

THE  
NEW ENGLAND  
COUNCIL

*Sustainable Prosperity - An Agenda for New England*

June 2005

**ATKEARNEY**

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## Headlines all call for action

**New England economy only  
an average performer**

**Mass falls behind  
North Carolina in  
preparing biotech  
industry workers**

**Fairfax County  
Virginia boasts lowest  
unemployment rate  
led by IT services**

**Cost of doing  
business hurts  
New England  
Economy**

**Poor  
infrastructure  
drives up costs in  
region**

**New England  
“brand” not  
understood  
outside the  
region**

**Massachusetts the only  
state losing population**

**“The idea of the Greater Boston region resting on its laurels, not exerting major effort to coalesce and focus its assets, should be unthinkable”  
(from Boston Unbound)**

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## Discussion Agenda

- I. What is success? — New England's starting point
  
- II. New England's growth issues — evaluation of five economic engines that matter
  
- III. The potential for fundamental improvement exists

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## **Compared to the U.S. as a whole, we in New England are only average and there are good reasons for that record**

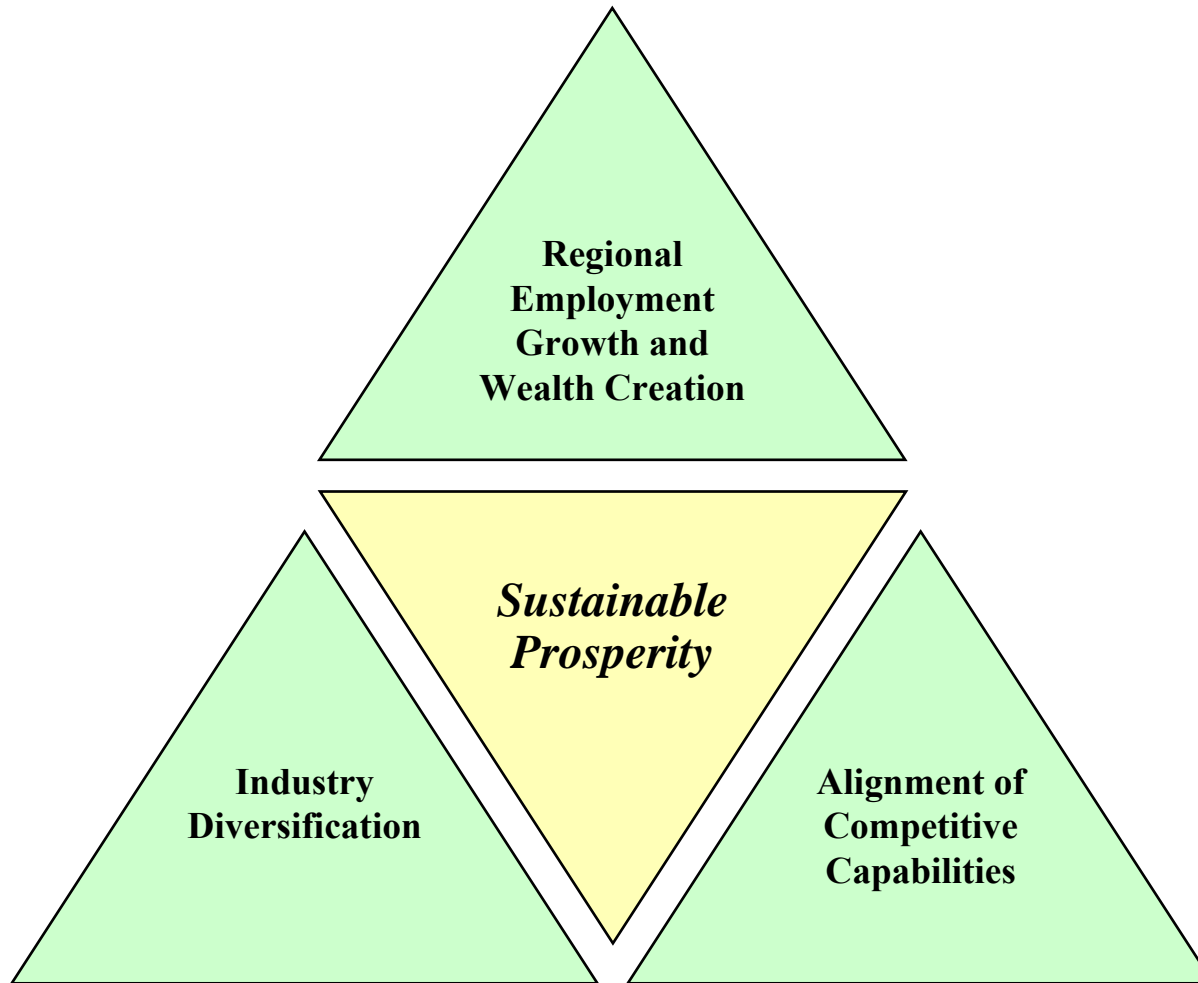


**Our Starting Point**

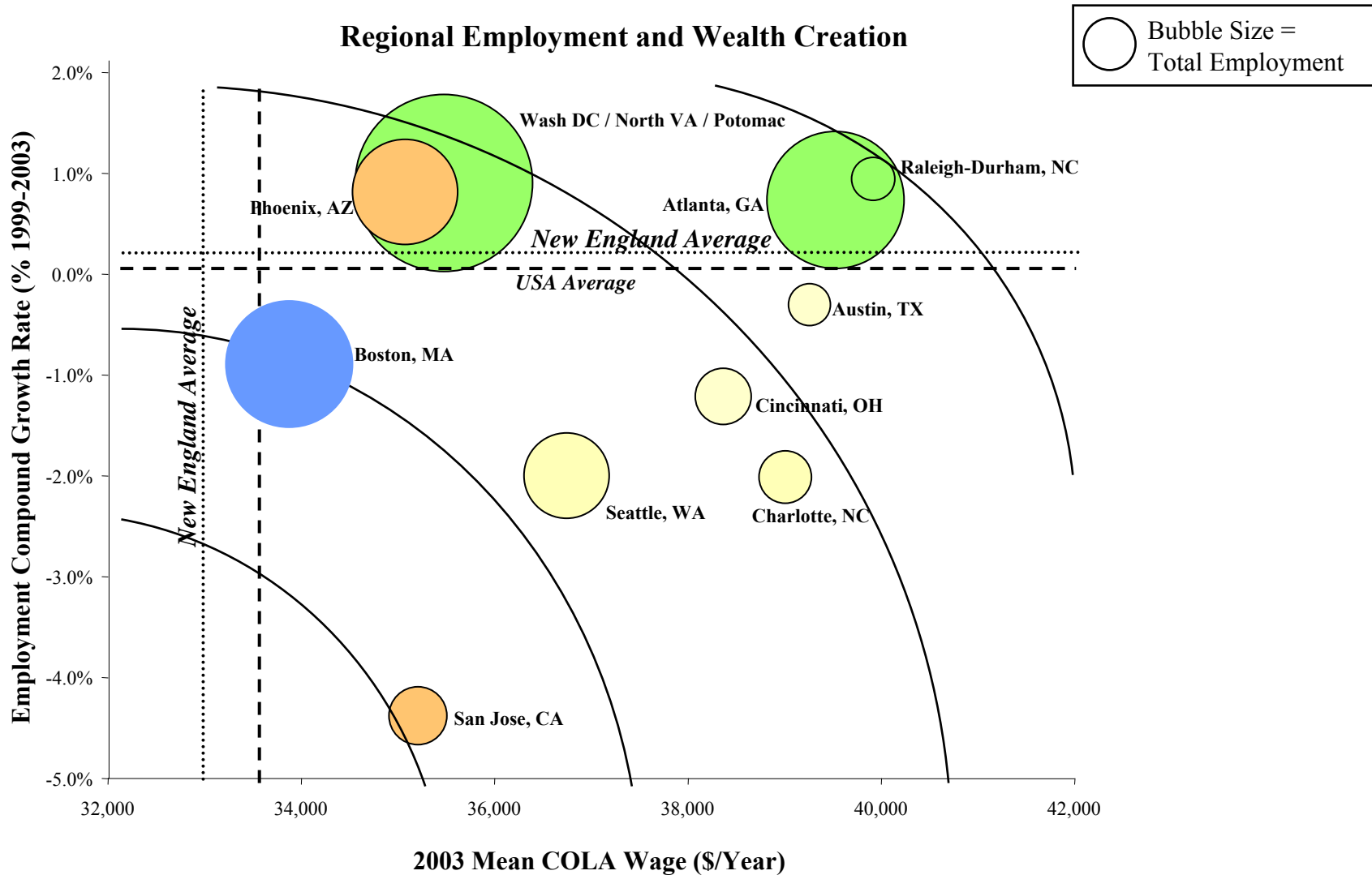
- Current level of prosperity is only average in the U.S.
- Industry mix is not skewed to services, and we have good diversity and competitive capabilities
- Three regions are competing against us and are winning more than their fair share--North Carolina/Research Triangle, Virginia/D.C./Potomac Region, and Greater Atlanta

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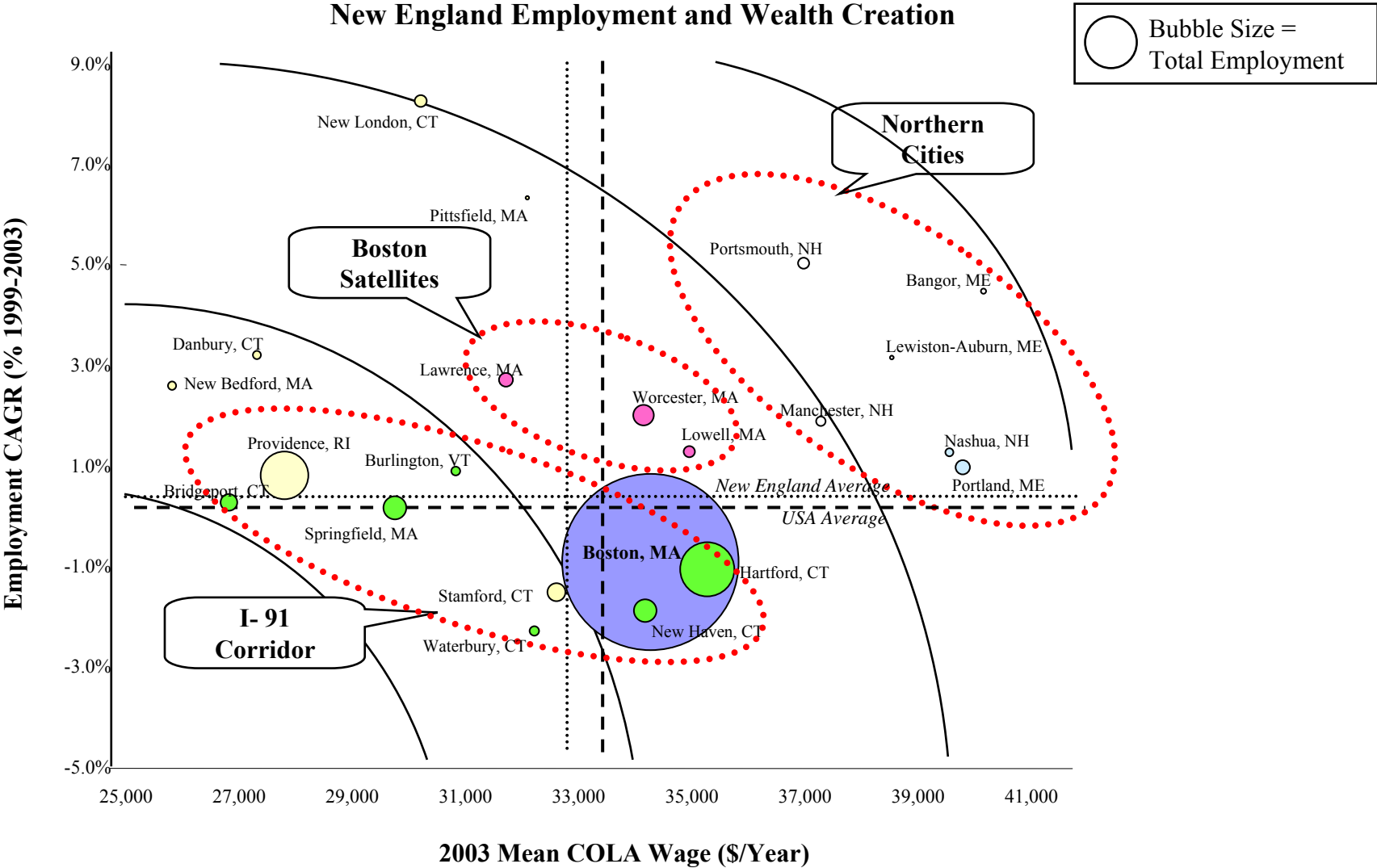
**Sustainable prosperity — success for the New England Region can be measured in three ways**



