

Labor Market Trends in the **Boston/Metro North Region**

By Robert Clifford

Policy Analyst
New England Public Policy Center
Federal Reserve Bank of Boston

A joint project of Commonwealth Corporation
and New England Public Policy Center of the
Federal Reserve Bank of Boston

Motivation

- Promote better public policy by conducting objective research and analysis of regional economic/policy issues.
- Understand the long-term labor force challenges facing the regional labor markets in Massachusetts.
- Provide detailed data on labor supply and demand trends to support workforce development policy discussions at a local level.
- Build off the labor market work of Harrington and Fogg (2008) and the demographics research of Sasser Modestino (2009, 2010).

Boston/Metro North



Summary

- Boston/Metro North has had one of the strongest regional labor market recoveries, due largely to gains in 2011.
- With a young and educated labor force, Boston/Metro North does not have some of the demographics challenges facing most other regional labor markets.
- The region employs the most highly educated workforce in the state and has a strong demand for post-secondary educated labor.
- However, there are still a large number of residents who lack a post-secondary education and face challenges to participating fully in the Boston/Metro labor market.

Outline

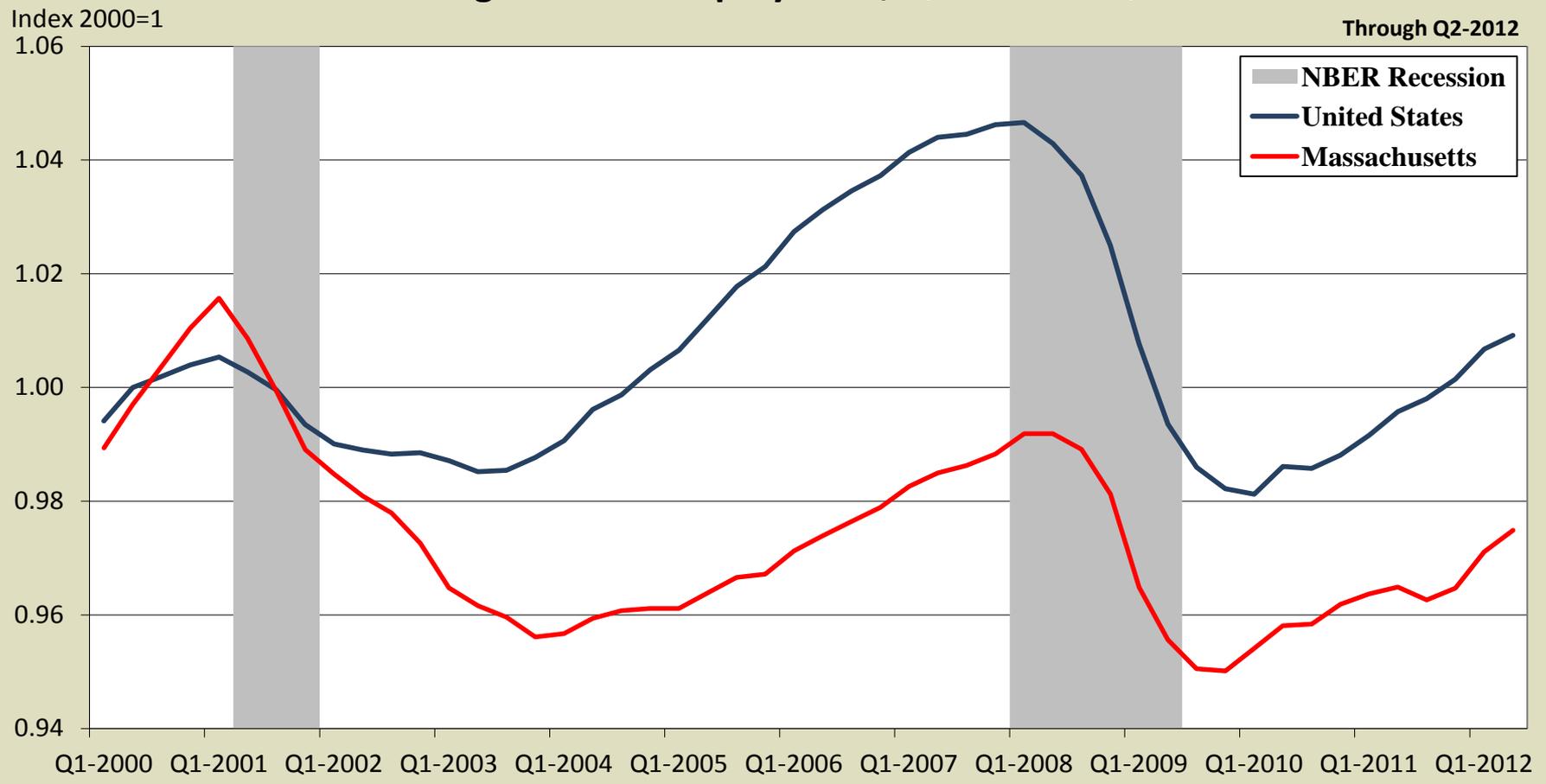
- Labor Market Performance
- Labor Supply
- Labor Demand
- The Pipeline: Educational Supply of Post-Secondary Degrees

Labor Market Performance

- National and State Employment Trends
- Performance of Regional Labor Markets
- Employment Trends by Industry in Boston/Metro North and Massachusetts

Massachusetts is still far below its peak employment levels of the early 2000's.

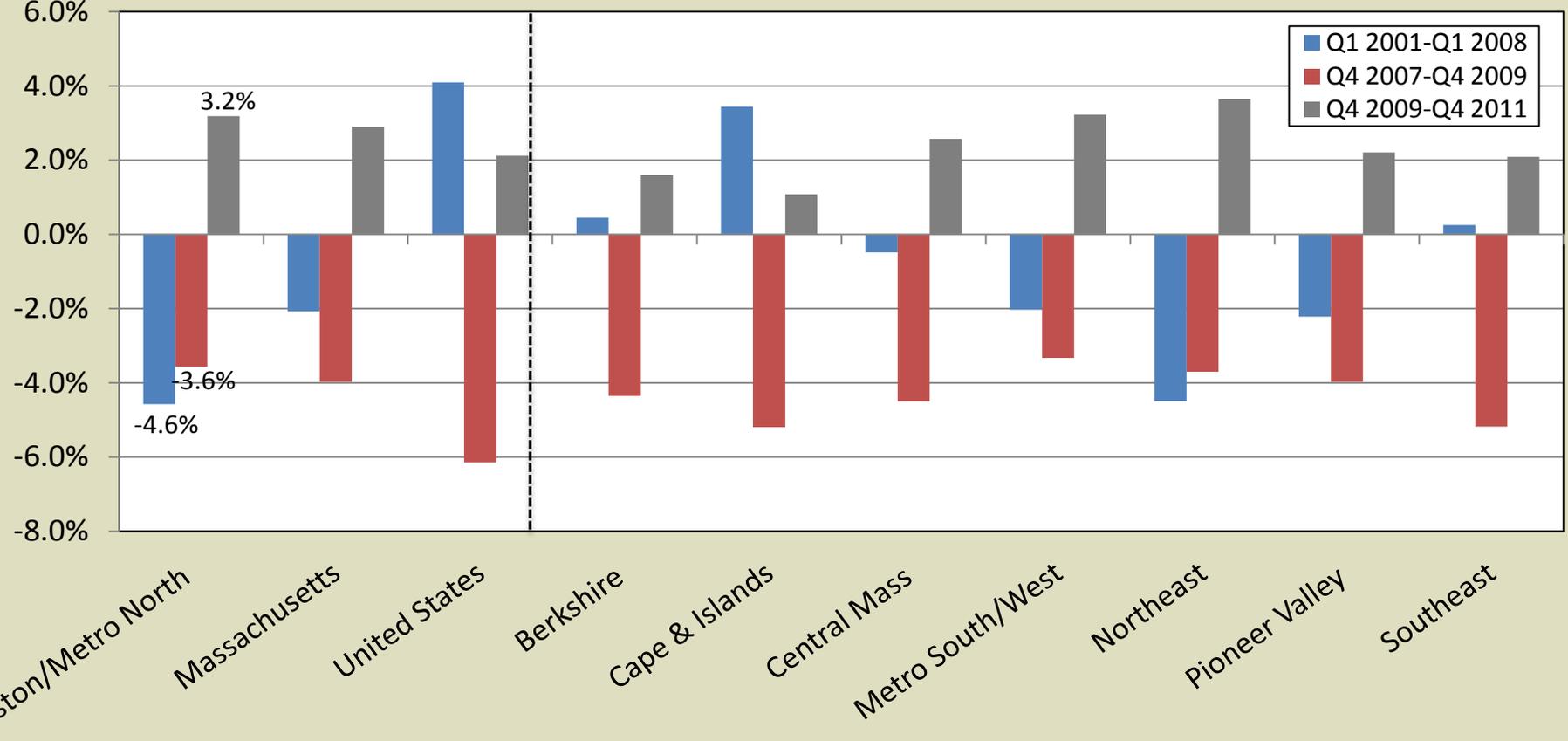
Total Non-Agricultural Employment, Q1-2000 to Q2-2012



Sources: U.S. Bureau of Labor Statistics, Current Employment Statistics.

Boston/Metro North has had one of the strongest regional labor market recoveries, due largely to employment gains in 2011.

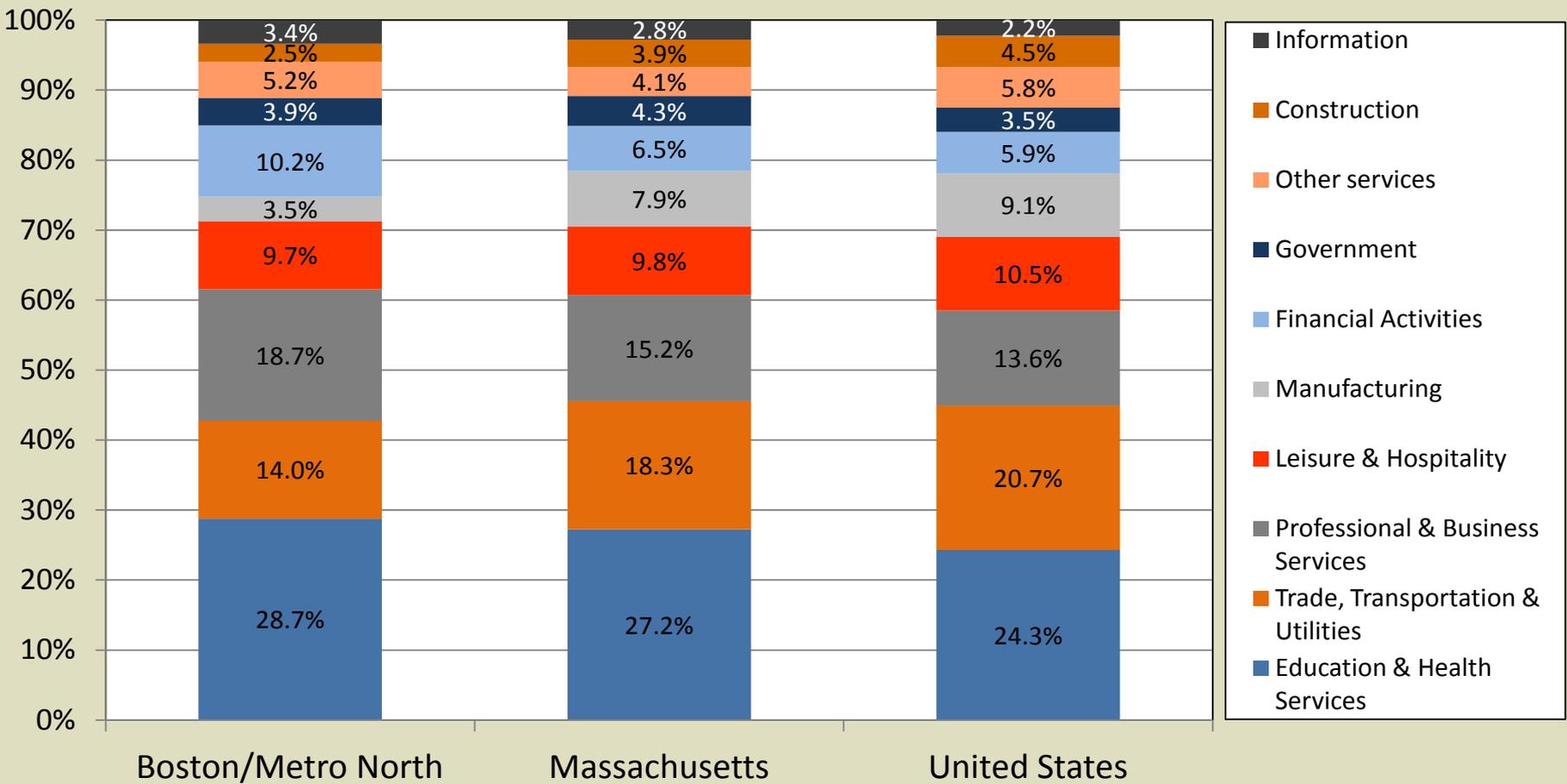
Total Growth Rates in Employment



Sources: Massachusetts Executive Office of Labor and Workforce Development (EOLWD), ES-202 and U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

Boston/Metro North has stronger concentrations in Financial Activities and Professional & Business Services.

