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The Greater Boston Region: Industry Mix Affects Growth

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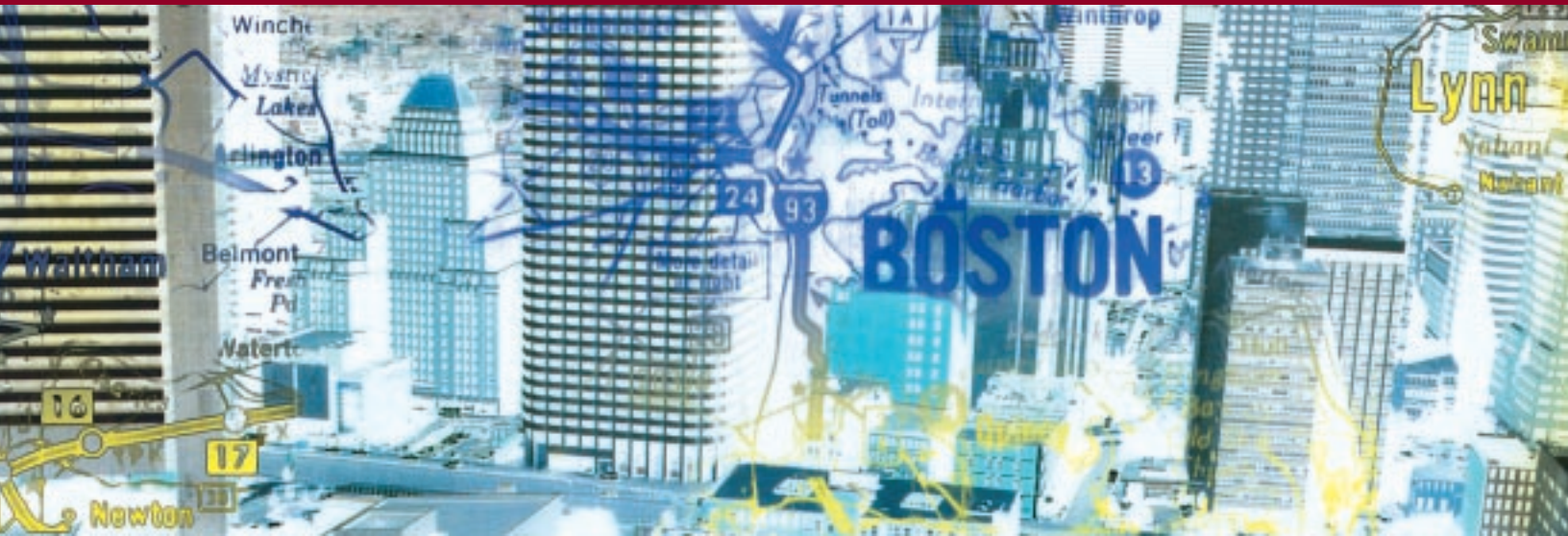


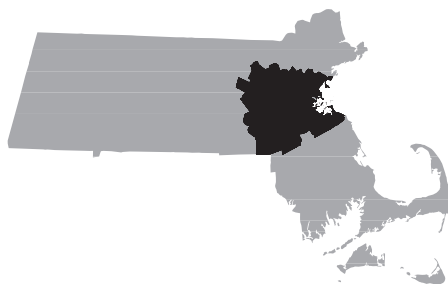
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The Greater Boston Region

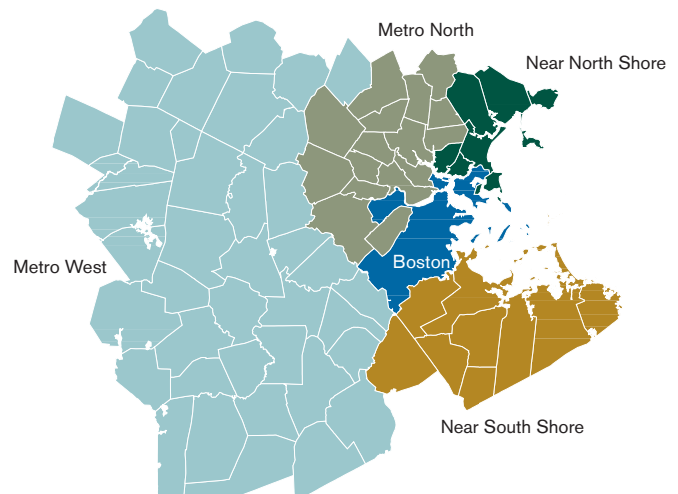
Industry Mix Affects Growth

The economic explosion of the past several years has been felt everywhere. Or has it? While it may be fair to say that the Greater Boston region has experienced remarkable gains, a closer look at its subregions tells a different story.

