

SUSTAINABLE PROSPERITY: AN AGENDA FOR NEW ENGLAND

2005



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Prepared for The New England Council by

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ATKEARNEY

Dear Council Member:

For the past two years, A.T. Kearney, a global management consulting company and a member of the Council, has undertaken a comprehensive study of the New England economy. The purpose of the study was to identify the region's strengths and weaknesses and to focus attention on those areas that require the immediate attention of public and private sector leaders. They have done this work on a pro bono basis. I am pleased to present the result of their work, "Sustainable Prosperity: An Agenda for New England."

The report identifies five economic levers and the challenges facing New England as it competes with other regions of the country for jobs, people and prosperity. These economic levers include: infrastructure and structural costs; education; regional networks and collaboration; "brand," and demographics and immigration.

The study compares New England to areas of the nation with whom we are in direct competition for industries, jobs and people: Raleigh-Durham, NC; Atlanta; and the Baltimore/Washington, D.C., area. The report highlights successful strategies being employed in those locales to enhance their economic competitiveness.

While we face many challenges in New England, capitalizing on our strengths will certainly move us forward. We believe the message from the analysis is a call to action among private and public sector leaders and is best captured by several statements that appear in the executive summary:

"It's time for the region to take a close look at its economic engines of growth. Some of these engines aren't running efficiently, and they're holding back the entire economy as a result."

"New England needs to make conscious, strategic choices to shore up its position in industries that align with its strongest, or potentially strongest, growth engines. It needs to strengthen its educational system, creatively lower structural costs and look selectively at other weak links."

"With investment, leadership and collaboration, the New England region could earn higher marks as a favored destination to live, work and play."

I hope you find this report a valuable resource as you move forward in your own industry. I also hope that you will participate as the Council begins a regional dialogue on the issues raised by the data so that we can craft an agenda for action for the 21st century.

Sincerely,

James T. Brett President and CEO

Sustainable Prosperity:

An Agenda for New England

EXECUTIVE SUMMARY

From the idyllic Vermont countryside to the bustle of Boston, New England's attractions are legendary. Harvard, Yale and MIT beckon to promising students looking for a top-notch education. Biotechnology, health care, financial services and other industries offer a range of employment options. Sports fans can cheer on the Patriots and the Red Sox, and outdoor types can stay busy from ski season to swim season.

Unfortunately, the obstacles to living and working in this venerable region, from an astronomical cost of living to wages that put the area out of reach for many businesses, garner just as much attention. Long accustomed to leaning on its reputation, New England is settling into a precarious position: Up-and-coming communities, from Northern Virginia/Washington, D.C. to Raleigh-Durham to the greater Atlanta metro area, are on a straighter trajectory toward sustainable prosperity. They are outpacing much of New England in terms of living wages and employment growth. They are shifting their focus toward more promising industries, retraining workers and investing in needed infrastructure.

If you think these areas aren't really competition for New England, think again. The region's largest state, Massachusetts, is the only one in the union losing population, and other New England states have more graduating students leaving the area than staying.

How can New England compete with other geographic regions — for businesses, R&D funding and talented workers? It's time for the region

to take a close look at its economic engines of growth. Some of these engines aren't running efficiently, and they're holding back the entire economy as a result. For instance, education—long considered a strong selling point—remains first-class in terms of private colleges, but lags stronger competitors when it comes to public institutions and vocational, technical and community colleges. Structural costs, among the highest in the nation, represent the region's weakest link. And other engines of growth, like brand and demographics, are suffering from neglect. Add up the circumstances, and it's easy to see why New England is losing its edge to other communities.

Of course, it's neither possible nor desirable to be all things to all people. Spreading investments in New England's economy too thin will dilute their effectiveness. Instead, New England needs to make conscious, strategic choices to shore up its position in industries that align with its strongest, or potentially strongest, growth engines. It needs to strengthen its educational system, creatively lower structural costs and look selectively at other weak links.

With investment, leadership and collaboration, the New England region could earn higher marks as a favored destination to live, work and play. A region this rich in resources and talent doesn't deserve to be defined by its weak links. But unless New England prepares now to meet the changing demands of businesses and individuals, it will lose ground in the quest for "sustainable prosperity."

DEFINING THE GOAL

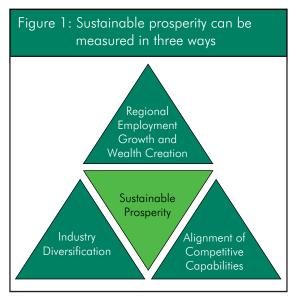
How does a city, state or region spell success? Any community that wants to attract talented individuals and growing businesses needs, in essence, to offer sustainable prosperity.