**In terms of growth and wealth creation, New England is only average vs the U.S., while Raleigh/Durham, Atlanta and Northern VA/D.C. are doing distinctly better**



# Within the region, we have great disparity in economic performance



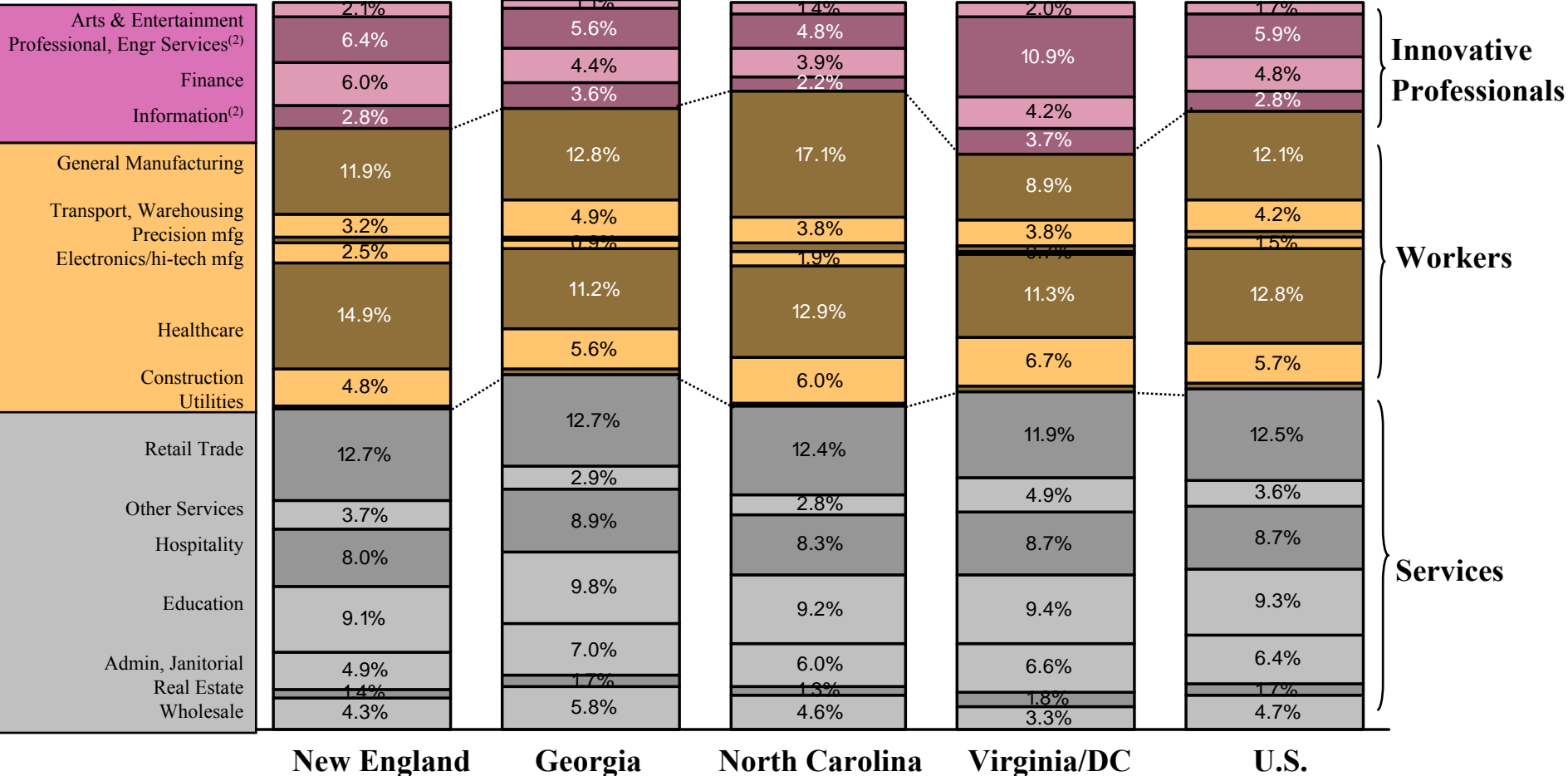
Sources: Bureau of Labor Statistics, Occupational Employment data; ACCRA, Cost of Living Index, A.T. Kearney Analysis

# New England is running against Virginia/D.C. for the lead with innovative professionals, while North Carolina/Research Triangle has become the East “best shore” for manufacturing-based industries

**Non-Government Employment Representation by Industry**

(Percent of Total)

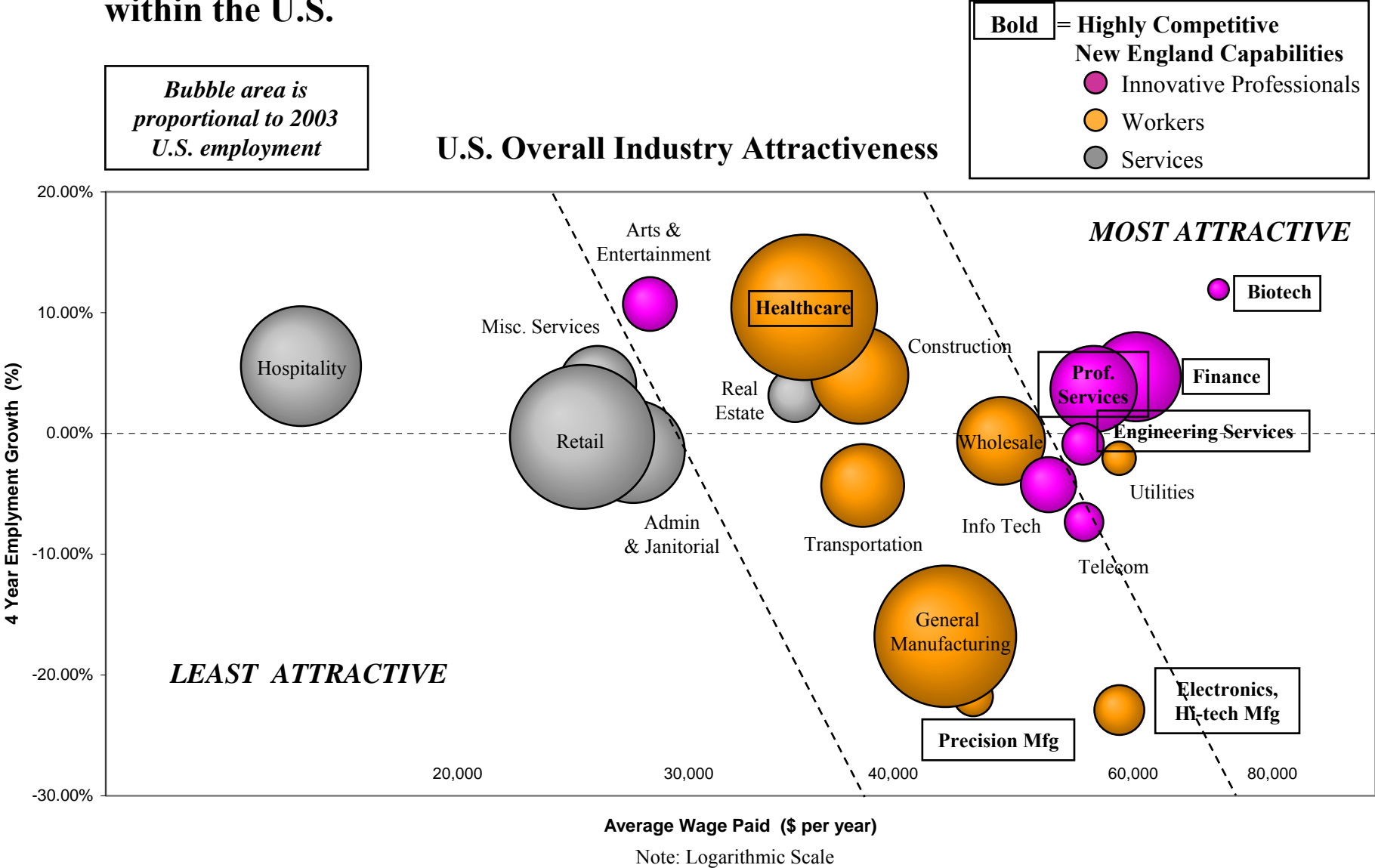
**Industry Sector<sup>(1)</sup>**



Note: (1) Excludes farm, government employment and other marginal industries  
 (2) Professional services includes biotech, nano; information includes telecom  
 Sources: US Bureau of Labor Statistics, 2003 Payroll Data; A.T. Kearney Analysis



# New England's capabilities are aligned with more attractive industries within the U.S.



Note: National assessments for the industry sectors based on employment growth from 1999 to 2003

Sources: US Bureau of Labor Statistics, A.T. Kearney Analysis

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## Compared to the U.S. as a whole, we in New England are only average, and there are good reasons for that record



### Our Starting Point

- Current level of prosperity is only average in the U.S.
- Industry mix is not skewed to services, and we have good diversity and competitive capabilities
- Three regions are competing against us and are winning more than their fair share--North Carolina/Research Triangle, Virginia/D.C./Potomac Region, and Greater Atlanta



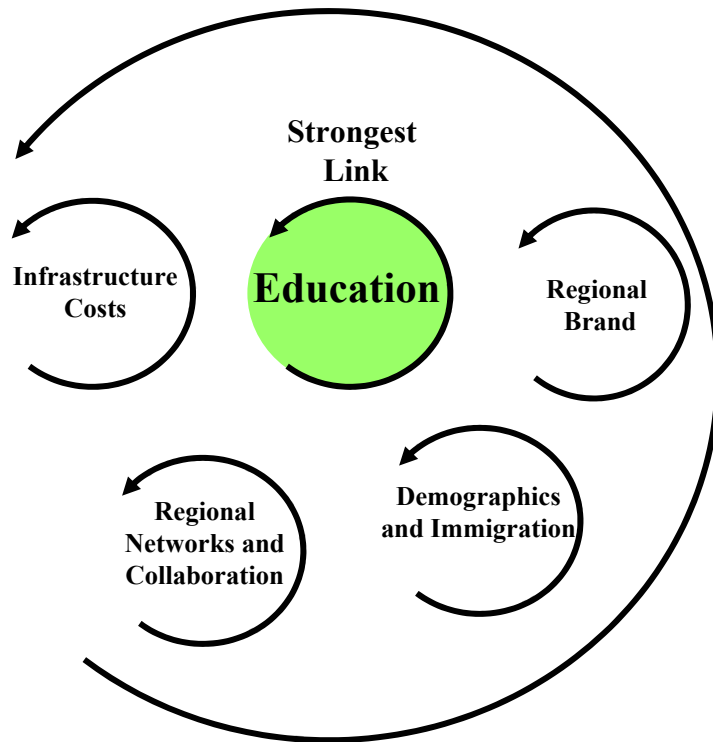
### Our Growth Issues

- Infrastructure costs are being used as a quick filter to dismiss regional investment
- Our potential strengths, education, collaborative networks including R&D, and regional brand, have not been reinforced
- Unaligned growth engines often waste effort

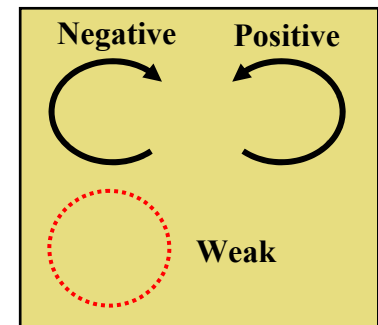
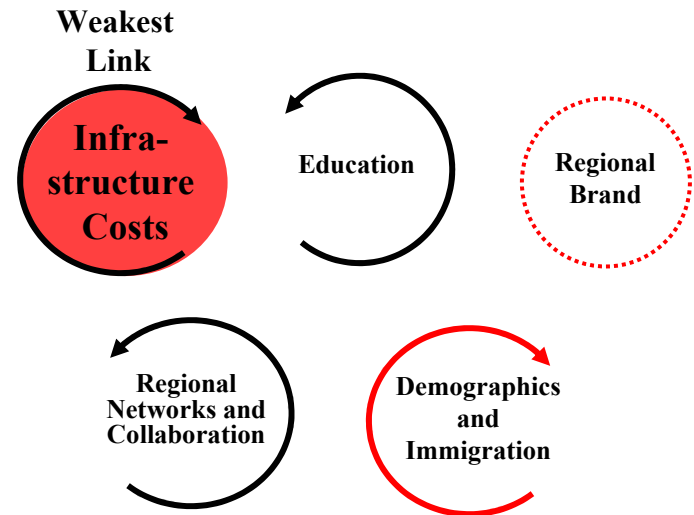
When all five of the economic engines are mutually reinforcing, you are as strong as your **strongest** link ...

