

# High Tech Industry in Georgia

presentation to the  
General Assembly Budgetary  
Responsibility Oversight Committee

Georgia Tech President G. Wayne Clough  
January 24, 2003

# High-Tech Drives the Economy

Compound Annual Growth Rate, 1976-2001

<b>1. Computer and data processing services</b>	<b>11.7%</b>
<b>2. Electric components and accessories</b>	<b>10.9%</b>
<b>3. Communications equipment</b>	<b>10.5%</b>
<b>4. Motion pictures</b>	<b>7.4%</b>
<b>5. Computer and office equipment</b>	<b>7.2%</b>
<b>6. Drugs</b>	<b>5.4%</b>
<b>7. Telecommunications services</b>	<b>4.7%</b>
<b>8. Medical equipment, instruments, and supplies</b>	<b>4.7%</b>
<b>9. Research and testing services</b>	<b>4.3%</b>
<b>10. Engineering and architectural services</b>	<b>3.1%</b>
<b>11. Measuring and controlling devices</b>	<b>2.4%</b>
<b>12. United States economy</b>	<b>2.4%</b>

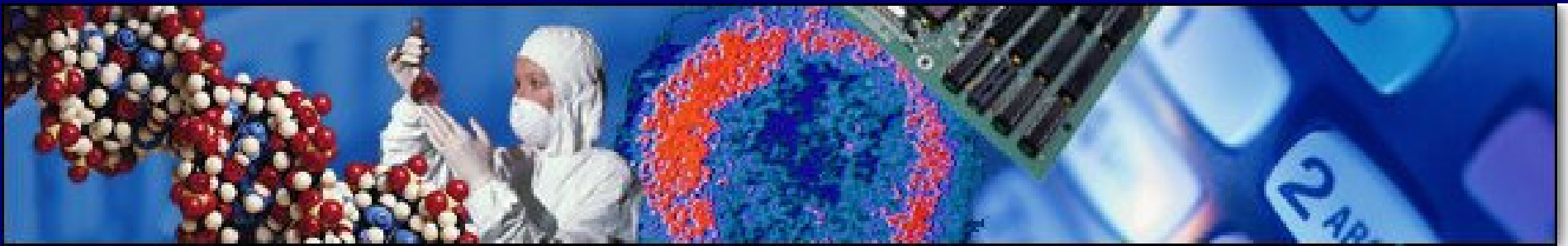
# Productivity

- Value of goods and services per unit of labor and capital investment
- Traditional view: improve productivity by cutting costs
- High-tech industry: improves productivity by adding value to goods and services

# Defining High Tech

High-tech companies develop and market innovative new technology that either creates a whole new industry or lifts an existing industry to a new technological level.

# Georgia's Strategic High-Tech Investments



GEORGIA RESEARCH ALLIANCE

# Milken Institute Technology and Science Index

## → 5 Factors considered:

- Research and development inputs

- Venture capital and start-up infrastructure (#7)