We see three major components of this goal (see figure 1). The first is regional employment growth and wealth creation. Ask people why they choose a particular place to live, and employment will be a top answer. A community scores well on regional employment growth and wealth creation if jobs are growing across all industry sectors. Average wages, adjusted for the regional or local cost of living, should compare favorably to other key cities and regions as well as to national averages.

The second component is industry diversification. A community or region that has a broad mix of industries and doesn't rely too much on a specific sector can attract a diverse population and weather economic shocks that hit single industries. The industry mix should be not only broad, but geared toward growth, with an emphasis on types of business that are likely to fare well in the future. The mix should also favor industries that pay employees better wages so that workers aren't priced out of the region.

The third component, alignment of competitive capabilities, refers to the skills the region's workers possess. Employees' capabilities should be usable across multiple industries or applicable to new growth opportunities. And their skills should match the requirements of the desired industries—which may mean retraining individuals.

New England is losing ground to communities that are making significant improvements in

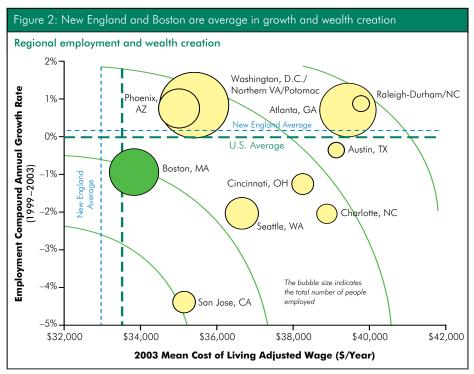


Source: A.T. Kearney

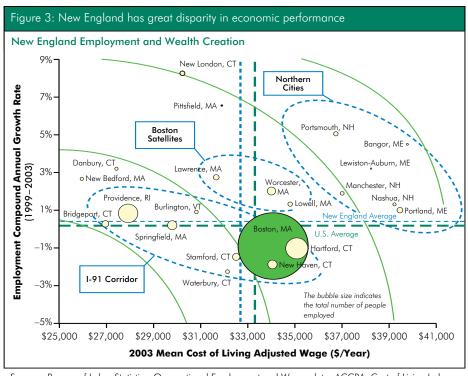
these areas. In employment growth and personal wealth creation, for instance, New England is only average when compared to the entire United States, while Raleigh-Durham, Atlanta, and Northern Virginia and Washington, D.C., are performing distinctly better (see figure 2). San Jose of Silicon Valley, when adjusted for cost of living, is underperforming Phoenix, which is using its structural cost advantages to attract new business, often from California. On the other hand, other cities comparable to Boston, such as Cincinnati, Seattle, Charlotte and Austin, have higher wages (adjusted for cost of living) but don't stand out in terms of growing employment.

Within the New England region, the picture varies (see figure 3). Smaller cities in Maine and New Hampshire, populated with so-called "innovative professionals" such as engineers, designers and consultants, are faring better than most of New England as well as the United States as a whole. On the other side of the spectrum, the

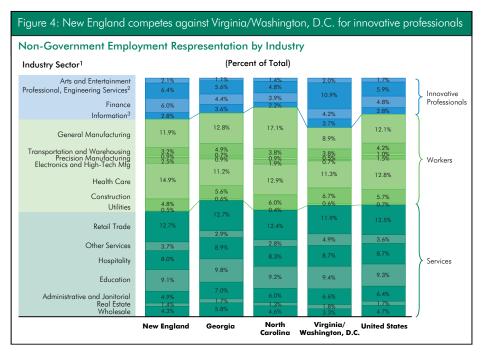
¹Innovative professionals are much like economist Richard Florida's "creative class" whose members range from idea-creating professionals, such as scientists and designers to knowledge workers in business, law and health care.



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



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



¹ Excludes farm, government employment and other marginal industries

Sources: U.S. Bureau of Labor Statistics, 2003 Payroll Data; A.T. Kearney analysis

"I-91 corridor" in Connecticut and Western Massachusetts suffers from both a decline (low to negative) in employment growth and low wages (when adjusted for the cost of living).

Interestingly, the old Boston satellite communities are generally doing better than the city itself. In terms of industry diversification, New England has an attractive starting point (see figure 4). It is not overly dependent on services, such as retail trade and hospitality, that generally are associated with lower wages. Additionally, as mentioned earlier, New England has a healthy share of talent in fields such as engineering, information technology and finance. It is also interesting that competitive geographies have placed their bets differently—Georgia in service, the Virginia/Washington, D.C. region in "innovative professionals" and North Carolina in general manufacturing and "worker" professions.