Forces Within the Dynamic System Contributing to Growth

Mutual Reinforcement

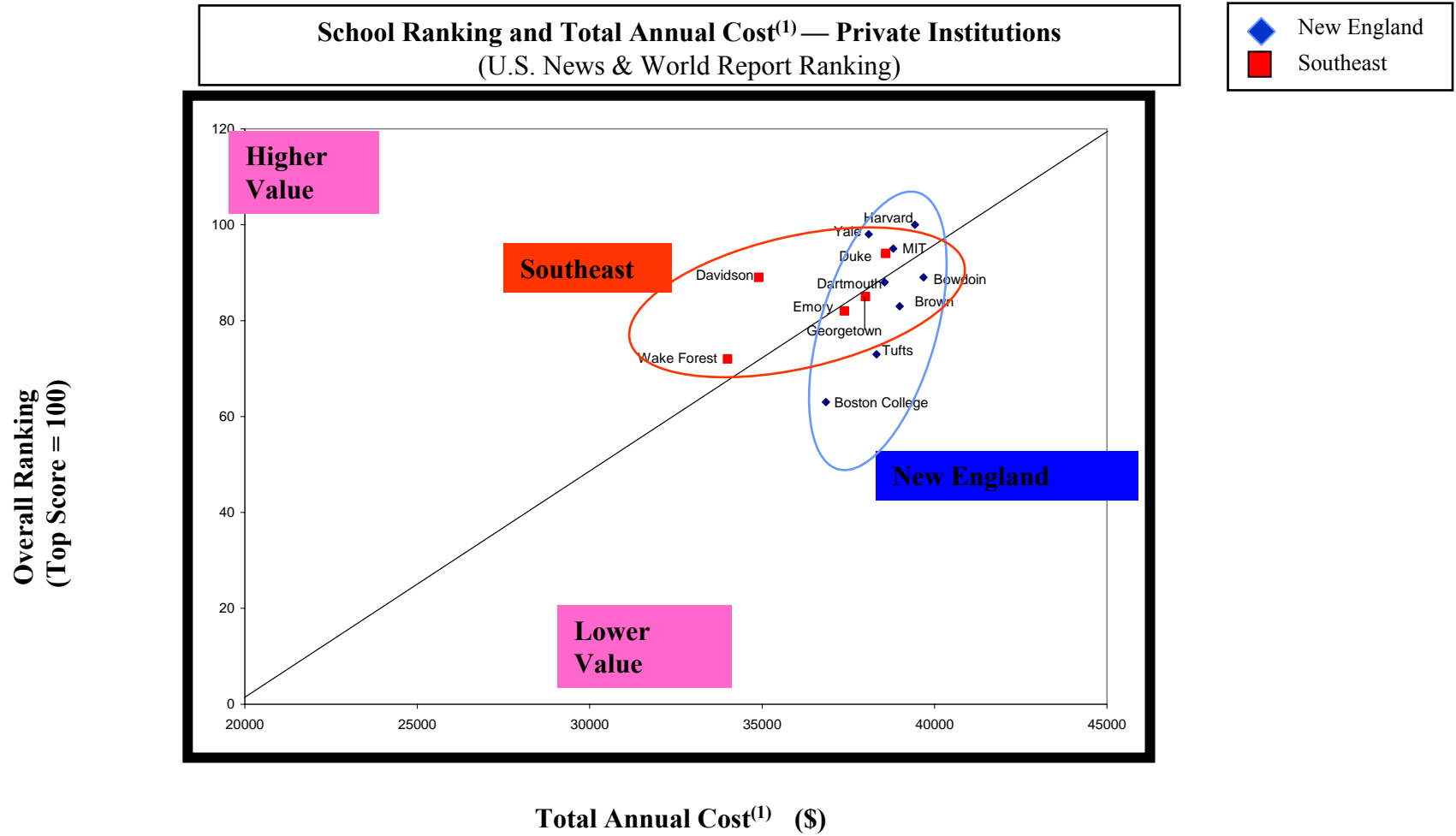


Unaligned Links



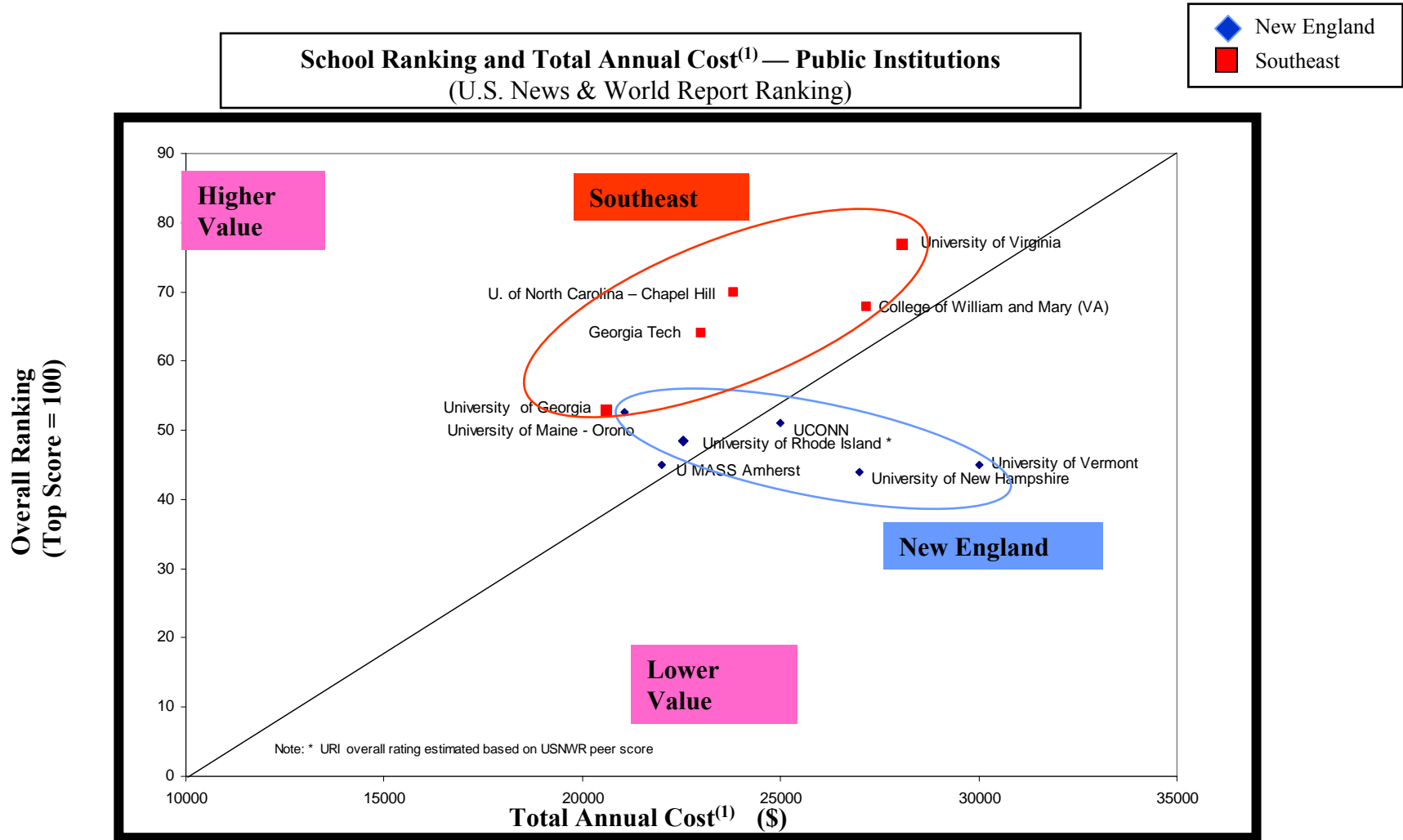
...but when there are engines that are not contributing you may be only as strong as your **weakest** link

# While we have some of the greatest private institutions . . .



Notes: (1) Includes Out of State Tuition, Room and Board, Books  
 Source: U.S. News and World Report 2004 Rankings

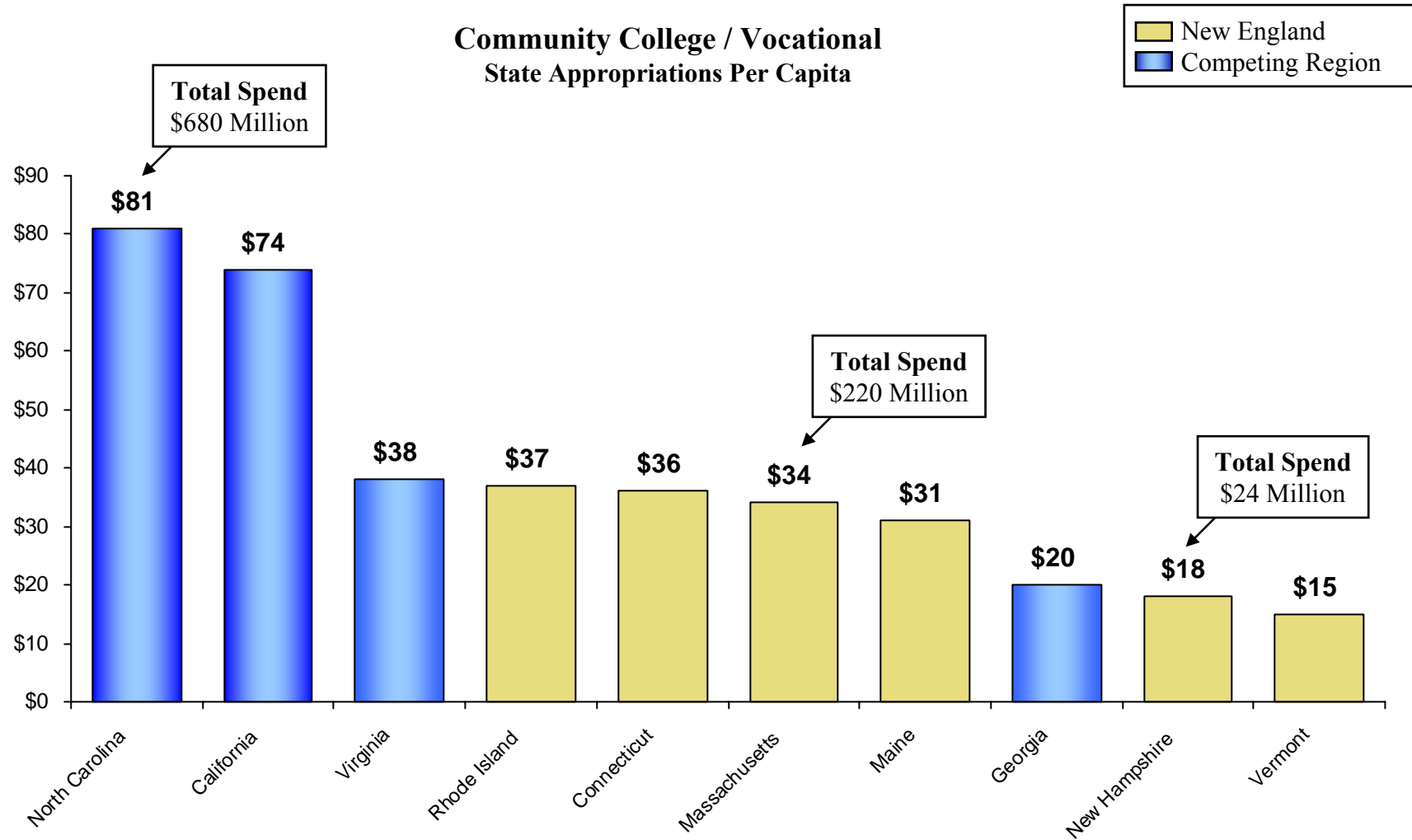
... our public institutions are viewed as providing less value than those in competing regions primarily due to limited funding



