



University of Central Florida

Targeted Programs

***Computer Science, Information
Technology, Electronic Media,
and Simulation***

John C. Hitt
President

Board of Governors, September 15, 2005





Computer Era

Anything that can be automated will be.

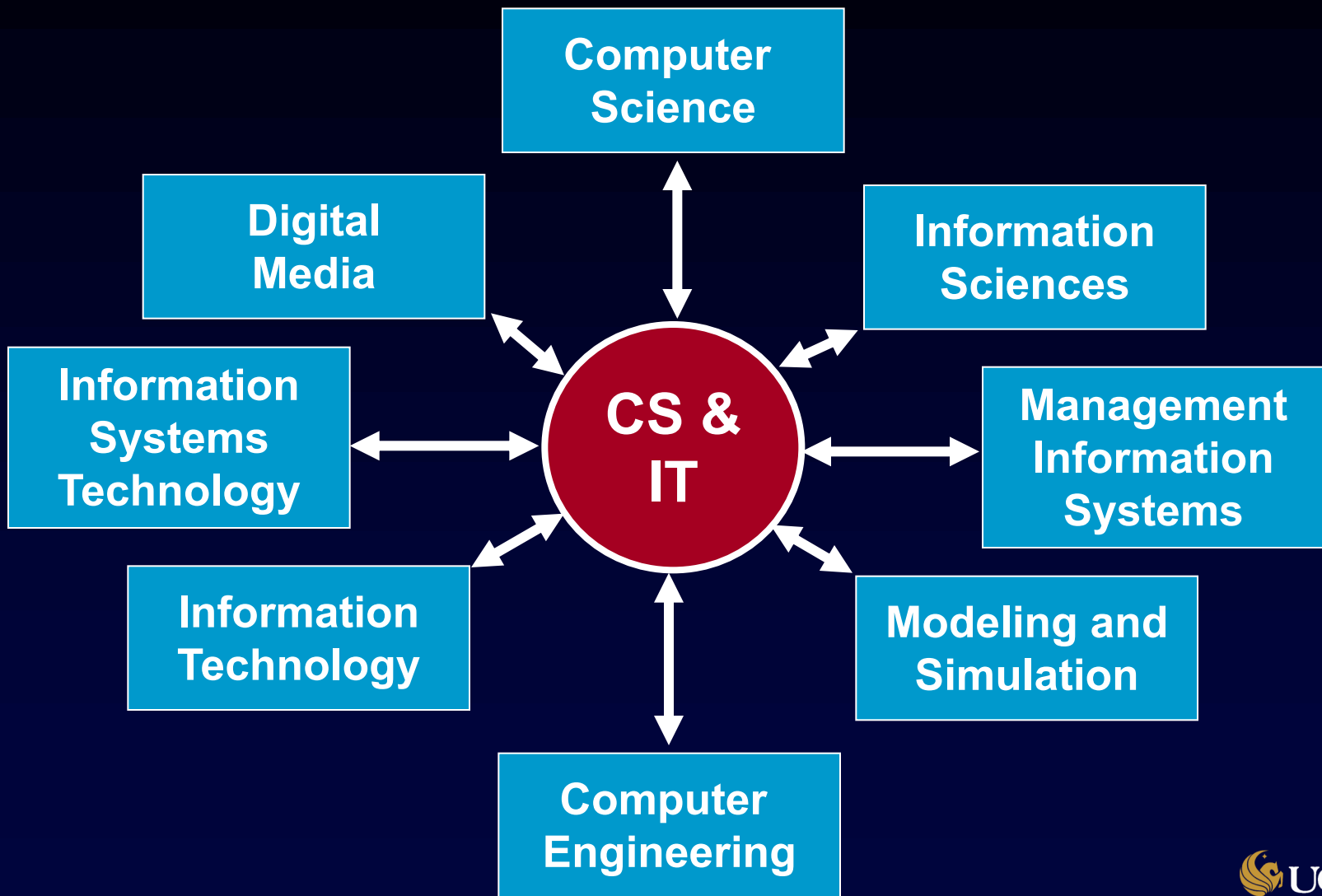
Frank Levy, MIT, co-author,
*The New Division of Labor: How Computers are
Creating the Next Job Market. 2004.*

Source: Matthew Benjamin, "Career Guide 2005," *US News*.