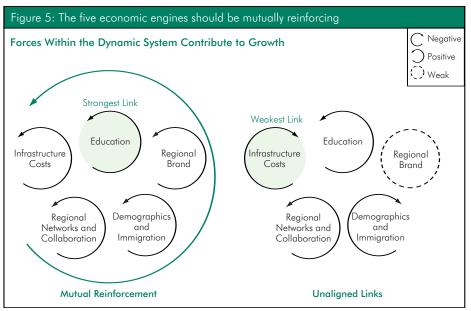
Despite New England's average scores on measures of sustainable prosperity, strategic investments in the right areas could dramatically change the region's trajectory. New England could achieve high employment growth similar to Washington, D.C., and Northern Virginia; growth and high cost of living adjusted incomes such as Atlanta and North Carolina's Research Triangle Park; and better distributed employment opportunities. But to get there, it will first have to tackle a range of issues in an integrated, consistent way.

CONFRONTING THE GROWTH CHALLENGES

The economic performance of any community or region accelerates and sputters with the effectiveness of its growth engines. Based on our

² Professional services includes biotech and nanotech industries

³ Information includes telecommunications



Source: A.T. Kearney

research, we divide a community's many growth drivers into five categories:

- 1. Infrastructure and structural costs
- Education
- 3. Regional networks and collaboration
- 4. Regional brand
- 5. Demographics and immigration

When all five of these economic engines are running smoothly and supporting each other, the region is as strong as its strongest link (see figure 5). But when one misfires, it slows the others as well. In essence, when this dynamic system is aligned, each engine reinforces the other.

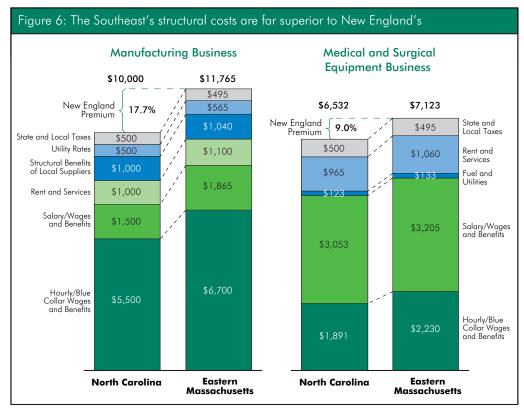
In New England's case, its historically strongest link—education—is showing signs of stress fractures. And its weakest link—structural costs and infrastructure—is playing an alarmingly large role in defining the region. The challenge is to bring the luster back to New England's educational system, pursue creative

solutions to structural costs and infrastructure issues, and shore up other neglected links that are critical to the region's emerging industries and opportunities.

1. Infrastructure and structural costs

The words Boston and expensive are all too frequently uttered in the same breath. In terms of structural costs, high wages, state taxes and utility rates are among the factors that inhibit business growth. As a result, New England lags behind areas such as North Carolina, where superior structural costs have made that state an East Coast "best shore" or most desired location for manufacturing within the United States.

Of course, not all businesses have the same structural cost penalties. A manufacturing business requiring simple to general machining and assembly will be driven predominantly by hourly wage rates, benefits and even work rule issues. Therefore, New England is disadvantaged



Sources: Bureau of Labor Statistics, National Compensation Survey; economy.com; U.S. Census of Manufacturers; A.T. Kearney analysis

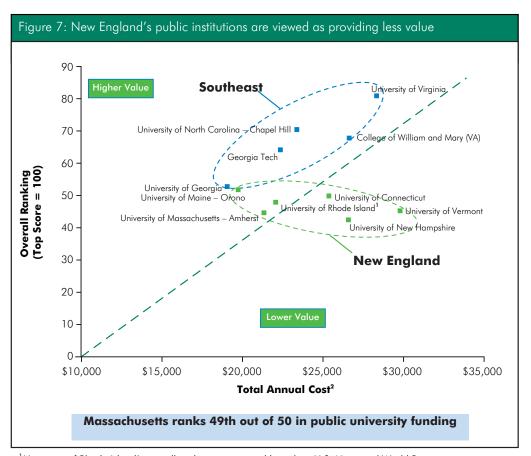
compared with lower-cost regions, such as North Carolina. The cost disadvantage would be difficult to overcome even with a more highly skilled, more productive workforce. On the other hand, medical device costs have a lower percentage of hourly workers and much more complex products requiring tight tolerances. The structural disadvantages are less pronounced, and superior productivity and quality can overcome the modest cost penalty (see figure 6).

