REMARKS BY GEORGIA TECH PRESIDENT G. WAYNE CLOUGH
Commerce Club of Atlanta, May 5, 2005

It is a great pleasure to be here and have this opportunity to share a few thoughts with you. I see many of you here and there in the course of my meetings around the community or at football or basketball games, but it's been a while since I've joined you for lunch, and it is an honor to be invited.

As a college professor, I can't resist starting out with a little pop quiz. How many of you knew that:
- Georgia's in-state tuition for public four-year universities is the absolute lowest in the southeast?
- Georgia is expected to be one of the five fastest growing states in the nation in college-bound population?
- Georgia Tech's research enterprise ranks fourth among the nation's research universities that do not have medical schools?
- Georgia Tech was the third highest patent producer in the state last year, behind only GE Energy and Bell South?
- Georgia Tech has campuses on two other continents?

These factoids illustrate some of the points I want to make in helping you become better informed about Georgia Tech and helping you understand why it is important for you to know more about Tech.

Last fall it was ten years since I returned to Georgia as president of Georgia Tech, and it has been exciting to watch Atlanta grow and mature over the course of the past decade. Perhaps the most obvious change has been population growth of almost 40 percent. Between 1990 and 2000, metro Atlanta added more people than 44 of the 50 states. The metro area had the largest rate of in-migration in the country with the nation's fastest and second-fastest growing counties – Forsyth and Henry.

All of these new folks are helping to make Atlanta smarter. According to the *Philadelphia Inquirer*, Atlanta has become one of the nation's smartest cities, behind only Washington, D.C. and San Francisco. Thirty-six percent of metro Atlanta's population now holds at least a bachelor's degree.

Atlanta has also become more diverse and more international in its character, with the 1996 Olympics giving us an extra nudge in this direction. Not only are we attracting people from all around the world, but the Metro Atlanta Chamber of Commerce lists 26 pages of international businesses in the metro area – from Bosnia to Bolivia, from Israel to India, from China to Canada.

One of the most important factors in attracting all of these people is Atlanta's vibrant economy. The metro area has 120,000 businesses that created more than 684,000 jobs during the past decade – leading the nation in job creation. We are number three among the nation's cities in the

number of Fortune 500 companies located here. Many of these companies and jobs are in the high-tech sector. According to the Milken Institute, Atlanta is one of the nation's top ten tech centers. And a *Newsweek* study put us among the nation's five fastest growing high-tech metro areas.

Georgia Tech has followed a parallel path over the past decade. Just like Atlanta, we've grown in size. When I arrived in the fall of 1994, we had fewer than 13,000 students. Today we have nearly 17,000. And just like Atlanta's residents, they are smarter. The average SAT score for our freshmen puts Georgia Tech among the top three public universities in the nation.

Tech has also become more diverse. Not only are we a national leader in graduating women and minority engineers, but we are the most internationally oriented of any of Georgia's universities. We have a large number of international students here in Atlanta, and we have full-fledged education and research platforms in Metz, France, and Singapore. Students can earn Georgia Tech degrees on these campuses without ever setting foot in Atlanta. And we are exploring similar platforms in Bangalore, India, and Shanghai, China.

Our Atlanta-based students are also studying abroad in record numbers. By the time they graduate, a third of our undergraduates have participated in a study abroad program or an international internship or co-op assignment. This is a large percentage for any research university, and is especially large for a technological university.

We also conduct more than $400 million in research each year, which as I already noted, is an exceptional level for a university that does not have a medical school. Last year, our research enterprise produced 277 invention disclosures, 22 software licenses, and 36 patents – twice as many as Emory University, four times more than the University of Georgia, and more than all but two of Georgia's businesses.

We have a special program called VentureLab that identifies discoveries and new technologies from our research efforts that have commercial potential and guides them through the early stages of the commercialization process. As a result, we were able to spin off 15 new start-up companies last year – about three times more than would be expected from a research enterprise of our size.

As you can see, Atlanta and Georgia Tech have followed a similar path over the past decade – growing in size and sophistication, and emerging as global centers of technology. However, we both face critical challenges if we are to continue our forward momentum.

In an effort to regulate growth, local governments across the metro Atlanta region have mandated large lot sizes, which has diffused the growth, so that the metro area has become the poster child for urban sprawl. Traffic has grown increasingly congested. By the year 2000, the average metro Atlanta household was wasting 36 minutes a day sitting in traffic jams. Air quality has also suffered, to the detriment of our health and our federal transportation funding.

Atlanta also has the smallest water source of any of the nation's major cities, and we have a lot of competition for it from neighbors downstream. We have a major sewer system overhaul

underway, but we are still hurt in our water negotiations with Alabama and Florida by the reliance of too many metro area residents on septic tanks. Waste water that goes into septic tanks rather than being treated and released back into its source river is lost to use, and that drives up our consumption rate.

Atlanta does not have enough land, water, or money to continue to grow for the next decade in the same way it has over the past decade. The metro are must change its ways if it is to continue to grow and prosper. And it is gratifying to see the Atlanta Regional Commission, Mayor Franklin, and other regional leaders seriously grappling with these issues.