**Massachusetts ranks 49<sup>th</sup> out of 50 in public university funding**

Notes: (1) Includes Out of State Tuition, Room and Board, Books  
Source: U.S. News and World Report 2004 Rankings

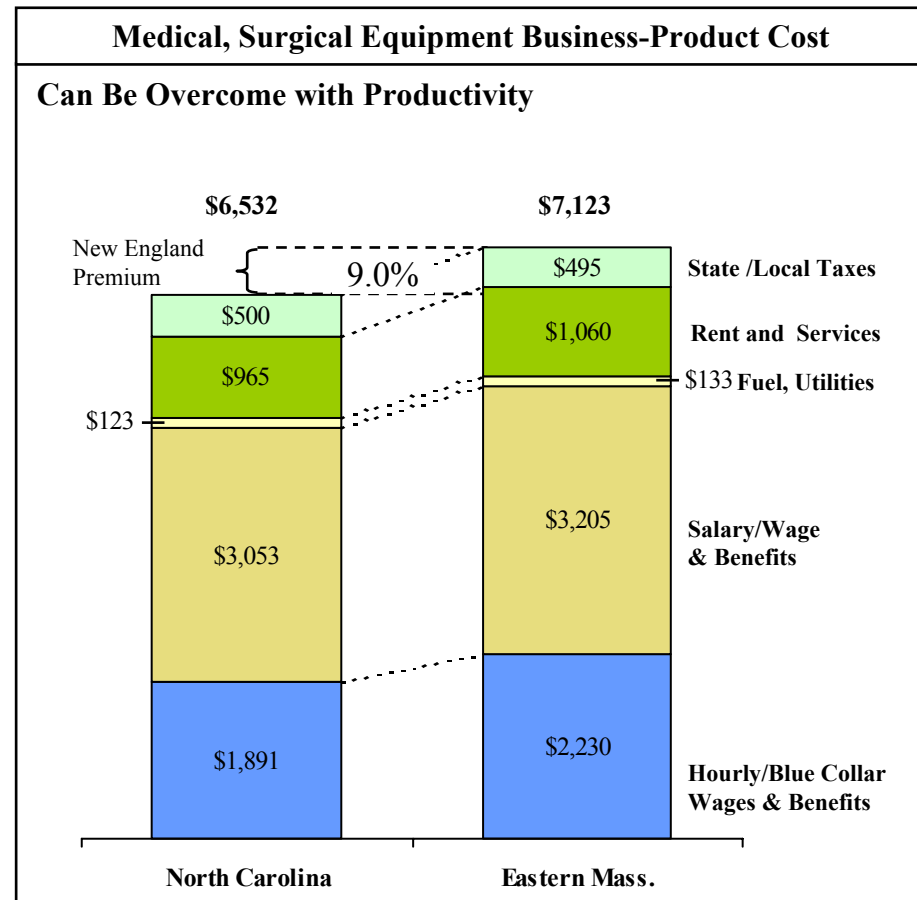
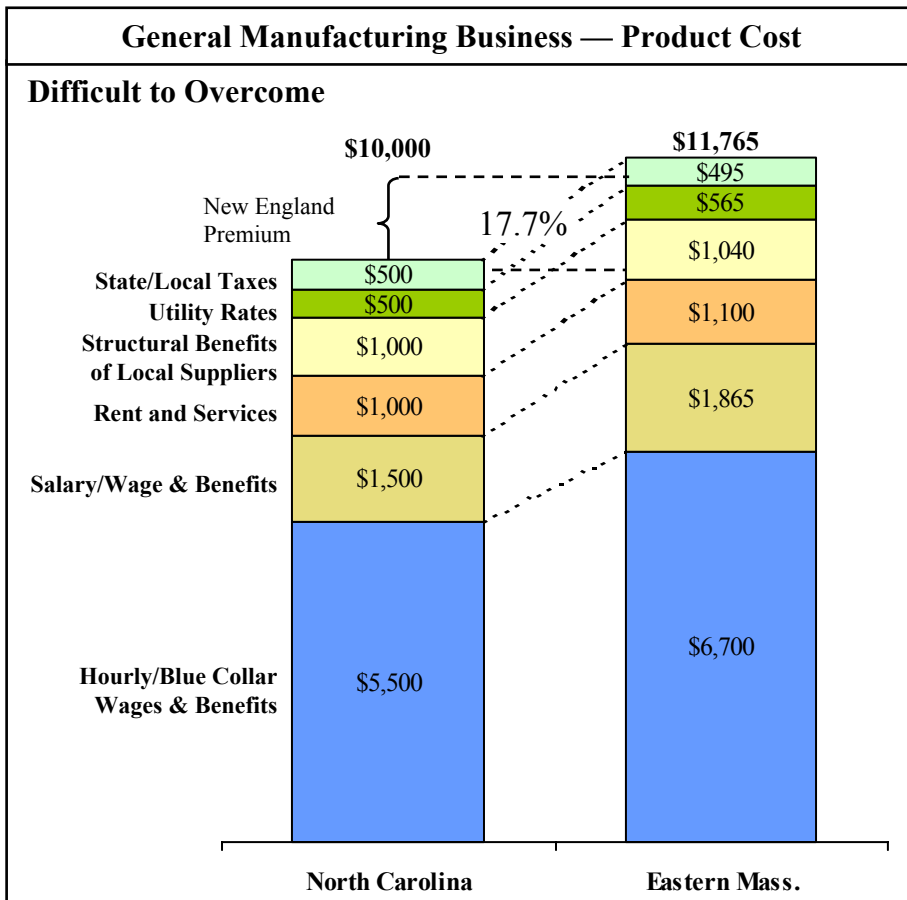
# North Carolina's focus on worker training to support its goal of becoming a domestic "best shore" is evident from its training investment



Source: US Population data, US Census Bureau, State Appropriations, State Appropriations: Grapevine-ISTU; Vermont only, IPEDS Finance Survey, US Bureau of Labor Statistics, US Census Bureau

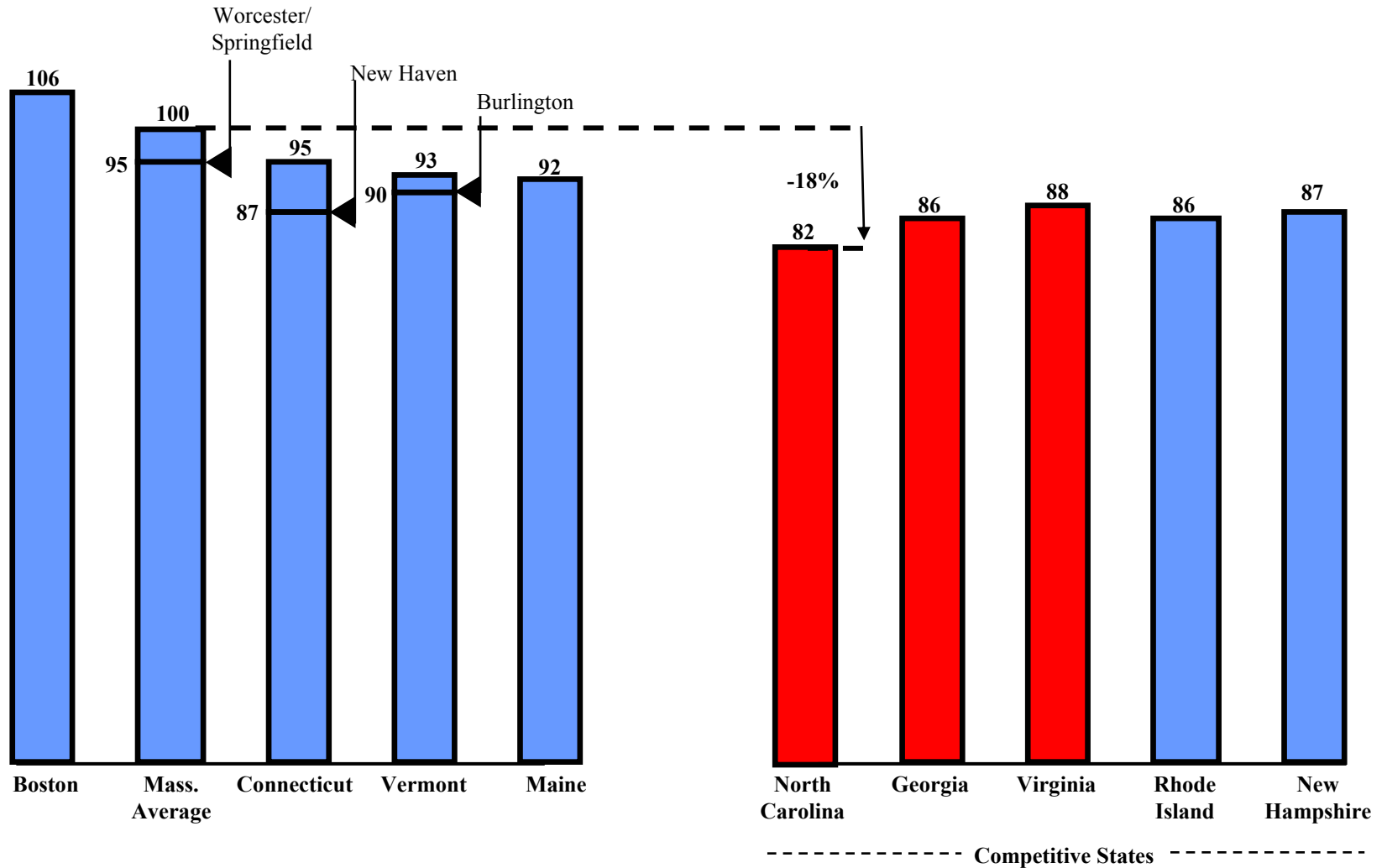
# North Carolina's structural costs are far superior to Eastern Massachusetts, but not across all product lines

## Regional Cost Comparison



Sources: A.T. Kearney analysis of actual client data, Bureau of Labor Statistics; National Compensation Survey; economy.com; US Census of Manufacturers

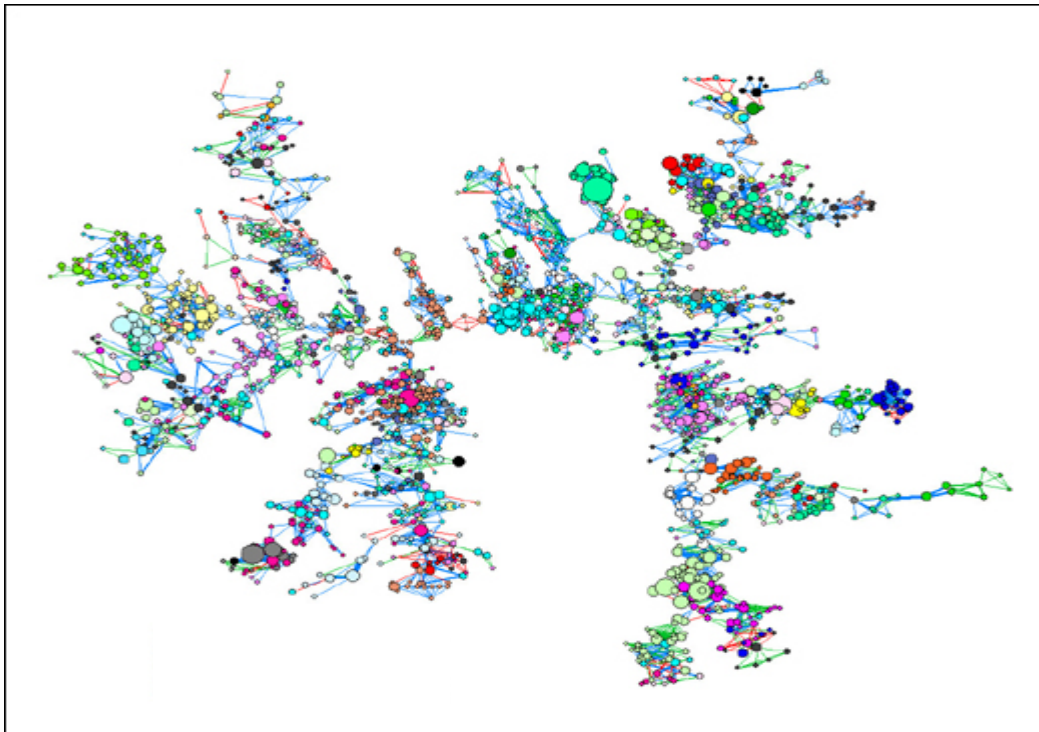
# Other regions within New England are competitive, however





