4904 or jennifer.freeman@innovate.gatech.edu.

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Regionalism Reconsidered

In their recently published book – *Remaking Regional Economies: Power, Labor, and Firm Strategies in the Knowledge Economy* – Georgia Tech's Jennifer Clark, Ph.D., and Cornell's Susan Christopherson, Ph.D., challenge researchers and practitioners to consider the region as a central scale of action in the global economy. At its core are case studies of two industries that rely on skilled, innovative, and flexible workers – the optics and imaging industry and the film and television industry. Evidence from the cases, reports Clark, demonstrates that the strongest indicators of whether an industry will remain in a region as it grows are if it were founded in the area and if there exists a specialized regional labor market. Regional development strategies that prioritize linking innovation and production are likely to be the most effective growth policies, she says.

An assistant professor in the School of Public Policy, Clark is also a faculty affiliate of the program in Science, Technology and Innovation Policy.

Purchasing and other information are available at www.Routledge.com by searching the book's title.

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