Georgia Tech also has challenges to overcome of we are to continue our forward momentum. Our state funding has been dwindling over the past decade, shrinking from 34 percent to 25 percent of our budget. At the same time our enrollment has grown by more than 30 percent. Most of our state funding goes to offset the cost of a lower tuition rate for in-state students. However, even as it has been cutting back state funding, the Georgia General Assembly has protested tuition increases. As I mentioned at the start of my talk, our in-state tuition rates are now artificially low, and we have been forced into a position of educating more students with less money. Our class sizes have grown, we have had to restrict our course offerings, and many of our premier faculty are being lured away to places like MIT, Stanford, and Harvard.

We have also lost state funding that subsidized our economic development activities like the Advanced Technology Development Center, which is our business incubator, and the Economic Development Institute.

As a result, Georgia Tech has had to seek out other resources and funding sources to help us continue our quest for excellence. And we are determined to do that. We have come a long way, developing first into a very good regional university for the South, and then into one of the top ten public universities in the United States. And we are committed to continuing our forward momentum.

Tremendous opportunities and potential lie head of both Atlanta and Georgia Tech – if we are able to overcome the challenges that face us. A recent study conducted by the University of Pennsylvania with the Lincoln Institute of Land Policy and the Regional Plan Association of New York projects the emergence of super-cities that will come to dominate the nation's economy over the next 50 years. If we can do a better job of managing and directing growth and development, Atlanta can emerge as the heart of the South's super-city region.

But we cannot do it solely on the basis of being a transportation, and a sales and distribution center as we have been over the past century. To be a leader in the innovation economy of the 21st century, metro Atlanta must become a vibrant hub of science and technology. The metro area also needs to support its primary institutions, including Georgia Tech and its other educational institutions. Atlanta will never realize its potential for greatness if its institutions are allowed to languish in mediocrity.

Georgia Tech has a similar opportunity to emerge as one of the world's truly international universities. Our goal is to define the technological university of the 21st century, so that we

become a model that others want to emulate, and the place they look to discover what the next new thing is going to be. And that goal has a significant impact for Atlanta.

Georgia Tech's effort to define the technological university of the 21st century is one of the driving forces in Atlanta's emergence as a high-tech center. First and foremost, we educate a world-class technological workforce, many of whom remain in Atlanta, contributing to the growing educational level of the metro area and its technology-based industries.

Second, as I already mentioned, we spin off an unusually high number of start-up companies. Many of them go into incubation in Georgia Tech's award-winning Advanced Technology Development Center, which is the nation's oldest university-based business incubator and one of its best. When the Atlanta CEO High Tech Council held its annual investor showcase last fall, 40 companies applied to make presentations. The 13 companies who were selected included five who were in incubation at ATDC.

ATDC has nurtured some 130 start-up companies over the past 25 years, and collectively they employ 4,300 workers and generate more than $1.75 billion in revenues a year. ATDC has a new headquarters with more incubation space at Georgia Tech's Technology Square, which expands our campus across the downtown connector and into the heart of Midtown Atlanta's high-tech business community. Here you will find Georgia Tech's business education and service programs – from ATDC and the Economic Development Institute, to the College of Management and our professional education programs.

Technology Square has also attracted several other important tenants. The State's Economic Development Department and Quick Start programs are now located there, as is Georgia Power, the Georgia Economic Developers Association, and the Georgia Electric Membership Corporation. With the help of Technology Square, this part of Midtown Atlanta is rapidly becoming a high-tech hub for the city and the state.

We are also helping to drive Atlanta's emergence as a biotechnology hub through our partnership with Emory University. Georgia Tech and Emory's unique joint academic department of biomedical engineering is one of the top three programs in the United States. It offers degrees at the bachelor's, master's and Ph.D.-M.D. level, and has one of the nation's leading research programs. We have the nation's first and only national center of excellence in the engineering of living tissues, and our joint faculty includes some of the world's leading pioneers in the application of nanotechnology to medicine.

Efforts like these not only contribute to Georgia Tech's excellence as an institution, but they also promote Atlanta as a technology hub. There is no question that Atlanta is emerging as one of the nation's top technology centers, but we are missing pieces that need to be put into place if we are to continue our progress. One of these missing pieces is technology parks. Unfortunately, we are not in the same position as Stanford University, which was surrounded by plenty of open land when it started what became Silicon Valley. But we can develop a series of smaller parks around our university campuses in Atlanta.

Georgia Tech is leading the way. We are developing a Technology Enterprise Park on the southwest side of our campus, between our campus and the new Atlanta Aquarium. We have also joined with Emory to create Em-Tech Biotechnology Park on what used to be the campus of the old Atlanta Regional Mental Health Center. Georgia State is also talking about a small technology park near their campus. These are just the start of what needs to be a network of technology parks around the city.

As these examples illustrate, Georgia Tech has goals that are similar to metro Atlanta's as well as tremendous advantages to offer the metro area. The State of Connecticut recently released a study called "Accelerating Economic Development Through University Technology Transfer" which ranks Georgia Tech among the nation's best universities in generating economic development. The study indicates that a key to using technology transfer from a university to drive economic growth is strong relationships between the university and local and state governments and between the university and the business community.

Georgia Tech's future is intertwined with metro Atlanta's and with Atlanta's business community. If both Atlanta and Georgia Tech are to realize our full potential, then we need to learn more about each other, communicate more, and work closer together to bring align our resources and our efforts into alignment.

At Georgia Tech we like to say that we don't wait for the times to change us, we change the times. We want to be out on the leading edge, developing the innovative ideas that will shape the future. If we have the support and help of Atlanta's business leaders, and if we work together to align our efforts and our goals, then Atlanta will be out there on the leading edge as well, leading the way as the super-city of the South.