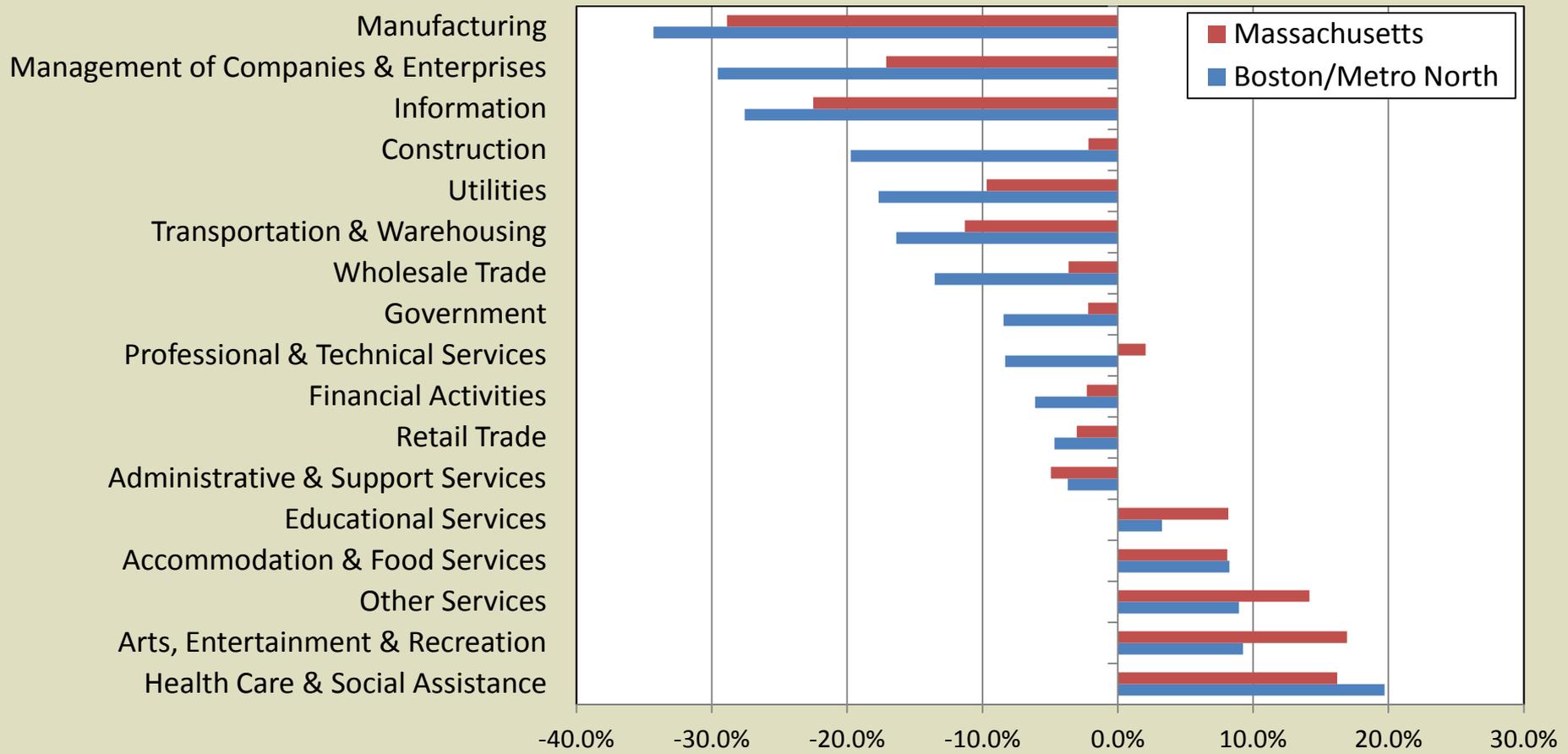
Employment Distribution by Supersector, Q4 2011



Sources: Massachusetts EOLWD, ES-202 and U.S. Bureau of Labor Statistics, QCEW.

The region had steeper employment losses and weaker gains in nearly every major industry between recessions.

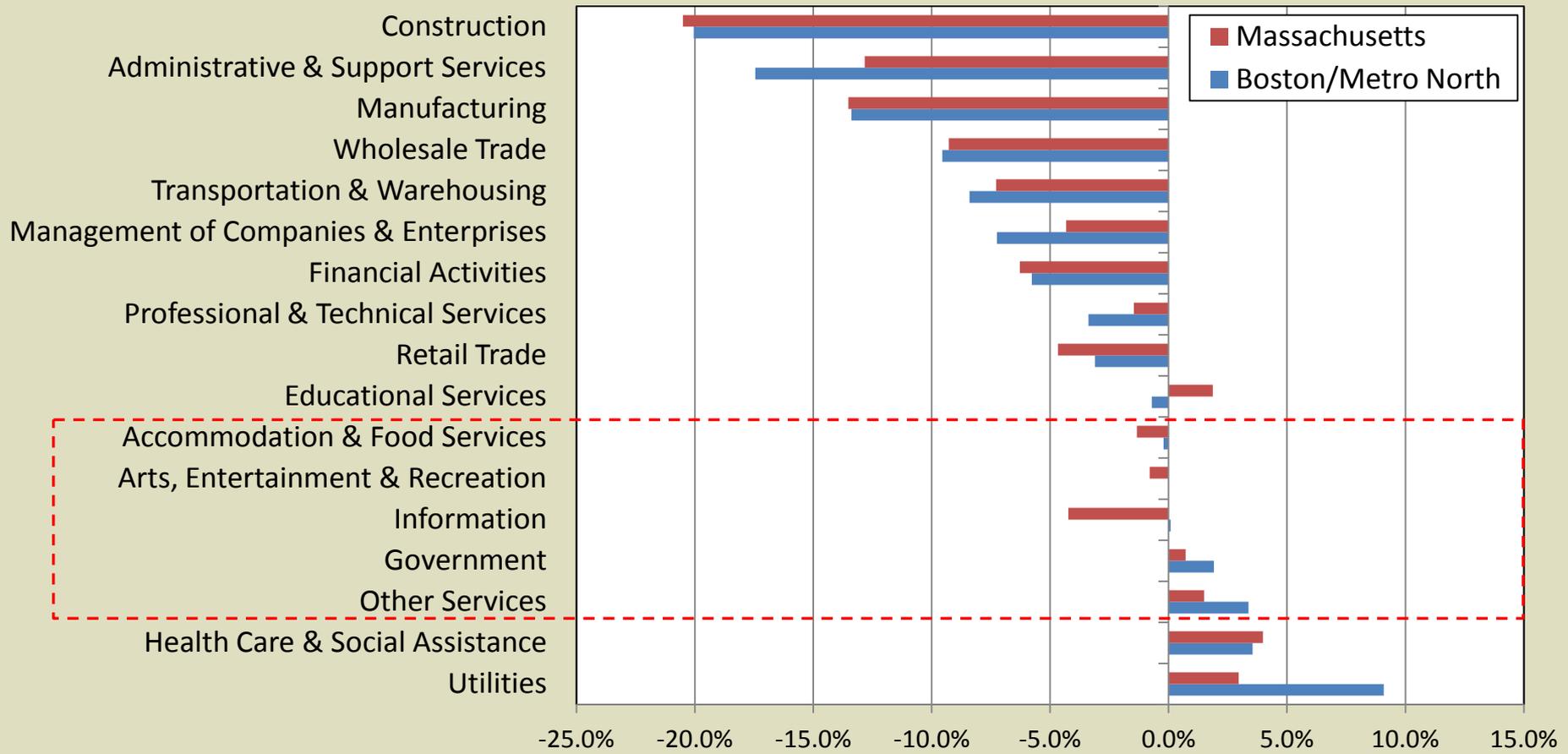
Employment Changes, Q1-2001 to Q1-2008



Sources: Massachusetts EOLWD, ES-202.

In the Great Recession Boston/Metro North shed jobs in most major industries, with gains limited to only five industries.

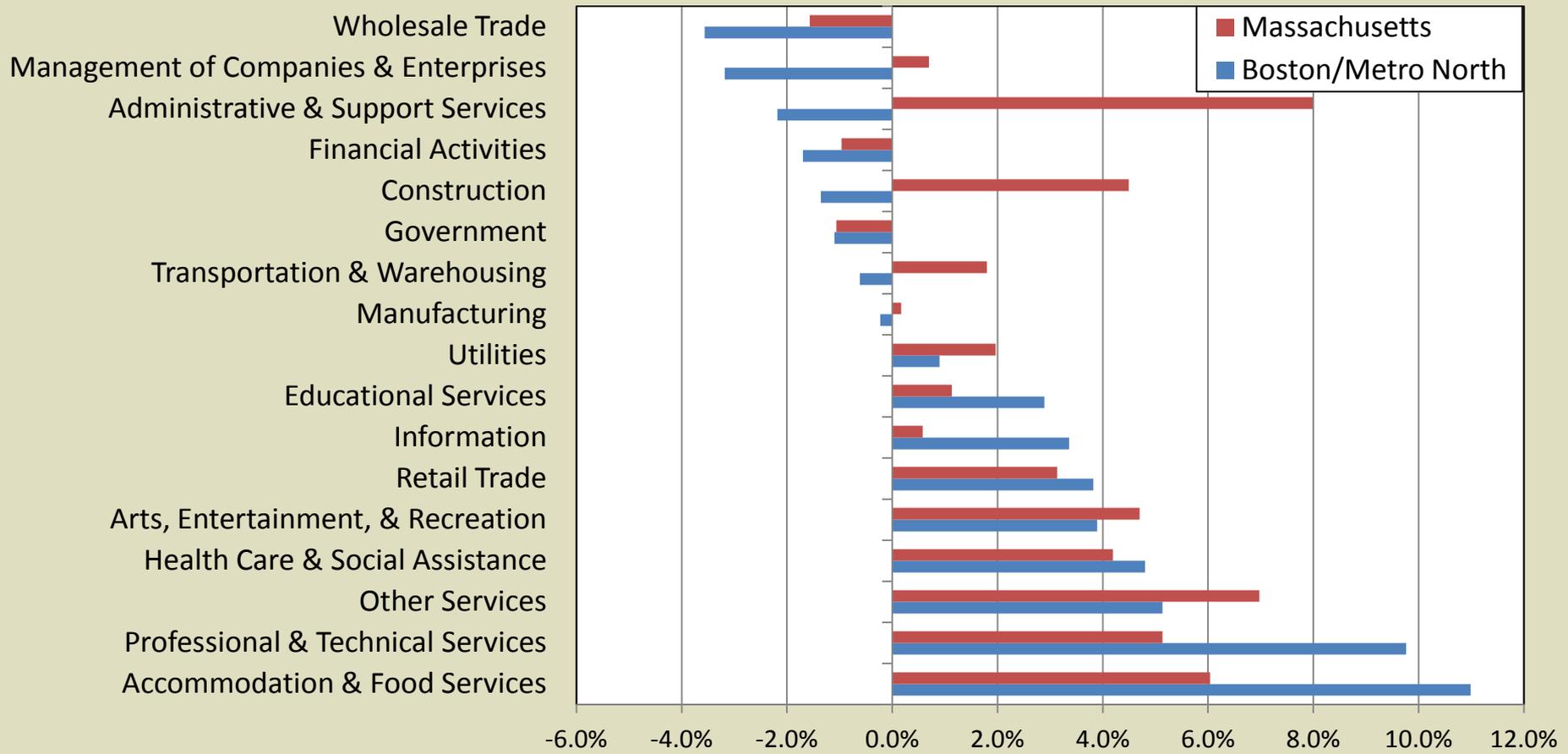
Employment Changes, Q4-2007 to Q4-2009



Sources: Massachusetts EOLWD, ES-202.

Accommodation & Food Services, Professional & Technical Services, and Health Care & Social Assistance led the strong recovery.