Other infrastructure costs are also an issue in New England, especially housing costs and transportation. Many Boston metro communities, as well as Fairfield County, have housing costs four to five times the median household income. However, living in satellite communities of these regions to take advantage of lower housing costs

poses another dilemma — insufficient transportation systems (which are highly road dependent and require long commutes) and sometimes insufficient broadband connections for networking and collaborating with peers. This "infrastructure tax" can be debilitating; it is the friction that prevents businesses from attracting the skills it needs and weakens the collaborative networks critical to innovation. In essence it acts counter to New England's perceived advantage of a highly educated workforce.

2. Education

What should be one of New England's strongest links is showing stress. New England boasts prestigious private institutions, including Harvard, Yale and MIT, that continue to draw in talent

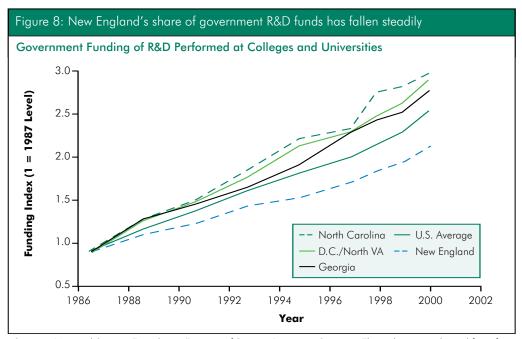


¹University of Rhode Island's overall ranking is estimated based on *U.S. News and World Report* peer score ²Includes out-of-state tuition, room and board, books Source: *U.S. News and World Report* 2004 Rankings

from around the globe. But its public institutions, suffering from inadequate investment, are viewed as providing less value than those in competing regions. And college-bound residents, as well as recent college graduates, are voting with their feet, increasingly heading to the Southeast and other Sunbelt states. Using U.S. News and World Report rankings, a value map was created for public institutions (see figure 7). Schools of great value have high U.S. News and World Report rankings relative to annual out-of-state tuition costs. Almost all of the large southeastern schools fall into this category: high rankings and modest cost for out of state students (and even

better for in-state). Schools with high annual cost, but not correspondingly high rankings, offer lower value. Unfortunately, several New England State universities fall into this category. It is important to note that investments matter: Public funding can build capabilities such as labs, networked dorms and research programs, and at the same time hold tuition costs down. Value rises in both dimensions. It's significant that Massachusetts ranks extremely low in public university funding.

From another perspective, state appropriations for community colleges and vocational education differ widely across states. North



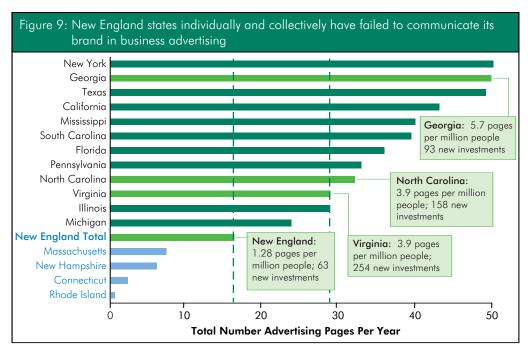
Sources: National Science Foundation/Division of Science Resources Statistics. These data were derived from four NSF surveys: Survey of Industrial R&D; Survey of R&D Expenditures at Universities and Colleges; Survey of Federal Funds for R&D; and Survey of R&D Funding and Performance by Nonprofit Organizations.

Carolina invests more than \$81 per capita versus Rhode Island's \$37, a regional high. Vermont's \$15 represents the region's lowest. This disparity matters when new industries demanding specialized skills, such as biotech manufacturing or advanced materials research, seek assistance from local community and technical colleges before making investment decisions.

In summary, New England's reputation in education remains anchored with its private institutions, but students looking for value and businesses looking for specialized skills will be motivated to look elsewhere.

3. Regional networks and collaboration

The best ideas are seldom the work of an individual; innovation requires collaboration and robust networks of ideas and science. Fortunately, the New England region, led by MIT, does a very good job of supporting collaboration among businesses, and between the public and private sectors. But given the importance of networks and collaboration to the professional class and emerging industry entrepreneurs, who are the foundation of the region's emerging growth industries, reinforcing success must be a priority. Perhaps the best indicator of effective collaboration is the ability of state institutions to capture government R&D funds (see figure 8). The good news is that on a total fund basis, New England and California have a large share of government R&D funds. The bad news is that the growth of R&D funding in New England has significantly trailed the competing Southeast and the United States as a whole — for the past 15 years. Clearly, this trajectory is unacceptable and will require thoughtful consideration of how to re-establish a winning tradition.



