



# Labor Market Trends in the Metro South/West Region

June 2012

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

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*This profile was developed by Robert Clifford, a policy analyst at the New England Public Policy Center.*

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## EXECUTIVE SUMMARY

Using the most recent data available, the Metro South/West Regional Labor Market Profile provides a detailed picture of the region's current and future labor supply.<sup>1</sup> For context, it also provides detailed information on labor demand in the region over the past decade. This profile is designed to help guide workforce development professionals, policy makers, and civic, education, and business leaders as they make decisions about education and training opportunities.

The charts and analysis are divided into three sections:

1. Labor Supply: Demographic Trends of Residents Who Live in Metro South/West
2. Labor Demand: Employment Trends of Jobs and Workers in Metro South/West
3. The Pipeline: Educational Supply of Post-Secondary Degrees Granted by Institutions Located in Metro South/West

Metro South/West has fared better than most other Massachusetts labor markets, despite a challenging decade. After two recessions and a decade of declining employment, the region is now gaining jobs and recovering at a modest pace. The recent recovery from the Great Recession has been somewhat stronger in the region than in the state as a whole. A strong base in industries that are driving the state's recovery, such as Professional & Business Services, is helping to move the region ahead. Further, the concentration of highly educated employees within these industries is also benefiting the region. In fact, Metro South/West workers tend to have higher educational attainment than their statewide counterparts across nearly all occupations. There is still additional demand for highly educated workers, illustrated by the fact that the job vacancies in the region tend to be concentrated among occupations where workers have higher levels of education.

Both the region's residents and its workforce (which includes people who commute from other regions and other states) have

remarkably high levels of education. Massachusetts is one of the states with the most highly educated populations; the education levels of the residents in Metro South/West are even higher. Over the past decade, the share of people living in Metro South/West who have a Bachelor's Degree or higher continued to increase. By 2008-2010, more than half of the working-age residents in Metro South/West (53.9 percent) had a Bachelor's Degree or higher, compared with 35.6 percent of Massachusetts residents.

Looking forward, the region faces the demographic challenges of an aging population and potential shortfalls in workers with the required educational levels. Metro South/West is the one of the oldest regions in the state, trailing only Berkshire and Cape & Islands. In 2008-2010, nearly 50 percent of the region's civilian labor force was 45 years of age or older. This suggests that the region's businesses are facing a potential overall shortage of younger workers to replace baby boomers as they retire. Although nearly 18 percent of those unem-

<sup>1</sup>This profile builds on the work of the 2008 regional labor market profiles completed by Paul Harrington, Neeta Fogg, and their colleagues at the Drexel University Center on Labor Markets and Policy (formerly Northeastern University). This work employs their methodology and includes expanded analysis of the educational attainment of the region's population, more detailed analysis of the distribution of occupations by industry, and reviews trends over a longer time period.

ployed in the region were aged 16-24, which is substantially lower than the share statewide, people in this age group are disproportionately overrepresented among the unemployed relative to their share of the civilian labor force. And while the region has a high level of residents with a Bachelor's Degree, during the last decade the number of people with Some College education or an Associate's Degree declined, suggesting potential future shortfalls in the number of workers well-suited for middle-skill jobs. Because the region is a major destination for commuters and a net importer of workers, some of these workforce challenges can be addressed by attracting people who commute into the region from other places. Relying on such mobility can have limitations, however, particularly in attracting people to work in jobs with low education requirements and low pay that are traditionally filled by less mobile populations.

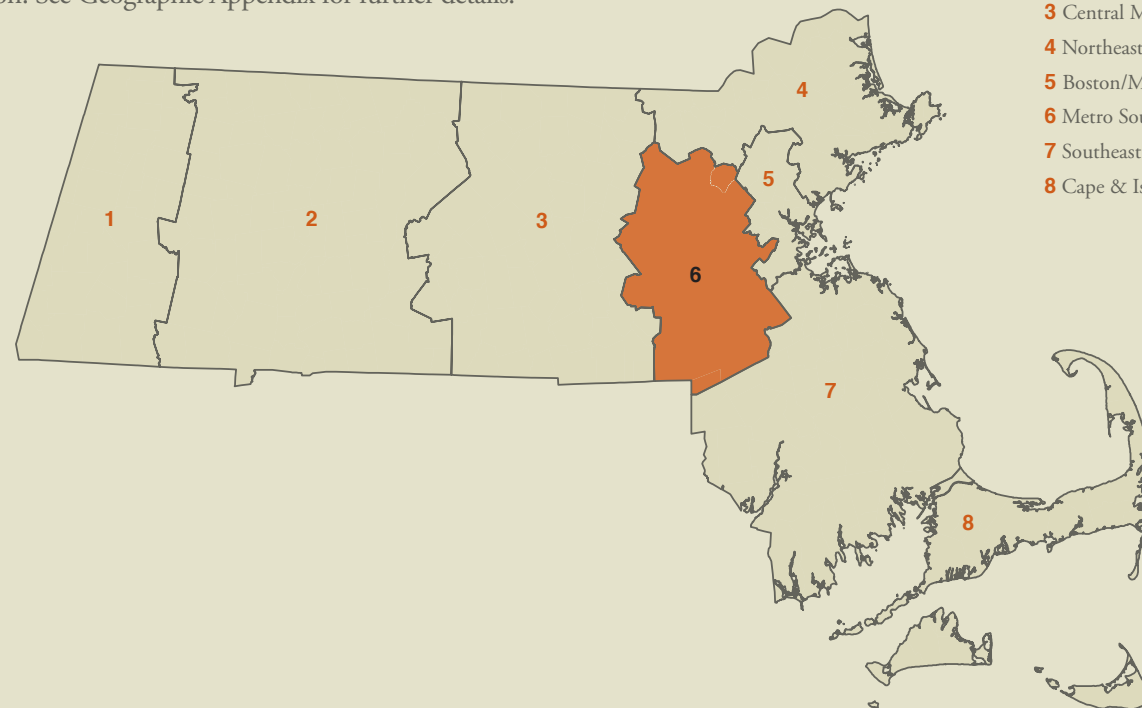
To continue to foster strong economic growth in the future, Metro South/West should strive to align the education of its labor force to meet the demands of the region's employers.

The higher education institutions in the region can play a key role in influencing the supply of future workers with a post-secondary degree. This supply will be critical to help meet the demographic challenges posed by the aging workforce and the increasing demand for highly educated workers. The national and state enrollment trends indicate that more individuals have been seeking post-secondary education over the last decade. However, enrollment at the educational institutions in Metro South/West is trailing that of institutions in Massachusetts and the United States, with the exception of full-time and part-time enrollment in two-year institutions. In terms of students completing a degree, the institutions in the region have, as a whole, trailed in the growth of most post-secondary degrees relative to Massachusetts. Because of this trend, the region has trailed Massachusetts and the United States in the growth of post-secondary educated graduates in nearly every major field of study.

Please visit [www.bostonfed.org/neppc](http://www.bostonfed.org/neppc) for appendices describing geography and methodology, and for additional data.

## GEOGRAPHY OF THE REGIONAL LABOR MARKETS

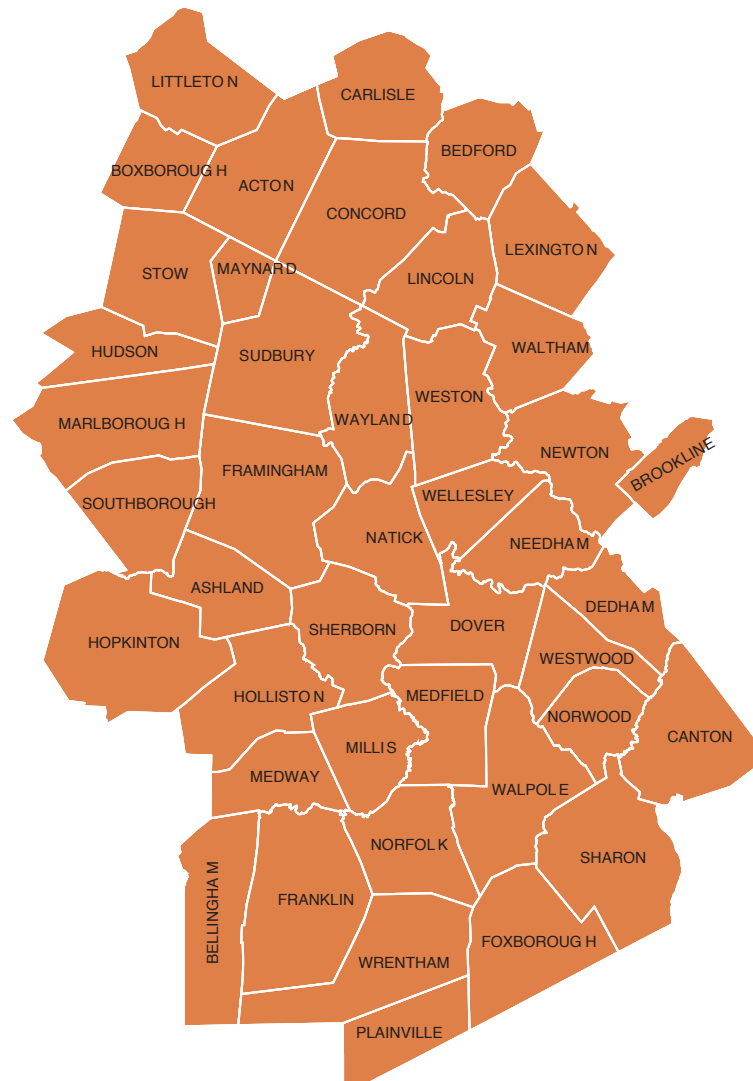
Metro South/West's labor market borders four regional labor markets: Boston/Metro North, Central Mass, Northeast, and Southeast. It is composed of 43 Massachusetts cities and towns in Norfolk and Middlesex counties. Some of the larger cities and towns are Newton, Framingham, Waltham, Brookline, Marlborough, Natick, and Franklin. In certain aspects of the analysis, such as the vacancy analysis and industry/occupational distributions, because of data limitations, Metro South/West is combined with Boston/Metro North and is referred to as the Greater Boston region. See Geographic Appendix for further details.