Employment Changes, Q4-2009 to Q4-2011



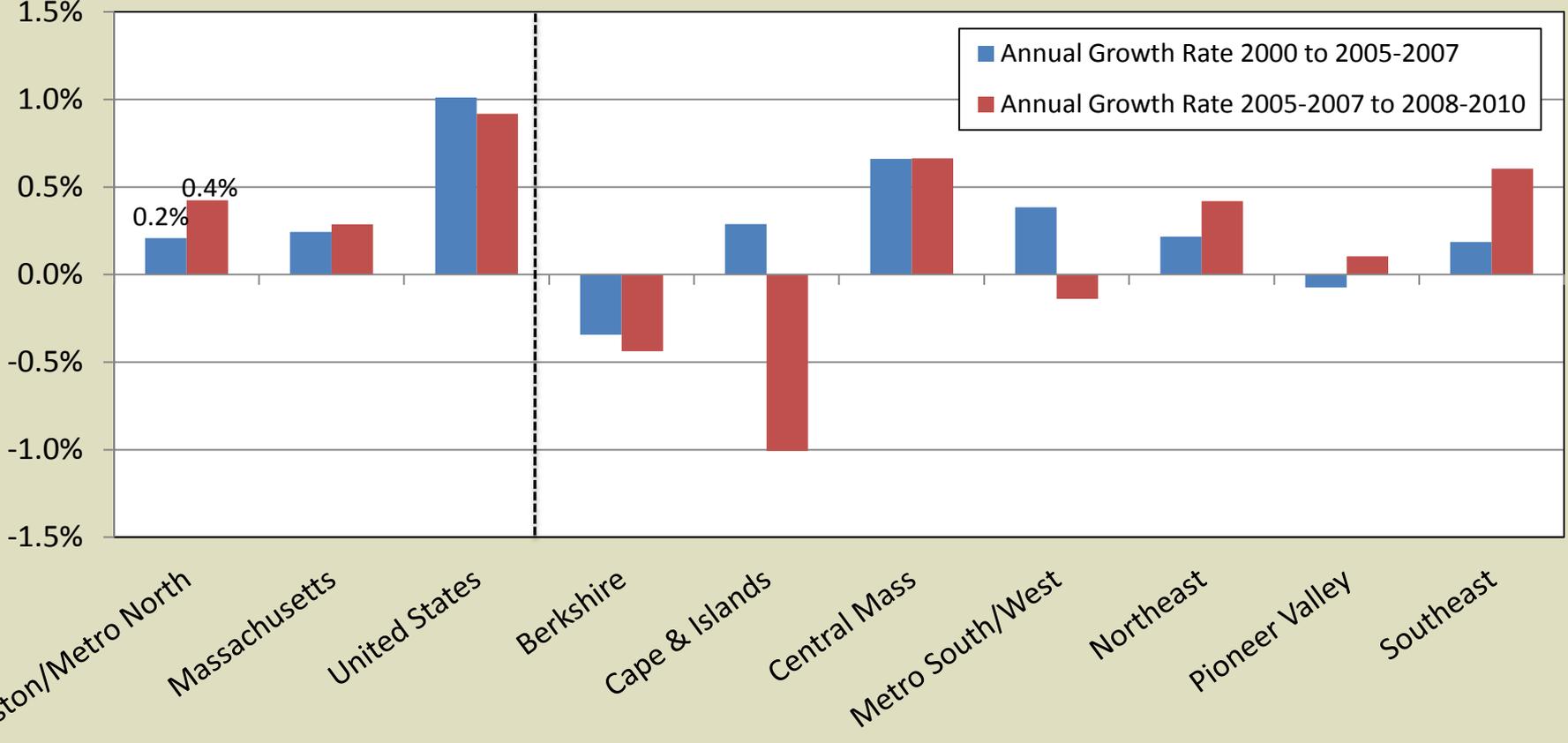
Sources: Massachusetts EOLWD, ES-202.

Labor Supply

- Residential Population Changes and Characteristics
- Nativity Status, Age, and Education of the Civilian Labor Force
- Trends and Characteristics of the Unemployed
- Commuting Patterns

The growth of the residential population in the region has exceeded statewide rates but trailed national trends.

Total Residential Population Growth



Source: U.S. Census Bureau 2000 Decennial Census Public Use Microdata Samples (PUMS) data files, 2005-2007 and 2008-2010 American Community Survey (ACS) Public Use Micro Sample (PUMS) data files.

Growth in immigrant and minority populations have offset losses of native born and white, non-Hispanic residents.

Demographic Characteristics of Boston/Metro North

	2000	2008-2010	Absolute Change	Annual Growth Rate
Resident Population	1,176,638	1,206,646	30,008	0.3%
<u>Gender</u>				
Male	565,865	584,472	18,607	0.4%
Female	610,773	622,174	11,401	0.2%
<u>Nativity</u>				
Native Born	879,971	866,209	-13,762	-0.2%
Immigrant	296,667	340,437	43,770	1.5%
<u>Race/Ethnicity</u>				
White, non-Hispanic	752,646	718,680	-33,966	-0.5%
Black, non-Hispanic	166,977	177,111	10,134	0.7%
Asian, non-Hispanic	78,305	103,081	24,776	3.1%
Hispanic	129,604	171,442	41,838	3.2%
Other race, non-Hispanic	49,106	36,332	-12,774	-3.3%

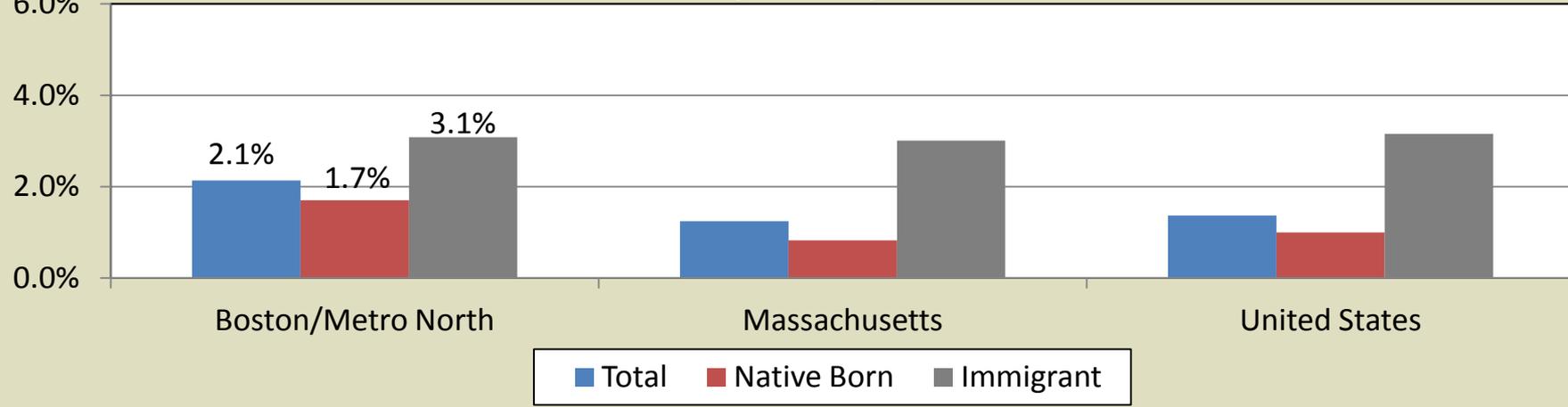
Source: U.S. Census Bureau 2000 Decennial Census PUMS data files and 2008-2010 ACS PUMS data files.

Immigrants accounted for the majority of the growth in regional, state, and national labor forces.

Civilian Labor Force Growth by Nativity Status, 2000 to 2005-2007



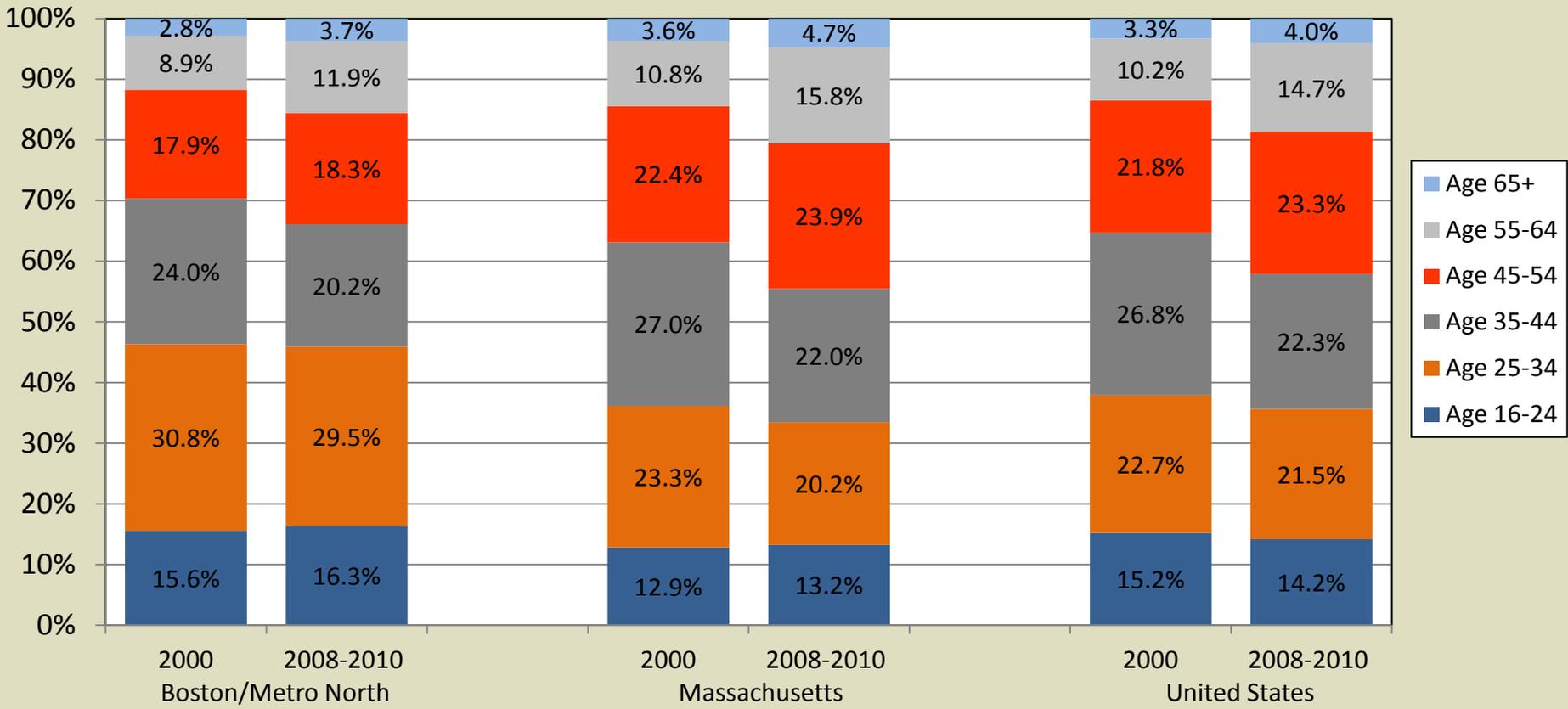
Civilian Labor Force Growth by Nativity Status, 2005-2007 to 2008-2010



Source: U.S. Census Bureau 2000 Decennial Census PUMS data files and 2008-2010 ACS PUMS data files.

Boston/Metro North has the youngest labor force in the state, with nearly 46 percent age 34 or younger.

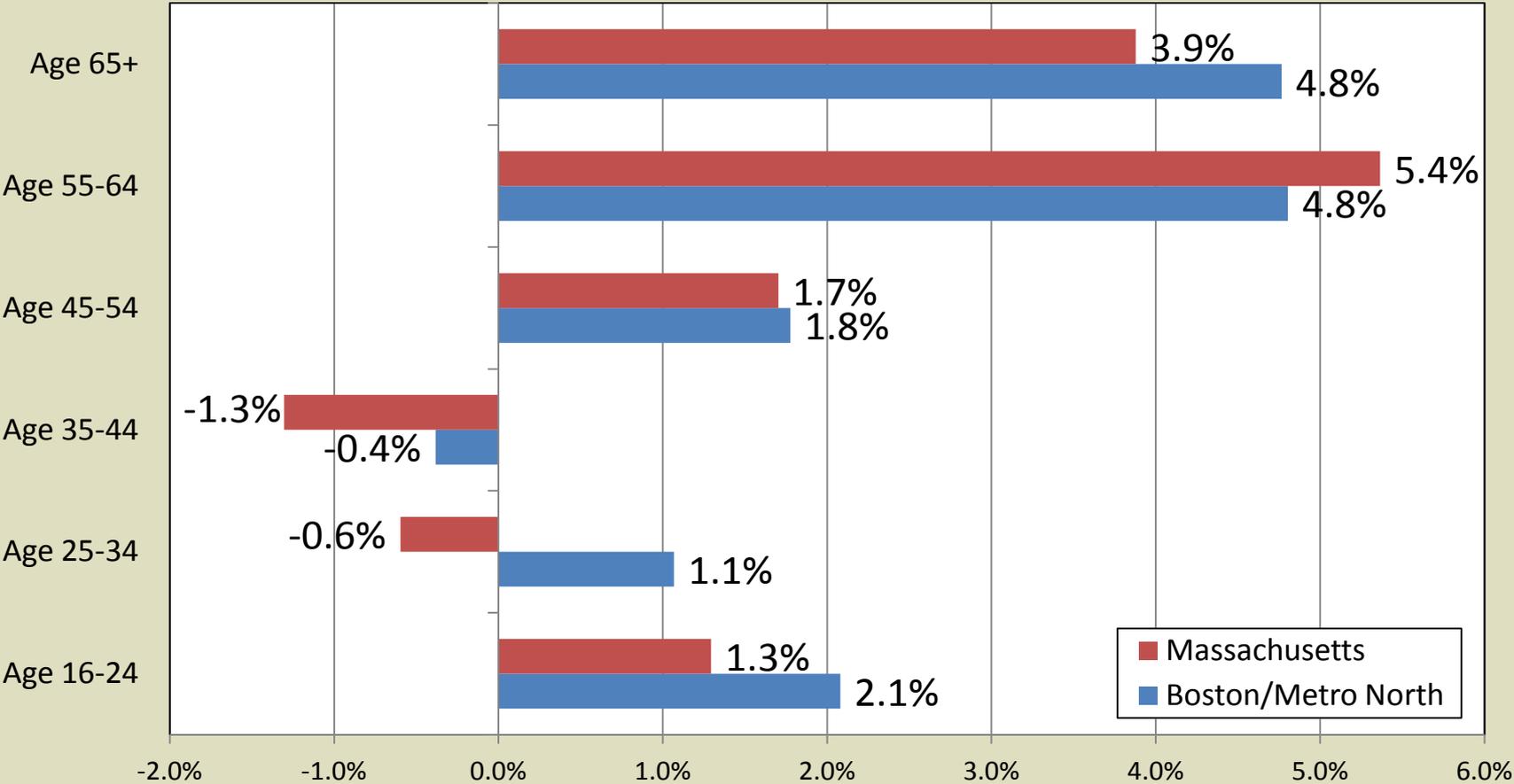
Age Distribution of the Civilian Labor Force



Source: U.S. Census Bureau 2000 Decennial Census PUMS data files and 2008-2010 ACS PUMS data files.

