Good afternoon. It is a pleasure to address a group of Atlanta’s top performers – the Pace Setters.

Today, I'd like to share with you some thoughts about Georgia Tech’s future and the strategy we have developed to get there. Now, I don’t expect that our strategy for the future is inherently interesting to everyone here today, but to sweeten the pot, I am going to try to demonstrate why our future is integrally linked to Atlanta’s and Georgia’s. That is a larger kettle of fish we can fry together.

Let me begin by putting Georgia Tech’s cards on the table. Our aspirations are high since we plan to become one of the small number of institutions of higher education in the future that are known worldwide for their quality and impact. Sounds ambitious, but Georgia Tech is already ranked by U.S. News and World Report as one of the top fifteen public research universities in the nation. We also have a full campus operation in Metz, France and dozens of joint programs and linkages with universities around the globe. So we are on our way. Does this make sense for Atlanta and Georgia? Yes. The Olympics were designed to put our stamp on the world that we are an international city and that this state intends to be one of the major competitors in the global economy. But, to be a major player in the global economy, Atlanta has to become known as one of the high tech capitals of the world. Why is this so? Consider the following:
• Fully 50% of our nation's economic growth of the past five years has come from the information, computing and telecommunications technology fields.

• The importance of information/computing and telecommunications is predicted to grow in the future.

• Jobs in this area pay almost twice those of other service or manufacturing areas.

Clearly, we don't want to miss out on this segment of the economy since it is enormously important. Clearly we want our children to have the opportunity to participate in it. The good news is that we are on our way since a recent study showed that Georgia had the largest growth of high tech jobs in the nation last year. This was no accident, as I will attempt to explain in my remarks.

Let's go back to our goals and talk about the strategy for reaching them? Georgia Tech can do a lot on its own, but we cannot do it by ourselves. The right model is one involving a collaborative effort with our community and state, and our fellow institutions of higher education. There are examples that we can look to for guidance.

Throughout the nation, high-growth, high-tech areas are found where top research universities working with communities with a quality of life growth attitude come together. Examples of successful partnerships include North Carolina's Research Triangle centered around Duke, North Carolina and
North Carolina State; and of course, Silicon Valley and Stanford and Berkeley.

I spent my early career from the mid 1960's to 1980's in California at Berkeley and Stanford as well as five years at Duke University, and witnessed firsthand the collaborations between these research universities and the cluster of innovative companies that became known as Silicon Valley and the Research Triangle. While we can learn from these examples, our situation is not the same and we have to define our own course.

We face issues that others have not.
1. We don't have the land that was abundantly available in Silicon Valley or the Research Triangle;
2. These areas did not attempt to accomplish their economic miracles while dealing with issues related to poverty, crime or urban decay;
3. Our universities are veritable newcomers to the research game when compared to Berkeley, Stanford and even UNC and Duke;
4. Finally, until recently, we did not have a strategy or a driving vision that characterized the growth of the Silicon Valley or Research Triangle.

Yet none of these disadvantages need stop us from creating our own miracle if we take the right approach. The key elements include:
1. A set of robust and growing research universities that are willing to work together;
2. A coordinated, innovative and well-planned regional and state economic development strategy that builds on the strengths of the research universities;
3. Effective university outreach programs;
4. Committed and farsighted governmental leadership. To some extent we have these things, but work and a bit of luck will be needed to complete the recipe.

Let’s begin by looking to our research universities. In today’s knowledge-driven industry, access to new information and the brightest faculty and top students are the keys to the kingdom. In Georgia, Georgia Tech, along with Emory and UGA, are Carnegie I Research Universities, with each of us now having research budgets in the top 50 in the nation. As of the latest count, Tech’s is 27th nationally, the largest in the state. We arrived at this point to some extent on the backs of individual effort by each institution. However, success in the future requires a willingness to work together and to use our joint strengths rather than competing needlessly and duplicating programs.

In the early 1990’s a few farsighted business men and university and government leaders understood this issue and created a crucial element in the strategy, the Georgia Research Alliance (GRA). GRA is built around a partnership between government, industry, and research universities. To access the support of the GRA, we have to undertake collaborative efforts and seek to leverage GRA funds with those from other sources. A key to the investment strategy is in creating the environment to help us attract the top people in the nation to our universities. (Mention Bill Todd and Mike Cassidy). Having been in a number of areas in our nation with high tech economies, I have no hesitation in stating that the GRA is the best model for a collaborative research between universities, government and business I have ever seen. Today, the state has invested $200 million in state funds and
seen a return of upwards of $750 million in funds from private industry and the federal government.