## R&D is a team sport as illustrated by the collaborative network below—dense relationships matter

### Network of New England Inventors



#### Legend

|                |                         |
|----------------|-------------------------|
| Node:          | Inventor                |
| Color of Node: | Inventor's Organization |
| Size of Node:  | Importance of Invention |
| Link:          | Collaboration Tie       |

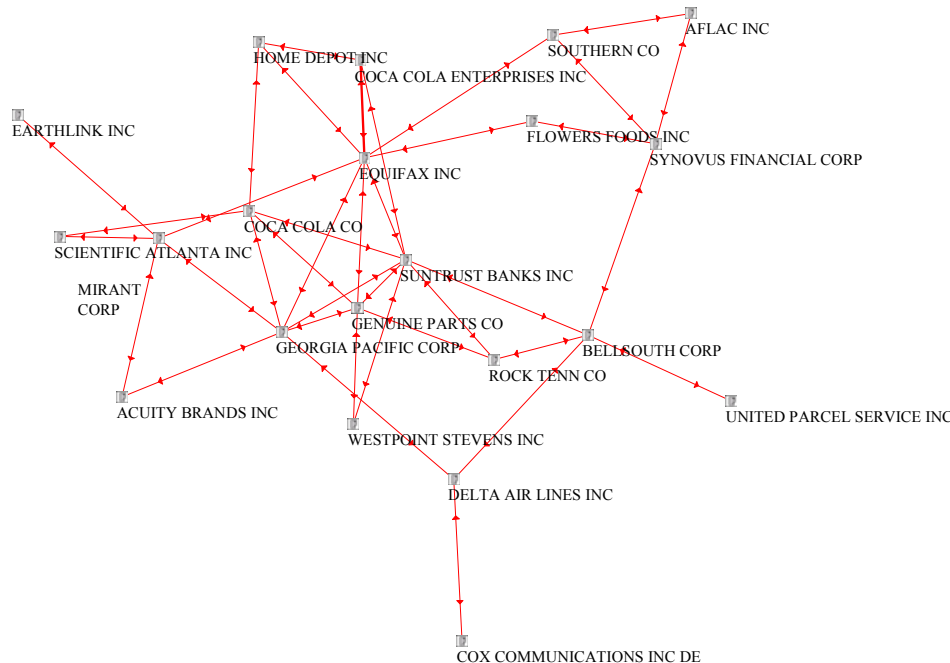
Note: This graph illustrates the largest connected component of patented Boston inventors in the mid-1990s. This close-up illustrates the centrality of MIT in the Boston networks.

Source: © 2004 HBS associate professor Lee Fleming

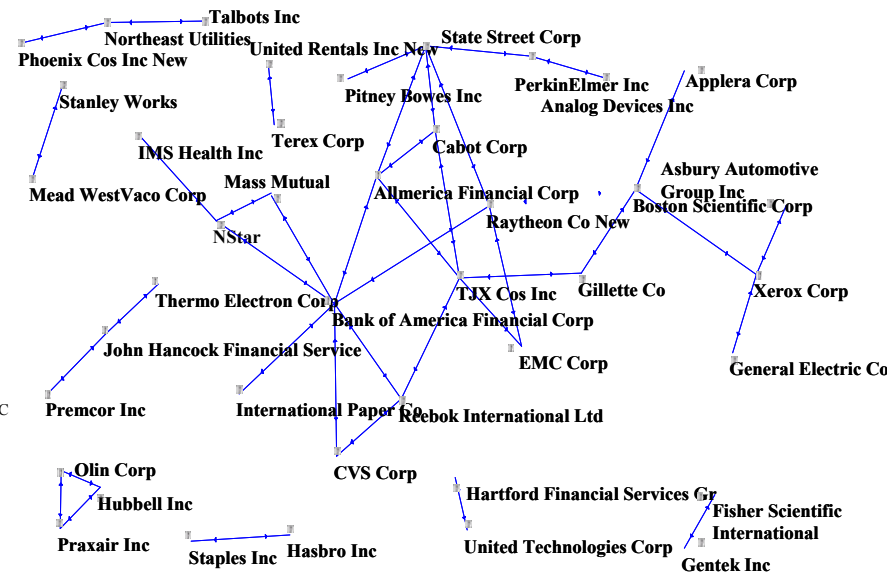
# Dense relationship ties foster norms of reciprocity, create channels and spread templates for successful cooperation and investment

**Board of Directors Network**

**GEORGIA - Higher Density  
Higher "Connectedness"**



**NEW ENGLAND - Lower Density  
Lower "Connectedness"**



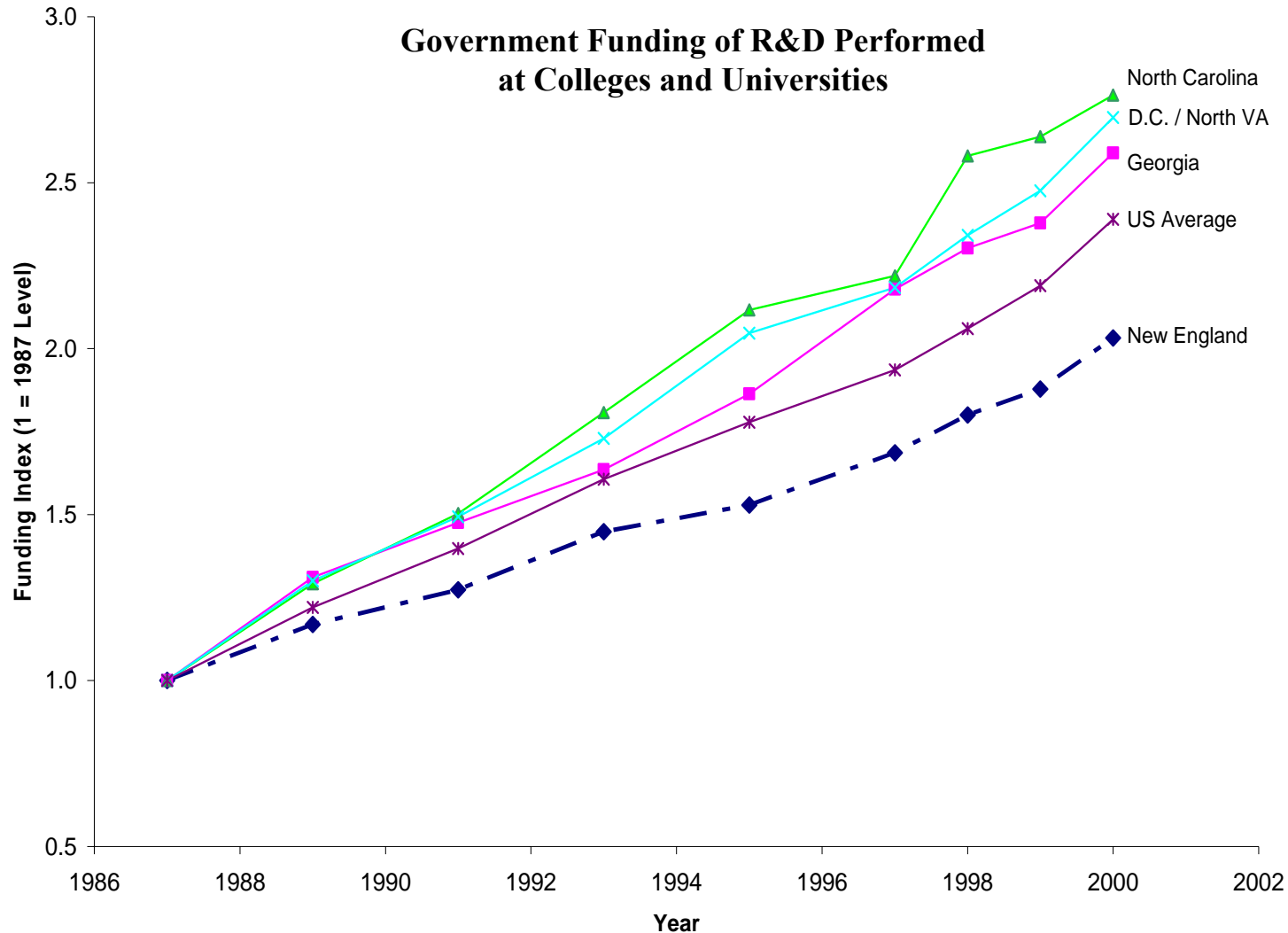
GA 2.67 ← Average shortest path between any 2 directors → NE 3.27

GA 18% ← Density (Actual Ties/Potential Ties between Directors) → NE 13%

Note: Includes Fortune 1000 public companies and large mutual insurers that meet the Fortune 1000 size criteria

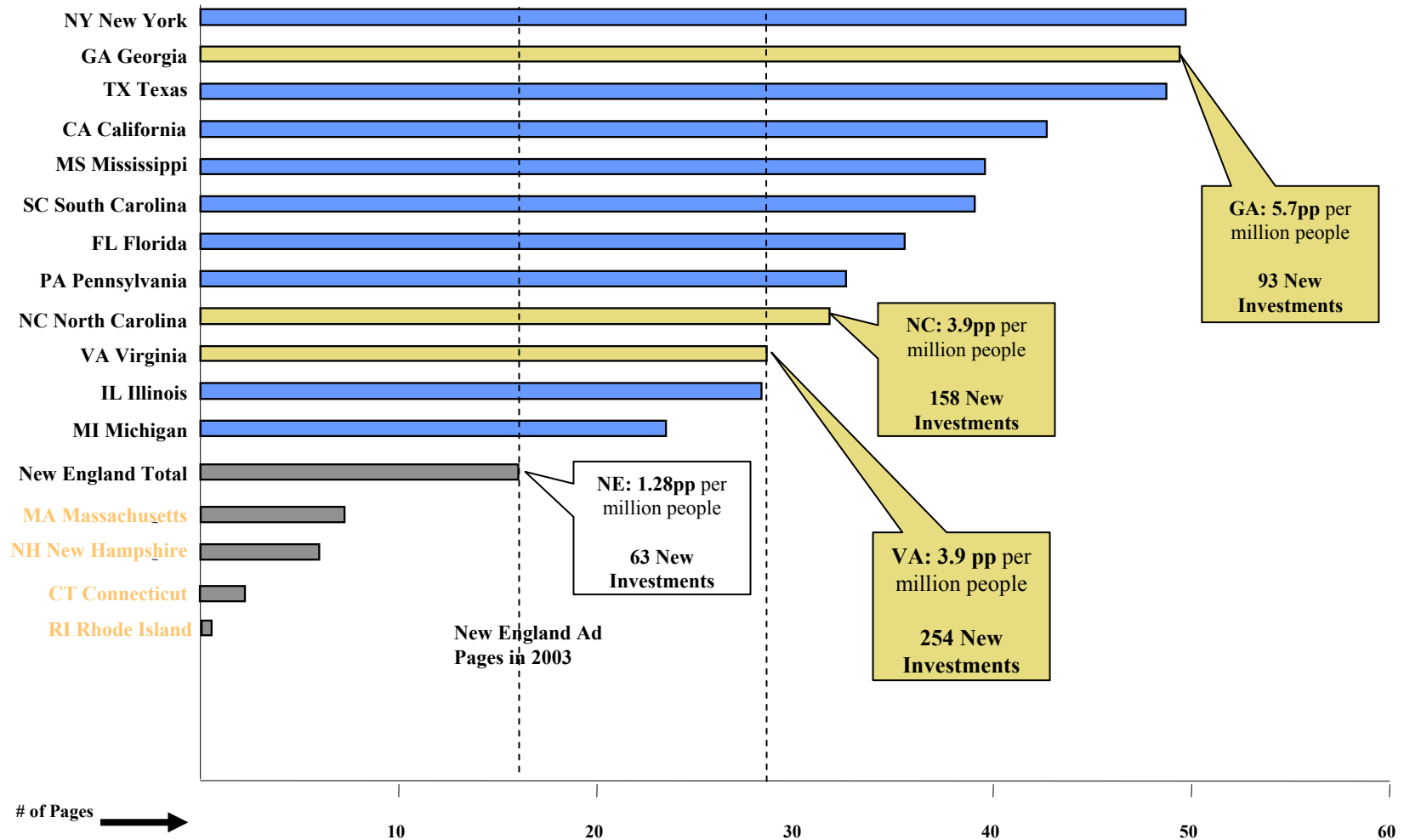
Source: Board of Director data for Fortune 1000; Professor Jerry Davis, University of Michigan Business School; and Mark Kearney Copyright 2004 NEC June 6 2005 42665A v 10 18

**While New England still receives a larger dollar amount of government R&D funds than competitor regions, its share has been falling steadily over the past 15 years**



SOURCES: National Science Foundation/Division of Science Resources Statistics. These data were derived from four NSF surveys: Survey of Industrial R&D; Survey of R&D Expenditures at Universities and Colleges, Survey of Federal Funds for R&D, and Survey of R&D Funding and Performance by Nonprofit Organizations.