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

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

4. Regional brand

It turns out that New England's distinctive brand is not so distinctive after all: Although well known to New Englanders, it is not adequately communicated outside the region (see figure 9). In an editorial in the Boston Globe, Evan S. Dobelle discussed a Discover New England for Business survey: "The survey's authors lament: 'New England's image is one of a costly, highly regulated historic theme park (and by the way, bring a parka!)"

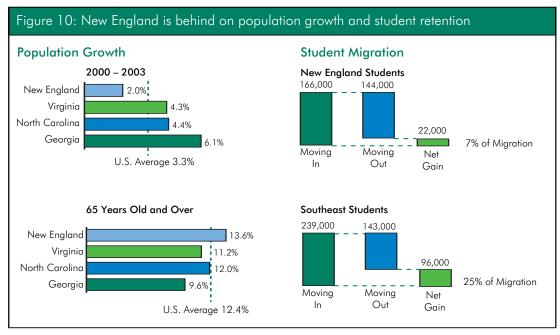
Outmaneuvered in terms of business advertising, New England is losing share of mind to areas such as greater Northern Virginia/ Washington, D.C., which garner positive attention for their proximity to Chesapeake Bay and the energy of the nation's capital.

By one score, the Virginia-D.C. area had 254 new business investments (greater than

20,000 square feet and 50 employees) in 2003, four times the number of investments in all of New England. The other competitor regions in North Carolina and Georgia are ahead as well. All three regions are targeting foreign investment and corporate headquarters.

5. Demographics and immigration

The ability to attract and retain individuals with the skills area employers need is critical to economic stability and growth. New England needs to do a better job of not only bringing bright minds to its academic institutions, but also keeping students in the area after they graduate. Unfortunately, demographic trends are not favorable to New England. It has the slowest population growth of any region, with the remaining population aging rapidly (see figure 10 on page 10). In fact, Maine is second only



Sources: U.S. Census Bureau, data derived from 2000 Census of Population and Housing; A.T. Kearney analysis

to Florida in terms of an aging population. Most importantly, recent graduates of New England's higher education institutions are leaving. Only Massachusetts appears to be retaining college graduates. The southeastern competitor states, on the other hand, are importing and retaining a highly skilled, young population.

On a more positive note, New England (especially Massachusetts) is attracting a significant amount of foreign investment leading to employment. In fact, excluding financial institutions, one in 15 jobs is a result of foreign investment, largely from Europe.

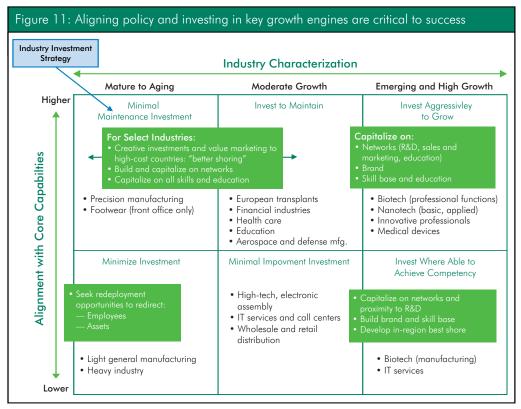
Clearly, to continue as is, New England will not prosper in comparison with other regions. The region's perceived strongest growth engines are showing signs of inattentiveness (education, brand and collaborative networks), while others are basically weak and counterproductive (infrastructure and structural costs, and demographics). However, its growth engines can be revved up if New England's public takes action.

REVVING THE GROWTH ENGINES— SELECTIVELY AND COLLABORATIVELY

As important as the engines of growth are to a healthy economy, it's not feasible to improve all of them at once, nor is it necessary. With limited funds and no shortage of competition, New England must make every investment count. Spreading resources too thin will dilute the effectiveness of efforts across the board. Using all of New England's capabilities and assets by collaborating can also magnify the effect of that investment.

Bet aggressively on high-growth, high-wage industries that fit the region's core capabilities.

New England has a strong position in some of the country's most promising industries and sectors, particularly biotech, nanotech and



Source: A.T. Kearney

medical devices. But the problem with these high-growth businesses is that nearly every large community, from Albany to Washington, D.C., wants to cash in on them. The North Carolina Biosciences Organization even went so far as to run a full-page ad in the *Boston Globe* inviting biotech firms to relocate in the sunny south.

Given the competition, complacence is not an option. New England enjoys several strengths that give it an edge in these businesses; it's time to capitalize on them.

Just as successful regions such as the North Carolina Research Triangle and the Virginia/ Washington, D.C./Potomac areas have done, the New England region needs to articulate a vision for growth, and based on that vision, choose where to aggressively seek opportunities-

and where to minimize investment. (See case study at the end of this document, *North Carolina: Building a Manufacturing-Based "Home Shore,"* for a description of an effective strategy and alignment.)