Boston/Metro North was the only regional labor market to increase the number of 25-34 year olds in the labor force.

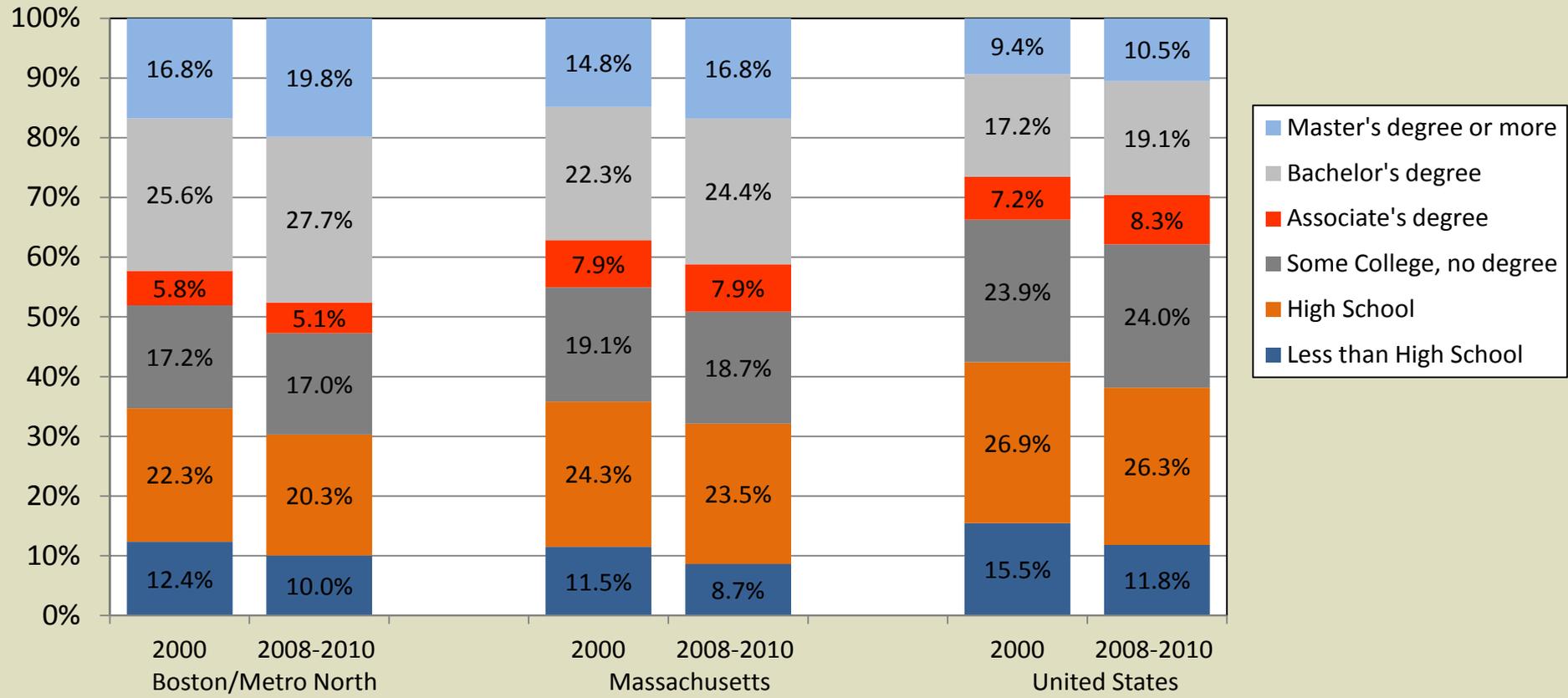
Annual Growth in the Civilian Labor Force by Age, 2000 to 2008-2010



Sources: Massachusetts EOLWD, ES-202.

The region has one of the most educated labor forces in the state, as nearly 48 percent have a Bachelor's Degree or higher.

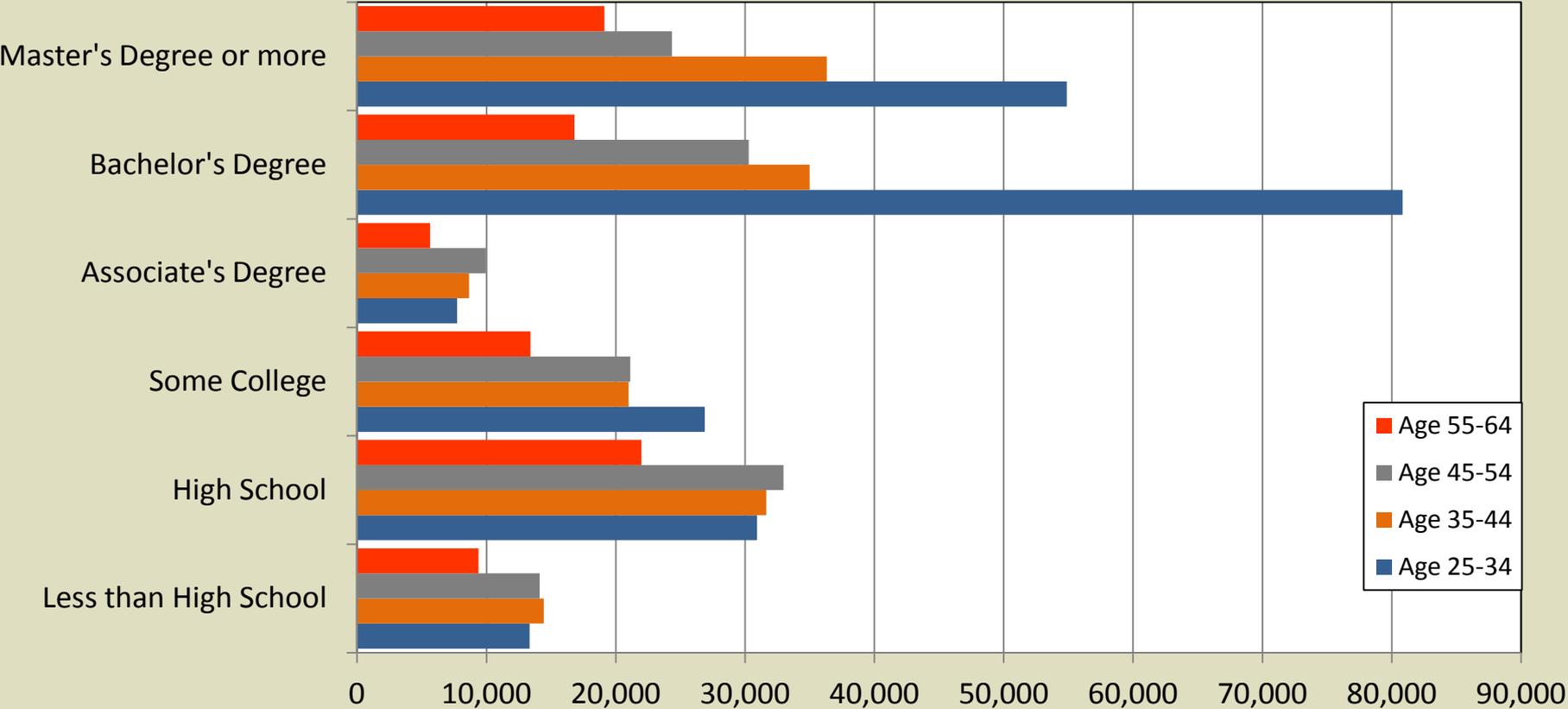
Educational Attainment of the Civilian Labor Force



Source: U.S. Census Bureau 2000 Decennial Census PUMS data files and 2008-2010 ACS PUMS data files.

The combination of a young and highly educated labor force mitigates some of the challenges facing other labor markets.

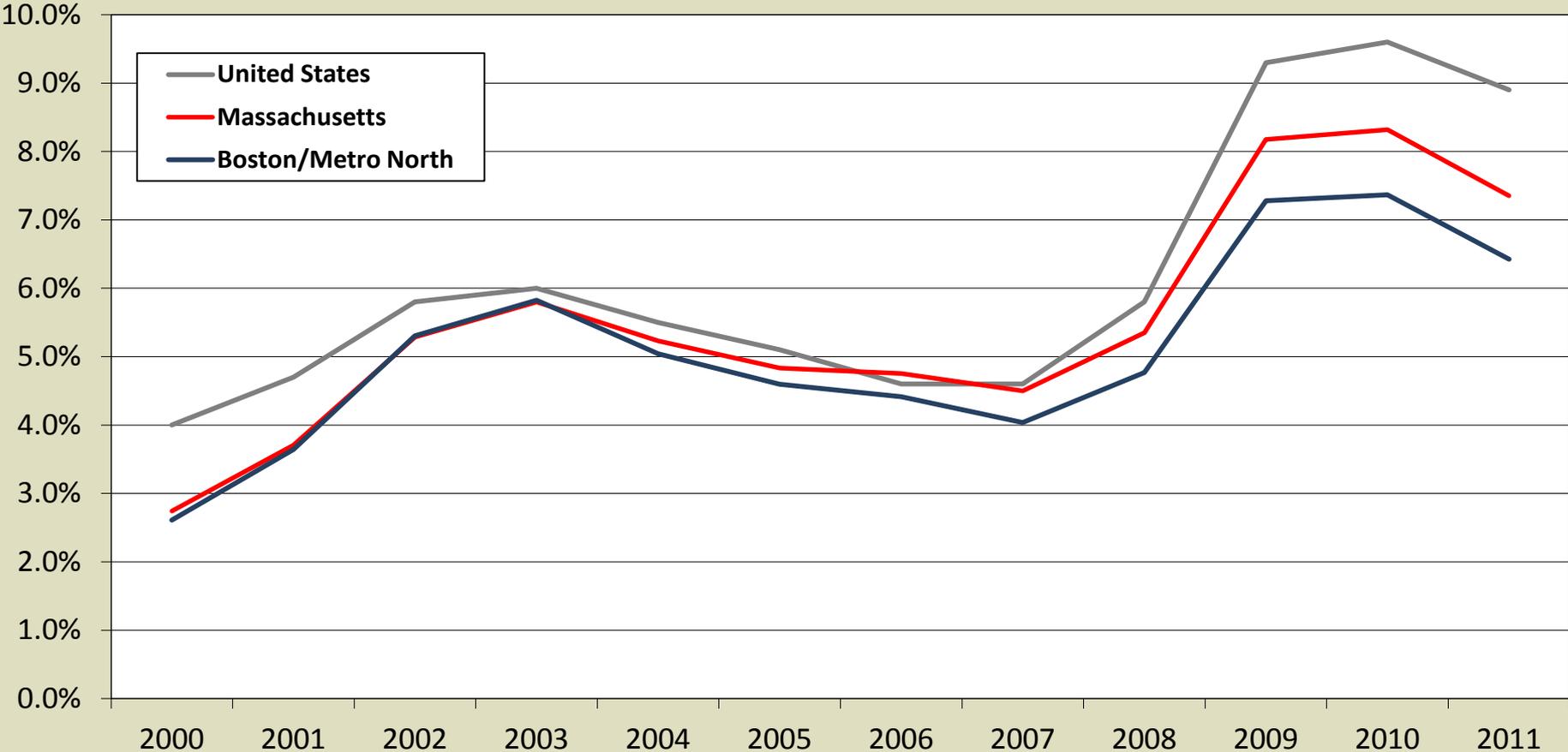
Educational Attainment of the Civilian Labor Force in Boston/Metro North



Source: U.S. Census Bureau 2008-2010 ACS PUMS data files.

Strong employment gains resulted in Boston/Metro North having the second lowest unemployment rate among all regions in 2011.