### Eight Regional Labor Market Areas

- 1 Berkshire Region
- 2 Pioneer Valley Region
- 3 Central Mass Region
- 4 Northeast Region
- 5 Boston/Metro North Region
- 6 Metro South/West Region
- 7 Southeast Region
- 8 Cape & Islands Region

## METRO SOUTH/WEST





## EMPLOYMENT TRENDS AND RECESSIONS

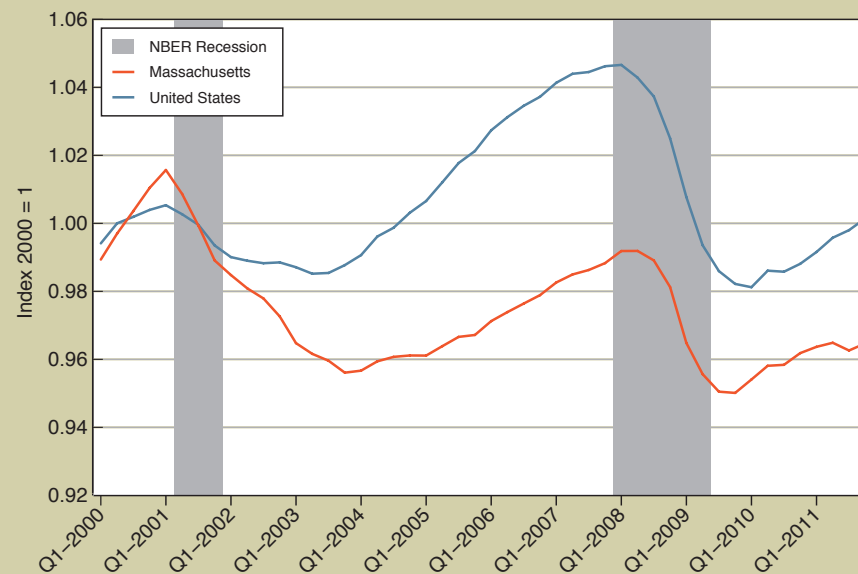
After reaching peak employment in 2001, employment in Massachusetts remained 5.0 percent (169,800 jobs) below peak at the end of 2011. In contrast, over the same time period, employment in the United States remained only 0.4 percent (513,700 jobs) below peak. In Massachusetts, the short national recession at the beginning of the decade created a prolonged contraction and slow recovery. By the start of the Great Recession, Massachusetts had still not recovered all of the jobs it had lost during the previous recession. In contrast, the nation experienced a shorter labor market contraction in 2001 followed by a strong recovery that expanded employment up until the Great Recession. The Great Recession impacted the nation severely, while Massachusetts experienced a less pronounced downturn, with a slightly stronger recovery through 2010 followed by slower employment growth in 2011.

These differences between Massachusetts and the United States over the economic cycles are important to keep in mind when evaluating the performance of the eight regional labor markets. When possible, these labor market profiles will look at labor market information for the beginning of the millennium, the period preceding the Great Recession, and the decline in and recovery from the Great Recession.

**Source:** US Bureau of Labor Statistics.

**Note:** Shaded bars are National Bureau of Economic Research dated national recessions.

Non-Agricultural Employment for United States and Massachusetts, Q1 2000 to Q4 2011



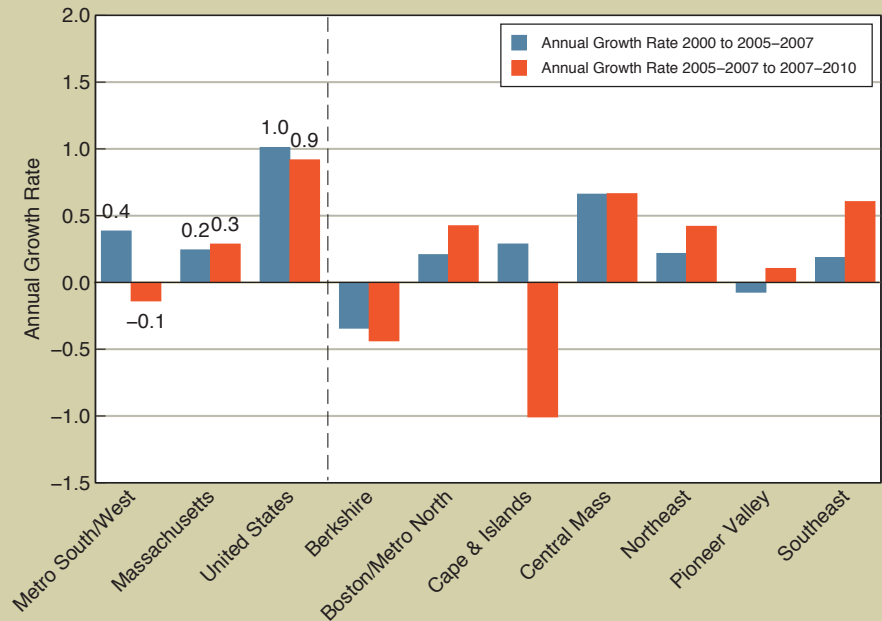
## POPULATION GROWTH TRENDS

The third largest region by total population, Metro South/West accounted for 16.6 percent of the state's population at the end of the decade. After experiencing the second fastest annual growth rate in population (0.4 percent) early in the decade, Metro South/West was one of only three regions to experience a decline in total population in recent years. The decline in population from 2005-2007 to 2008-2010 was the result of a number of factors, but it is largely attributable to the decline in the number of individuals less than 25 years old, continued losses of those age 35-44, and declines in the non-immigrant population.

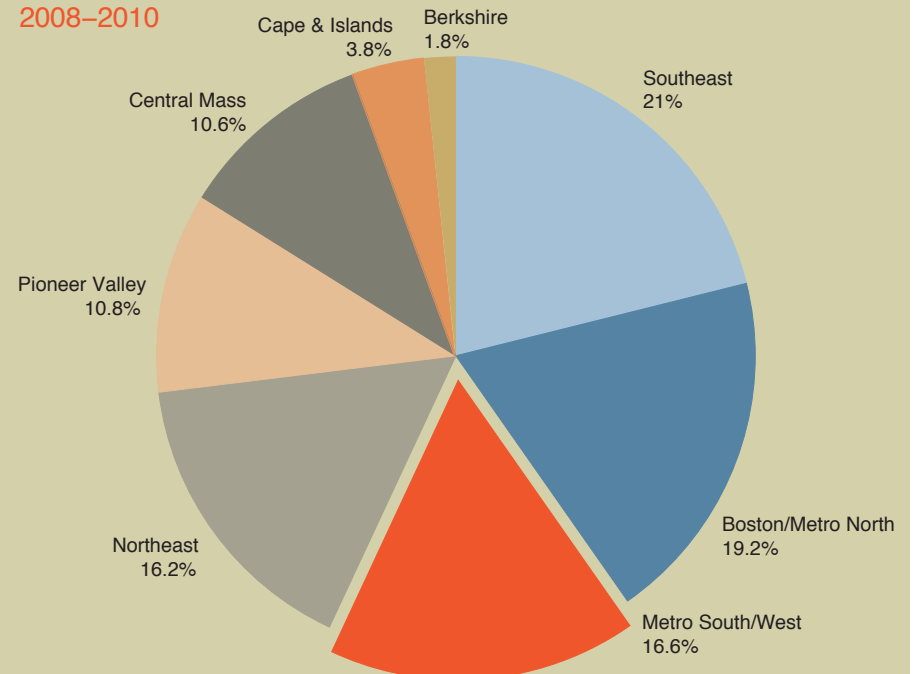
**Source:** US Census Bureau 2000 Decennial Census Public Use Microdata Samples (PUMS) data files, 2005-2007 and 2008-2010 American Community Survey Public Use Micro Sample (PUMS) data files.

**Note:** The use of the three-year American Community Survey was necessary to capture accurate estimates for the small geographic areas. The three-year sample is representative of the demographic and employment characteristics of the region over a 36-month period.

### Annual Growth Rates



### Massachusetts Population Distribution Across Regional Labor Markets, 2008-2010



## DEMOGRAPHIC CHARACTERISTICS OF THE RESIDENT POPULATION OF METRO SOUTH/WEST

Over the past decade, the number of people living in Metro South/West increased at an annual growth rate of 0.2 percent. The growth in the Metro South/West immigrant population was strong enough to offset losses in the native-born population. The region also became more diverse over the past decade, with strong growth among minority groups, most notably Hispanic residents. The region's population also became considerably older as baby boomers (born between 1946 and 1964) neared retirement age. In particular, the 55-64-year-old age cohort grew at a robust annual rate of 4.2 percent over the course of the decade. The second fastest growing age cohort in Metro South/West was 16-24-year-olds, who are the children of baby boomers and are commonly referred to as the echo-boom generation.

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

**Note:** Further data for racial/ethnic and gender characteristics for the residential population, as well as the working-age, civilian labor force, unemployed, and employed populations are available in the Data Appendix.