- Human capital investment

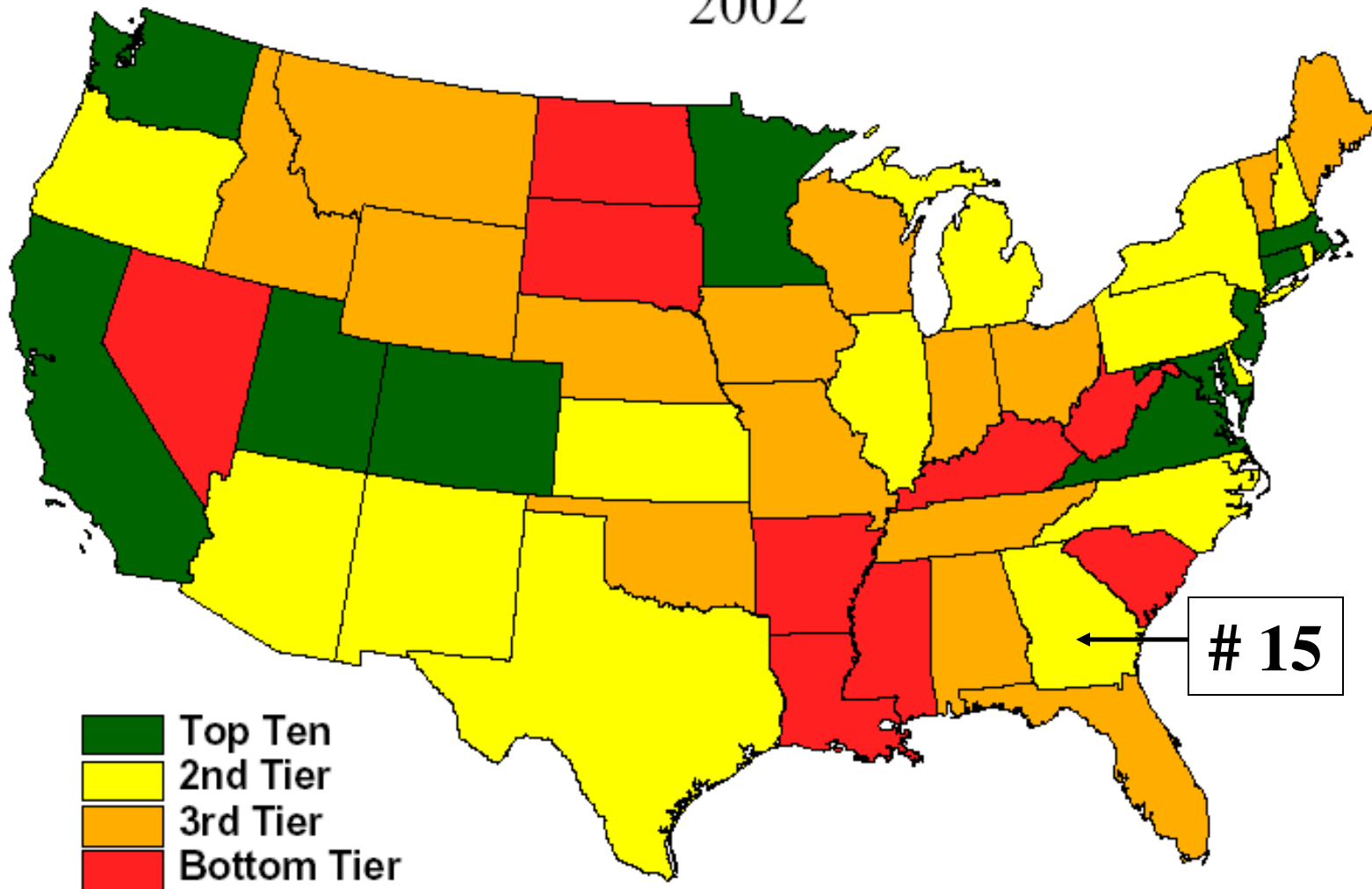
- Technology and science workforce (#11)

- Concentration of technology industries and how dynamic they are

## → Weighted for population and number of companies

# State Technology & Science Index

2002



Milken Institute

## The bad news:

Georgia added only 3,500 new high-tech jobs in 2001 compared to 14,600 in 2000, according to AEA.

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## The good news:

3,500 was better than any other state in the nation, making Georgia number one in technology job growth for 2001.

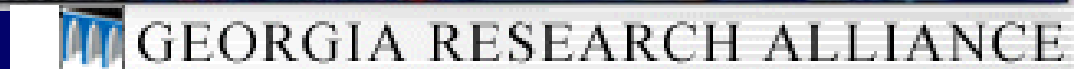
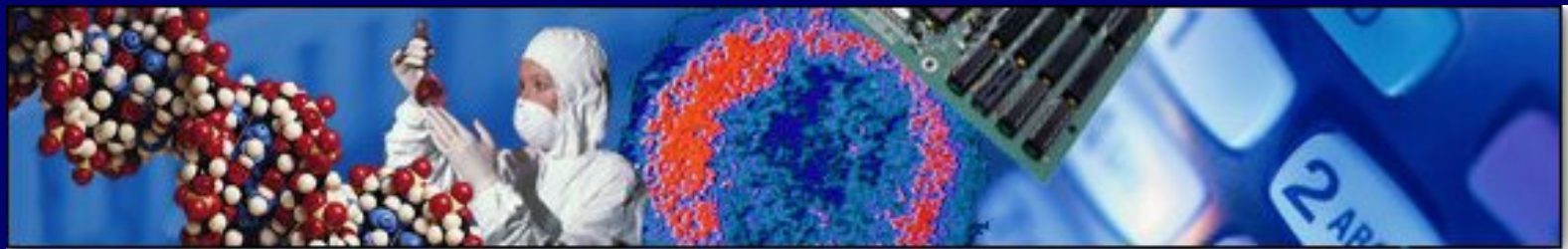