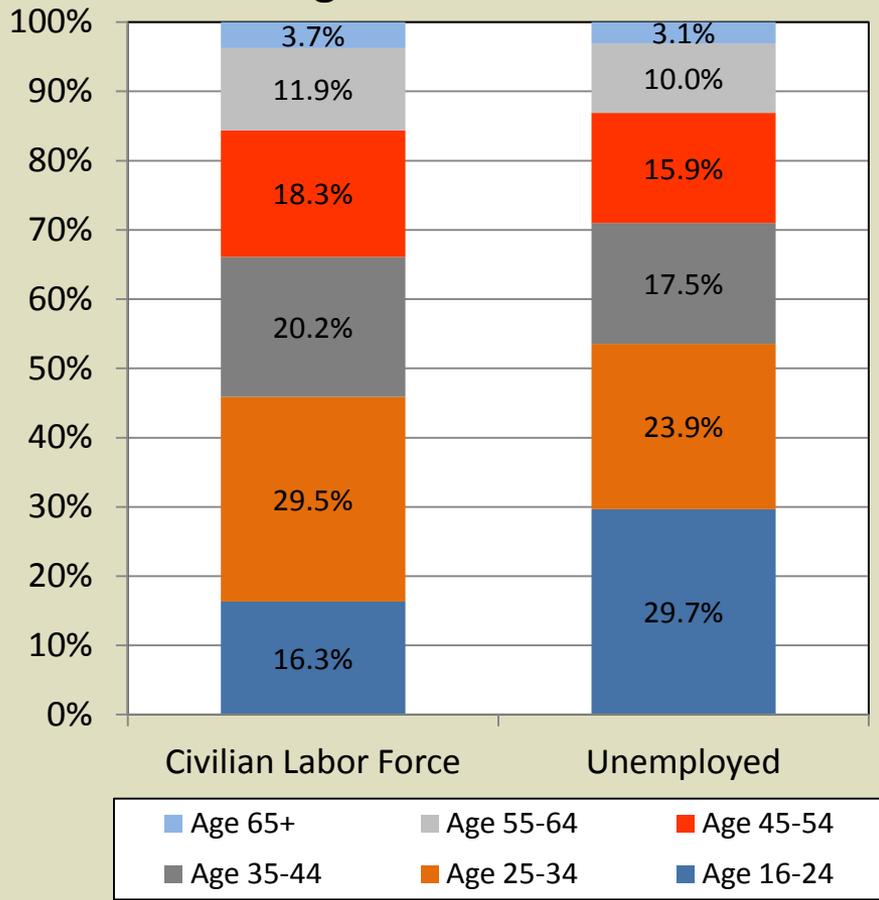
Unemployment Rates, 2000 to 2011



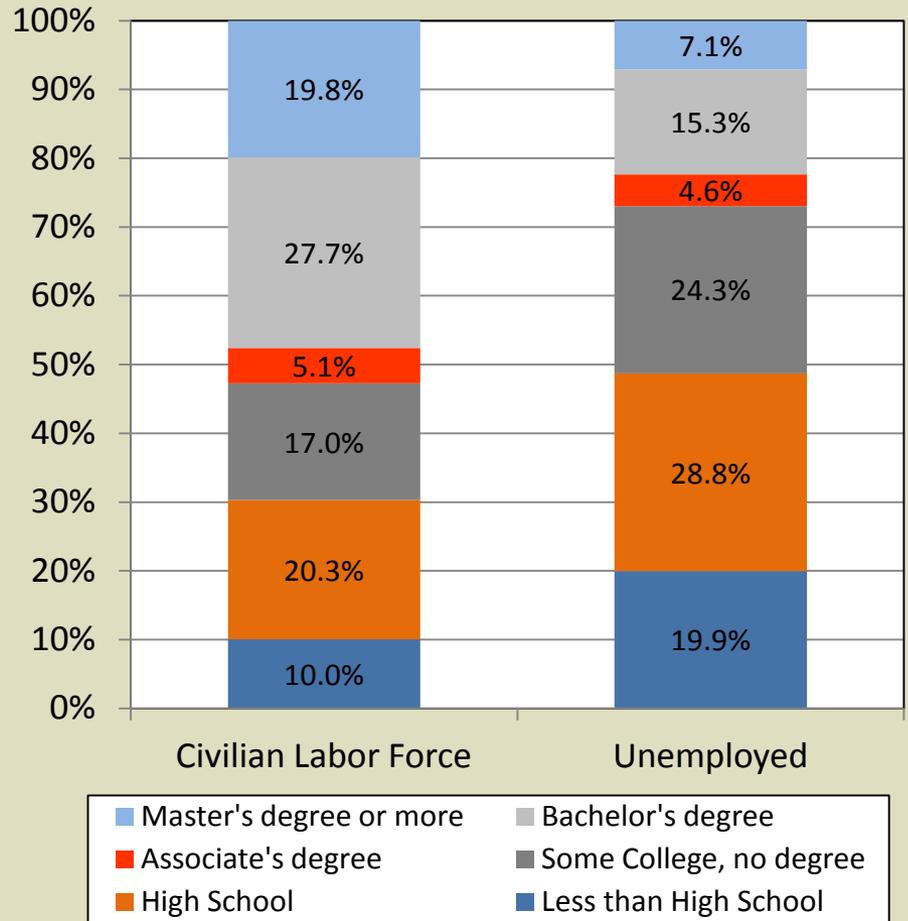
Source: U.S. Bureau of Labor Statistics, Current Population Survey and Massachusetts EOLWD, Labor Force and Unemployment Rates.

The unemployed in Boston/Metro North are disproportionately younger and have lower levels of educational attainment.

Age Distribution



Education Distribution



Source: U.S. Census Bureau 2008-2010 ACS PUMS data files.

Boston/Metro North is a magnet for commuters and interconnected with a number of labor markets...

	Number	Percent of Total
Total number of employed persons living in Boston/Metro North...	644,222	100.0%
...who work in:		
Boston/Metro North	488,387	75.8%
Metro South/West	85,621	13.3%
Northeast	36,693	5.7%
Southeast	20,692	3.2%
Central Mass	2,859	0.4%
Other parts of Massachusetts	792	0.1%
New Hampshire	2,432	0.4%
Rhode Island	907	0.1%
Other places outside Massachusetts	5,839	0.9%
Total number of persons working in Boston/Metro North...	902,144	100.0%
...who live in:		
Boston/Metro North	488,387	54.1%
Metro South/West	143,259	15.9%
Northeast	110,133	12.2%
Southeast	106,686	11.8%
Central Mass	11,564	1.3%
Other parts of Massachusetts	4,003	0.4%
New Hampshire	20,077	2.2%
Rhode Island	7,494	0.8%
Other places outside Massachusetts	10,541	1.2%
Net in-commuting	257,922	-

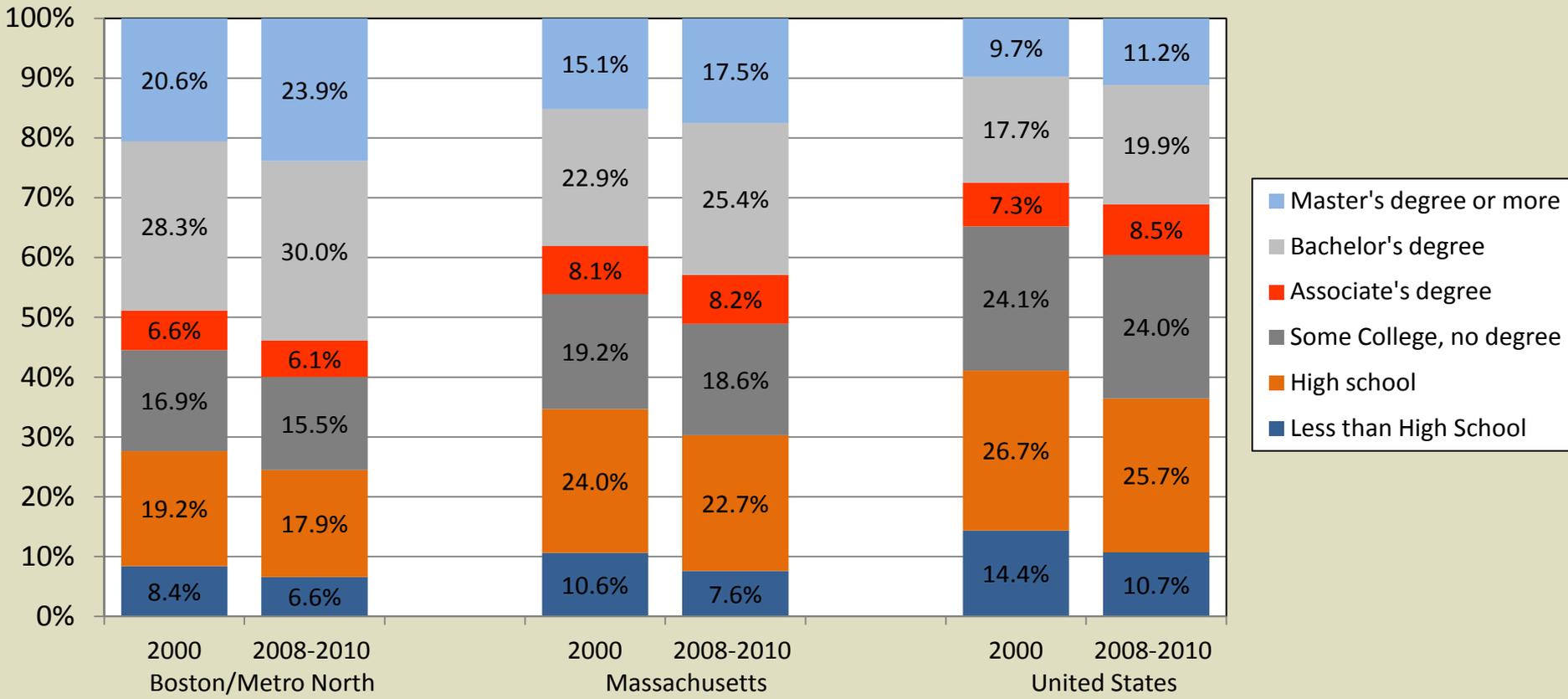
Source: U.S. Census Bureau 2008-2010 ACS PUMS data files.

Labor Demand

- Educational Attainment of Employed
- Educational Attainment and Composition of Industries and Occupations
- Demand for Workers with Post-Secondary Education Pre- and Post-Recession

The region employs the most educated workforce in the state, with nearly 54 percent having a Bachelor's Degree or higher.

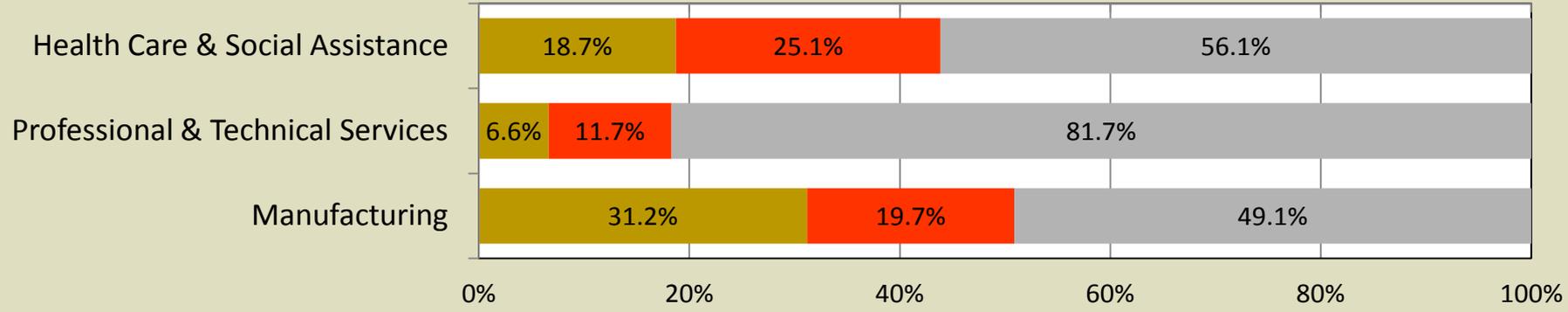
Educational Attainment of Individuals Employed in Region



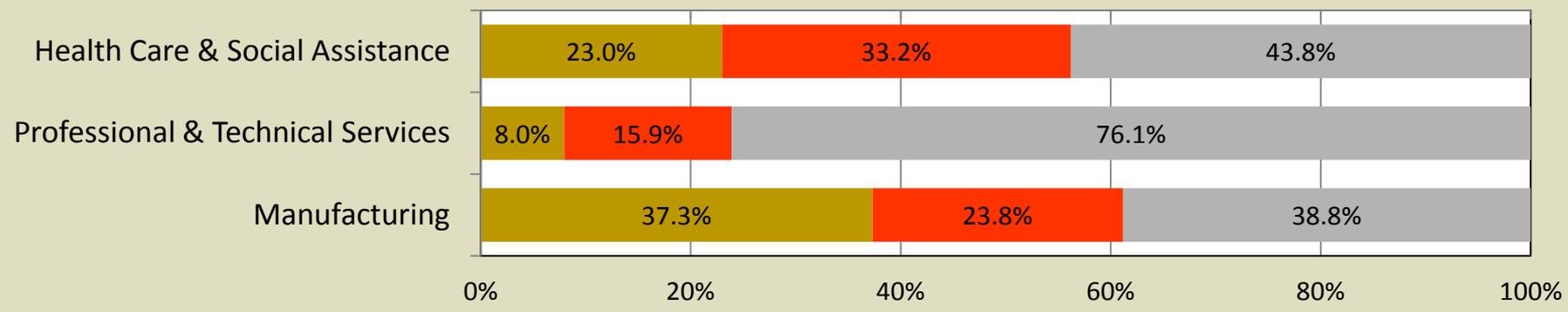
Source: U.S. Census Bureau 2000 Decennial Census PUMS data files and 2008-2010 ACS PUMS data files.

Industries in Boston/Metro North have greater shares of employees with Bachelor's Degrees or higher than statewide.