	2000	2008-2010	Absolute Change	Annual Growth Rate (Percent)
Resident Population	1,019,337	1,038,784	19,447	0.2
<b>Gender</b>				
Male	486,222	504,845	18,623	0.4
Female	533,115	533,939	824	0.0
<b>Nativity</b>				
Native Born	877,860	859,444	-18,416	-0.2
Immigrant	141,477	179,340	37,863	2.7
<b>Race/Ethnicity</b>				
White, non-Hispanic	909,509	868,184	-41,325	-0.5
Black, non-Hispanic	16,142	22,322	6,180	3.7
Asian, non-Hispanic	47,857	75,701	27,844	5.2
Hispanic	27,933	48,259	20,326	6.3
Other race, non-Hispanic	17,896	24,318	6,422	3.5
<b>Age</b>				
Less than age 16	228,864	223,690	-5,174	-0.3
Age 16-24	79,507	93,097	13,590	1.8
Age 25-34	144,532	114,194	-30,338	-2.6
Age 35-44	188,687	159,119	-29,568	-1.9
Age 45-54	156,691	177,004	20,313	1.4
Age 55-64	92,041	133,213	41,172	4.2
Age 65+	129,015	138,467	9,452	0.8

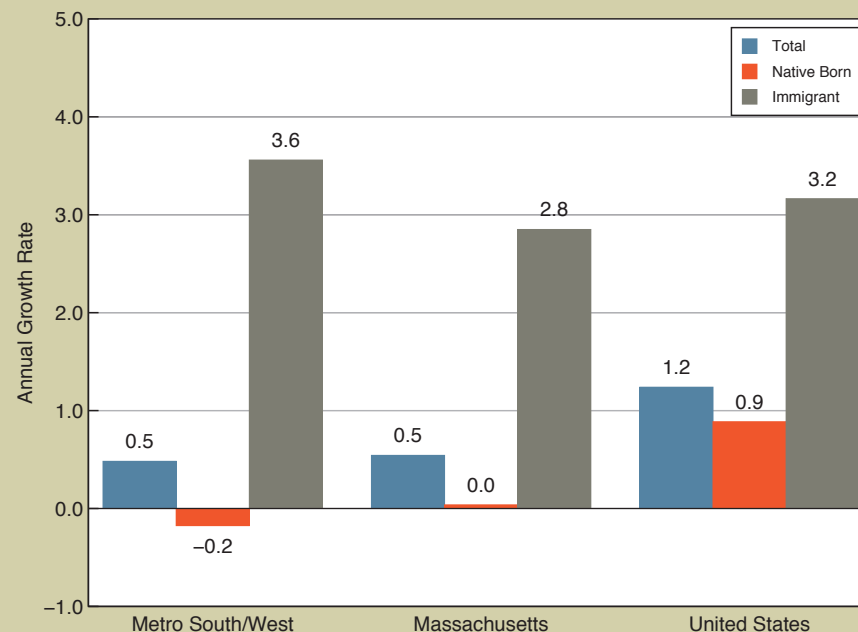
## GROWTH IN THE WORKING-AGE POPULATION BY NATIVITY STATUS

The immigrants in Metro South/West have been a major driver of growth in the working-age population (a region's potential labor supply, typically defined as people 16 years of age or older). Between 2000 and 2005-2007, the growth of working-age immigrants (3.6 percent) exceeded the growth of working-age immigrants in both Massachusetts and the United States. In recent years, the growth of working-age immigrants has slowed in Metro South/West, Massachusetts, and the United States.

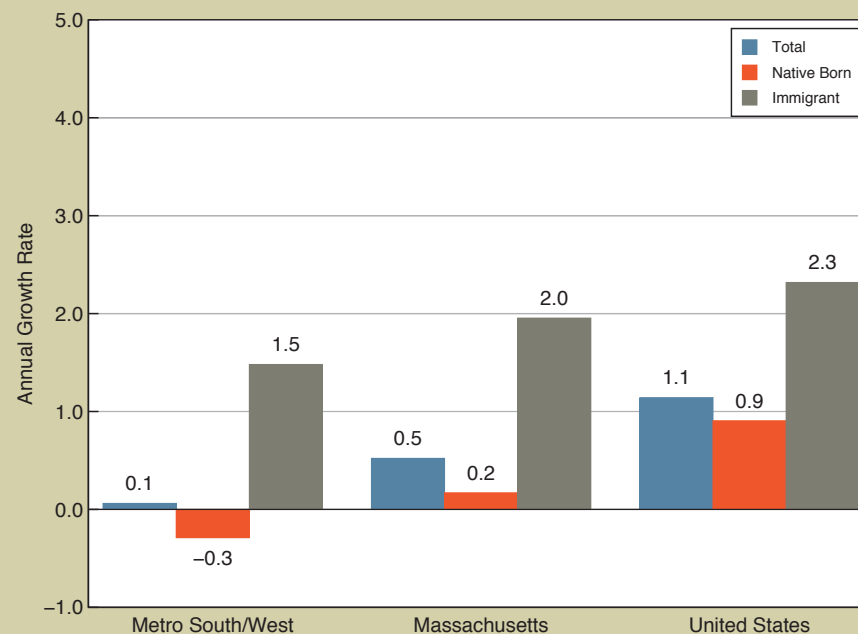
**Source:** US Census 2000 Decennial Census PUMS data files, 2005-2007 and 2008-2010 American Community Survey PUMS data files.

**Note:** Working-age population is individuals 16 years of age or older and excludes institutionalized populations. Immigrants are individuals born outside the U.S.

Annual Growth Rate, 2000 to 2005-2007



Annual Growth Rate, 2005-2007 to 2008-2010



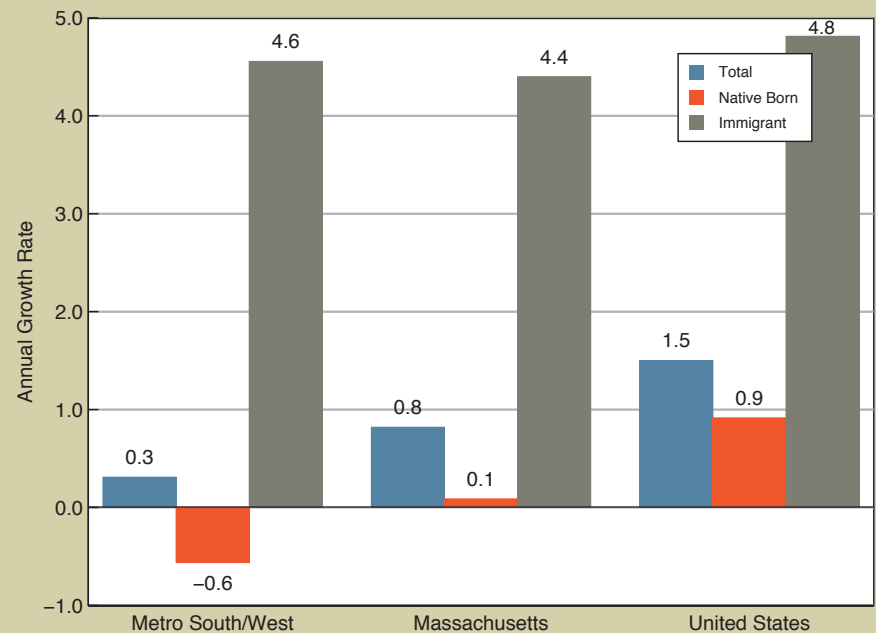
## GROWTH IN THE CIVILIAN LABOR FORCE BY NATIVITY STATUS

The civilian labor force is the people who are either working or unemployed but actively looking for work (a region's actual labor supply). In Metro South/West, a high percentage of the working-age population (over 70 percent) is part of the labor force. In Metro South/West, immigrants are driving the growth of the civilian labor force. Despite declines in the native-born population participating in the labor force between 2000 and 2005-2007, the overall labor force in the region continued to grow. This growth was a result of a 4.6 percent annual growth rate of the immigrant labor force. Between 2005-2007 and 2008-2010, the number of native-born people participating in the region's civilian labor force increased slightly. The number of immigrants continued to grow, but at a lower rate than in the first part of the decade and also at a lower rate than in the state or the nation.

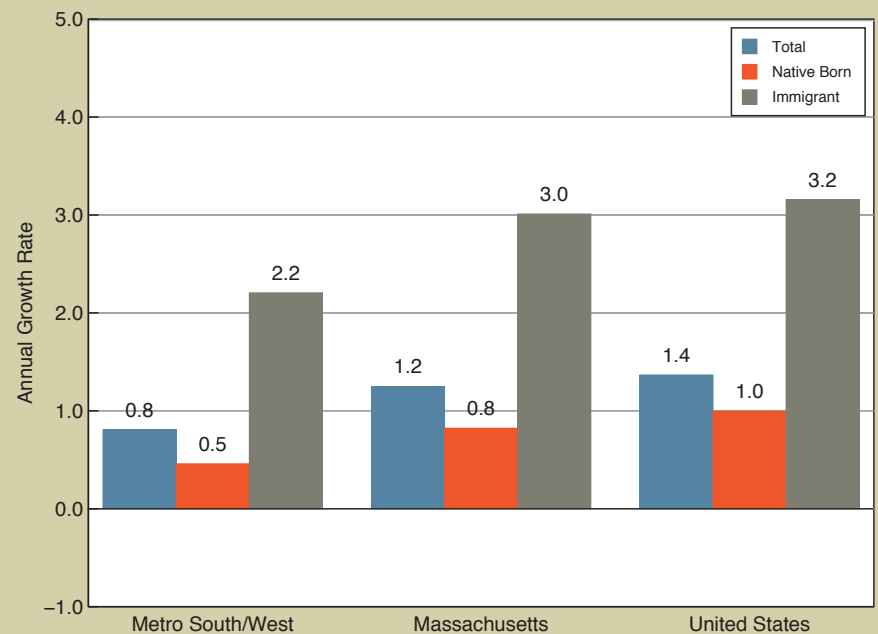
**Source:** US Census 2000 Decennial Census PUMS data files, 2005-2007 and 2008-2010 American Community Survey PUMS data files.