Emerging Technologies

CS & IT





Previous Presentations to BOG



Nursing



Education



Engineering





Today's Presentation



Modeling and Simulation, Digital Media, Information Technology, and Information Systems Technology



Computer Science, Information Sciences, Management Information Systems, and Computer Engineering





The Job Market in CS and IT

- false perception that job opportunities are scarce since dot.com collapse
- 91% increase in BS degrees from 1997-2002

BUT

- 60% decline in enrollment in last 4 years
- federal job forecasts indicate increasing demand
- fewer US graduates > more reliance on employees from overseas



National Need in CS & IT

- graduates work in wide range of jobs
- over 979,000 jobs in 2002, including 89,000 self-employed
- employment projections higher than the average of all occupations
- 14% annual employment growth for IT security experts

Sources: U.S. Dept of Labor Statistics, Network World Fusion, and Urban Institute



Average B.S. Starting Salaries

computer scientist	\$40,000-\$52,000
wireless network administrators (with experience or certification)	\$48,000-\$70,000
hardware design & development	\$45,900
software design & development	\$45,600
information systems	\$41,600

Sources: collegegrad.com; Kim Clark, "Fast Rack Careers," *US News* 



Modeling and Simulation in Florida

- Central Florida's simulation industry has largest concentration of simulation business in the world
- 304 companies
- 16,000 employees with average salary over \$72,000
- 47,500 related jobs
- over \$1.06 billion direct payroll

Source: 2004 report of National Center for Simulation



Modeling and Simulation Graduate Degree Programs

- currently offered only at UCF in Florida
- very rapid enrollment growth with minimal formal advertisement and recruitment
- backlog of students from military simulation agencies and companies
- multiple requests to deliver the program off-site and by distance education



Management Information Systems

- high demand for MIS graduates
 - 10.5 million information technology workers nationwide
 - 200,000 MIS professionals in Florida
 - 30,000 in the Orlando Metropolitan Region
- enrollment drop in last three years
 - stricter admission requirements
 - perception of off-shore outsourcing
 - sluggish economy