Educational Attainment of Employees by Selected Major Industry in Boston/Metro North



Educational Attainment of Employees by Selected Major Industry in Massachusetts

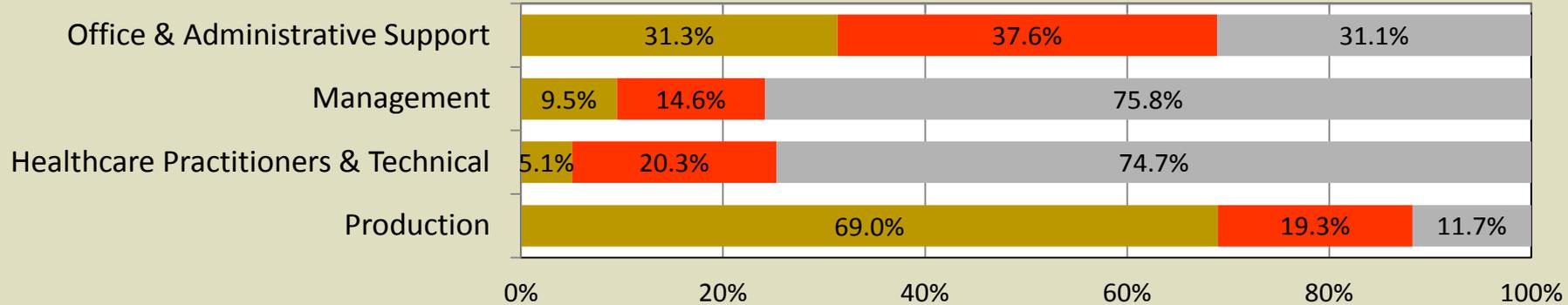


High School Degree or Less
 Some College or Associate's Degree
 Bachelor's Degree or Higher

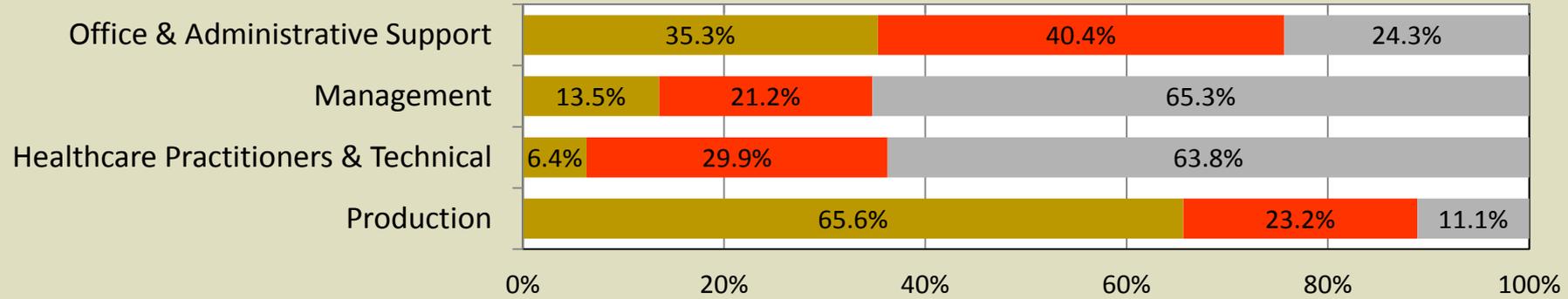
Source: U.S. Census Bureau 2008-2010 ACS PUMS data files.

Occupations in Boston/Metro North also have higher shares of employees with Bachelor's Degrees or higher.

Educational Attainment of Employees by Selected Occupation in Boston/Metro North



Educational Attainment of Employees by Selected Occupation in Massachusetts

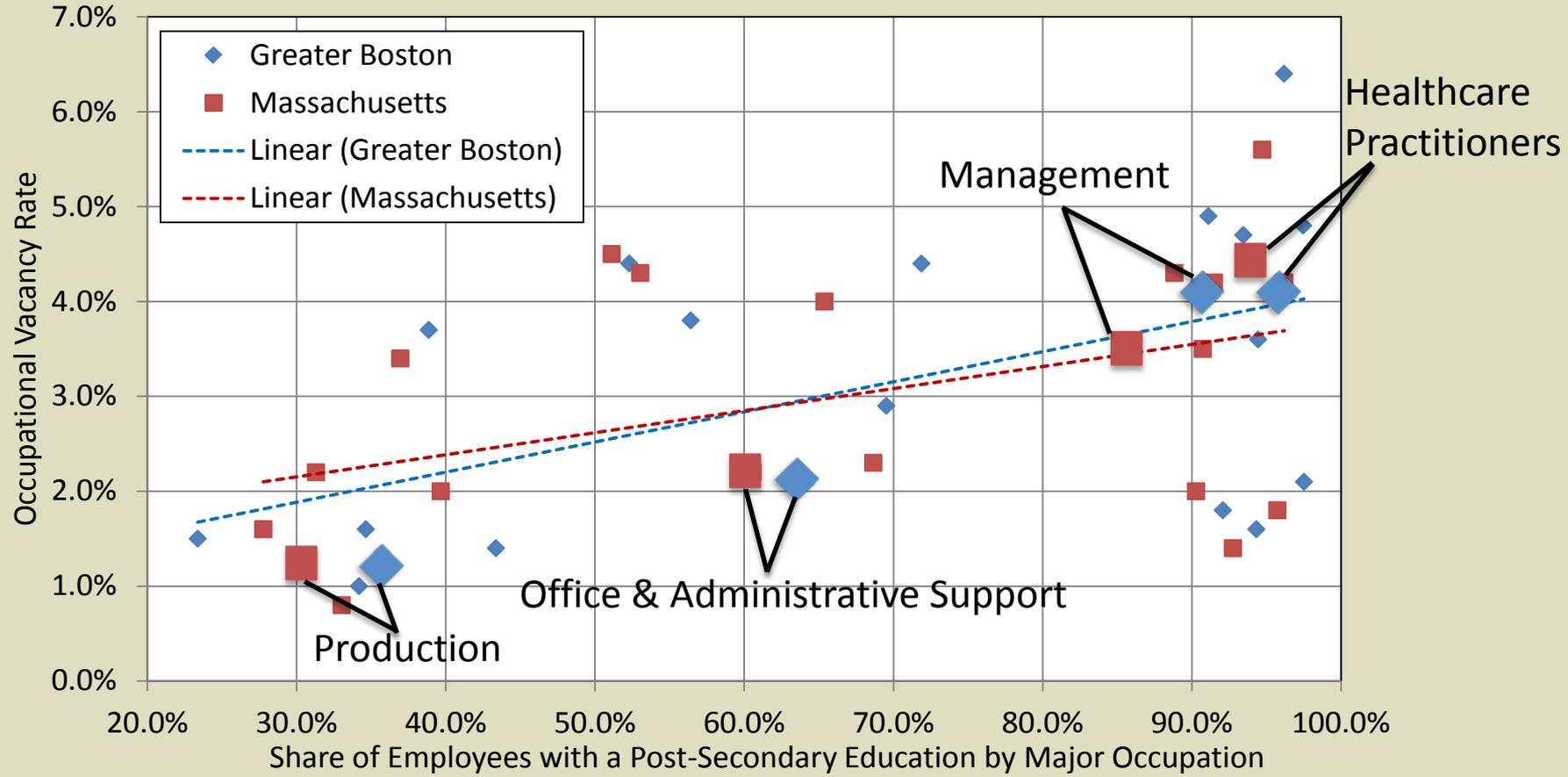


■ High School Degree or Less
 ■ Some College or Associate's Degree
 ■ Bachelor's Degree or Higher

Source: U.S. Census Bureau 2008-2010 ACS PUMS data files.

Prior to the recession there were higher vacancy rates in the more highly educated occupations than in the less educated...

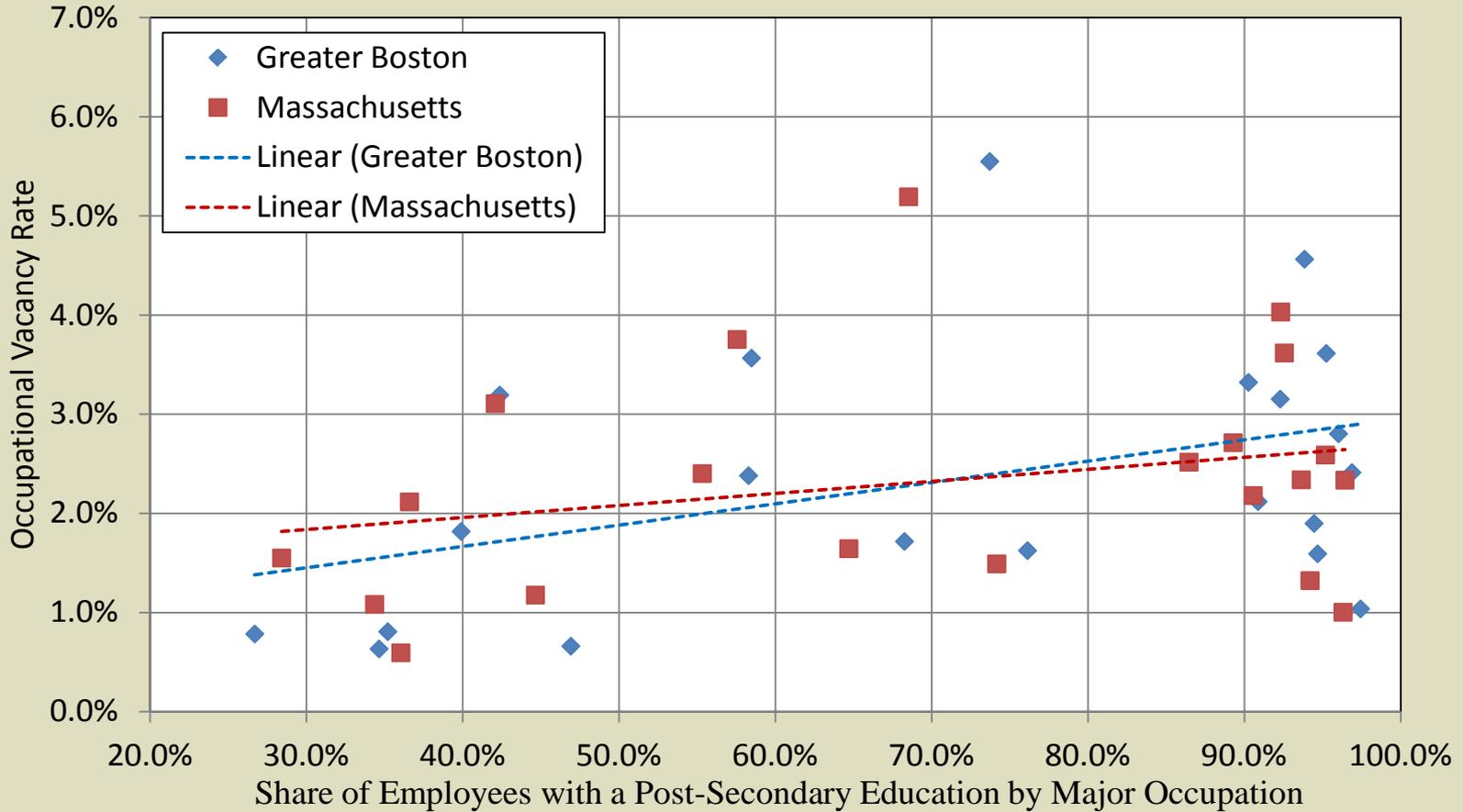
Job Vacancies and Educational Attainment by Occupation, Pre-Recession



Source: Massachusetts EOLWD, Job Vacancy Survey and U.S. Census Bureau 2008-2010 ACS PUMS data files.

In the early stages of the labor market recovery this pattern weakened but continued to hold...

Job Vacancies and Educational Attainment by Occupation, Post-Recession



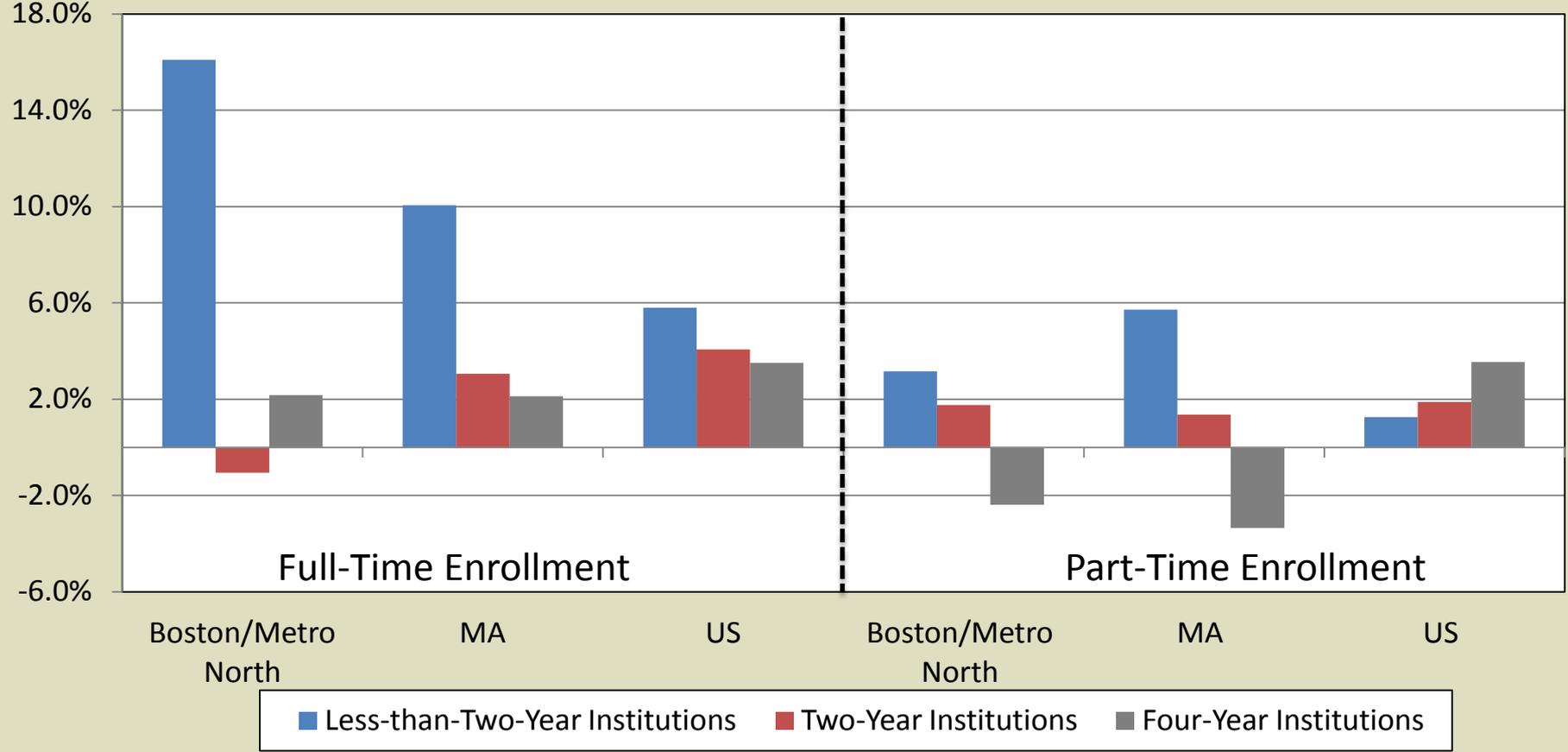
Source: Massachusetts EOLWD, Job Vacancy Survey and U.S. Census Bureau 2008-2010 ACS PUMS data files.