**Note:** The civilian labor force is all individuals 16 years of age or older who are classified as employed or unemployed and actively looking for work. Immigrants are individuals born outside the country.

Annual Growth Rate, 2000 to 2005-2007



Annual Growth Rate, 2005-2007 to 2008-2010

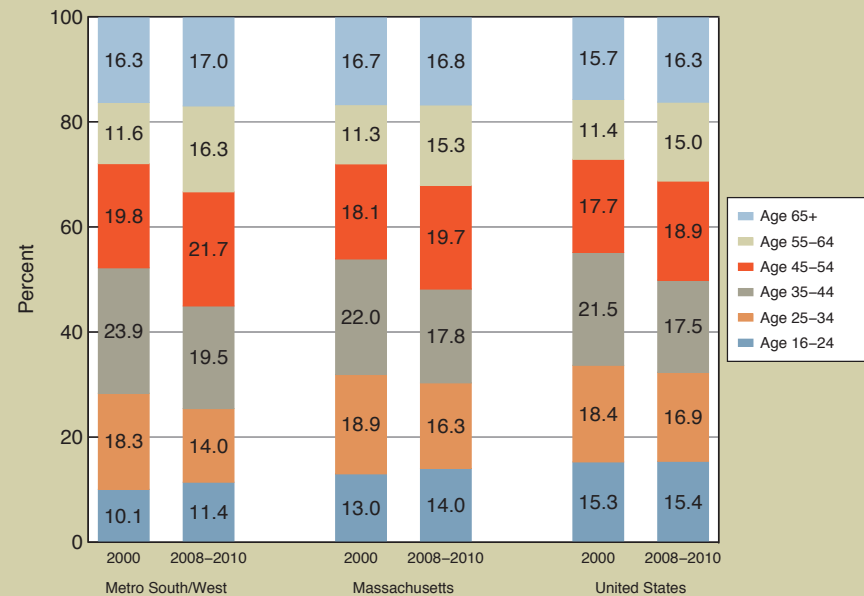


## THE AGE PROFILE OF THE WORKING-AGE POPULATION

Massachusetts is one of the oldest states in the country, and Metro South/West is one of the oldest regions in the state. The only two regions that are older are Berkshire and Cape & Islands. More than half (55 percent) of the region's working-age population is 45 years or older. In fact, one-third of the region's working-age population is 55 years or older.

**Source:** US Census Bureau 2000 Decennial Census PUMS data files and 2008-2010 American Community Survey PUMS data files.

Age Distribution of the Working-Age Population, 2000 and 2008–2010



Growth of Working-Age Population by Age in Metro South/West

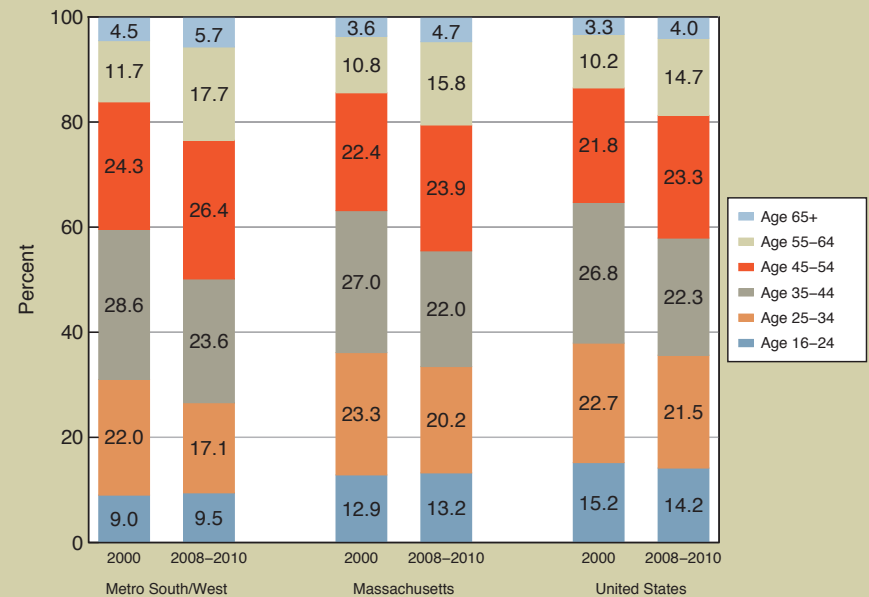
	2000	2008–2010	Absolute Change	Annual Growth Rate (Percent)
Age 16–24	79,507	93,097	13,590	1.8
Age 25–34	144,532	114,194	-30,338	-2.6
Age 35–44	188,687	159,119	-29,568	-1.9
Age 45–54	156,691	177,004	20,313	1.4
Age 55–64	92,041	133,213	41,172	4.2
Age 65+	129,015	138,467	9,452	0.8

## THE AGE PROFILE OF THE CIVILIAN LABOR FORCE

Given the age of the region's population, it is not surprising that the civilian labor force in Metro South/West is older than the state's or nation's labor force. Nearly 50 percent of the workers in Metro South/West are 45 years or older. In the past decade, there has been strong growth in the share of workers who are 45-54 years old and 55-64 years old. In addition, there have been an increasing number of workers who are 65 years and older and in the labor force. At the same time, there has been a declining number of workers between the ages of 25 and 34 and between 35 and 44. All of these trends add up to the fact that the Metro South/West civilian labor force is much older than those of Massachusetts and the United States.

**Source:** US Census Bureau 2000 Decennial Census PUMS data files and 2008-2010 American Community Survey PUMS data files.

Age Distribution of the Civilian Labor Force, 2000 and 2008–2010



Growth of Civilian Labor Force Population by Age in Metro South/West

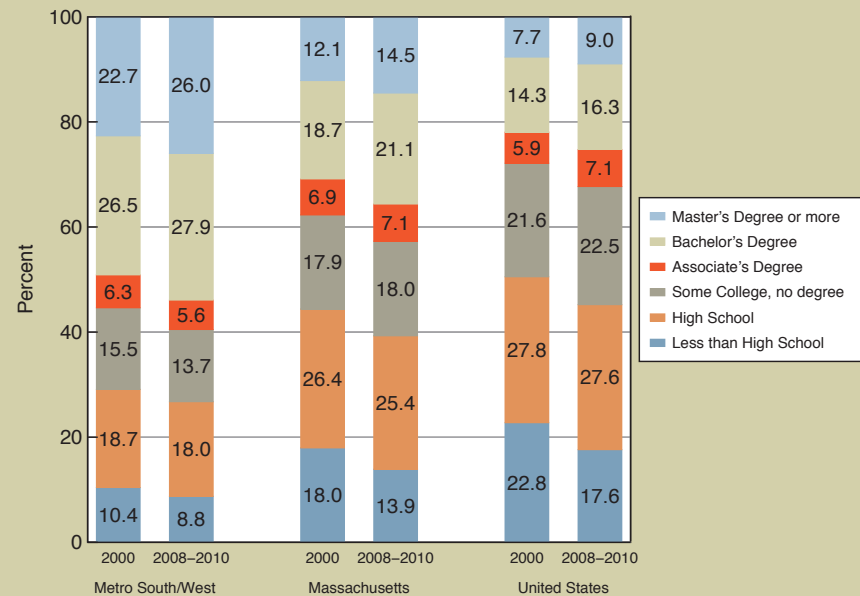
	2000	2008-2010	Absolute Change	Annual Growth Rate (Percent)
Age 16-24	50,544	55,314	4,770	1.0
Age 25-34	123,400	100,309	-23,091	-2.3
Age 35-44	160,189	137,815	-22,374	-1.7
Age 45-54	135,991	154,486	18,495	1.4
Age 55-64	65,339	103,824	38,485	5.3
Age 65+	25,299	33,445	8,146	3.2

## EDUCATIONAL ATTAINMENT OF THE WORKING-AGE POPULATION

Of the eight regional labor markets in Massachusetts, Metro South/West has the largest share of working-age people with a college degree or higher. By 2008-2010, over 50 percent of the working-age population had a Bachelor's Degree or higher. The region's educational attainment far exceeds that of Massachusetts, which has one of the highest rates in the country of residents with a college degree. Over the last decade, the share of working-age population with a Bachelor's Degree or higher increased, but there were declines among all other educational categories, including individuals with Some College and with an Associate's Degree. In comparison, in Massachusetts and the United States, the number and share of working individuals with Some College and with an Associate's Degree increased.

**Source:** US Census Bureau 2000 Decennial Census PUMS data files and 2008-2010 American Community Survey PUMS data files.