DAVID TERKLA



A more detailed map of the region can be found inside the back cover of this journal.

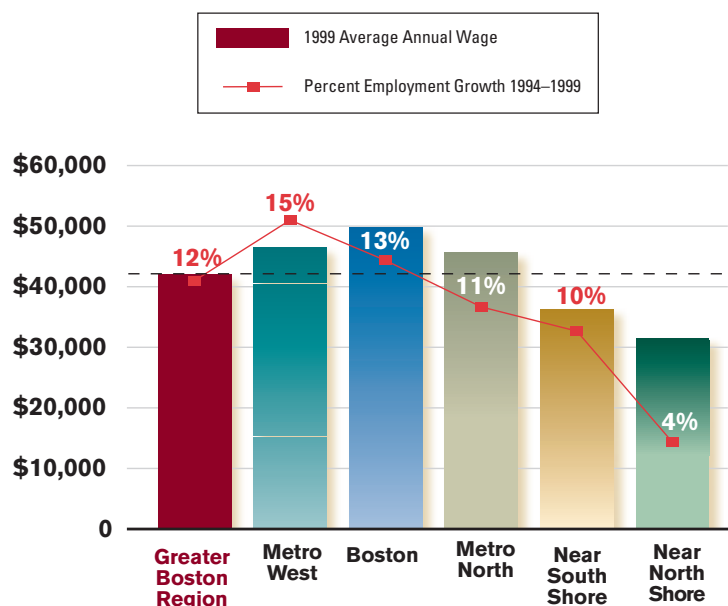


Overall prosperity in the Greater Boston region masks the extreme diversity among its cities and towns. Some areas have experienced robust growth in relatively high paying industries. Others have faced growth only in low-paying jobs, accompanied in many cases by a substantial decline in high-paying sectors. By examining the area's five subregions in terms of industry types, wage levels, and employment growth, we begin to see reasons for these differences.¹

The Commonwealth's strong economy is reflected in the employment numbers for the Greater Boston region, which accounts for more than half of the state's jobs. At less than 3 percent, the region's unemployment rate is modest, a reflection of a 12 percent employment increase since 1994.²

The Near North Shore subregion—consisting of the older industrial cities of Lynn, Saugus, Revere, Everett, and

Average Wage and Employment Growth



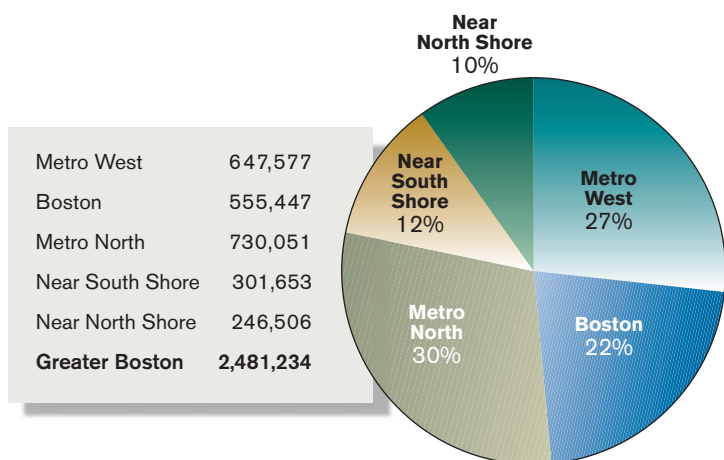
Source: Massachusetts Division of Employment and Training

Chelsea—is the smallest subregion, representing only 5 percent of Greater Boston employment and 10 percent of its 1998 population. Employment growth here during the 1994–1999 period was 4 percent, the slowest in the region. Moreover, average annual wages were only a little more than 60 percent as high as those in the city of Boston.

