

**Atlanta Commerce Club**

**Thursday, March 4, 2010**

**Dr. G.P. “Bud” Peterson**

**President, Georgia Institute of Technology**

*(As written; not necessarily as delivered)*

Thank you David (Ratcliffe), for inviting me today. David is immediate past chair of the Georgia Research Alliance, and we appreciate his leadership role in that organization. And, Georgia Tech has strong links with the Southern Company.

The Southern Company has probably been Tech’s longest-term employer, since our cooperative education program began in 1912. In fact, there are 16 Georgia Tech co-ops working at the Southern Company now, and there have been 62 in the past five years.

The Southern Company or one of its subsidiaries employs 785 Georgia Tech alumni, as well as about 100 parents of current or former students. We are grateful for our partnership with your company.

Are there Tech alumni here with us today? You are among more than 122,000 living Georgia Tech alumni living and working around the world, including almost half right here in Georgia.

We are always glad to have an opportunity to share some of the incredible things that we’re doing at Georgia Tech.

I understand that next week you’ll be hearing from Renu Kulkarni, who heads up our new FutureMedia effort. Renu will be talking about how the future of digital, social, mobile and multi-media is changing the way we do business. Her presentation is compelling, and I think you’ll enjoy it. Our FutureMedia effort is just one of the many ways Georgia Tech interacts with the business community.

Today I want to talk about the impact of higher education, and specifically, Georgia Tech, on the Atlanta community and the state, and touch on some of the incredible things we’re doing at Tech. We are able to accomplish great things because of our partnership with business, industry and government. The economy is on everyone’s mind.

The state’s budget process is in the news. Because of the significant drop in state revenue, the Georgia state legislature is facing a challenge greater than anything in recent history as they work to set a budget with extremely limited resources to go around. This past week, each of the 35 University System institutions were challenged to come together and find an additional \$300 million in reductions for the System as part of the preliminary FY 2011 budget process. Georgia Tech’s share was \$38 million. That is on top of reductions experienced during the past two years. As a result of the economic crisis, the state contribution to Georgia Tech’s budget over the past two fiscal years has been reduced by more than \$55 million. The proposed additional cut would bring the total budget reduction to \$93 million, for a total reduction of more than 35%.

The budget reduction actions that Georgia Tech proposed are focused on maintaining excellence in academic quality and all that we do to fulfill the mission of a major research university. But it will be at great cost.

Of necessity, the result of the proposed budget cut in compliance with the state request will be to reduce the number of students that can be accommodated on our campus, decrease the revenue brought to the state from grants and contracts, and slow the creation of new jobs resulting from economic development, for which Georgia Tech is renowned.

Our hope is that this worst-case scenario will never become reality, not only for the sake of the people and programs of Georgia Tech and other university system institutions, but also for the state of Georgia.

Our concern is that to enact a cut of this magnitude legislators are considering will sacrifice the state's long-term prosperity to solve short-term problems.

Higher Education is an investment—for the individual, but also in society, and in particular the Atlanta area. Investing in education is a smart thing to do. It is not an accident that the State of Georgia is one of only a handful of states that has two or more public universities ranked in the top 25 by US News & World Report - it's because the people of Georgia, because of the Regents, because of the Legislature and because the leadership of the state all understand the importance of higher education and what it means to the economy, what it means to the development of our human capital, and what it means to the overall welfare of the state of Georgia and to our nation.

Georgia Tech is one of 20 area colleges and universities who belong to the Atlanta Regional Council for Higher Education, or ARCHE. ARCHE did a statistical analysis of how investing in higher education is paying off for Georgia.

Their research found that high school graduates in Georgia earned an average of just under \$36,000, while those earning a bachelor's degree earn over \$70,000. Georgians with bachelor's degrees average twice the income of people with high school diplomas and are half as likely to be unemployed. Higher education yields higher tax revenues. The Georgia average state and local taxes per taxpayer are about \$5,000 for high school graduates and almost \$9,000 for college graduates. More education increases the likelihood of owning a home and decreases the chances that a family will have to choose between paying the rent and putting food on the table.