Educational Distribution of the Working-Age Population, 2000 and 2008–2010



Growth of Working-Age Population by Educational Attainment in Metro South/West

	2000	2008-2010	Absolute Change	Annual Growth Rate (Percent)
Less than High School	82,429	71,335	-11,094	-1.6
High School Graduate	147,550	146,710	-840	-0.1
Some College, no degree	122,722	111,976	-10,746	-1.0
Associate's Degree	49,502	45,644	-3,858	-0.9
Bachelor's Degree	209,142	227,579	18,437	0.9
Master's Degree or more	179,128	211,850	32,722	1.9

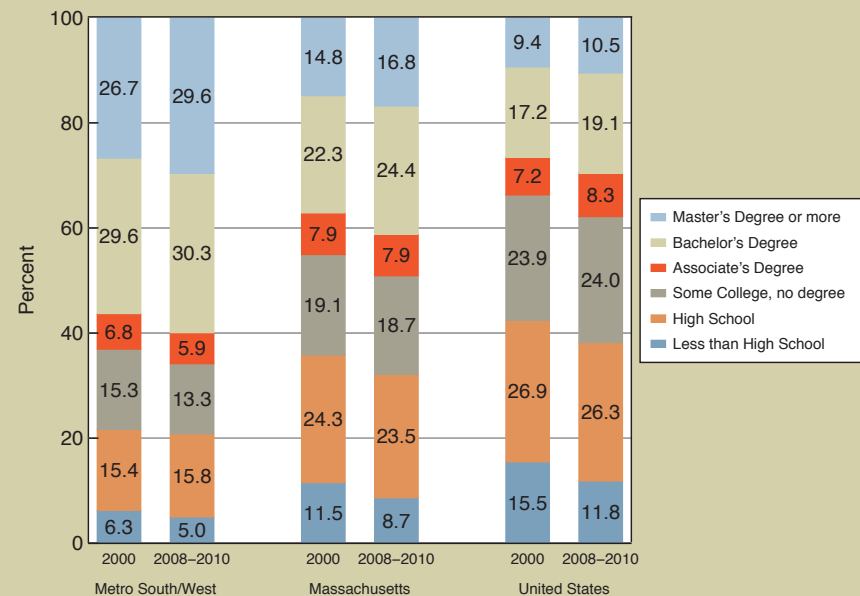


## EDUCATIONAL ATTAINMENT OF THE CIVILIAN LABOR FORCE

It is not surprising that a highly educated working-age population translates into a more highly educated civilian labor force. Nearly 30 percent of Metro South/West's workers had a Master's Degree or higher, which is almost double the share of workers in Massachusetts with at least a Master's Degree. At the end of the decade, nearly 80 percent of the civilian labor force in Metro South/West had completed at least some post-secondary education (Some College or higher). This is substantially higher than the nearly 70 percent in Massachusetts and 60 percent nationwide who had some post-secondary education.

**Source:** US Census Bureau 2000 Decennial Census PUMS data files and 2008-2010 American Community Survey PUMS data files.

Educational Distribution of the Civilian Labor Force, 2000 and 2008–2010



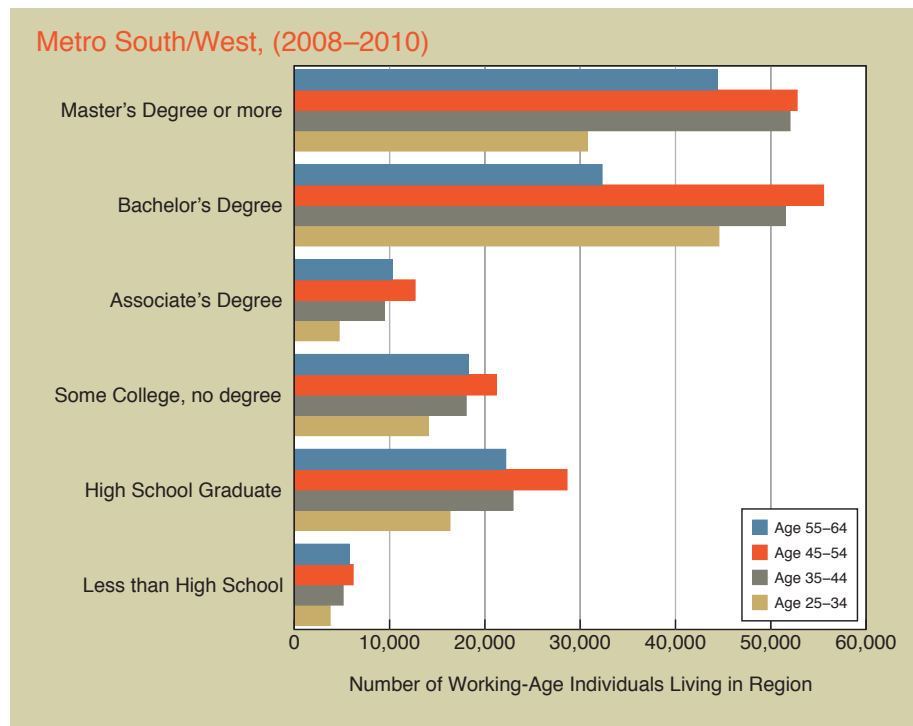
Growth of Civilian Labor Force Population by Educational Attainment in Metro South/West

	2000	2008-2010	Absolute Change	Annual Growth Rate (Percent)
Less than High School	35,069	29,248	-5,821	-2.0
High School Graduate	86,281	92,579	6,298	0.8
Some College, no degree	85,721	77,998	-7,723	-1.0
Associate's Degree	37,964	34,580	-3,384	-1.0
Bachelor's Degree	165,943	177,422	11,479	0.7
Master's Degree or more	149,784	173,366	23,582	1.6

## EDUCATIONAL ATTAINMENT BY AGE GROUP

If we look at the region's population by both age and education, we get an understanding of the workers who will be replacing the baby boomers. As the baby boomers have aged, the 45-54-year-olds have become the largest age cohort. As the boomers continue to age and, over time, leave the labor force, nearly every educational category faces a potential shortfall of workers. The largest potential shortfall, when looking at the share of individuals age 25-34 in the region that may fill the positions of those age 45-54 in the coming decades, is in the number of individuals with an Associate's Degree. Nearly 12,600 people in Metro South/West between the ages of 45 and 54 have an Associate's Degree. In sharp contrast, fewer than 5,000 people between the ages of 25 and 34 have an Associate's Degree. This difference of 7,600 working-age individuals represents a potential shortage of over 60 percent of the working-age individuals that may be needed as 45-54-year-olds reach traditional retirement ages in the next two decades. However, this potential shortfall is likely smaller as educational requirements for most industries and occupations have increased over time.

**Source:** US Census Bureau 2008-2010 American Community Survey PUMS data files.



## UNEMPLOYMENT RATE TRENDS

During the Great Recession, unemployment rates nationwide have increased sharply. Beginning the decade at 2.1 percent, the unemployment rate of Metro South/West climbed to nearly 5.0 percent in 2003 before declining to slightly over 3.0 percent in 2007. In the Great Recession the region's unemployment rate jumped to 6.5 percent. While the unemployment rate remains elevated, it has consistently remained below both the state's and the nation's rates. The unemployment rate in Metro South/West is currently the lowest among all regional labor markets in Massachusetts.

**Source:** US Bureau of Labor Statistics and Massachusetts Executive Office of Labor and Workforce Development.

**Note:** The annual unemployment rate is a 12-month average of the non-seasonally-adjusted unemployment rates.

Unemployment Rate, 2000 to 2010



### Metro South/West Unemployment

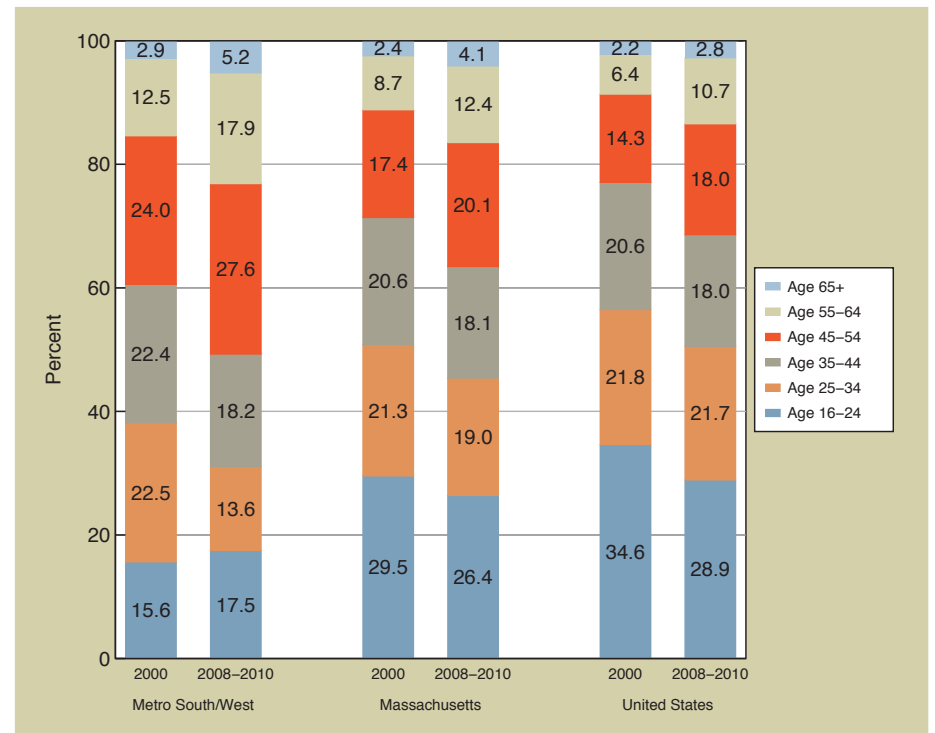
	2000	2010	Relative Change	Annual Growth Rate (Percent)
Unemployed	10,090	31,988	21,898	12.2
Employed	476,477	461,675	-14,802	-0.3
Civilian Labor Force	486,567	493,662	7,095	0.1
Unemployment Rate	2.1	6.5	-	-

## THE UNEMPLOYED: AGE DISTRIBUTION (2000 AND 2008-2010)

A larger share of the unemployed in Metro South/West is over the age of 45, compared with Massachusetts and the nation. This is a consequence of the region's older population. At the beginning of the decade, when the unemployment rate was at 2.1 percent, the unemployed population was largely concentrated among 25-54-year-olds. As the region's population increased in age over the decade and the Great Recession took hold, the share of the unemployed age 45 or older grew to over 50 percent. In comparison, only 35 percent of the unemployed in Massachusetts were age 45 or older in 2008-2010. Nationwide, the younger cohorts made up the largest share of unemployed, with 50 percent of the unemployed population age 34 or younger by the end of the decade. Nevertheless, even in Metro South/West individuals ages 16 to 24 were a disproportionately high share of the unemployed (17.5 percent), relative to their share of the civilian labor force (9.5 percent).