The Pipeline: Educational Supply of Post-Secondary Degrees

- Enrollment Patterns
- Degree Completions

Enrollment at higher educational institutions in the region has varied by type of institution and enrollment status.

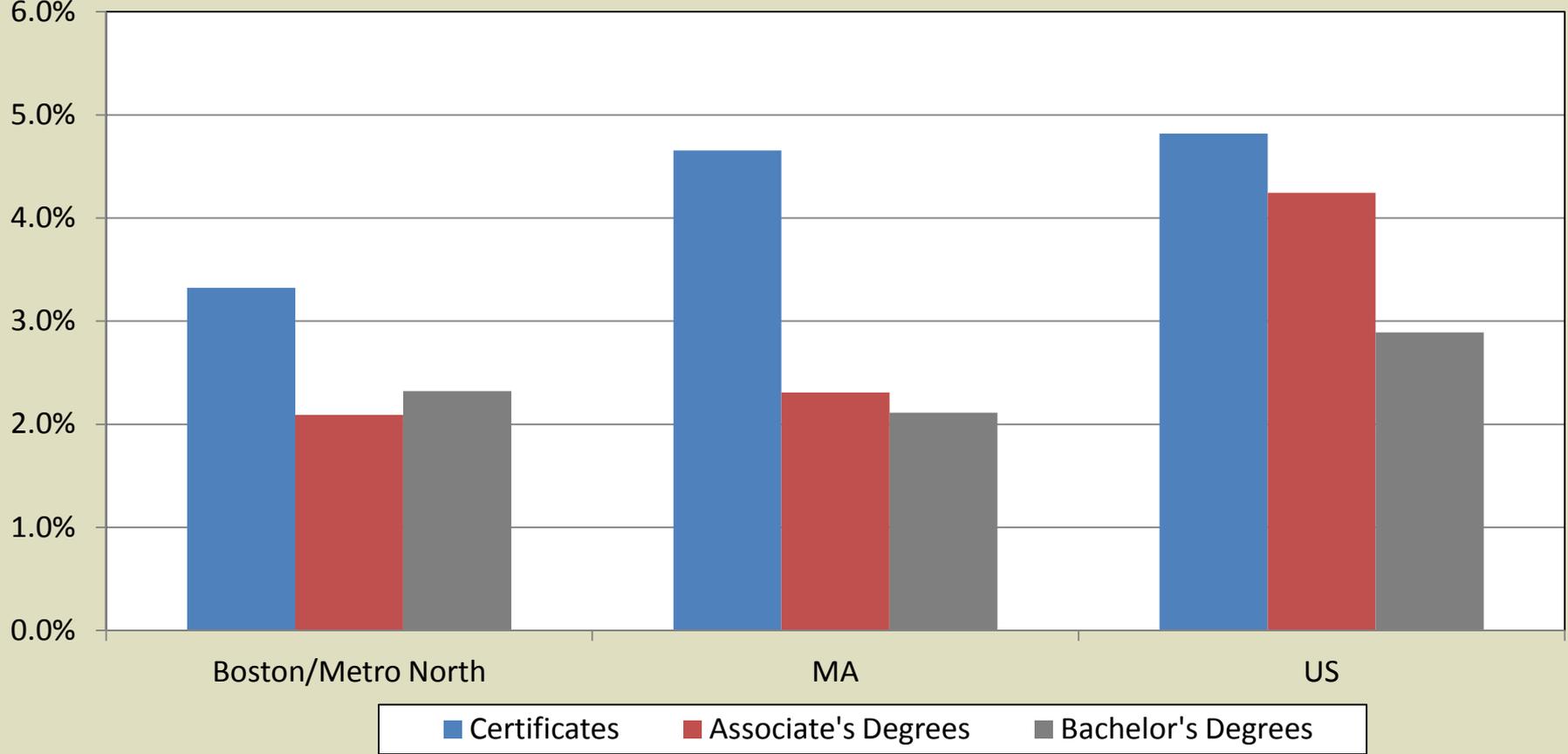
Annual Growth in Enrollments, 2000 to 2010



Source: National Center for Education Statistics, Integrated Post-Secondary Educational Data System.

Growth in completions at institutions in Boston/Metro North has lagged those of institutions statewide and nationally.

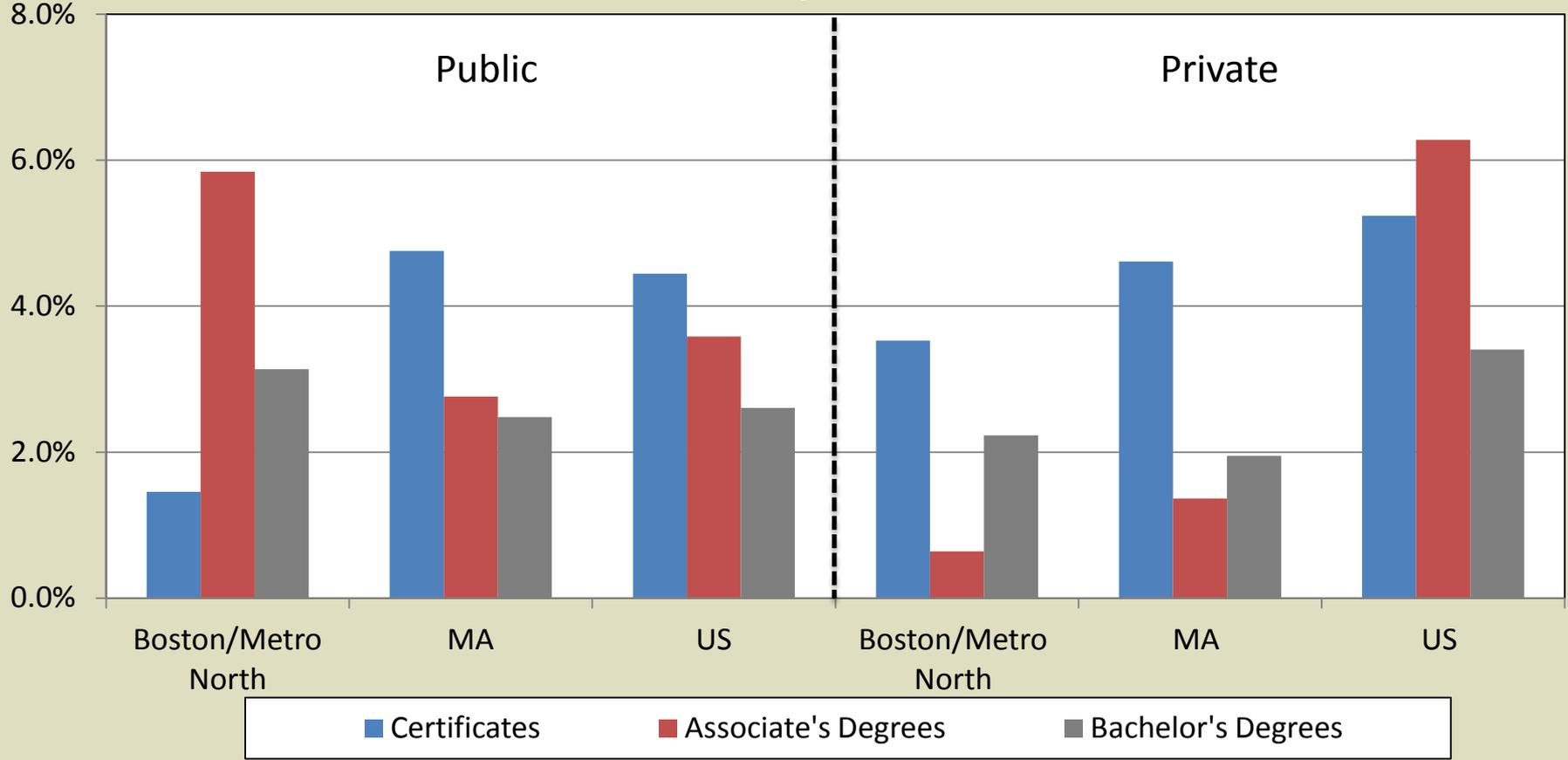
Annual Growth in Completions, 2000 to 2010



Source: National Center for Education Statistics, Integrated Post-Secondary Educational Data System.

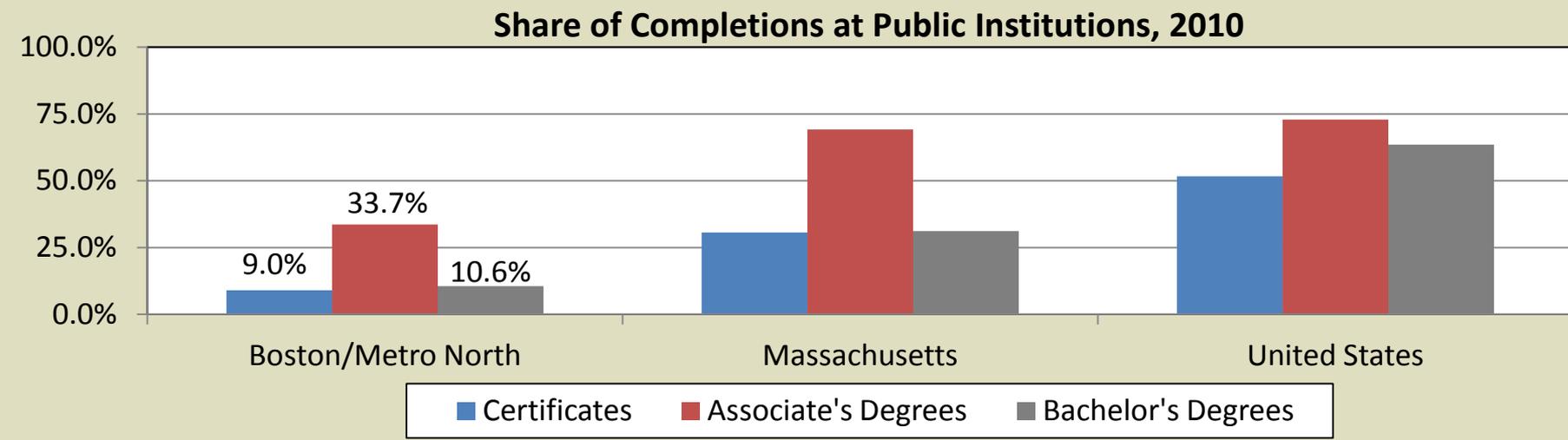
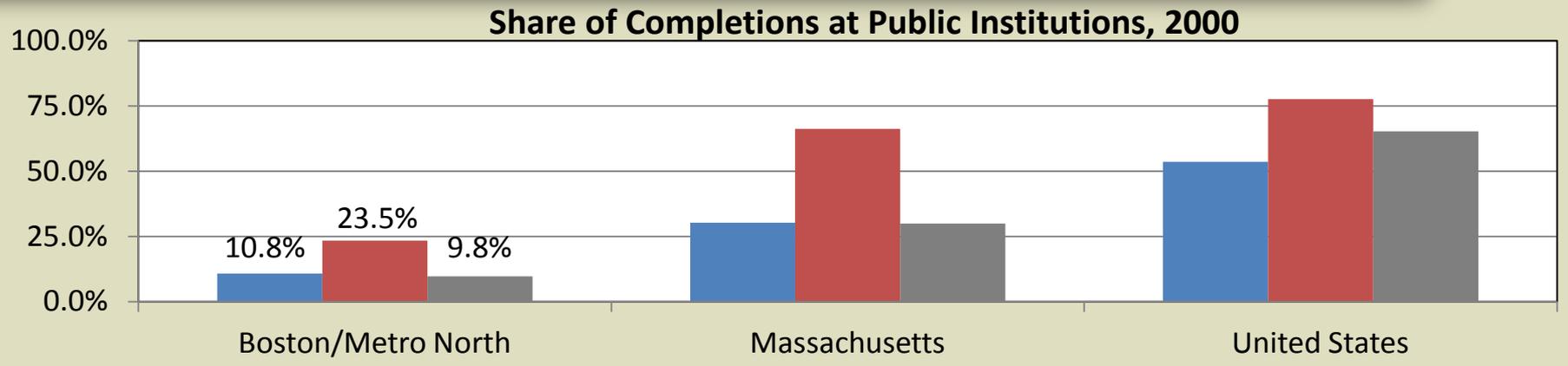
Growth of completions of Associate's and Bachelor's Degrees at public institutions outpaced state and national trends.