ATDC:



94 applicants for incubation in 2002

17 accepted, 2<sup>nd</sup> largest number ever in one year



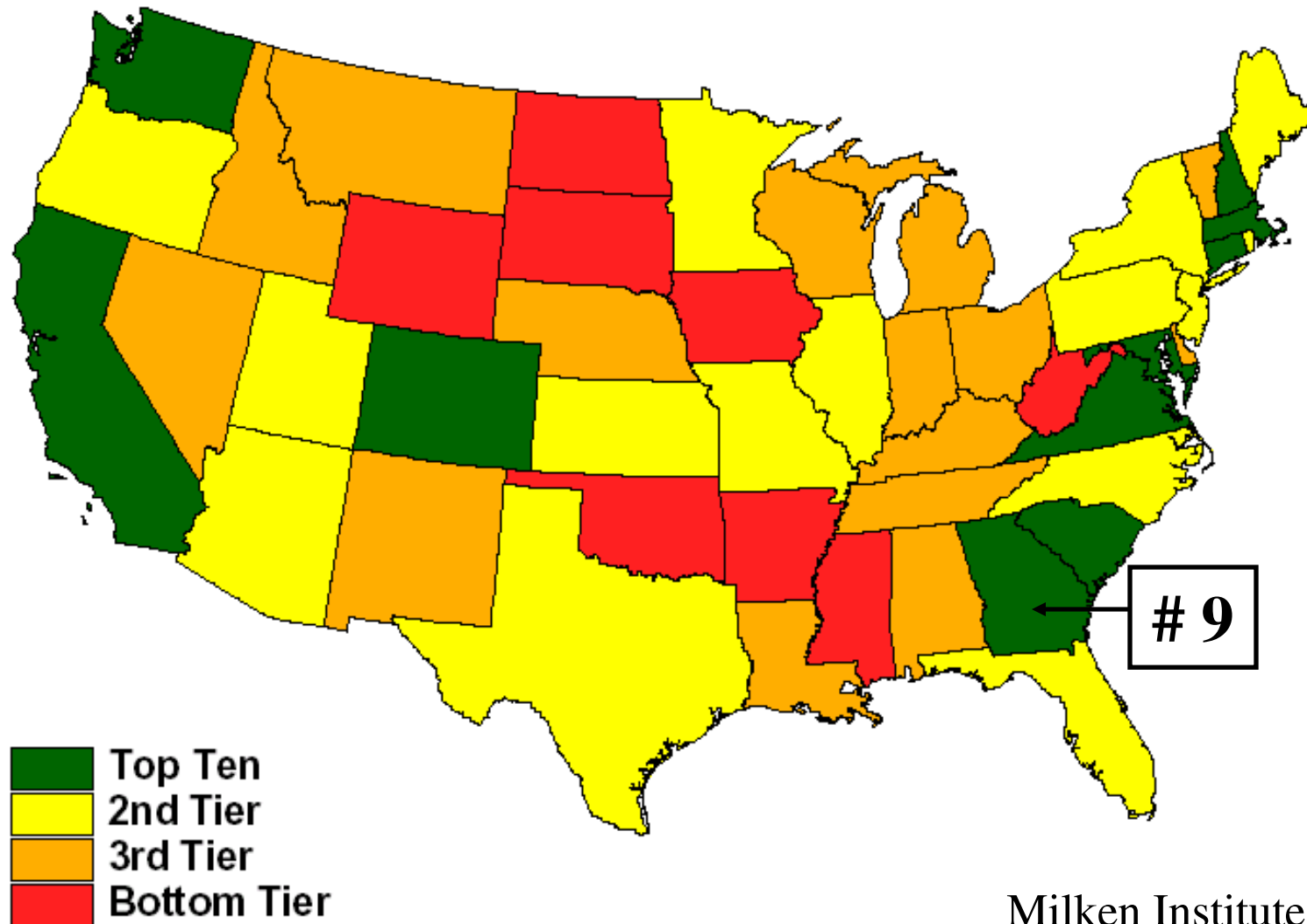
GRA:

33 corporate partners

110 companies around the state impacted in 2001

# VC Investment per 10,000 Establishments

1991 - 2000



# Three High-Tech Industries

Telecommunications



Computer  
software



Biotechnology



“In the late 1990s, too many businesses, especially those in high-tech industries, anticipated too much demand and often invested too much. Then when demand came up short, many firms found themselves with too much inventory, too much capacity, and too many employees.”