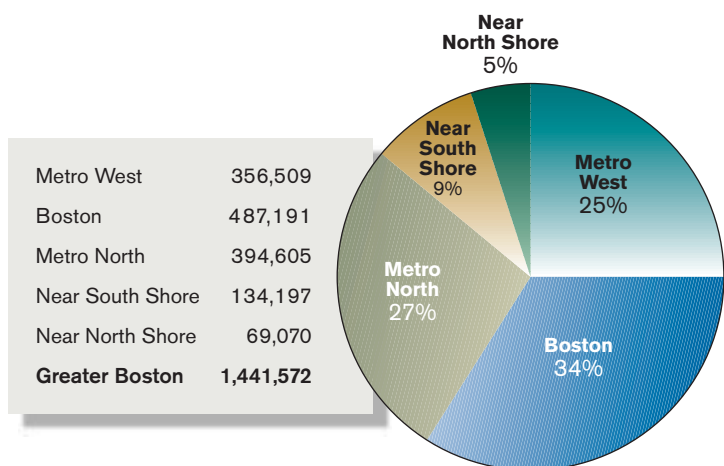
The Near South Shore—with the older industrial cities of Quincy and Braintree, as well as several wealthy bedroom communities—accounts for a little over 9 percent of Greater Boston employment and 12 percent of its population. It has also underperformed the region in terms of employment growth. Average wages here are below the region's and less than three-fourths those in Boston.

The remaining three subregions appear to be experiencing the greatest benefits from the economic expansion. Among these high-performing areas, Metro West stands out. Consisting of the newer industrial parks and bedroom communities between Route 128 and I-495, as well as older, wealthier communities, this subregion represents one quarter of the region's employment and 27 percent of its population. It is by far the fastest growing in terms of employment (15 percent) and has average wages second only to Boston.

The Metro North subregion—including Cambridge, Newton, Somerville, and Medford; bedroom communities north of Boston; and many of the industrial parks on Route 128—accounts for 27 percent of the region's employment and 30 percent of its population. While showing an employment growth rate (11 percent) slightly below that of Greater Boston and 30 percent below Metro West, it has average wages that exceed the Greater Boston average by almost 9 percent and that are less than 10 percent below those in the city itself.



Population



Employment

Source: U.S. Census Bureau

The City of Boston accounts for 34 percent of Greater Boston employment and 22 percent of the region's population. Its average annual wage of almost \$50,000 is the highest in the region, exceeding the regional average by nearly 19 percent. Employment growth here is second highest among the subregions.

Key among the underlying factors influencing these variations is the industry mix in each subregion. A closer look at these industries clarifies the picture.

Near North Shore Is Still Struggling in the New Service Economy

The relatively low paying eating and drinking industry accounts for the largest share of employment in this subregion. This is followed by health services, in which employment is concentrated in the low-paying nursing home and hospital services sectors. Wholesale trade, transportation equipment, construction, retail food stores, transportation, miscellaneous retail, and social services each account for 4 percent to 7 percent of employment. The transportation equipment sector pays well (\$74,000 average annual wage), but this sector is declining. Wages in wholesale trade and construction are near the average for all industries in the region, while transportation-sector jobs pay roughly 75 percent of the average. The remaining jobs pay below 50 percent of the average wage.

Average wages in all of these industries, with the exception of transportation equipment, lag behind the region's overall average. With the exception of transportation equipment and eating and drinking, all annual wages fall below 80 percent of the highest wages for its industry in the area. The transportation equipment, food manufacturing, food stores, and eating and drinking industries all represent a more important portion of the Near North Shore employment base than they do for Greater Boston as a whole.

Fastest growing between 1994 and 1999 was the low-paying educational services jobs sector (257 percent growth), followed by higher-paying food manufacturing (94 percent), commodity brokers (74 percent), engineering and management services (66 percent), and air transportation (69 percent). The "high" growth in all of these areas, with the exception of food manufacturing, reflects increases in a very low employment base and thus a small number of new jobs. There was also significant growth in the larger industries of transportation, construction, and social services.

