Georgia Tech—Achievements, Challenges, and Impacts

Presentation to Incoming Georgia State Legislators

by G. Wayne Clough President Georgia Institute of Technology

January 15, 1997

Basic Information

- Founded in 1885 by an act of Georgia State Legislature
- 12,985 students: 9,469 undergraduate, 3,516 graduate
- Entering freshman class: 66% Georgia residents, 70% male, 30% female
- Five colleges: Engineering, Architecture, Computing, Science, and Ivan Allen College of Management, Policy, and International Affairs
- 350 acre campus; 169 buildings

1996 Rankings and Recognitions

- U.S. News & World Report ranked as one of top 50 universities in nation
- Money ranked as 15th best value out of 1,015 universities and colleges
- U.S. News & World Report 14 graduate programs ranked in top 25
- Advanced Technology Development Center (ATDC) wins best national incubator award
- Engineering Degrees in 1995
 - 1st in # bachelor degrees 1257
 - 1st in # total degrees 2031
 - 1st in # degrees to women 418
 - 1st in # graduate degrees to African Americans 57

1995-96 Student Achievements

- Honor Code implemented
- Freshman class rated best in country for public universities
- Record participation in Co-op program
- Average SAT score for entering freshmen rises to 1309

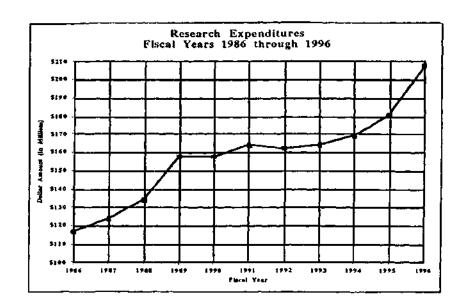
1995-96 Faculty Achievements

- Two new NAE members; 14 total (ranks sixth nationally)
- Six new NSF CAREER awards (see table on next page)
- 1995-96 research expenditures: \$210 million; top 30 nationally (see plot on next page)

Olympics

- Served as Village and site of 5 venues
- Infrastructure residence halls, sports facilities
- Neighborhood improvements
- Publicity national and international
- Goodwill

NSF CAREER Awards	
Peer Institutions	<u>#_of</u>
Fiscal Years 1995 and 1996	<u>Awards</u>
Massachusetts Institute of Technology	17
University of Illinois-Urbana	17
Georgia Institute of Technology	13
Carnegie-Mellon University	13
Pennsylvania State University	13
Purdue University	12
University of Michigan-Ann Arbor	12
University of Minnesota-Twin Cities	11
University of Wisconsin-Madison	10
Northwestern University	9
University of California-Berkeley	9



Facilities Study

- Engaged top consulting team
- Tech facilities in poor condition relative to other schools
- \$130 million deferred maintainance
- Need to add another \$350 million in new buildings/renovations

GRA Investments

- Partnership of research universities, state government, and the business community
- Investments pay dividends in research and economic development
- 6 Georgia universities working together
- 22 scholars funded, 6 at Georgia Tech
- Total state funds invested: \$126 million (through 1997)
- Non-state matching funds at a ratio close to two to one
- GRA research center at Tech: GA Center for Advanced Telecommunications Technology

Looking Ahead

- Implement strategic plan
- Address facilities/equipment issues
- Develop master plan for campus
- Achieve 1996-97 Capital Campaign goals
- Personalize undergraduate educational experience
- Enhance distance/on-line learning opportunities

Looking Ahead—Special Initiatives

- Educational technology
- New ventures in entrepreneurship
- Information technology
- Biotechnology
- Sustainable/environmental technology
- Manufacturing
- Telecommunications
- Sam Nunn School of International Affairs

Economic Impact - Technology/Universities

 "Firms that use advanced technologies are more productive, pay higher wages, offer more secure jobs, and increase employment more rapidly than firms that do not." "Building The American Dream for the 21st Century," US Dept. of Commerce

"...as much as 50% of the nation's post-war economic growth is related to the development and use of technology."

"Building The American Dream for the 21st Century," US Dept. of Commerce

 "Growth companies with university ties have productivity rates almost two-thirds higher than peers

Coopers & Lybrand

Economic Impact — Georgia Tech

- A Research University with a Difference
 - Georgia Tech Research Institute (research, training, continuing education)
 - Economic Development Institute (tech transfer, stations state-wide)
 - Advanced Technology Development Center (incubator)
 - Continuing/Distance Education
- Tech spin-offs
 - Technology Park
 - Scientific Atlanta
 - The Portman Companies
 - Healthdyne
 - AppleSouth
- Citations

- "Surveyed executives ranked Atlanta high, but education levels and quality of the work force helped keep it just out of the top 10. Creative programs like those run at Georgia Tech give business a look at scientific advances." *Fortune*

- "(Georgia Tech)"... certainly was one of the main reasons we decided on Georgia."

Terry Collins, plant manager, Evenflo

- "The textile industry, Georgia's largest manufacturing employer, relies heavily on Georgia Tech's engineering expertise to develop manufacturing processes and products that ensure it will remain globally competitive." Roy Bowen, executive vice president

Georgia Textile Manufacturers Association

- "The work performed at GTRI (Georgia Tech) is forming the building blocks of basic understanding from which we can engineer the improvement of our vehicles' sound quality."

William Quinlan, manager of Aerodynamics Design Engineering, Ford Motor Company