## New England states individually and collectively have failed to communicate brand in business advertising



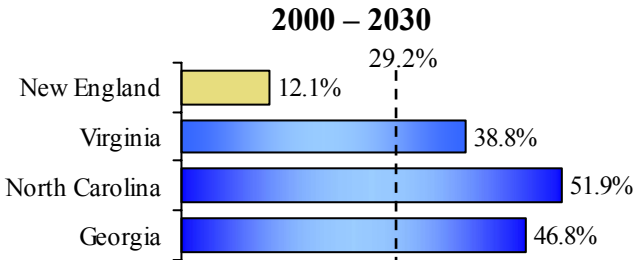
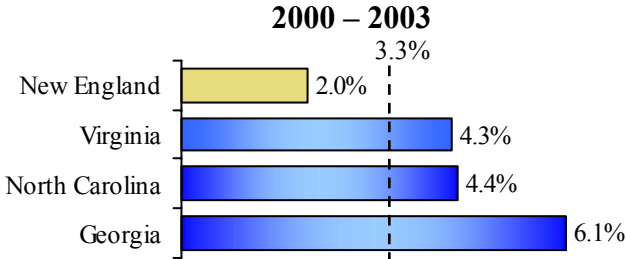
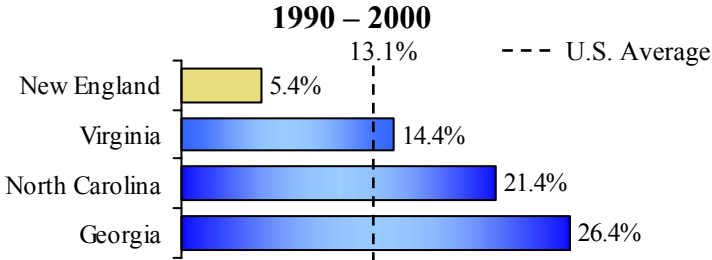
Note: Dotted lines represent (L>R) number of pages for NE, NC, GA, and NY respectively; new investment in 2003 greater than 20,000 square feet and 50 employees

Sources: Site Selection Magazine IMS database; 2003 figures, A.T. Kearney Analysis

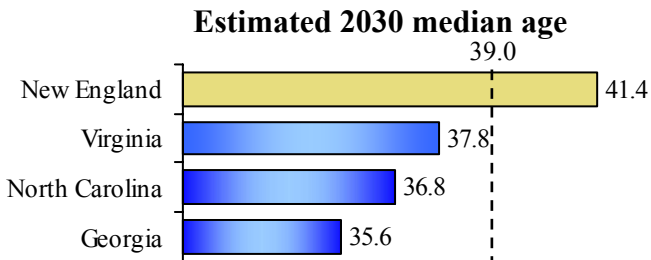
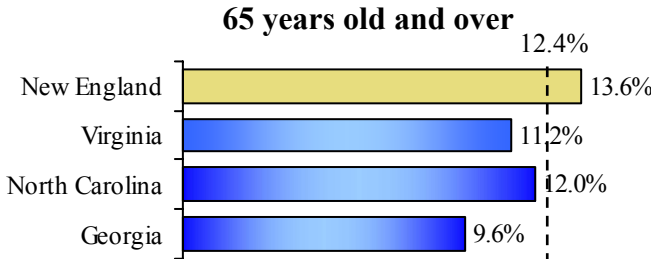
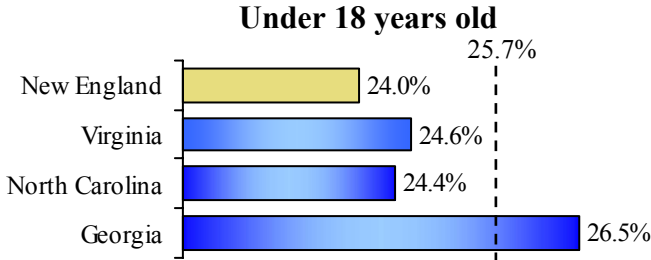
A.T. Kearney Copyright 2004 NEC June 6 2005 42665A v 10 20

# New England's demographics is characterized by slow growth and aging

**New England's population growth is consistently slower than competing regions**



**New England's population is consistently older than competing regions<sup>(1)</sup>**



Note: (1) Based on 2000 population

Source: US Census Bureau, State and County QuickFacts. Data derived from Population Estimates, 2000 Census of Population and Housing, 1990 Census of Population and Housing

## New England appears to retain a lower percentage of graduating students

### Migration of students in Higher education (1995-2000)

| State/Region       | Student leaving after Graduation (Exports) | Students moving in after graduation (Imports) | Total Net Imports <sup>(1)</sup> |
|--------------------|--|---|----------------------------------|
| Massachusetts      | 65,560                                     | 97,780  | 32,220                           |
| New Hampshire      | 13,860                                     | 11,480  | (2,380)                          |
| Rhode Island       | 12,800                                     | 10,460  | (2,340)                          |
| Connecticut        | 32,360                                     | 35,360  | 3,000                            |
| Vermont            | 9,240                                      | 5,540   | (3,700)                          |
| Maine              | 10,460                                     | 5,200   | (5,260)                          |
| <b>New England</b> | <b>144,280</b>                             | <b>165,820</b>                                | <b>21,540</b>                    |
| Georgia            | 40,920                                     | 79,440  | 38,520                           |
| Virginia           | 58,340                                     | 90,600  | 32,260                           |
| North Carolina     | 44,120                                     | 69,240  | 25,120                           |
| <b>Southeast</b>   | <b>143,380</b>                             | <b>239,280</b>                                | <b>95,900</b>                    |

#### Of the students that leave Boston:

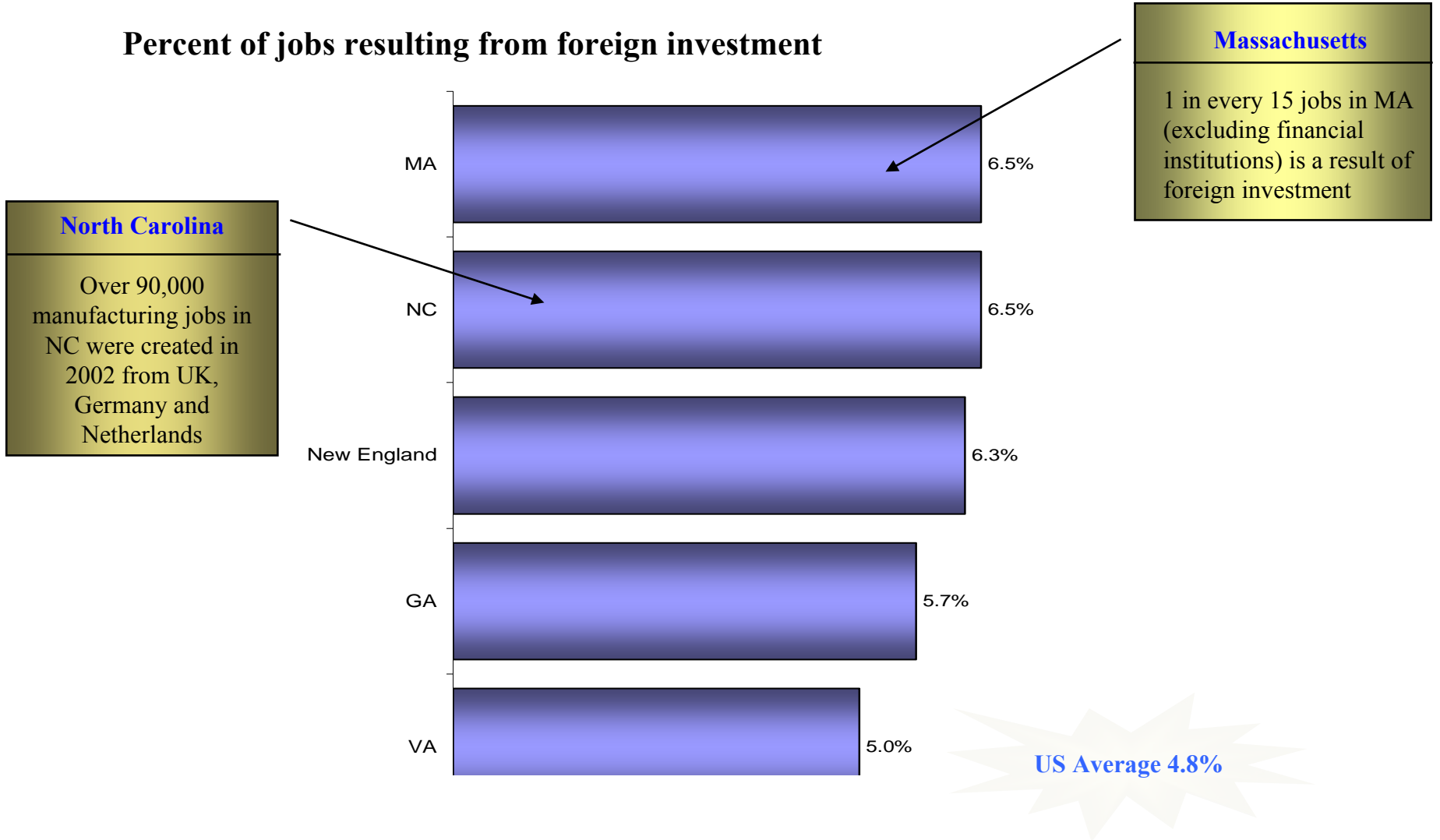
- 30% leave for better job opportunities in other regions
- 27% leave because Boston is not affordable
- 22% leave because other destinations offer better city experience

Note: (1) Total Net Imports = Imports – Exports

Source: National Center for Education Studies (NCES), US Census Bureau; Boston Foundation

# Foreign investment remains a key job growth lever

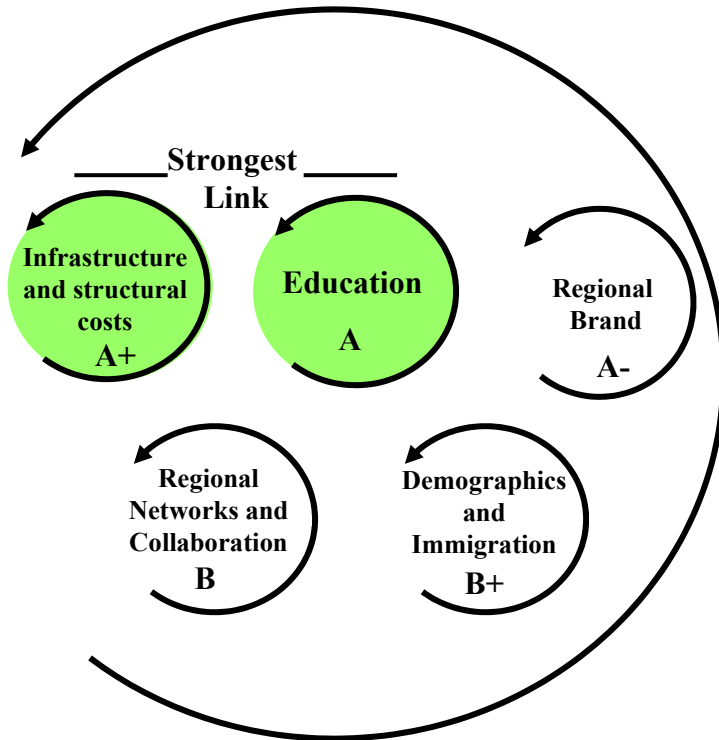
## Percent of jobs resulting from foreign investment