A useful way to help craft the New England approach is to assess industry characteristics and regional distinctive capabilities (see figure 11). Industries such as biotech and medical devices are not only high growth, but also require the distinct skills of the New England workforce and educational and life science institutions. Additionally, their growth is being propelled by at least two of New England's growth engines: education and collaborative networks. On the other hand, light manufacturing and the less complex electronic assembly industries do not

line up well with our growth engines, especially infrastructure and structural costs. Amazingly, the footwear industry still has significant corporate and marketing activities in New England, probably owing to the robust networks and regional brand.

To elaborate further, we look at two growing industries.

Biotech manufacturing. Biotech manufacturing and distribution seem to be a natural fit for New England. Manufacturers can benefit from close proximity to the region's research firms, its educational system's strength in medicine and science and its existing life sciences networks. Although the region is host to hundreds of biotech firms that handle research and professional functions, the manufacturing side of the equation is conspicuously underrepresented. And that's where the greatest job creation potential lies. A research facility might hire a hundred people; a biotech manufacturer could hire hundreds of people. Attracting manufacturers could also provide employment to workers displaced from other manufacturing industries.

Some successes are already emerging. For instance, Amgen located its newest manufacturing facility—one of the largest cell culture facilities in the world—in West Greenwich, Rhode Island. Building on the established base will facilitate the sharing of resources and ideas that are so critical to the development of emerging industries. When "clusters" of industries reach critical mass, the result is a self-sustaining, positive chain reaction.

But at the same time, some manufacturing facilities are moving out of New England and locating in the Southeast or other parts of the country, seeking lower wages and real estate costs. Unless it takes drastic action, New England's biotech stronghold could diminish, just as the electronics industry did after Route 128 lost ground to Silicon Valley. The competition has plenty of ammunition—for instance, New Jersey has pharmaceutical firms to team with and San Francisco has plentiful venture capital. Another biotech-friendly community, Atlanta, increased the number of biotech companies by 65 percent from 1995 to 2002.

Perhaps the best way to improve the prospects for biotech manufacturing is to address both structural and infrastructure costs (to be discussed in the next section) to lower operating costs and allow for a smooth operating network. In addition, the region could align community college curricula to biotech workers' training needs and promote the brand to demonstrate why locating in New England would be the least risky option.

European transplants. Another compelling opportunity for New England is to serve as a "better shore" for businesses that are operating in even more costly areas and that need access to trained or highly skilled workers. For example, New England is an attractive alternative site for precision manufacturing operations currently located in Germany or other areas of Western Europe. Proximity to the market and access to a strong network of professional skills would be an advantage. In addition, the New England brand is familiar to Europeans, and New England's history in precision manufacturing should minimize the need for additional training.

Buderus Hydronic Systems, headquartered in Londonderry, New Hampshire, is one example of the possibilities. This unit of Buderus Heiztechnik GmbH of Wetzlar, Germany boasts a state-of-the-art training and distribution center

Growth Engine	Potential Initiative
Infrastructure and Structural Costs	 Improve passenger transport infrastructure Improve and extend information infrastructure Establish in-region "best shoring" Create incubators for start-ups
Education	 Focus and leverage scale with regionwide centers of excellence for targeted competencies and programs Build strong community college, continuing eduction and retraining programs
Regional Networks and Collaboration	 Establish public- and private-sector collaboration Encourage growth of informal networks, and provide forum for connection and interaction
Regional Brand	 Articulate brand to specific constituencies Communicate to target industries, geographies Communicate to individuals; great place to work, live, play
Demographics and Immigration	 Gain greater share of foreign investments Retain young graduates with targeted skills Promote policies to enable entry of educated immigrants Provide environment to retain skilled immigrants

Source: A.T. Kearney

in New Hampshire and a large network of business partners to meet the growing demand for the company's products throughout North America.

Use all of New England creatively to fix the weak links and reinforce the strong ones.

There are ways to improve our growth engines (see figure 12). Most of these ideas work better if New England collaborates as a region, however difficult that may be politically and culturally.

Be creative with infrastructure and structural costs. Unfortunately, the perception of New England as prohibitively expensive is true—but not uniformly so. One of the biggest benefits of considering New England in aggregate is the opportunity to exploit what each sub-region has to offer. For instance, outside of the greater Boston area, costs decrease considerably.

Creative investments aimed at infrastructural and structural improvements could put this cost differential to work.