At Georgia Tech, we have a program based on our commitment that no academically qualified Georgia resident should be denied a Georgia Tech education based on income. Our program is the G. Wayne Clough Georgia Tech Promise, and it has resulted in more than 350 students attending Georgia Tech who wouldn't have been able to do so otherwise. In fact, we just had one of our Tech Promise scholars accepted into law school. These students have been given an opportunity to change not only their lives, but also future generations.

Atlanta-area higher education has a nearly \$11 billion annual impact on Georgia's economy, creating about 130,000 jobs across Georgia from spending generated by Atlanta regional higher education. This includes the institutions, their employees, students and visitors. That's one out of every 25 jobs in the state.

### **Tech's Economic Impact**

Let's talk about Georgia Tech's economic impact.

Through our research and partnership with business and industry, we're an economic engine for Georgia and the Southeast, with an annual impact of more than **\$2 billion**, conservatively. In 2008 alone, Georgia Tech programs helped Georgia companies save or create 20,000 jobs.

At Georgia Tech, we believe that Innovation and technology are going to be the drivers of a diverse and thriving 21st century economy.

Georgia Tech's commitment to cutting-edge research, cultivating dynamic new businesses and providing the intellectual capital required to meet these challenges, continues to ensure that it will be a force for prosperity in metro Atlanta, our nation and the world.

This reputation for vision, knowledge and ambition, while assisting in the difficult economic times and providing momentum to the recovery, will prove even more important as the economy continues to grow.

## **Programs**

We offer a comprehensive array of economic development programs and in fact, we are a national leader among research universities in collaborative research with industry. Georgia Tech research labs produce more than 300 invention disclosures annually and Georgia Tech ranks second in the State of Georgia behind AT&T in terms of the number of patents issued.

Georgia Tech spins off an average of 10 new companies a year based upon technology developed here – significantly more than you'd expect from a university of our size.

Through our **VentureLab**, we identify discoveries and technologies in Georgia Tech's research labs that have commercial potential and begin the process of steering them into the marketplace.

Through our **Advanced Technology Development Centers** – known as ATDC's we developed the nation's first university-based technology incubator and widely regarded as one of the best.

To date, ATDC has incubated more than **120 start-up companies**, and since 1980, its companies have generated about \$13 billion in revenue and more than **\$100 million in profits**, and in just the past decade, ATDC companies have attracted more than \$1 billion in venture capital and incubated a number of companies.

One of these is Suniva, an early-stage company assisted by Georgia Tech, located in Gwinnett County. Using technology developed at Georgia Tech, Suniva became the Southeast's first solar cell manufacturer in early 2009. The company, which is based on long-term research funded by the U.S. Department of Energy, has opened a 73,000-square-foot manufacturing facility in Norcross and has more than \$1 billion in outstanding orders.

Beyond these entrepreneurial endeavors, Georgia Tech helps manufacturers of all sizes access technology they need to become more competitive and create new products to fuel their growth. Georgia Tech is a leader in innovation, and its resources are a powerful selling tool in helping the state attract new business and industry. For instance, access to Georgia Tech was an important factor in the decision by the NCR Corporation to relocate to Georgia.

Tech has had some involvement with NCR for about 15 years, and in fact, their CEO Bill Nuti will be speaking to our graduates this spring. Not long ago we began working with the Georgia

Department of Economic Development in support of their recruitment of NCR's worldwide headquarters from Ohio to Georgia.

Our Strategic Partners office in EI<sup>2</sup> met with their senior leadership and research and innovation experts to determine areas for collaboration.

When they announced last June that they were moving their corporate headquarters to Duluth, NCR said they would partner with the Georgia Research Alliance (GRA) and Georgia Tech's College of Computing, Health Systems Institute, Industrial and Systems Engineering School and the College of Management to keep its management, products and services on the leading edge of innovation.

Now, Georgia Tech is working with the company to set up its new manufacturing plant in Columbus to be as efficient as possible. This new facility will allow the company to manufacture a new line of advanced equipment in the United States instead of overseas.

## **Research**

Another very important aspect of what we do is our research -- Through breakthroughs and new discoveries we're able to help business and industry, and help society solve some of its most pressing problems.