Employment declines were concentrated in manufacturing (nonelectric machinery down 45 percent and electrical equipment down 22 percent) and construction (up 20 percent) that pay average to above-average wages for the region and wages that are 8 percent to 40 percent above the subregion's average. Health services, wholesale trade, transportation equipment, and food stores also experienced declines. Overall, the majority of declines were in industries with better-paying jobs, while much of the increases were in lower-paying sectors.

Largest Industry Sectors

Near North Shore	Percent of Near North Shore Employment	Percent Change 1994-99	Average Annual Wage in Greater Boston Region	
			Average Annual Wage	Average Annual Wage in Greater Boston Region
Eating & Drinking	11.3	2.6	\$15,861	\$16,322
Health Services	10.1	(10.2)	\$30,891	\$39,178
Wholesale Trade	6.8	(9.7)	\$42,269	\$61,996
Transportation Equipment	6.5	(6.9)	\$74,070	\$70,297
Construction	5.7	19.6	\$43,207	\$49,089
Food Stores	5.5	(5.2)	\$16,140	\$20,781
Transportation	4.8	51.0	\$32,146	\$36,434
Miscellaneous Retail	4.6	4.4	\$21,080	\$24,232
Social Services	4.2	19.0	\$19,545	\$22,073

Near South Shore	Percent of Near South Shore Employment	Percent Change 1994-99	Average Annual Wage in Greater Boston Region	
			Average Annual Wage	Average Annual Wage in Greater Boston Region
Health Services	11.4	12.7	\$32,723	\$39,178
Banking	8.4	8.4	\$49,599	\$52,939
Eating & Drinking	7.1	11.0	\$16,235	\$16,322
Business Services	6.8	17.4	\$32,480	\$47,715
Wholesale Trade	6.6	1.5	\$49,827	\$61,996
Construction	5.8	25.1	\$48,264	\$49,089
Food Stores	4.4	(12.1)	\$29,107	\$20,781
Insurance	3.8	(1.5)	\$49,005	\$54,772
Engineering & Management	3.1	34.5	\$51,493	\$66,807

Metro West	Percent of Metro West Employment	Percent Change 1994-99	Average Annual Wage in Greater Boston Region	
			Average Annual Wage	Average Annual Wage in Greater Boston Region
Business Services	12.0	66.3	\$56,493	\$47,715
Health Services	9.0	11.0	\$35,086	\$39,178
Wholesale Trade	8.2	1.6	\$61,410	\$61,996
Engineering & Management	6.2	25.5	\$65,112	\$66,807
Eating & Drinking	5.6	13.9	\$14,888	\$16,322
Instruments	4.6	(10.7)	\$78,718	\$75,975
Nonelectric Machinery	4.2	(12.7)	\$88,849	\$82,284
Construction	4.2	35.0	\$43,830	\$49,089
Miscellaneous Retail	3.6	27.7	\$26,890	\$24,232

Metro North	Percent of Metro North Employment	Percent Change 1994-99	Average Annual Wage in Greater Boston Region	
			Average Annual Wage	Average Annual Wage in Greater Boston Region
Business Services	16.3	44.5	\$54,622	\$47,715
Educational Services	9.8	5.0	\$42,864	\$41,139
Health Services	9.3	(4.8)	\$36,877	\$39,178
Engineering & Management	8.7	20.5	\$69,792	\$66,807
Wholesale Trade	6.3	7.5	\$66,905	\$61,996
Eating & Drinking	5.6	14.8	\$16,267	\$16,322
Construction	3.9	47.3	\$49,534	\$49,089

Boston	Percent of Boston Employment	Percent Change 1994-99	Average Annual Wage in Greater Boston Region	
			Average Annual Wage	Average Annual Wage in Greater Boston Region
Health Services	15.2	386.6	\$44,201	\$39,178
Business Services	9.7	44.5	\$34,769	\$47,715
Securities Brokers	7.9	61.4	\$96,505	\$91,978
Engineering & Management	7.1	25.9	\$67,254	\$66,807
Eating & Drinking	6.5	11.5	\$17,406	\$16,322
Educational Services	5.0	6.3	\$42,347	\$41,139
Transportation	4.3	6.6	\$40,738	\$36,434
Banking	3.9	2.5	\$64,373	\$52,939
Legal Services	3.5	11.5	\$67,358	\$61,236

Source: Massachusetts Division of Employment and Training

Near South Shore Moving Toward Faster-Growing Service Industries

The two largest sectors in the Near South Shore subregion are health services (11.4 percent) and banking (8.4 percent) followed by eating and drinking, business services (temporary employment agencies, computer and data processing, and building services), wholesale trade, construction, food stores, insurance, and engineering and management services, each accounting for 3 percent to 7 percent of employment.