For instance, establishing work centers outside the greater Boston area could make it possible for people and businesses to choose less expensive locations for businesses and for living. Areas such as Portsmouth, New Hampshire and Bangor, Maine are already attracting a sizable number of professionals. The right improvements could help the region build on that base. For instance, the information infrastructure will need to be strengthened to increase the connectivity that's so vital to this crowd. That means taking steps like funding WiFi expansion to smaller communities, which typically are underserved.

Could New England develop a regional "home shore"? The greater I-91 corridor would

be an excellent candidate if its somewhat lower cost of housing could be combined with robust networks and a vocational or community college and state university system aligned to business needs.

In addition, targeted infrastructure improvements would make it easier to live further from Boston and still work there. Right now, limited availability of rail service restricts commuting options. By expanding rail links—not just further out into Massachusetts but also to Rhode Island, New Hampshire and Maine—the region would enable workers to travel from inexpensive living spaces to expensive major centers.

Lower costs will be essential for attracting manufacturers and maintaining a diverse mix of industries in the region. Again, the focus should be on specific opportunities that best fit New England's assets.

Shore up education—demand a high-performance engine across the board. Since businesses like biotech and nanotech thrive on brain power, they will naturally gravitate toward the regions that can provide it. New England must make education the region's hallmark once again at all levels.

Public educational institutions need to overcome their fragmentation (due to limited investments that hurt assets and capabilities) to compete with other regions in terms of value for money. If fragmentation is a key issue for public colleges and universities, it follows that collaboration should play a leading role in the solution. Consider how other areas have successfully worked together to create a whole stronger than the sum of its parts. The Research Triangle Park around Raleigh-Durham, for instance, has gained a strong reputation for its academic institutions. Kiplinger voted the University of North

Carolina at Chapel Hill the number-one value in public colleges, citing academic quality and generous financial aid.

Collaboration among New England institutions could help a relatively small education system leverage scale. By creating region-wide centers of excellence, educational institutions could offer targeted competencies and programs based on the collective expertise and experience of the entire region rather than one entity. If public colleges and universities agreed to each provide one elite public program in a discipline (for instance, one university would host a premier program in biotechnology and one in nanotechnology), they could serve the entire region more efficiently and effectively than if each covered several areas. With liberal cross-state enrollment opportunities, students in Maine, for instance, could take advantage of the specialized offerings in Connecticut.

There's also a need to provide lifelong learning opportunities to ensure workers in the region have the skills the economy needs. That means strong community colleges, continuing education and targeted re-skilling to upgrade and adjust the skill base in the area.

Developing and offering specialized worker training will also be critical to assure prospective employers they are getting the highest productivity possible. Training will also help offset the relatively high wages paid to employees.

Community colleges, which will play a key role in such initiatives, will need additional funding to keep pace with states like North Carolina and California. In addition, New England community colleges need to link curricula more closely to targeted growth industry needs to better prepare students for the employment options facing them when they graduate.

Build the brand. Another obstacle to attracting businesses and people to New England is little awareness of the region's charms. Ask the locals, and they'll mention the coastline in the summer and skiing in the winter. But those outside the region think of expensive housing and long bouts of cold weather.

Clearly, the region needs to more aggressively market its advantages. New York and Georgia are known for promoting their brands to companies seeking expansion locations, doing so three times more aggressively than all six New England States combined, as shown in figure 9.

To attract new businesses and talent, New England needs to create a single brand message that represents the entire region, not individual states or sub-areas. A six-state cooperative effort to market the region offers consistency and scale advantages. Then, working from that unified starting point, advertisers can tailor the messages to appeal to specific audiences.

Enhance networking and collaboration. What form might collaboration take? Look at the Georgia Research Alliance, which has attracted 3,000 new tech jobs, 90 new tech companies, and \$2 billion in federal and private funds—a 6-to-1 return on investment. Founded by the state's research universities, private foundations and other supporters, and financially supported by the state, the alliance unites businesses, research universities and the state government in the quest for a technology-driven economy. It invests in the state's leading research universities in four programs: eminent scholars, research laboratories and equipment, national centers for research and innovation, and technology transfer.

Among the successes to emerge from the alliance's commercialization pipeline is Athero-Genics, a pharmaceutical firm that focuses on the

discovery, development and commercialization of drugs to treat chronic inflammatory diseases, such as atherosclerosis, rheumatoid arthritis and asthma. Formed by two Emory University cardiologists, the company has grown to nearly 100 employees and is now publicly traded.

If Georgia can do that, certainly New England can be much more distinctive, as home to several leading research centers and hospitals. Harvard, MIT, Beth-Israel Deaconess Medical Center and New England Medical Center are not only world class but are all within walking distance of each other.