**Source:** US Census 2000 Decennial Census PUMS data files and 2008-2010 American Community Survey PUMS data files.

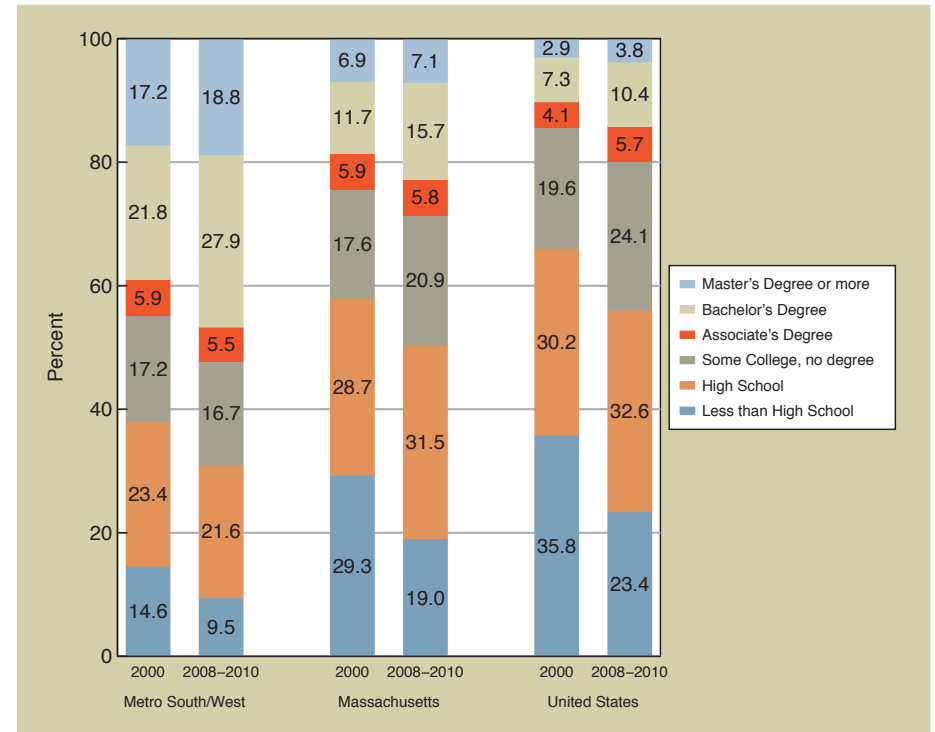
**Note:** Unemployed are individuals age 16 or older not employed and actively looking for work.



## THE UNEMPLOYED: EDUCATIONAL ATTAINMENT (2000 AND 2008-2010)

The unemployment situation in Metro South/West differs from that in the state and the nation: almost 50 percent of the unemployed in Metro South/West have a Bachelor's Degree or higher. This is a consequence of the high levels of educational attainment among the region's residents. In 2000, the share of the unemployed in Metro South/West with a High School Degree or less was slightly under 40 percent, similar to the share of the unemployed with a Bachelor's Degree or higher. By the end of the decade, the share of the unemployed with a Bachelor's Degree or higher grew to nearly 50 percent in Metro South/West, with the largest share of the unemployed being those with a Bachelor's Degree (27.9 percent). In comparison, a majority of the unemployed in both Massachusetts and the United States had a High School Degree or less. Nevertheless, even in Metro/South West those with a High School Degree or less accounted for a disproportionately high share of the unemployed (31.1 percent) in 2008-2010, relative to their share of the civilian labor force (20.8 percent).

**Source:** US Census 2000 Decennial Census PUMS data files and 2008-2010 American Community Survey PUMS data files.



## COMMUTING PATTERNS OF RESIDENTS AND WORKERS IN METRO SOUTH/WEST (2008-2010)

Metro South/West is closely tied to its neighboring labor markets and relies on workers from outside of the region. While 58 percent of the employed residents of the region also work in the region, nearly 27 percent of Metro South/West residents commute to the Boston/Metro North region for work, and another 13 percent commute to other bordering regions (i.e. Southeast, Central Mass, and Northeast). Metro South/West also has a large number of employees commuting into the region, with 41 percent coming from bordering regions and additional commuters from New Hampshire (2.4 percent) and Rhode Island (2.5 percent). Overall, Metro South/West is a net importer of workers, with 60,000 more employees commuting into the region for work than residents commuting out.

**Source:** US Census Bureau 2008-2010 American Community Survey PUMS data files.

	Number	Percent of Total
Total number of employed persons living in Metro South/West...	538,965	100.0
...who work in:		
Metro South/West	312,625	58.0
Boston/Metro North	143,259	26.6
Southeast	26,439	4.9
Central Mass	23,306	4.3
Northeast	18,260	3.4
Other parts of Massachusetts	1,706	0.3
Rhode Island	6,361	1.2
New Hampshire	2,559	0.5
Other places outside Massachusetts	4,450	0.8
Total number of persons working in Metro South/West...	599,083	100.0
...who live in:		
Metro South/West	312,625	52.2
Boston/Metro North	85,621	14.3
Southeast	57,855	9.7
Central Mass	56,392	9.4
Northeast	45,878	7.7
Other parts of Massachusetts	4,964	0.8
Rhode Island	15,028	2.5
New Hampshire	14,430	2.4
Other places outside Massachusetts	6,290	1.0
Net In-Commuting (Number of Persons Employed in Region Minus Number of Persons Living in Region)	60,118	-

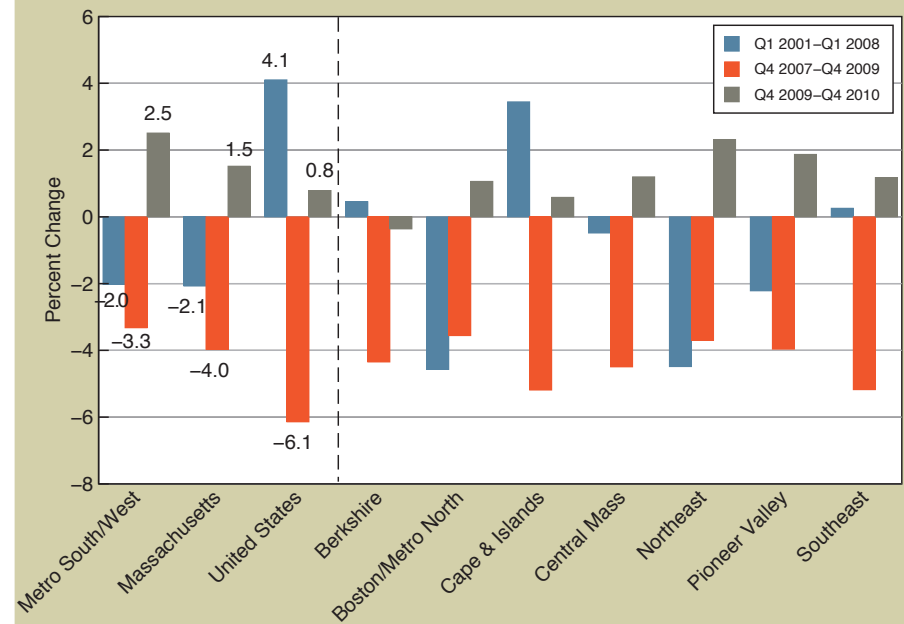
## EMPLOYMENT TRENDS

Metro South/West is the third most populous region, but it is the second largest labor market in the state, accounting for nearly 16.8 percent of the state's employment, or roughly 531,000 jobs. The employment trends in Metro South/West were similar to those in Massachusetts over the past decade. The region's employment declined at a rate nearly identical to Massachusetts between 2001 and 2008. Both experienced a more modest employment loss than the United States during the Great Recession, and Metro South/West's losses were slightly less than those in the state (3.3 percent versus 4.0 percent). During the recent recovery, Metro South/West has had the strongest growth among all the state's regional labor markets, increasing 2.6 percent between the fourth quarters of 2009 and 2010.

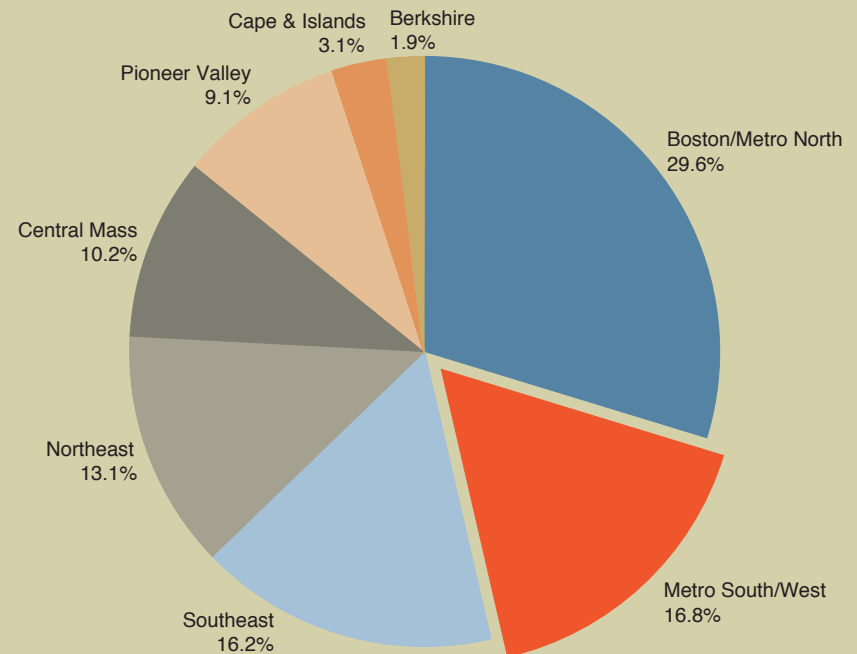
**Source:** US Bureau of Labor Statistics Quarterly Census of Employment and Wages (QCEW) and Massachusetts Executive Office of Labor and Workforce Development ES-202.