Last spring we opened the Marcus Nanotechnology Building. It is one of the largest facilities of its kind in the world, already attracting companies such as Intel, Hewlett-Packard, and Kimberly-Clark. Nanotechnology is predicted to be as transformative as silicon chip development was in the 1980s and 90s, and with this facility, Georgia Tech will be an epicenter for this technology, redefining the status quo for everything from electronic storage to cancer drug delivery, while shepherding spin-off companies into the surrounding area.

Let me share a couple of other examples of what we're doing:

Several dozen researchers are finding clues and developing solutions to fight the war on cancer. They are contributing expertise in multiple disciplines, including basic cancer biology, the design of new intervention methods, and development of detection and monitoring technologies in bioinformatics, biosensing and bioimaging. Their efforts are being combined with clinicians at Emory University and other medical institutions, such as Memorial Sloan-Kettering in New York—working with all types of cancer patients.

We're working on another step toward repairing spinal cord injuries. Georgia Tech researchers have developed an improved version of an enzyme that degrades the dense scar tissue that forms when the central nervous system is damaged. The new enzyme could facilitate recovery from central nervous system injuries.

Researchers have developed arthritis simulation gloves. You may ask, now why would you want that? The gloves can reproduce the reduced functional capacity of people with arthritis. They're designed to help companies develop easy-to-use products for those consumers.

Georgia Tech professors are frequently the "go to" experts in natural disasters. Georgia Tech professors are lending their expertise in Haiti. Civil engineering professors with expertise in soil dynamics and geotechnical earthquake engineering are making trips to the country to help them determine what will be necessary to rehabilitate the country.

This past Saturday, one of our Civil Engineering professors, Dr. Roberto Leon, provided hours of live commentary on The Weather Channel regarding the impact of the earthquake in Chile and the resulting tsunamis. He was asked to return to The Weather Channel Sunday morning for more of the same.

In addition, Georgia Tech professor Dr. Kurt Frankel, provided expert commentary throughout the day Saturday during CNN's coverage of the earthquake in Chile.

## **Our Students**

You can't talk about Georgia Tech without talking about our incredible students. This fall we welcomed the largest, most diverse, and best qualified freshman class in Tech's history.

This freshman class pushed our total enrollment to over 20,000 for the first time in Tech History. It is interesting to note that women make up about a third of the student body, yet occupy 42% of the leadership positions for our student groups.

We are ranked 7<sup>th</sup> among all public universities in the country and this fall for the first time every one of our undergraduate engineering programs is ranked in the top ten nationally. We are a national leader in graduating minority and female engineers, ranking number one in the number of women and African American engineers, and number two in the number of Hispanic engineers graduated.

In addition to engineering, we also have outstanding programs in architecture, computing, liberal arts, management, the sciences, and architecture.

We've been talking about Tech's impact on the Atlanta area. I want to close with a visual image. Most of Atlanta's skyline can be linked to architecture graduates from Georgia Tech. In fact, it has been said that there is no other city so influenced by one institution.

The Atlanta Business Chronicle's 2008 Book of Lists reports that 13 of the top 15 architectural firms in Atlanta have Tech alumni as managing principals or founders. These firms were responsible for \$3.3 billion (more than 85%) of the construction value of projects done by the top 15 firms. Most of Atlanta's skyscrapers have involved Tech graduates.

Here's a specific example of the impact of two Georgia Tech graduates working together. While working on his Master's Degree in City and Regional Planning from Georgia Tech, Brian Leary wrote his thesis on an idea to take what was then the Atlantic Steel property, and turn it into a work/live/play environment. Tech College of Architecture graduate Charles Brown hired Brian when he graduated. Charles spearheaded the project and got it rolling, bringing in Jacoby Development to partner in the development. The concept became a reality and now Atlanta is the proud home to Atlantic Station. Like most success in life, it is the result of a partnership. Thank you for inviting me to join you today. I am always glad to share how Georgia Tech partners with business and industry to help shape the economic future of our state and our country, and our role in preparing tomorrow's leaders.