Annual Growth in Completions, 2000 to 2010



Source: National Center for Education Statistics, Integrated Post-Secondary Educational Data System.

Public institutions account for very small shares of certificates and degrees completed in the region.



Source: National Center for Education Statistics, Integrated Post-Secondary Educational Data System.

Summary

- The region's young and educated labor force helps to mitigate some of the demographic challenges facing other regions.
- The strengthening recovery in Boston/Metro North is increasing demand for post-secondary educated workers in the most highly educated labor market in the state.
- A disproportional share of the unemployed are young and less educated. Those with lower levels of educational attainment face particularly significant barriers to employment in such a highly educated labor market.
- Given such trends, what should be done to ensure the future economic vitality of Boston/Metro North moving forward?

Thank You

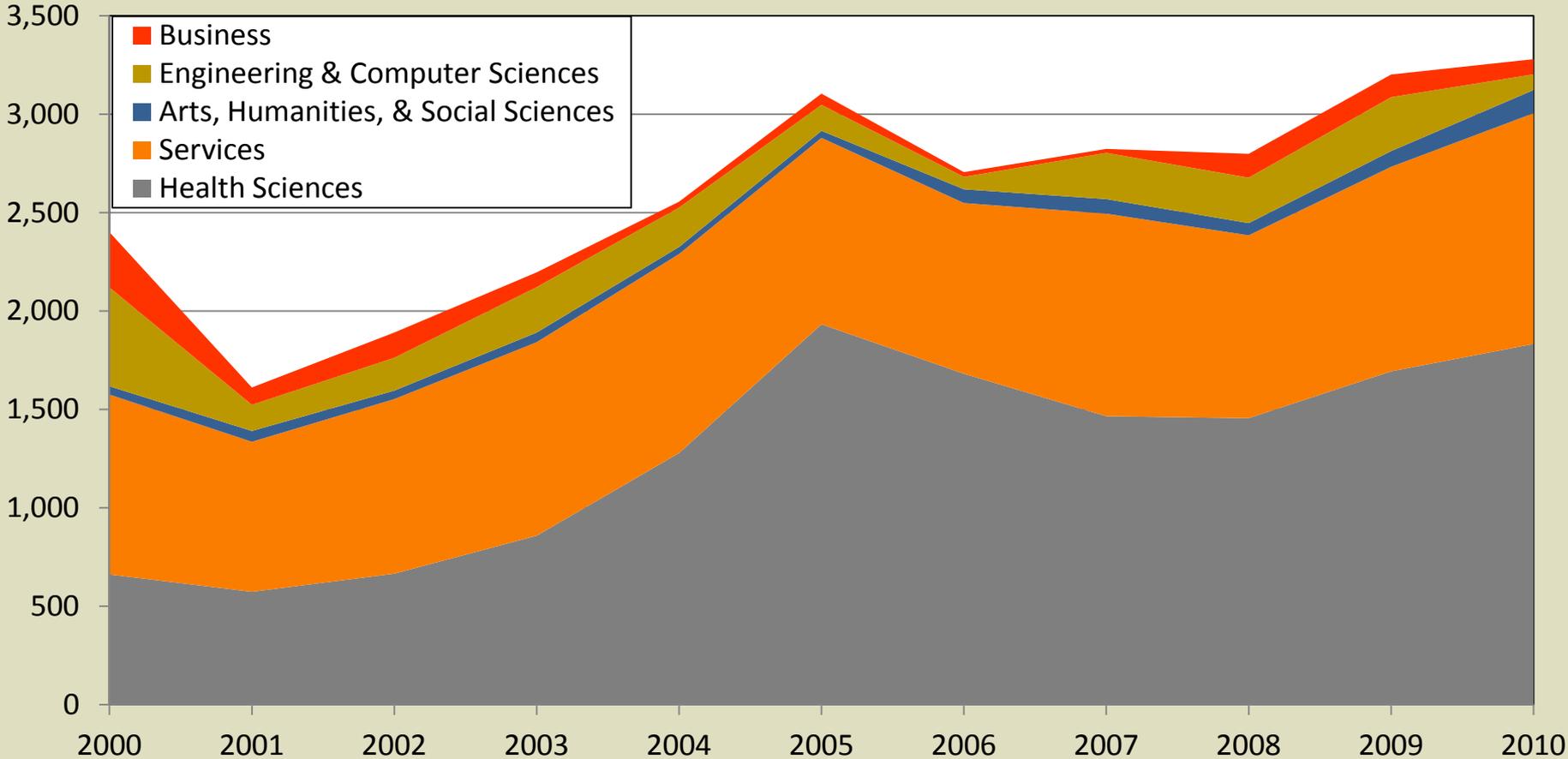


Robert.Clifford@bos.frb.org

www.bostonfed.org/neppc

Health Sciences and Services have accounted for most of the Certificates completed in Boston/Metro North.

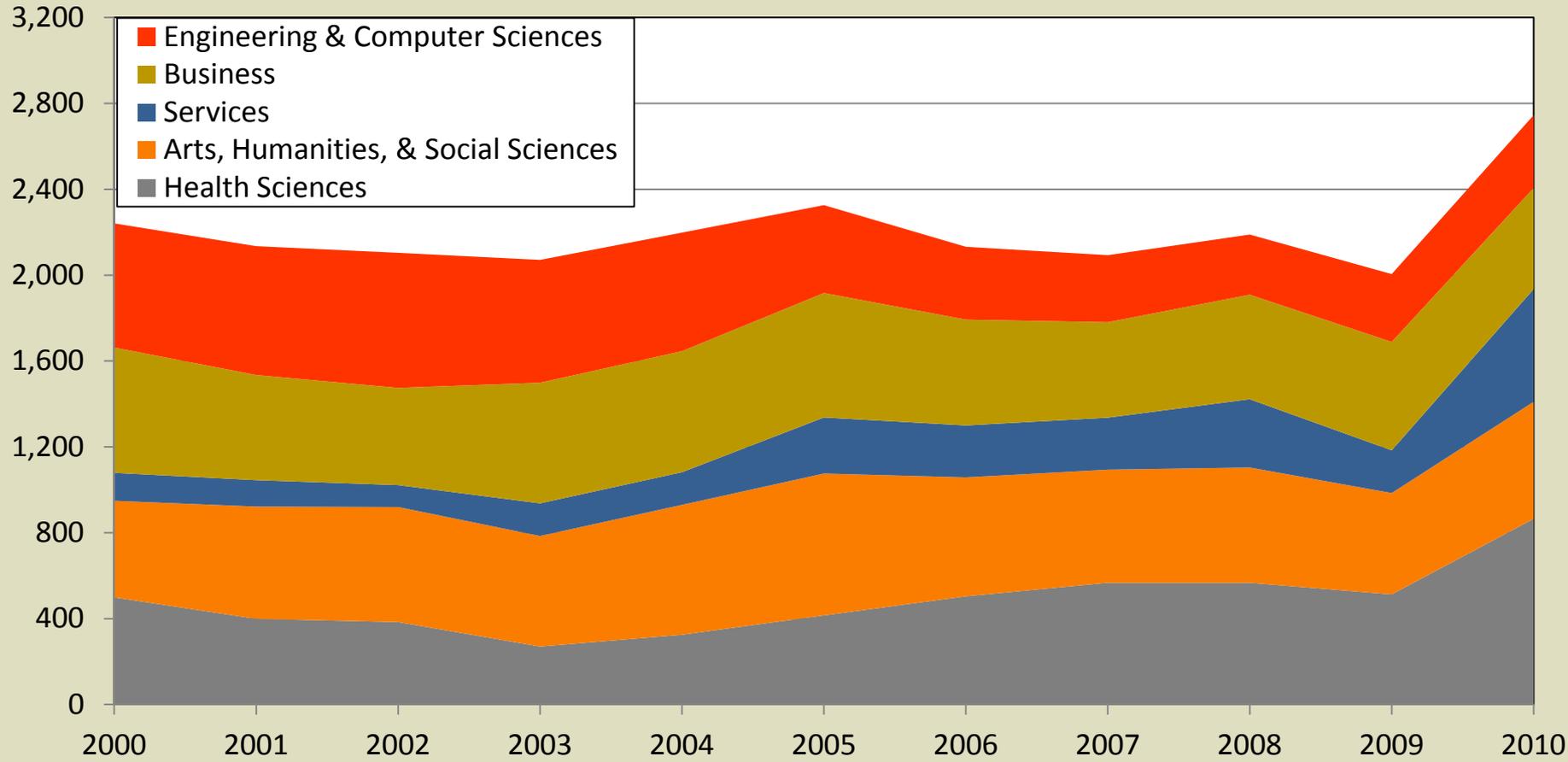
Annual Certificate Completions by Major in Boston/Metro North, 2000 to 2010



Source: National Center for Education Statistics, Integrated Post-Secondary Educational Data System.

Associate's Degree completions have been in a number of fields of study, with more coming in Health Sciences in recent years.

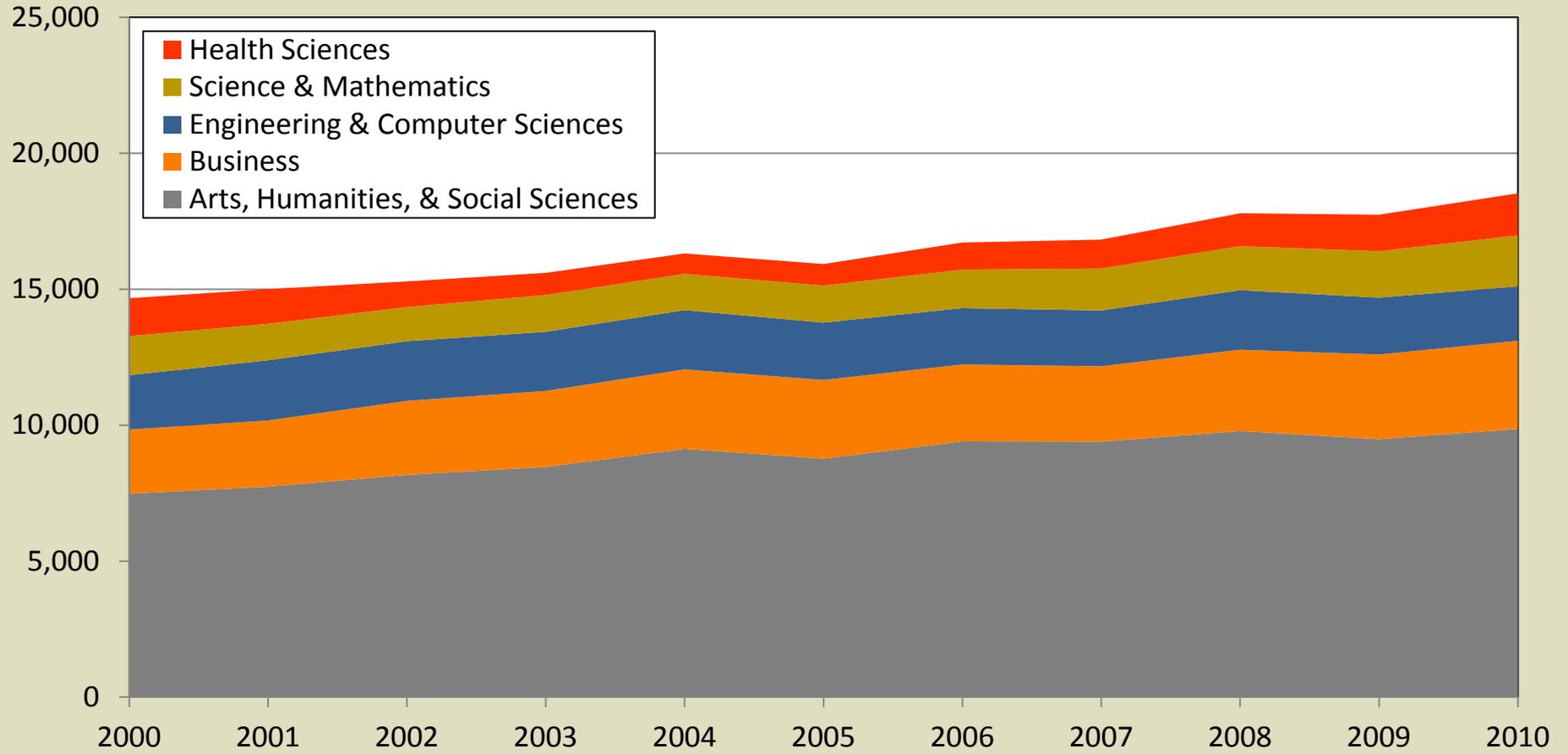
Annual Associate's Degree Completions by Major in Boston/Metro North, 2000 to 2010



Source: National Center for Education Statistics, Integrated Post-Secondary Educational Data System.

Art, Humanities, & Social Sciences accounted for nearly half of all Bachelor's Degrees completed in Boston/Metro North.

Annual Bachelor's Degree Completions by Major in Boston/Metro North, 2000 to 2010



Source: National Center for Education Statistics, Integrated Post-Secondary Educational Data System.