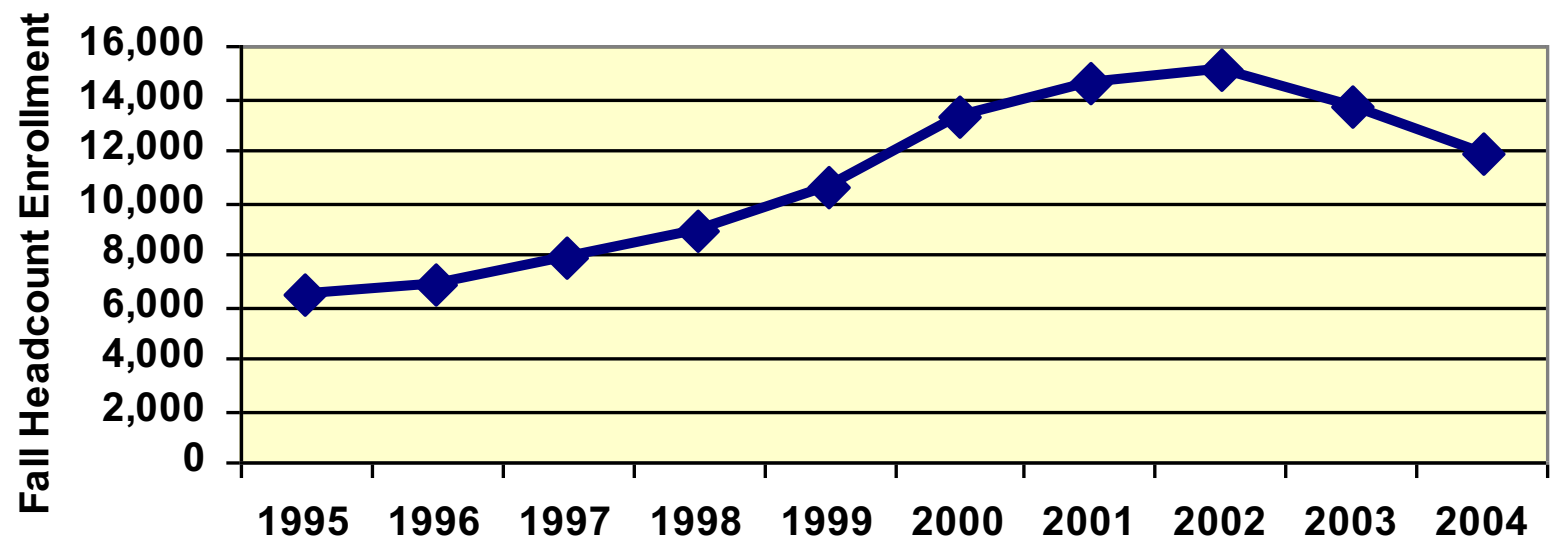
Digital Media

- programs offered at UCF and UF
- 28 gaming companies in Orlando
- 42,000 jobs in film and digital media in Central Florida
- 5,000 new jobs expected in video gaming



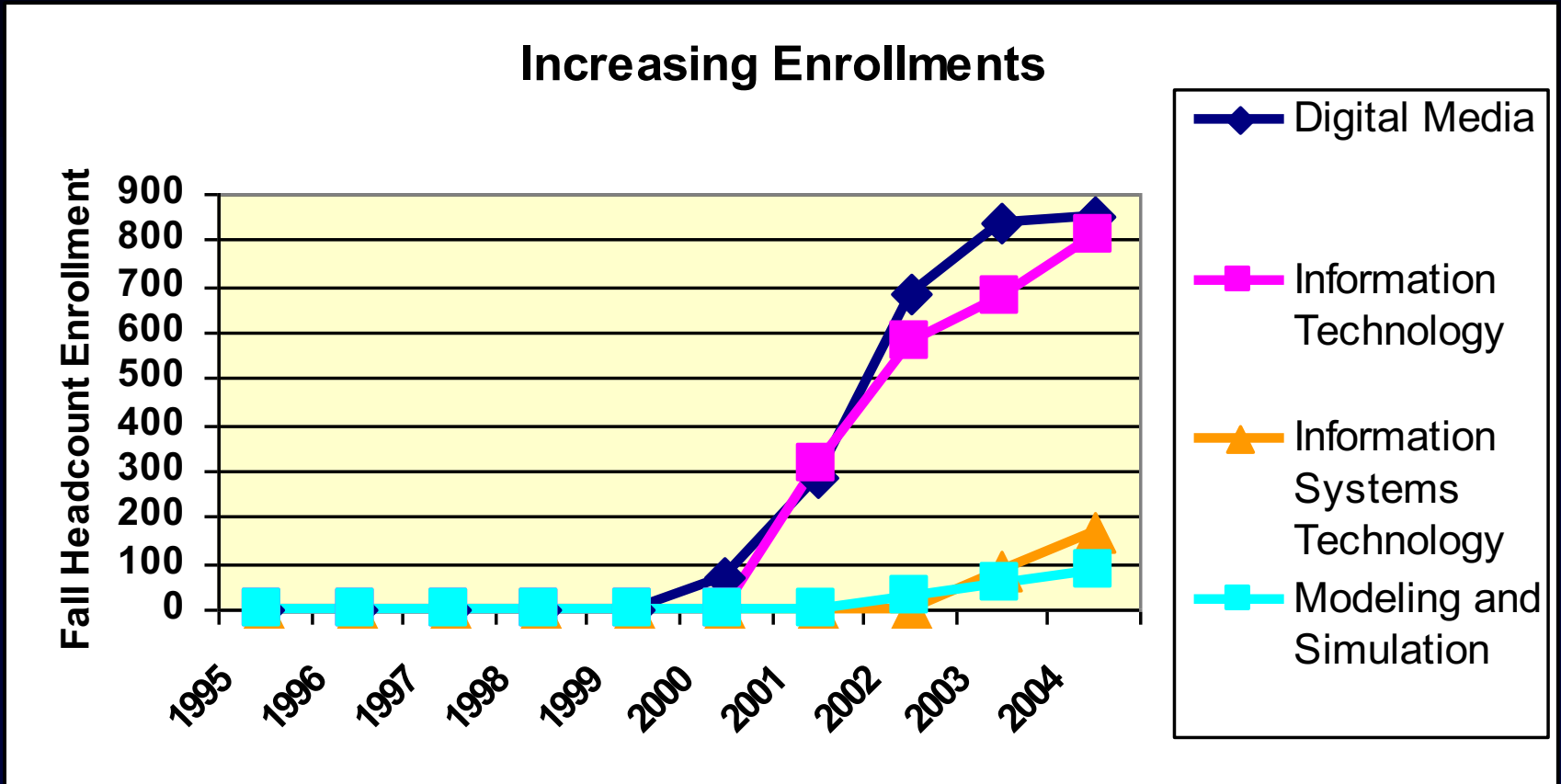
SUS Enrollments in Targeted Group Declining Overall