# Strategy of North Carolina is to integrate and co-locate engineering and manufacturing in an East Coast "best shore"

## North Carolina's Growth Strategy

### Mutual Reinforcement

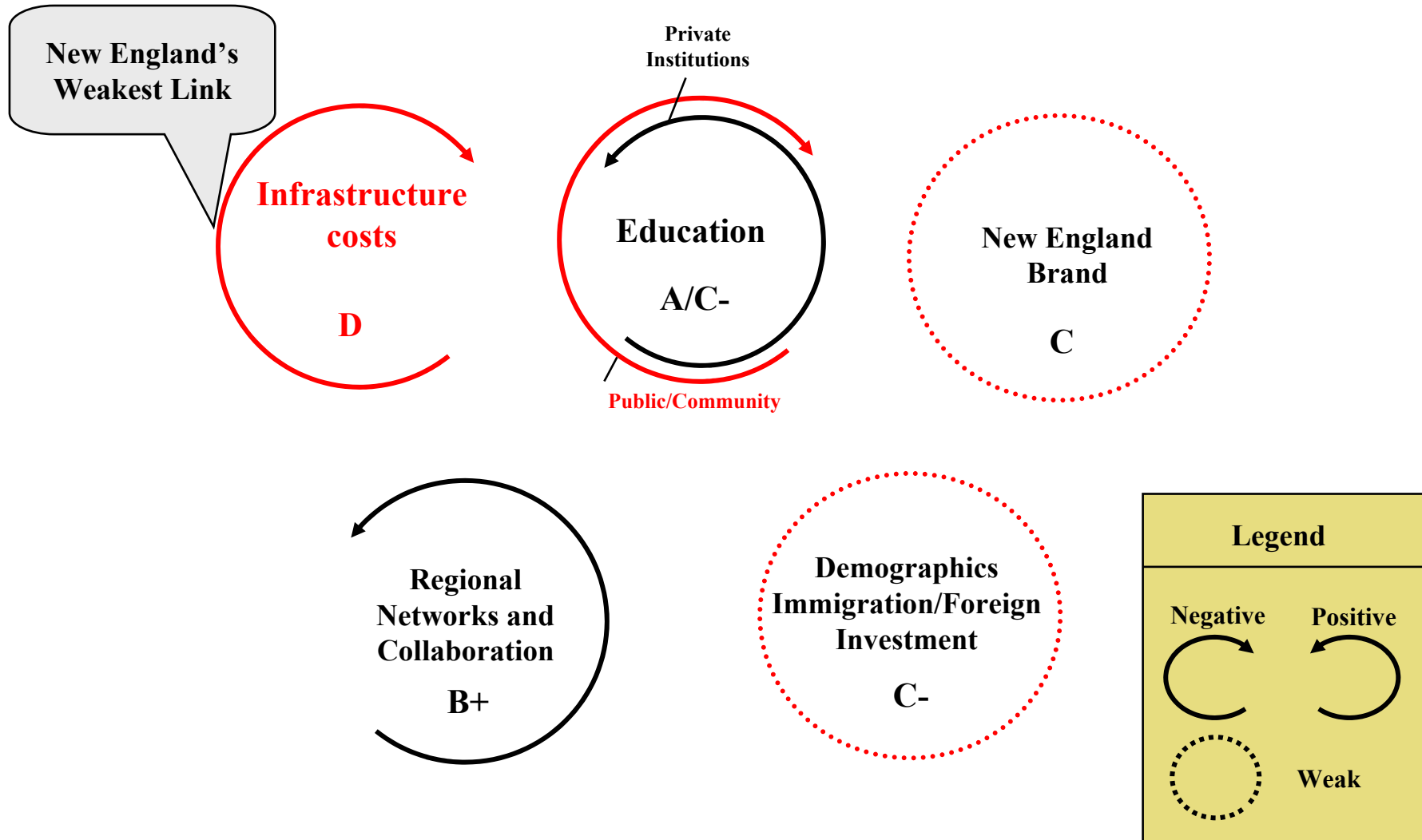


### Alignment

| Education  | Infrastructure and Structural Costs   | Lifestyle and "Brand"   | Regional Networks and Collaboration   | Demographics and Immigration   |
|--|---|---|---|--|
| <ul style="list-style-type: none"> <li>Relationship with Duke, UNC and NC State formalized when Park was formed (1965)</li> <li>Triangle Universities Center for Advanced Studies (TUCASI) sponsors joint projects between 3 universities</li> <li>#1 Best Value in Public Colleges, Kiplinger</li> <li>Highest community college spending per capita</li> </ul> | <ul style="list-style-type: none"> <li>Low cost of living and doing business</li> <li>Below US average for cost of living (97.1 vs. 100.0)</li> <li>New integrated transportation hub planned in Kinston</li> </ul> | <ul style="list-style-type: none"> <li>High quality of life at a slower pace</li> <li>Able to tap into talent of world class research institutions</li> <li>Continually scores high on best places to grow a business (#2 on Forbes list)</li> <li>#1 Hottest Job Market in America, Business 2.0</li> <li>#1 Best Place to Live and Work, MSN Home &amp; Garden</li> </ul> | <ul style="list-style-type: none"> <li>Gov., education and private institutions collaborated since founding in 1960s</li> <li>Plan effectively across 13 counties to deal with gaps</li> <li>More than 1,000 companies trace their founding to the RTP</li> <li>BioNetwork grant to grow biotech manufacturing in community colleges</li> </ul> | <ul style="list-style-type: none"> <li>Kerr-Tar Hub initiative to build high tech centers in outlying, low-income counties</li> <li>International presence in Biotech and Chemicals; foreign investment; has led to 14% of new jobs</li> </ul> |



# Unfortunately, New England has both weak links and misalignment



## Compared to the U.S. as a whole we in New England are only average and there are good reasons for that record



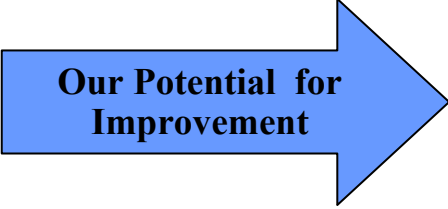
### Our Starting Point

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### Our Growth Issues

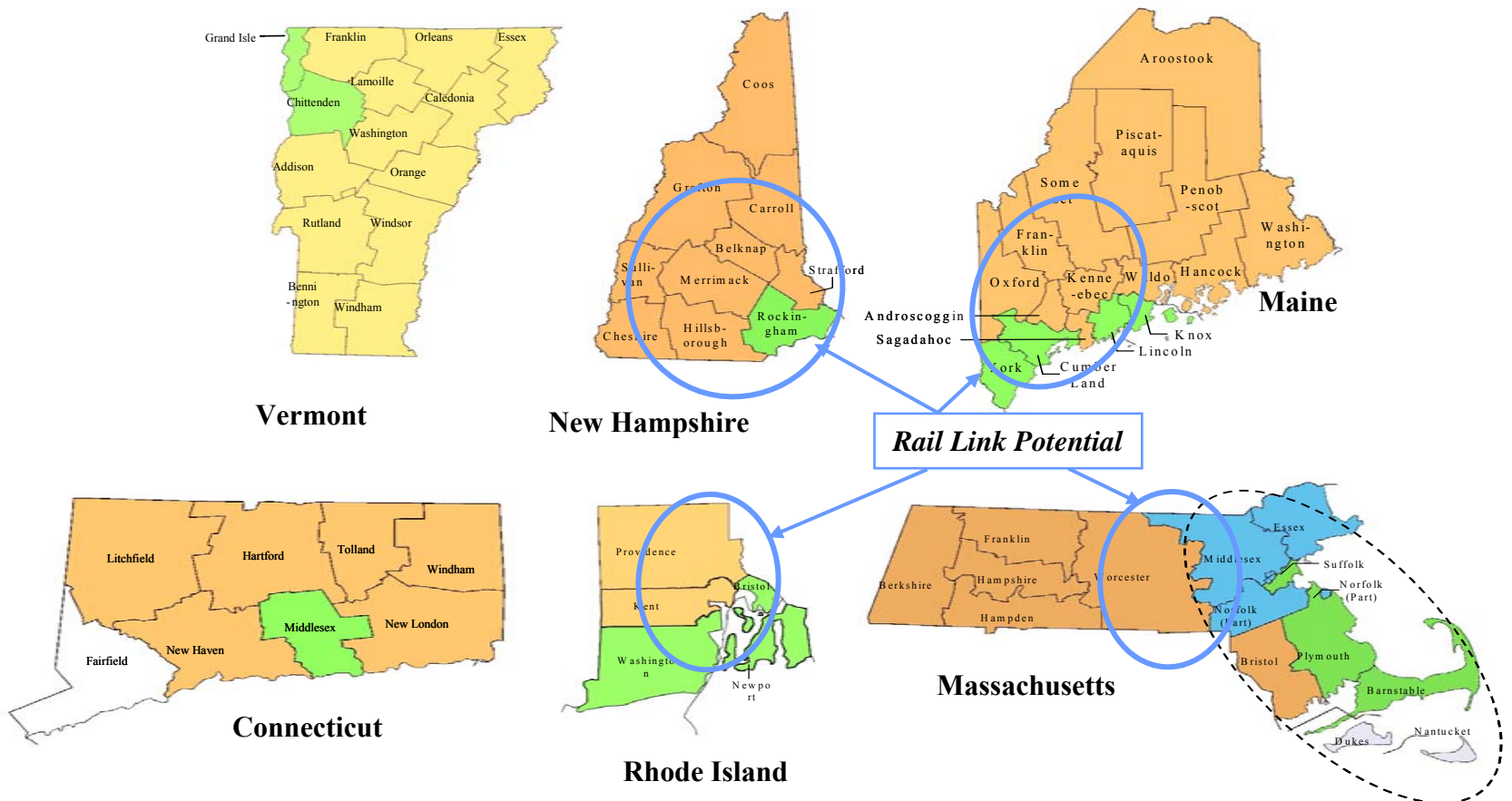
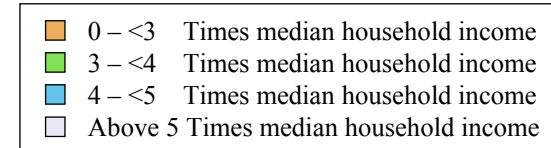
- Infrastructure costs are being used as a quick filter to dismiss regional investment
- Our potential strengths, education, collaborative networks including R&D, and regional brand, have not been reinforced
- Unaligned growth engines often waste effort



### Our Potential for Improvement

- Leverage all of New England to improve the weaker growth engines and coalesce and focus capabilities
- Create targeted policy that reinforces market for success

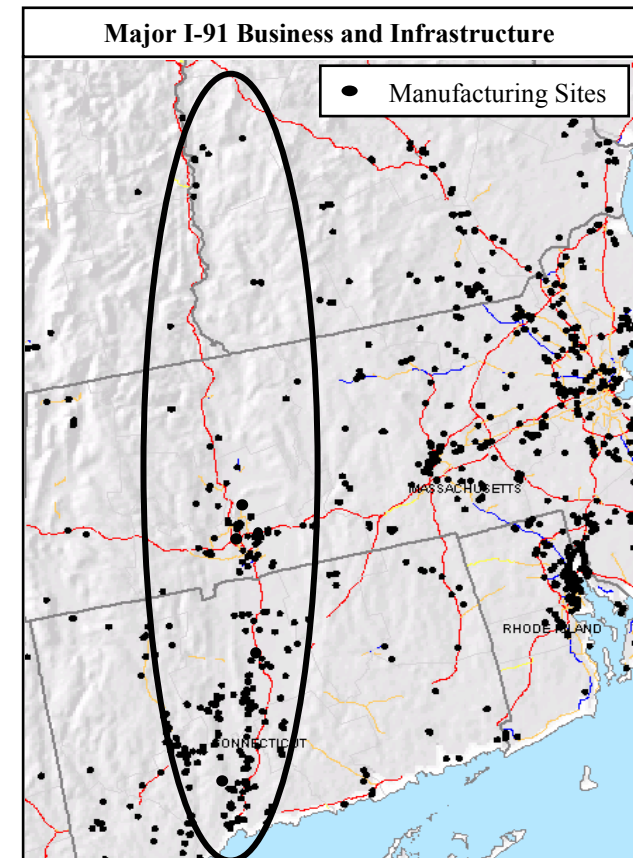
**By using all of New England with rail links and broadband infrastructure, the housing footprint could be dispersed without imposing unattractive commutes, thereby mitigating infrastructure disadvantages**