In addition, New England's skill base, its networks in R&D, sales and marketing, and education, must be the distinctive advantage for the region. It can be the strongest link and justification for investment. It will simultaneously afford these professionals additional opportunities to collaborate, which will help lure even more talent to the area.

Address demographic challenges. New England's best cards to play in this area may be to reinforce success by increasing the market share of foreign investment and to develop programs to increasingly retain its college graduates. It's also important to continually reduce the barriers to entry and assimilation that highly skilled immigrants face. Actions taken on the other growth engines should influence these endeavors.

We in New England should be aware that the Virginia/Washington, D.C./Potomac region will be competing relentlessly for a larger share of young professionals. The region is highly skilled, with the second-highest median income and the fastest-growing metro region in the United States. It has an impressive higher education network, a lifestyle perception that includes the potential to rub shoulders with our country's

	Technology- Led Workforce	Median Family Income	Income Gap	Commentary
Connecticut				State of contrasts: Gold Coast versus decaying industries; New York versus New England.
Massachusetts				"Regional solutions are best as long as they emanate from Boston."
Maine				High-tax state with generous levels of social program spending.
New Hampshire				Before the Revolutionary War, New Hampshire was almost an outlaw colony- nothing has changed. Location of choice for entrepreneurs and high-tech innovator skeptical of government.
Rhode Island				All politics is local in the Ocean State. Economic development is an obsession, but with limited success.
Vermont				Heavily influenced by people "from away" economy driven by Vermont being Vermon

Source: A.T. Kearney

leaders, and is home to a multitude of associations and networks that offer a dynamic environment. The area does have weak spots, however, especially in infrastructure (such as the traffic and commute time) and structural costs. Thus, New England's value proposition for professionals and the younger population in general, including students, will require a competing and compelling vision.

A CALL FOR ACTION AND COLLABORATION

New England may be a great destination for living, working and learning, but other communities are catching up—and surging ahead. As competition increases, so will the importance of collaborating to cultivate the best of what each community or state has to offer. Collaboration

among six states with different resources and needs will be difficult (see figure 13). But unless New England takes a focused, decisive approach to achieving sustainable prosperity, it will lose out to other communities that are already doing so.

The region needs to act quickly-but it also needs to work strategically, investing most aggressively in areas that complement New England's strongest or potentially strongest engines of growth. In the competition for world-class status, misdirected resources represent a high cost and lost opportunities.

It's time for New England to place its bets, and they can't all be concentrated in Boston and biotech. With the right mix of industries, and a thoughtful plan to make creative use of all six states, the region will be well on its way toward sustainable prosperity.

NORTH CAROLINA:

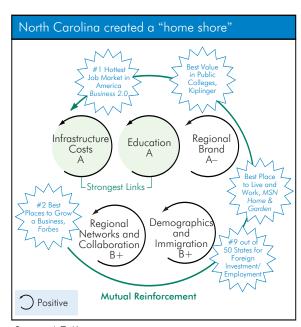
Building a Manufacturing-Based "Home Shore"

Perhaps implicitly, but nevertheless effectively, North Carolina has developed a strategy to colocate R&D and engineering and manufacturing into a "home shore" of the East Coast. Many firms have been outsourcing whole functions such as manufacturing, IT services and design, often to foreign shores, to take advantage of high quality and low costs. But there are risks, too, including long supply chains, poor integration of functions and political instability.

North Carolina offers an interesting alternative. Its home shore, with its somewhat lower structural costs, doesn't pose any of the disadvantages of global outsourcing. From a strategic point of view, North Carolina has been undergoing a massive transformation by aligning its growth engines to support this home-shore strategy. It has become a favored, if not necessarily the lowest-cost, location for doing business.

With its low structural costs and strong academic institutions, the region had a great place to start. Then it formed the Research Triangle with Duke, University of North Carolina and North Carolina State. It committed more funding to community and vocational schools than any state in the country. It also sponsored numerous nonprofit research programs and developed a global, multi-model transportation hub linking an extended runway airport facility with rail and truck networks (located in Kinston, NC).

The other growth engines were not neglected, but aligned with the intent of promoting business development and manufactur-



Source: A.T. Kearney

ing. Collaboration has been the norm for decades. More than 1,000 companies trace their founding to the Research Triangle Park network. The Kerr-Tar Hub initiative attempts to build technology centers in outlying, low-income (and low-cost) counties. And the North Carolina Community College System BioNetwork program promotes and organizes biotech manufacturing in community colleges. The brand of a Carolina lifestyle—high quality at a slower pace—also appeals to many. Brand advertising helped attract more than 150 new business investments in 2002 alone, and foreign investments have created 14 percent of employment, including 90,000 jobs in manufacturing.



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