Emerging Technologies: Computer Science and Information Technology





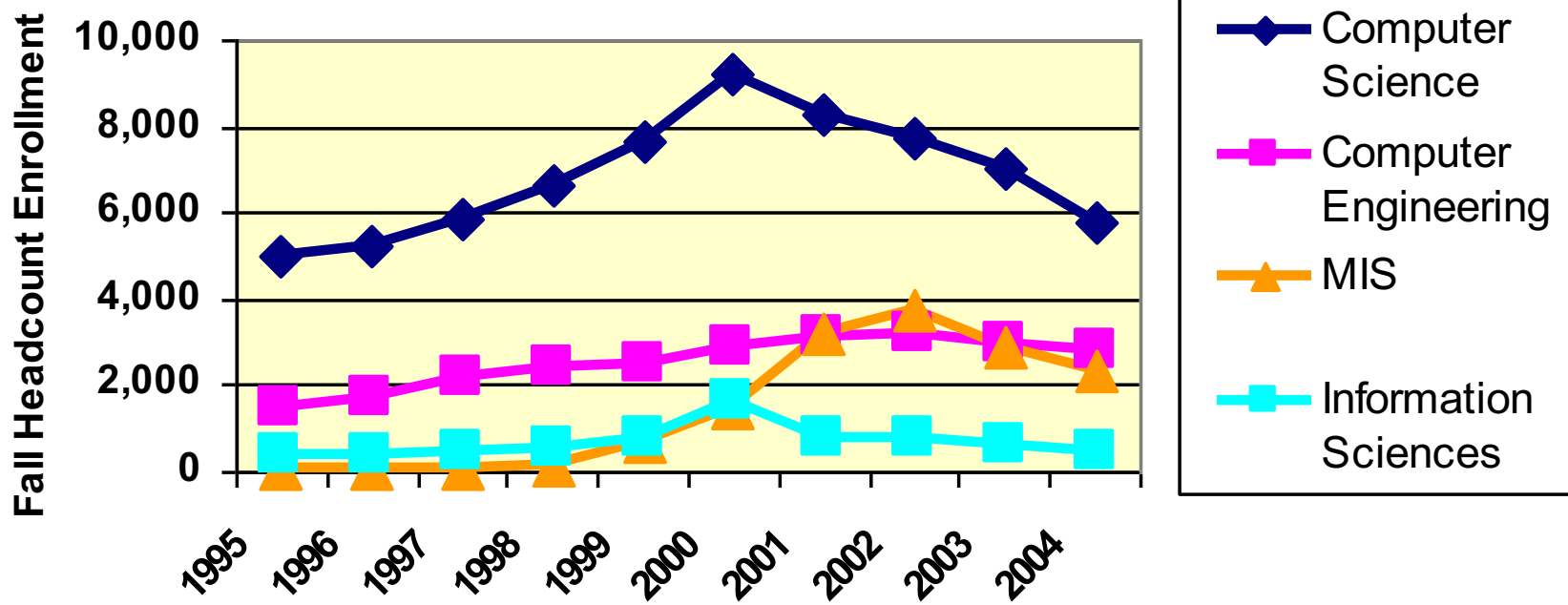
SUS Enrollments Increasing in Specialized Disciplines