## New England can also mitigate high structural costs by implementing an in-region “best shoring” concept



















### “Home Shoring”

- Strategically locating business operations (especially manufacturing, services, and distribution) in areas with lower cost structures
    - DOES NOT mean that jobs will be exported to off-shore locations
    - It DOES mean that jobs would be preserved within the region
  - “In region location fosters better collaboration with upstream engineering, R&D and marketing functions
  - Moving to these regions typically implies investment needs:
    - Infrastructure to move goods and/or information readily
    - Training to ensure the presence of an abundant trained workforce
- 
- The I-91 corridor may represent a New England “home shore” opportunity:
    - Slow employment growth holding down costs
    - Would require infrastructure investments to link tightly to metro Boston

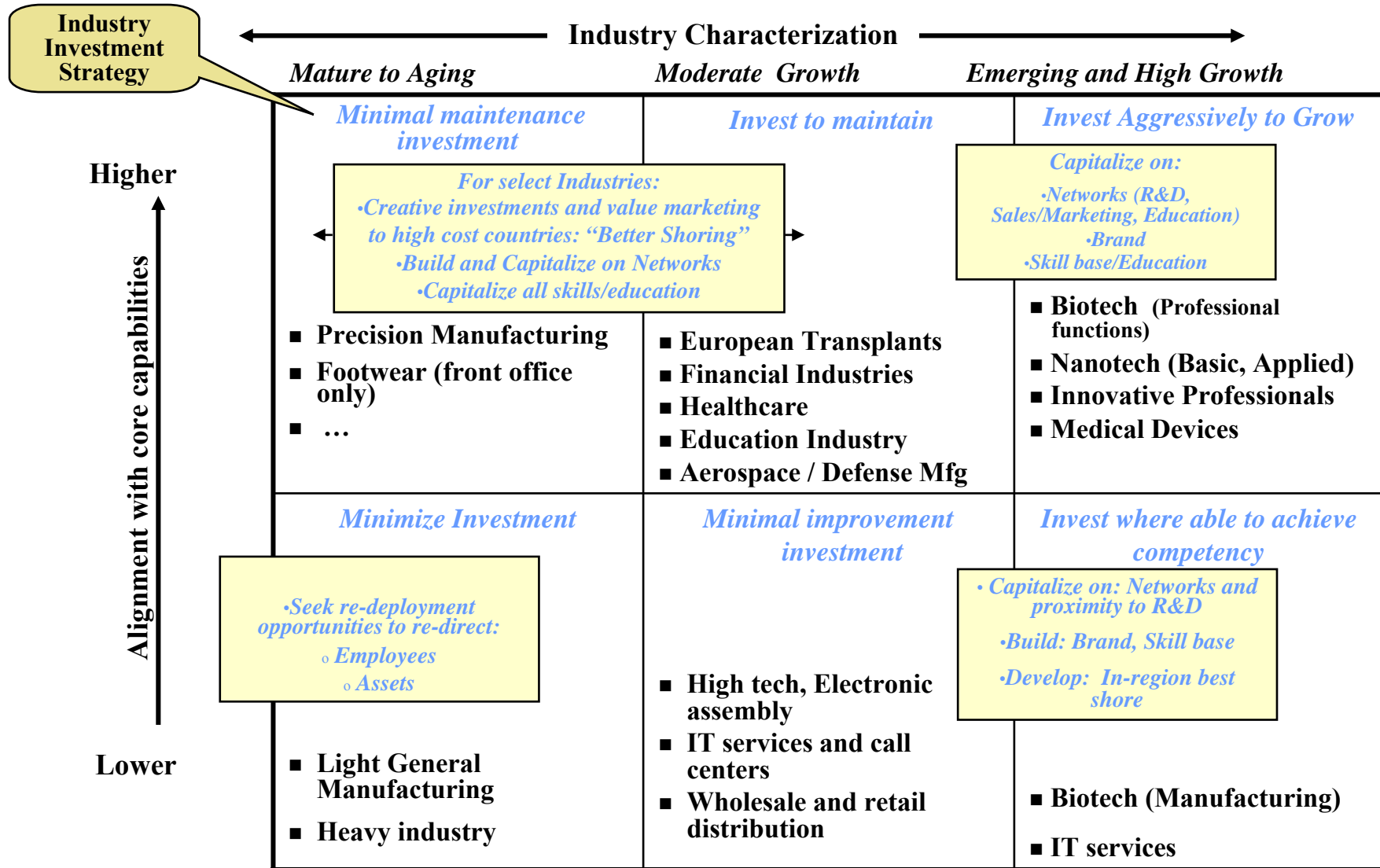


**However, using all of New England's assets and capabilities will require collaboration – not an easy task given the states' diversity**

| <b>Legend</b>   |           |
|---|-----------|
|  | High      |
|  | Med -High |
|  | Medium    |
|  | Low       |

|                      | <b>Technology Led Work Force</b>  | <b>Median Family Income</b>   | <b>Income Gap</b>  | <b>Commentary</b>  |
|----------------------|---|---|--|--|
| <b>Connecticut</b>   |    |    |    | State of contrasts – Gold coast vs. decaying industries; New York vs. New England  |
| <b>Massachusetts</b> |    |    |    | “Regional Solutions are best as long as they emanate from Boston”  |
| <b>Maine</b>         |    |    |    | High tax state with generous levels of social program spending   |
| <b>New Hampshire</b> |   |   |   | Before the Revolutionary War, NH was almost an outlaw colony – nothing has changed – location of choice for entrepreneurs and high-tech innovators skeptical of government |
| <b>Rhode Island</b>  |  |  |  | All politics is local in the Ocean State. Economic development is an obsession, but with limited success   |
| <b>Vermont</b>       |  |  |  | Heavily influenced by people “from away”; economy driven by Vermont being Vermont  |

**While the marketplace will determine winners, policy makers must make specific choices on where and how to invest**



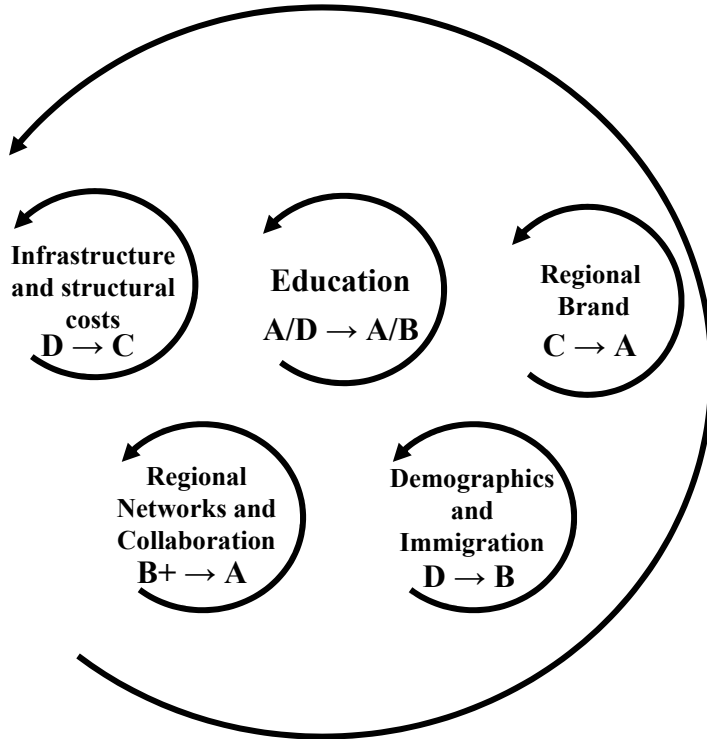
## Examples of reinforcement and alignment of growth engines that may be required for New England's prosperity

| Growth Engine                              | Potential Initiative   |
|--|--|
| <b>Infrastructure and Structural Costs</b> | ▪ Improve passenger transport infrastructure   |
|  | ▪ Improve, extend information infrastructure   |
|  | ▪ In-region 'home shoring'   |
|  | ▪ Incubators for startups (basic, applied)   |
| <b>Education</b>                           | ▪ Focus and leverage scale with region-wide centers of excellence for targeted competencies/programs |
|  | ▪ Strong CC, continuing education and re-skilling  |
| <b>New England Lifestyle and Brand</b>     | ▪ Articulate the brand to specific constituencies  |
|  | ▪ Communicate to target industries, geographies  |
|  | ▪ Communicate to individuals: work, live, play   |
| <b>Regional Networks and Collaboration</b> | ▪ Public and private sector collaboration  |
|  | ▪ Encourage growth of informal networks, provide forum for connection, interaction                   |
| <b>Demographics and Immigration</b>        | ▪ Gain even greater share of foreign investments   |
|  | ▪ Retain young graduates with targeted skills  |
|  | ▪ Promote policies to enable entry of educated immigrants  |
|  | ▪ Provide environment to encourage skilled immigrant retention                                       |

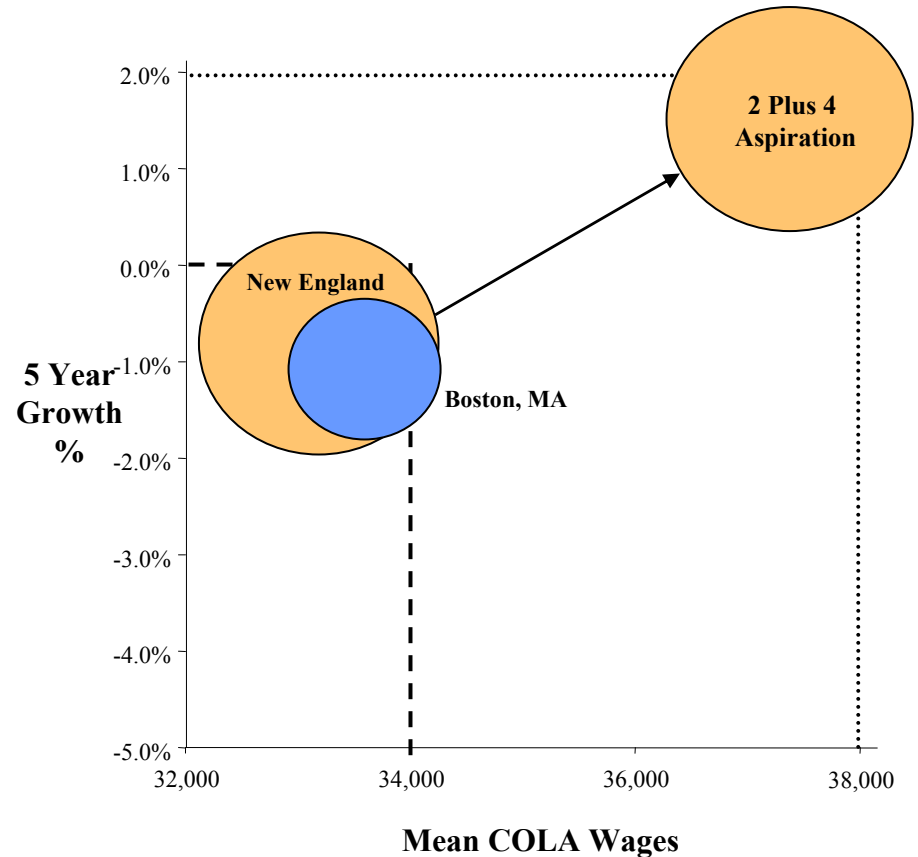
# A call to action can have tangible metrics

## New England's Growth Strategy

Aligning the Growth Engine ...



...To Move the Curve





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## **New England needs to move now to regain lost ground**

- **Make targeted investments to shift growth engines into high gear – spreading the wealth will only dilute resource effectiveness**
  - Shore up education to attract more science-based business and innovative professionals
  - Mitigate/decrease infrastructure costs to attract more specific manufacturing businesses and foreign investment
  - Promote brand more aggressively
  
- ***Collaborate!* New England as a whole has far more potential than the sum of its parts**