**Note:** ES-202 and QCEW are not seasonally adjusted. Therefore, comparisons need to be made across consistent time periods, such as the first quarter of one year to the first quarter of another. Comparison between different quarters will distort comparisons as seasonal employment in industries such as Retail Trade or Leisure & Hospitality vary considerably across regions.

### Changes in Total Employment



### Distribution of Employment Across Regional Labor Markets, Q4 2010



## DEMOGRAPHIC CHARACTERISTICS OF THE POPULATION EMPLOYED IN METRO SOUTH/WEST

The demographics of people employed in the region are similar to the demographics of the population that lives in the region, despite the fact that nearly 50 percent of the region's workers live outside the region. Over the past decade, the region has employed more immigrants. The region's workers have also become more diverse, with growth in Black, Asian, and Hispanic employees. And much like the residential population of Metro South/West, there is a strong concentration of older employees, and the fraction of jobs held by workers with at least a Bachelor's Degree has increased in the past decade.

**Source:** US Census 2000 Decennial Census PUMS data files and 2008-2010 American Community Survey PUMS data files.

**Note:** Further data for racial/ethnic and gender characteristics for total, working-age, and civilian labor force population are available in the Data Appendix.

	2000	2008-2010	Absolute Change	Annual Growth Rate (Percent)
Employed Population	572,485	599,083	26,598	0.5
<b>Gender</b>				
Male	306,876	317,206	10,330	0.4
Female	265,609	281,877	16,268	0.7
<b>Nativity</b>				
Native Born	487,842	474,207	-13,635	-0.3
Immigrant	84,643	124,876	40,233	4.4
<b>Race/Ethnicity</b>				
White, non-Hispanic	505,809	491,118	-14,691	-0.3
Black, non-Hispanic	16,081	25,200	9,119	5.1
Asian, non-Hispanic	20,502	36,849	16,347	6.7
Hispanic	18,581	35,736	17,155	7.5
Other race, non-Hispanic	11,512	10,180	-1,332	-1.4
<b>Age</b>				
Age 16-24	61,798	64,079	2,281	0.4
Age 25-34	136,248	121,236	-15,012	-1.3
Age 35-44	161,628	140,673	-20,955	-1.5
Age 45-54	129,612	150,305	20,693	1.7
Age 55-64	61,072	93,768	32,696	4.9
Age 65+	22,127	29,022	6,895	3.1
<b>Educational Attainment</b>				
Less than High School	46,945	38,819	-8,126	-2.1
High School Graduate	114,183	116,092	1,909	0.2
Some College, no degree	102,662	97,890	-4,772	-0.5
Associate's Degree	45,220	44,105	-1,115	-0.3
Bachelor's Degree	158,685	177,279	18,594	1.2
Master's Degree or more	104,790	124,898	20,108	2.0

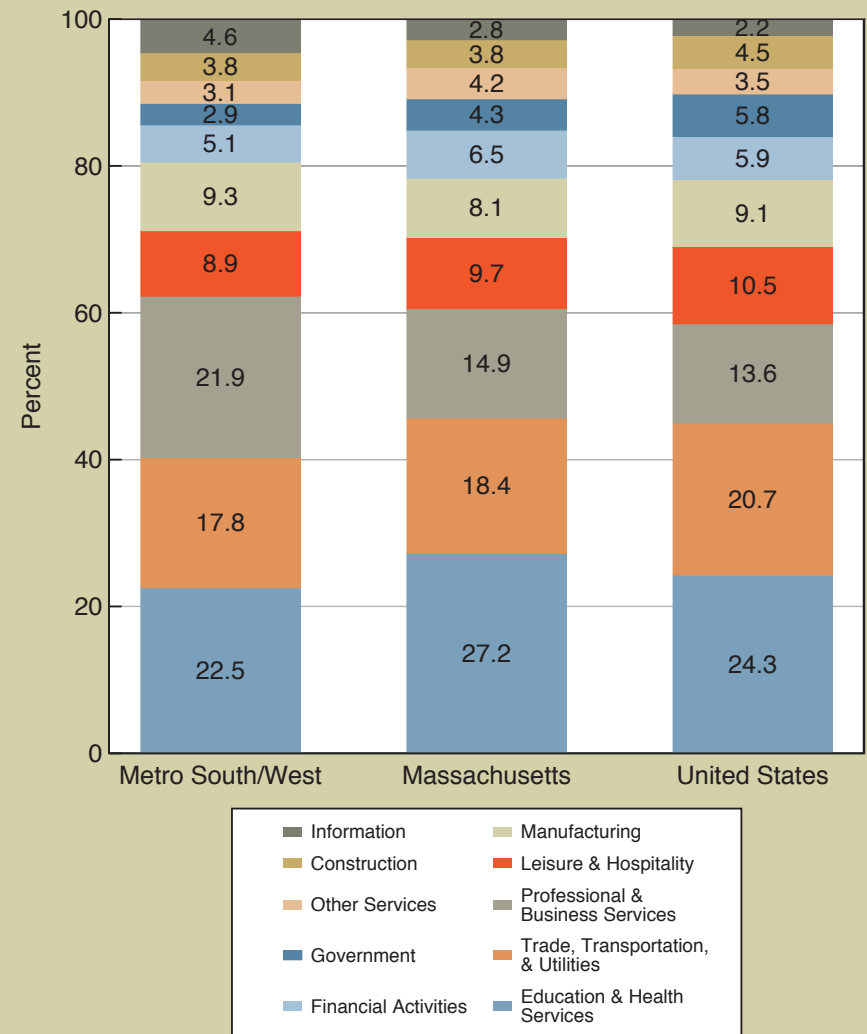


## DISTRIBUTION OF EMPLOYMENT BY SUPERSECTOR (Q4 2010)

Over one-fifth of the jobs in Metro South/West are in the Education & Health Services industries. This supersector, however, accounts for a smaller share of employment than in Massachusetts or the United States. In this region, there is a much stronger employment concentration in Professional & Business Services (21.9 percent) than in the state overall or the country. There are somewhat fewer jobs in Trade, Transportation & Utilities (17.8 percent) in the region compared with Massachusetts and the United States. Also of note is that the region's Manufacturing supersector is much closer to that of the nation (9.1 percent). Employment in the Information supersector in Metro South/West (4.6 percent) is nearly double that of the Information supersector in both the state and nation.

**Source:** US Bureau of Labor Statistics QCEW and Massachusetts Executive Office of Labor and Workforce Development ES-202.

**Note:** Supersectors are grouping of major industry categories. See the Data Appendix for the major industries that make up each supersector.



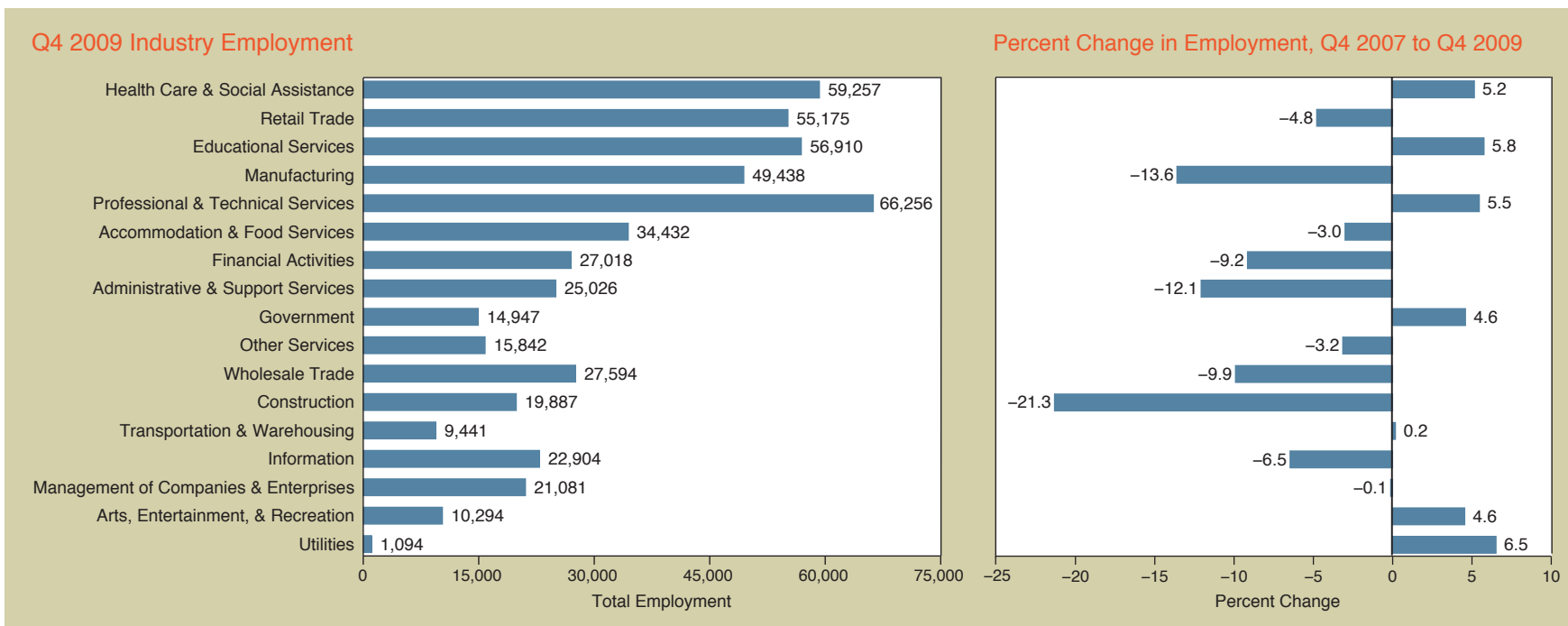
## CHANGES IN EMPLOYMENT DURING THE ECONOMIC DOWNTURN BY MAJOR INDUSTRY: METRO SOUTH/WEST

Between 2007 and 2009, Metro South/West lost jobs, but the region did not fare as poorly as other parts of the state, largely because of Metro South/West's industry mix. Metro South/West benefited from growth in jobs in Professional & Technical Services (5.5 percent), a major industry within Professional & Business Services. Of the 3,400 jobs Professional & Technical Services gained over this time period, the sub-industry of Computer System Design & Related Services accounted for over 1,800 jobs. The region further benefited from gains in Health

Care & Social Assistance (5.2 percent) and Educational Services (5.8 percent), totaling 6,000 jobs. However, these gains were offset by a loss of 13,000 jobs in the two industries hit hardest by the Great Recession: Manufacturing (-13.6 percent) and Construction (-21.3 percent).