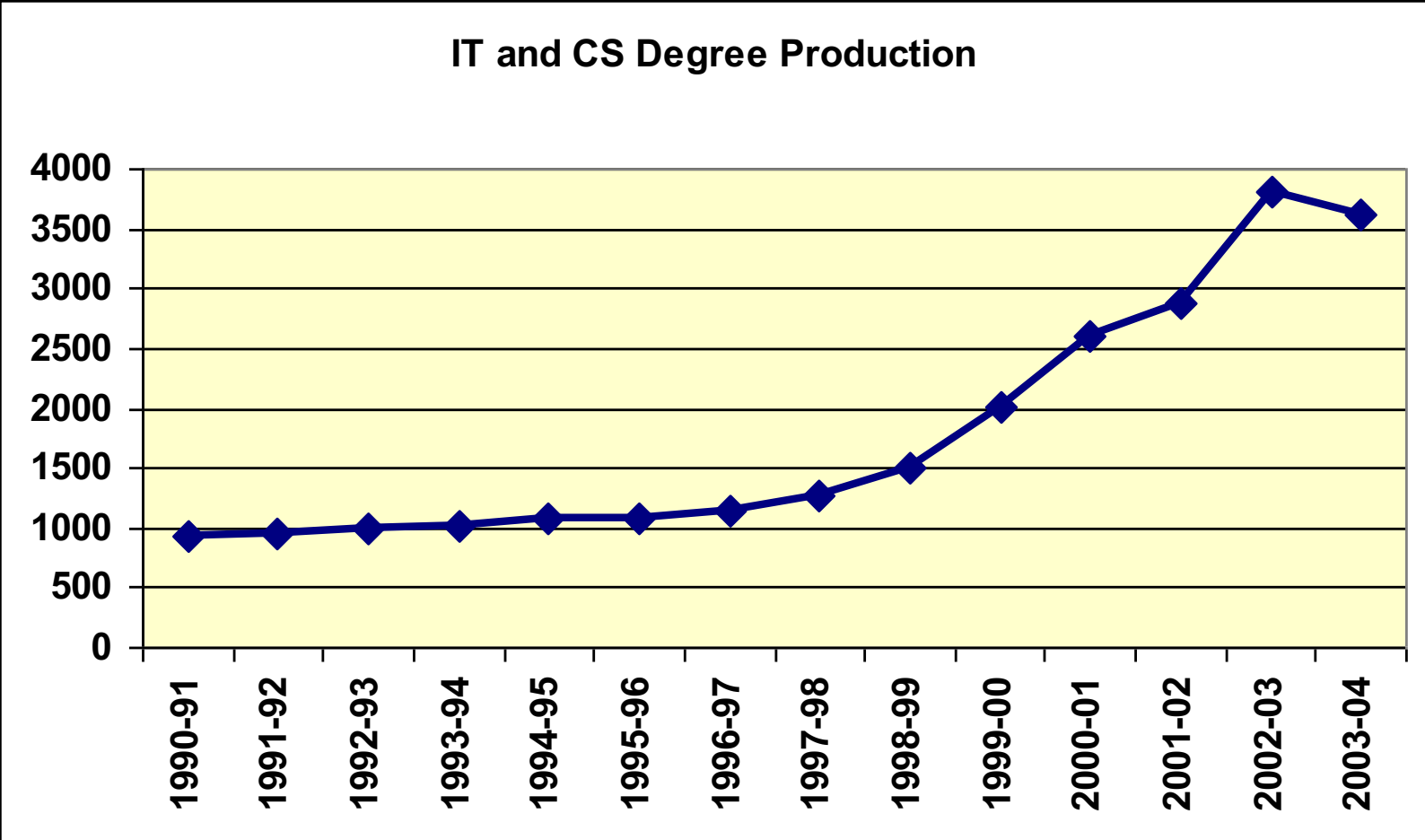
SUS Enrollments Declining in More Traditional Programs

Declining Enrollments





Degree Production





Challenges

- declining enrollments: computer science, information sciences, computer engineering, and management information systems
 - negative perception about job market
 - problem of attracting and retaining qualified students
- very rapid enrollment growth in digital media, information technology, information systems technology, and modeling and simulation
 - insufficient number of qualified faculty
 - insufficient facilities and resources



Potential Solutions

- declining programs
 - provide accurate information about job outlook
 - improve computer science preparation in K-12
 - develop recruitment programs for qualified students
 - institute special retention programs
- growing programs
 - increase enrollment growth funds
 - increase targeted growth funds



Summary



Modeling and Simulation, Digital Media, Information Technology, and Information Systems Technology



Computer Science, Information Sciences, Management Information Systems, and Computer Engineering