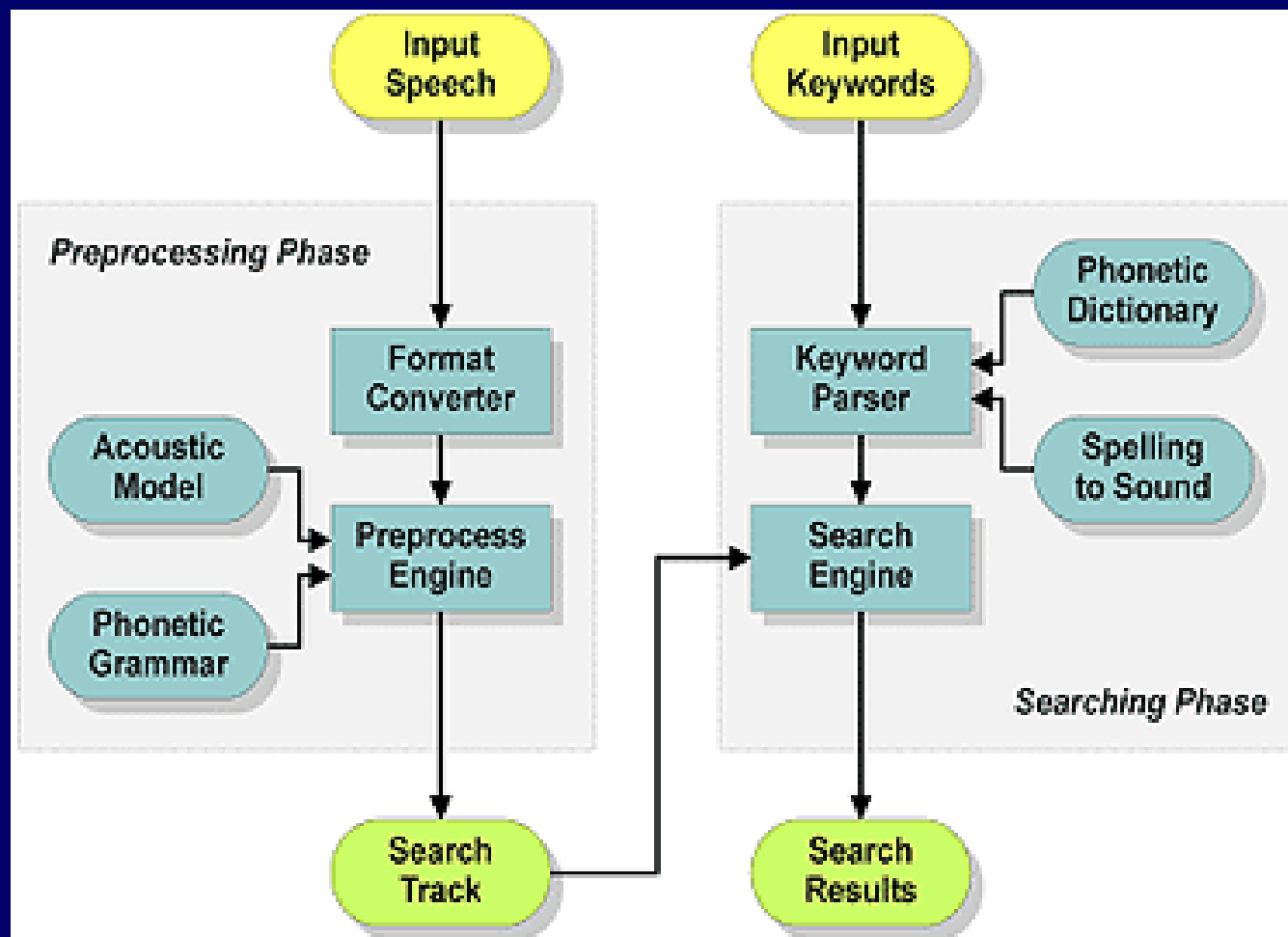
Jack Guynn, Federal Reserve Bank of Atlanta  
Atlanta Rotary Club, January 6, 2003





New broadband design center and incubator is now open.

Hot start-up company Fast-Talk Communications uses signal processing and unique phonetic technology in a search engine that can search 20 hours of audio tape in less than a second.