While the health sector, business services, food stores, and eating and drinking places pay low to medium wages, the other sectors have average annual wages around \$50,000, 19 percent above the Greater Boston average for all industries. However, as with Near North Shore, all industries but food stores have average annual wages below the regional average for their industries and as much as 40 percent below the highest annual average wage for their industries in the area. The banking, specialty trade contractors, apparel stores, food stores, and insurance industries are more concentrated in the Near South Shore than in the entire Greater Boston area.

The fastest-growing sectors in the last five years were securities and commodity brokers (98 percent), educational services (47 percent), construction (25 percent), engineering and management services (34 percent), air transportation (33 percent), and apparel stores (31 percent). Because each of these industries (except air transportation) had a considerable enough presence in 1994, these percentage increases represent significant growth in numbers of jobs.

The job expansion in the brokerage and educational service industries is on the low end of the pay spectrum, with average wages at half the level of those for similar jobs in the Boston, Metro North, and Metro West regions. Likewise, Near South Shore engineering and management services wages average about 80 percent of those in these other regions but are 40 percent above the average subregional wage for all industries. Conversely, apparel store jobs, while still relatively low paying (\$31,400), pay much higher than apparel jobs in the other four subregions.

Job declines have been concentrated in manufacturing, with nonelectric machinery falling 38 percent, and electrical equipment and instruments down 15 percent each. These industries have average annual wages more than 20 percent above the average Near South Shore wage. There was also a significant decline in food store jobs (12 percent) where average wages are 20 percent below the Near South Shore average. Thus, job declines in some high-wage sectors have been offset in part by job increases in higher-wage sectors, such as engineering and management services, banking, and construction.

Thus, while lagging behind other subregions in employment growth and wage levels, it appears that the economic base here continues to shift away from manufacturing and toward banking and the business and engineering

service industries. Much of the job growth so far, however, has been in the lower-paying jobs within these industries.

Metro West Dominated by Rapidly Growing, High-Paying Information Technology

This is the largest geographic region, with excellent transportation connections (the Route 128 and I-495 corridors as well as Route 2, I-90, I-95, and the commuter rail). This, combined with its substantial open space, helps to explain why the area continues to grow so rapidly.

The largest sector (12 percent of employment) is business services, particularly the very high wage computer and data processing firms and higher-wage temporary professional personnel supply services. Health services is the next largest sector, followed by wholesale trade, engineering and management services, eating and drinking, and instrument and nonelectric machinery manufacturing. Where wholesale trade in the North Shore and South Shore subregions is concentrated in the lower-paying warehousing and product distribution jobs, it is dominated in Metro West by very high paying computer software and programming services.

Wages in Metro West are above or close to the Greater Boston industry average in six of the nine largest sectors, and three of these have the highest average annual wage in the area for their industries. The high-technology manufacturing sector—nonelectric machinery, electric equipment, and instruments—along with wholesale trade, apparel stores, and miscellaneous retail are more concentrated in this region than in Greater Boston. Though this is not the case for business services as a whole, the data processing sector is somewhat more highly concentrated in this area.

The fastest-growing sectors in the last five years have been air transportation (382 percent), business services (66 percent), commodity brokers (39 percent), construction (35 percent), apparel stores (32 percent), and social services (28 percent), printing and publishing (26 percent), and engineering and management services (26 percent). While the growth in brokers and air transportation began with very low employment numbers in 1994, the growth in the other sectors represents substantial numbers of additional jobs. With the exception of the apparel and social service industries, these jobs have very high average annual wages. Job declines have been concentrated in the high-wage manufacturing industries of instruments and nonelectric machinery, which are largely computer related.

The economic base of the Metro West area is very strong and continues to have a solid mix of information and high-technology industries with high wages and excellent growth prospects.³

Metro North Benefiting from the Expansion of High-Paying Service Industries

Major industries in Metro North are similar to those in Metro West, though business services accounts for a larger component (over 16 percent) and includes greater employment in

the lower-paying building services sector. With its concentration of higher-education institutions, educational services is the second largest industry (9 percent), followed by health services, engineering and management services, wholesale trade (as with Metro West, concentrated in software), eating and drinking establishments, and construction.