An example of good practice can be found in the biotechnology collaboration between Georgia Tech and Emory. This landmark effort brings together the top engineers, and scientists and computer specialists at Tech with the top medical minds at Emory. While we have had joint research efforts for a number of years, we recently created a joint Biomedical Engineering Department between the two schools with shared faculty and degree programs. Current research projects are aimed at the following:

- Growing new arteries to restore vitality once lost to a human heart;
- Reducing or eliminating the tragedy of Alzheimer's and Parkinson's diseases;
- Creating a bioartificial pancreas for diabetes sufferers as an alternative to insulin; AND
- Helping defeat cancer and sickle cell anemia.

Our efforts with Emory are being undertaken just in time to take advantage of what is estimated to become a $600 billion industry in about ten years.

At Tech we have underway, or have near-term plans, for three major buildings to support our goals in biotechnology. This complex is underway with the construction of our new biotechnology building, to be followed by a building for environmental science and technology and one for molecular design and materials sciences. This complex will also include a business incubator to stimulate development of biomedical companies in Georgia.
Allied to this will be our new Advanced Computer Technology Building to address the astounding growth in information technology. We plan to double the size of our computer science and computer engineering programs by 2005. Over the next six years, the total investment for all four of these buildings will be in the range of $170 million, with upwards of $60 million of this being derived from non-state funds.

Our biotechnology initiative is new and exciting, but it represents just one of the many thrusts underway at Georgia Tech that relate to the vitality of our economy. Work underway on our campus in microelectronics and telecommunications laboratories is truly world-class. You only have to look to the GCATT Building where you will find centers that are the best in the nation in broadband technology, digital signal processing, electronics packaging, and computer visualization.

Ok, this is good for Tech, but how does this fit our economic model? Think back to last year and recollect the following business news items:

- Lucent decides to double its fiber plant size in Norcross;
- Lucent begins to relocate its entire wireless research division to Atlanta – a process started by locating 50 top researchers in the GPTV Building here in Midtown, and soon grow to 500 in a facility yet to be chosen;
- AllTell announces they are moving a significant operation to Atlanta that will bring 1800 new jobs;
- Motorola and Lucent announced their intent to create a high-end chip design facility here.
• Finally, Ciena, one of the wonder companies of the internet has chosen Atlanta for their southern technology operations.

These decisions were not make by luck, or on the basis of Atlanta being a great place to live. A key factor in all cases was the presence of top research faculty and highly educated young people to help drive the developments of the future. These success stories also were driven by the other pieces of our economic development picture that I will now address.

I have mentioned the universities and the GRA as important parts of the model I have in mind for economic development. But there is more to make it truly effective. Recently, the Metro-Atlanta Chamber of Commerce wisely took a bold step towards this strategy by choosing to target select industries, "industries of the mind", to offer Atlanta the most promising opportunities for quality jobs. Along with 29 others, I was privileged to serve on the Chamber's "Dream Team" and helped select those industries that will best help Atlanta to move forward.

The industries selected are:

• Telecommunications;
• Computer-Related Services/Software
• High-tech Manufacturing; and
• Biotech/Biomedical
It is no accident that these categories easily tie in to Georgia Tech's research and academic strengths and link to the emphasis areas of the GRA.

In addition to the Metro Atlanta Chamber of Commerce, Georgia Tech also is working closely with the Georgia Department of Trade, Industry, and Tourism, Georgia Power, the City of Atlanta and the Georgia Chamber of Commerce to promote the vision of Georgia and Atlanta as an area where high tech thrives.

The final piece in the equation is having the ability to grow our own companies. After all, Hewlett-Packard, National Semiconductor, and Microsoft are all start up companies. We can and should grow our own if we are truly shooting to be at the leading edge.

Thanks to a visionary decision by Governor George Busbee, Georgia Tech became home to what is now the number-one ranked business incubator in the country, the Advanced Technology Development Center. ATDC was founded in 1980 to stimulate the technology base here in Georgia. Companies participating in ATDC, past and present, employ more than 2,000 people and generate over a quarter billion dollars in annual sales. Graduate member companies, include MindSpring and Theragenics.

Recently, ATDC has begun spreading its wings through the incubator added into the GCATT Building and our plans are to create franchises in other areas of the state to support specific objectives of the GRA.
Conclusion

So, we have many of the key elements needed to make our vision a reality. I believe that if we use a carefully designed strategy Atlanta can become one of the high tech meccas in the nation. In the process we can create a high quality of life for our citizens and a great future for our children. There is already evidence that the strategy is working. According to a report by the American Electronics Association, the number of high-tech businesses in Georgia has more than doubled since 1990 and high-tech workers number 125,000.

Still much remains to be done, and there are problems to be overcome. You have our commitment Georgia Tech will do its part to make it happen, and we look forward to working with our friends and allies to complete the job.

Thank you.