# Georgia's software companies are doing well because...

- They don't require a high level of early-stage venture capital.
- Salaries in Georgia are 30% lower than in California, where the cost of living is higher, making us an attractive location.
- Products and services often help mainline industries be more efficient and effective, so they are in demand in a recession and can help nudge us toward recovery

“The wave is just forming... we are in the early stages of the development of a global biotechnology industry that will change the world and have a profound impact on the length and quality of life itself.”

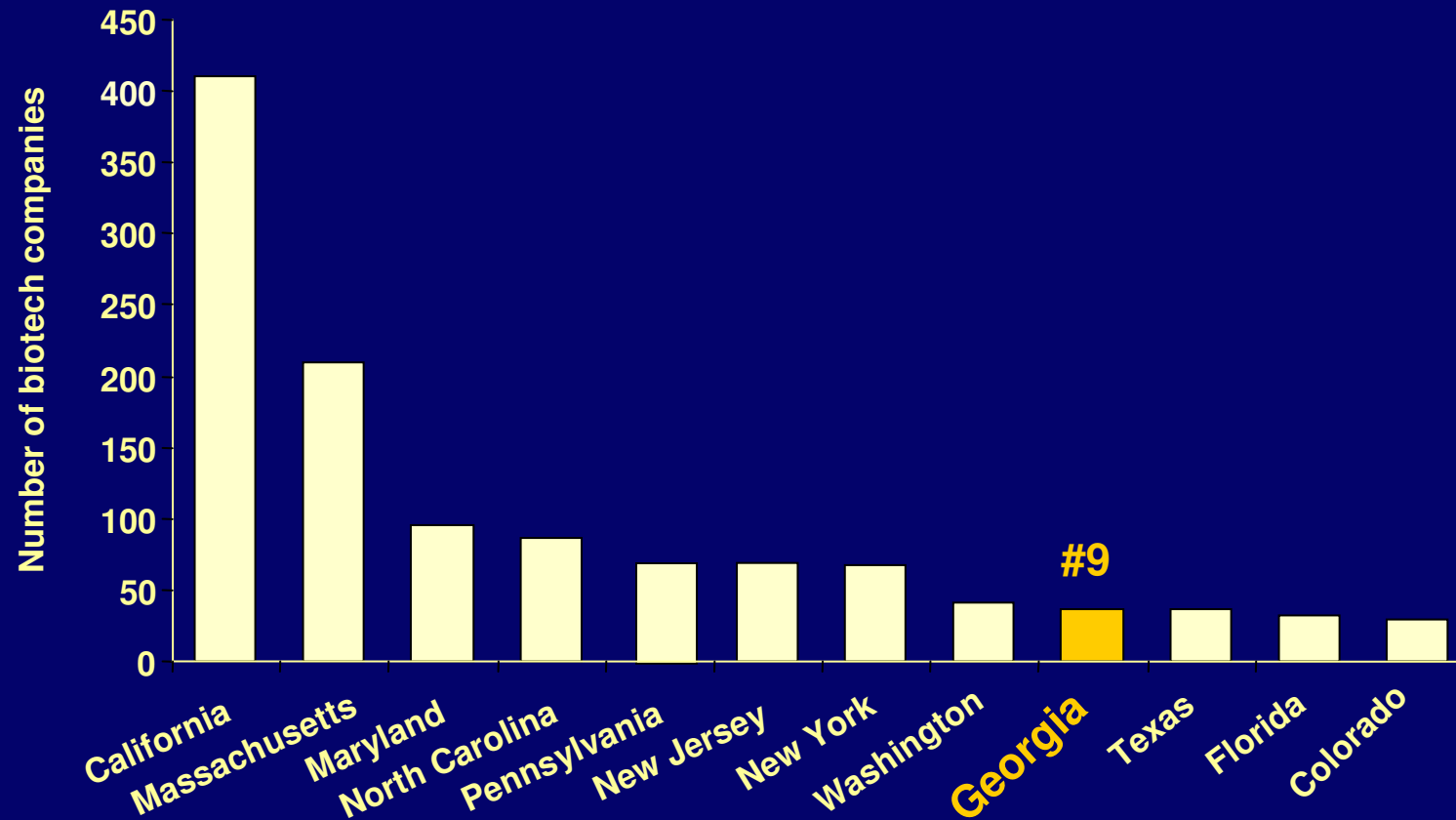
*The Economist*

“Biotechnology today – in relative terms -- is where Bill Gates was 20 years ago, tinkering in his garage.”