Average annual wages in the business services sector (\$54,622) are second only to Metro West. Pay in educational services and engineering and management services is higher than in any of the other subregions. Average pay in the remaining sectors is second only to that in Boston. This region has an unusually high employment concentration in education services, business services, engineering and management services, instruments, and wholesale trade.

The economic base for Metro North revolves mostly around the fastest-growing industries in the region, and many of the higher-paying ones.

The fastest-growing industries in the last five years were air transportation, securities brokers, food manufacturing, construction, business services, and engineering and management services. The first three are a function of very low employment levels in 1994, but the others involve substantial job growth. Manufacturing industries here have experienced the greatest declines, including fabricated metals (down 11 percent), nonelectric machinery (down 8 percent), transportation equipment (down 61 percent), and instruments (down 37 percent). Only in the case of instruments was employment large enough in 1994 for this to represent significant job loss.

The economic base for Metro North revolves mostly around the fastest-growing industries in the region, and many of the higher-paying ones.

Boston Has Highest Wages Plus Rapid Employment Growth

Health services is the largest employer in Boston, followed by business services, securities brokers, engineering and management services, eating and drinking establishments, educational services, transportation, banking, insurance, and legal services. Average wages in all of these industries are the highest or second highest in the region, with the exception of business services (\$34,769), whose lower wages reflect the heavier concentration of building service and temporary personnel supply jobs in Boston. The sectors with the highest relative employment concentrations are legal services, securities brokers, air transportation, lodging, and insurance.

The fastest-growing sector was transportation equipment (305 percent), followed by commodity and securities brokers (61 percent), construction (46 percent), food

stores (36 percent), business services (35 percent), and engineering and management services (26 percent). Growth in transportation equipment and food stores was a function of the small number of jobs in these sectors in 1994.

Significant declines were experienced in two manufacturing sectors, nonelectric machinery (down 63 percent) and electrical equipment (down 9 percent), both of which accounted for less than 1 percent of 1994 employment. There were also declines in the insurance industry, a more significant employer.

Again, the lack of higher-paying niche manufacturing industries and the expansion of lower-paying business service jobs hurts the city's population with lower levels of formal education and limited mobility.⁴

The Future Looks Bright, but Not Across the Board

While experiencing robust growth in recent years, the Greater Boston region's overall expansion has not been felt in all of its cities and towns. In fact, stark contrasts in economic performance remain, with the Near North Shore subregion experiencing less than one-third of the employment growth of the fastest-growing Metro West subregion.

Amplifying these differences in employment growth are differences in average wages, which tend to be considerably lower in the slower-growing subregions, both because these regions have higher concentrations of low-wage industries and because they have a higher concentration of the lower-wage jobs within industries.

All signs point to continued economic expansion in the Metro West, Metro North, and Boston areas, where the economic base is dominated by industries projected to grow in the next decade. The Near South Shore also appears to be making progress in reorienting its industrial base to the new economy, but the Near North Shore still lags behind. Unless greater efforts are made to attract high-growth industries to this subregion, it is likely to continue to underperform relative to the rest of the Greater Boston region. ▮

1. While subregional divisions are somewhat arbitrary, those used here correspond roughly to previously published divisions, existing transportation corridors, and commuting patterns (see Commonwealth of Massachusetts, *Choosing to Compete*, 1993).

2. The five-year period is measured from the third quarter of 1994 to the third quarter of 1999 using the Division of Employment and Training's ES-202 data. All wage data are also calculated from ES-202 data.

3. Division of Employment and Training, *The Massachusetts Job Outlook Through 2006*. Boston, 1998.

4. David Terkla, "The Importance of Manufacturing in Boston," Greater Boston Manufacturing Partnership, 1999.

DAVID TERKLA is a professor and chair of the University of Massachusetts Boston Department of Economics. The author gratefully acknowledges the research assistance of Vandana Rao and the comments of Peter Doeringer, Zenia Kotval, Jim Klocke, and David Soule in preparing this article.