*Fortune*



# State Rankings for Biotech\*



\* Defined as U.S. based companies that use modern biological techniques to develop products or services to serve the needs of human health care or animal health, agricultural productivity, food processing, renewable resources, or environmental affairs. Does not include medical devices cos., large pharma cos., large agribusiness cos., contract research cos., or foreign subs.

Metro Atlanta Chamber of Commerce

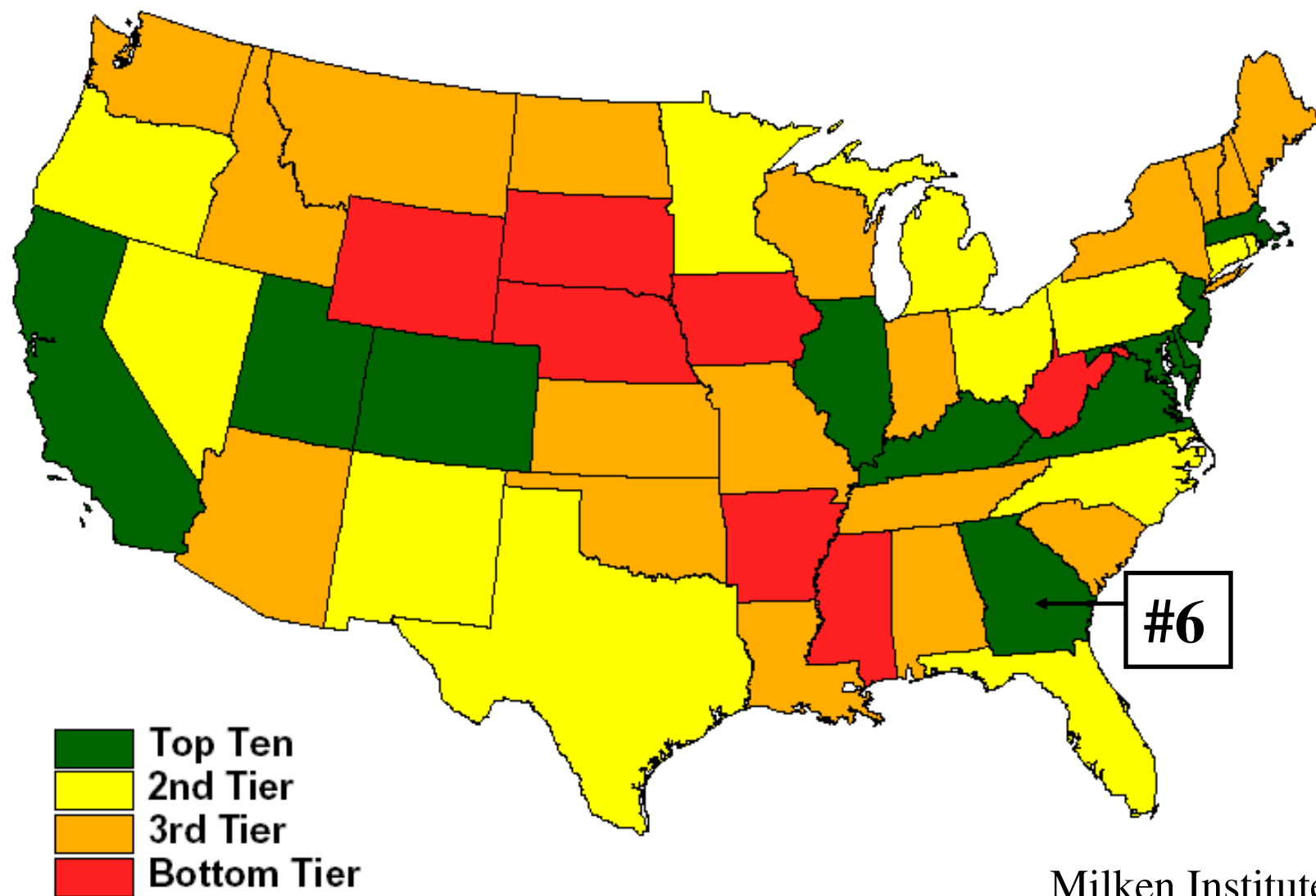
# Characteristics of a Premier Biotechnology Hub

- Engaged research universities
- Research support
- Venture capital
- Skilled workforce
- Intense networking by industry, academia
- Specialized facilities and equipment
- Supportive business climate
- Patience and a long-term perspective



### Number of Inc. 500 Companies per 10,000 Establishments

2000



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