**Source:** Massachusetts Executive Office of Labor and Workforce Development ES-202.

**Note:** Industries are sorted by size in Massachusetts in Q4 2010. See the Data Appendix for supersector and major industry employment trends.



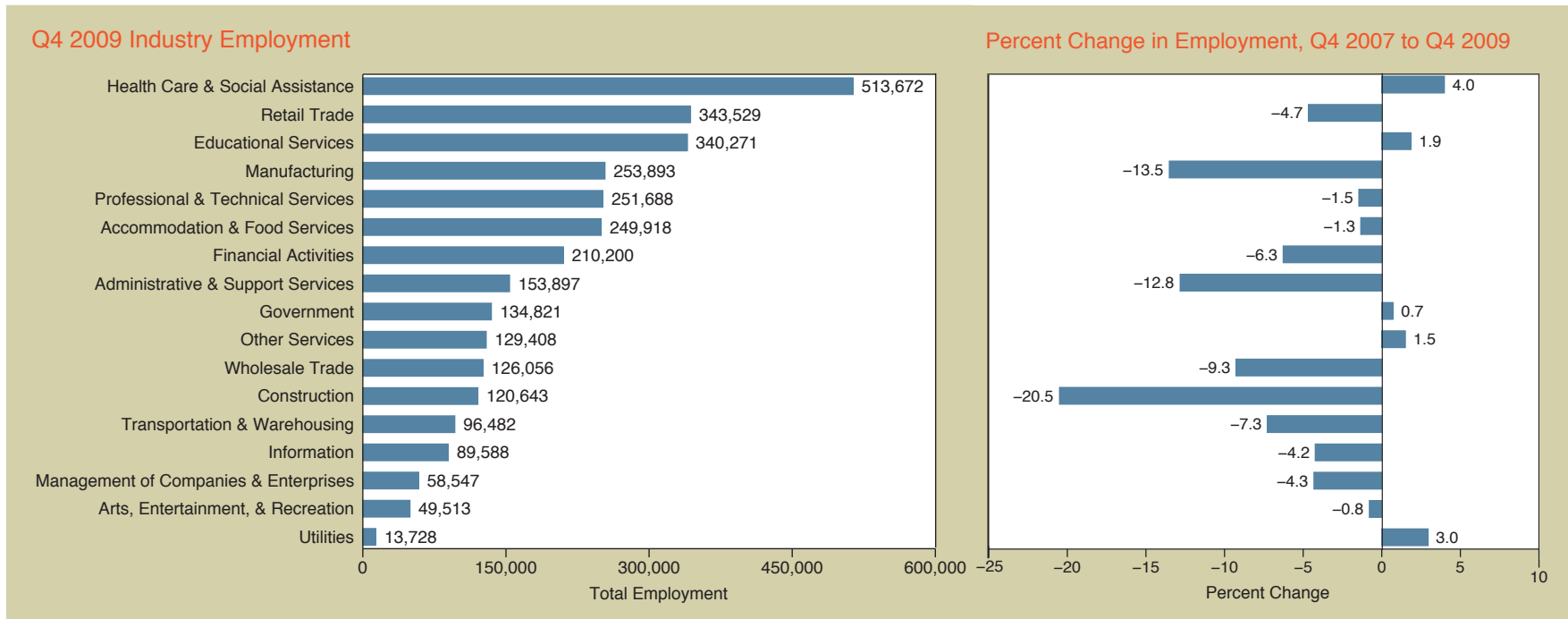
## CHANGES IN EMPLOYMENT DURING THE ECONOMIC DOWNTURN BY MAJOR INDUSTRY: MASSACHUSETTS

Massachusetts faced a slightly tougher downturn than Metro South/West. The state's strongest employment gains came in the Health Care & Social Assistance industry (4.0 percent), as a result of strong growth in the sub-industry of Ambulatory Health Care Services (7.7 percent). The state also saw modest employment gains in four other industries, ranging from 0.7 percent in Government to 3.0 percent in Utilities. Such gains were more than offset by significant losses in two industries hit hardest by the Great Recession: Manufacturing (-13.5 percent) and Construction (-20.5 percent). Within Trade, Transportation & Utilities, the state experienced large losses

from two major industries within this supersector: Retail Trade (-4.7 percent) and Wholesale Trade (-9.3 percent). While Metro South/West and Massachusetts saw similar employment losses across a number of industries in the Great Recession, the state experienced weaker growth than Metro South/West in the few industries that expanded employment between 2007 and 2009 and, as a result, had steeper total employment losses than the region.

**Source:** Massachusetts Executive Office of Labor and Workforce Development ES-202.

**Note:** Industries are sorted by size in Massachusetts in Q4 2010.



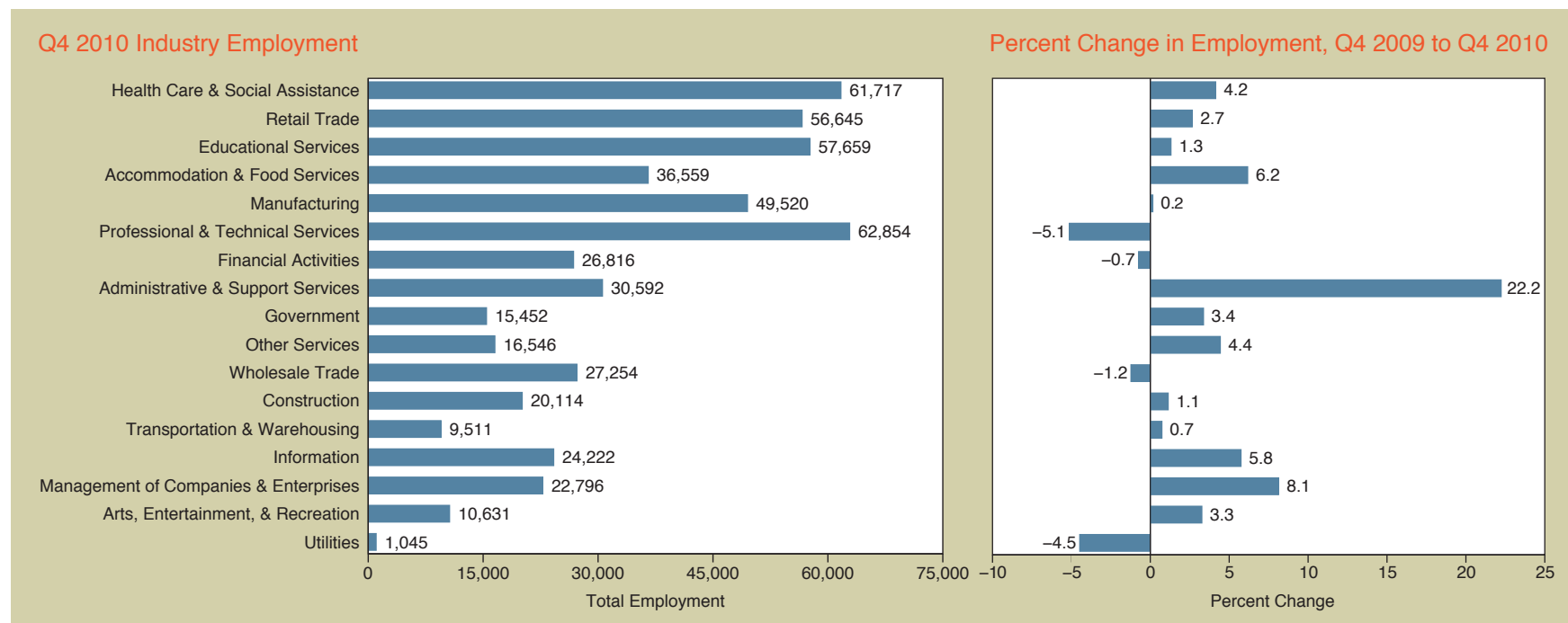
## INDUSTRIES DRIVING THE RECOVERY: METRO SOUTH/WEST

Since the trough of the downturn, Metro South/West has experienced modest growth across a broad set of industries. Only four industries lost jobs between the fourth quarters of 2009 and 2010, with the largest decline coming from the region's largest industry: Professional & Technical Services (3,400 jobs or -5.1 percent). This loss was offset by an increase of over 5,500 jobs in Administrative & Support Services (22.2 percent), also an industry within the Professional & Business Services supersec-

tor. Of the jobs added by Administrative & Support Services in the recovery, most came in sub-industries of Employment Services (1,400 jobs), which includes temporary service agencies, and Services to Building & Dwellings (4,500 jobs).

**Source:** Massachusetts Executive Office of Labor and Workforce Development ES-202.

**Note:** Industries are sorted by size in Massachusetts in Q4 2010.



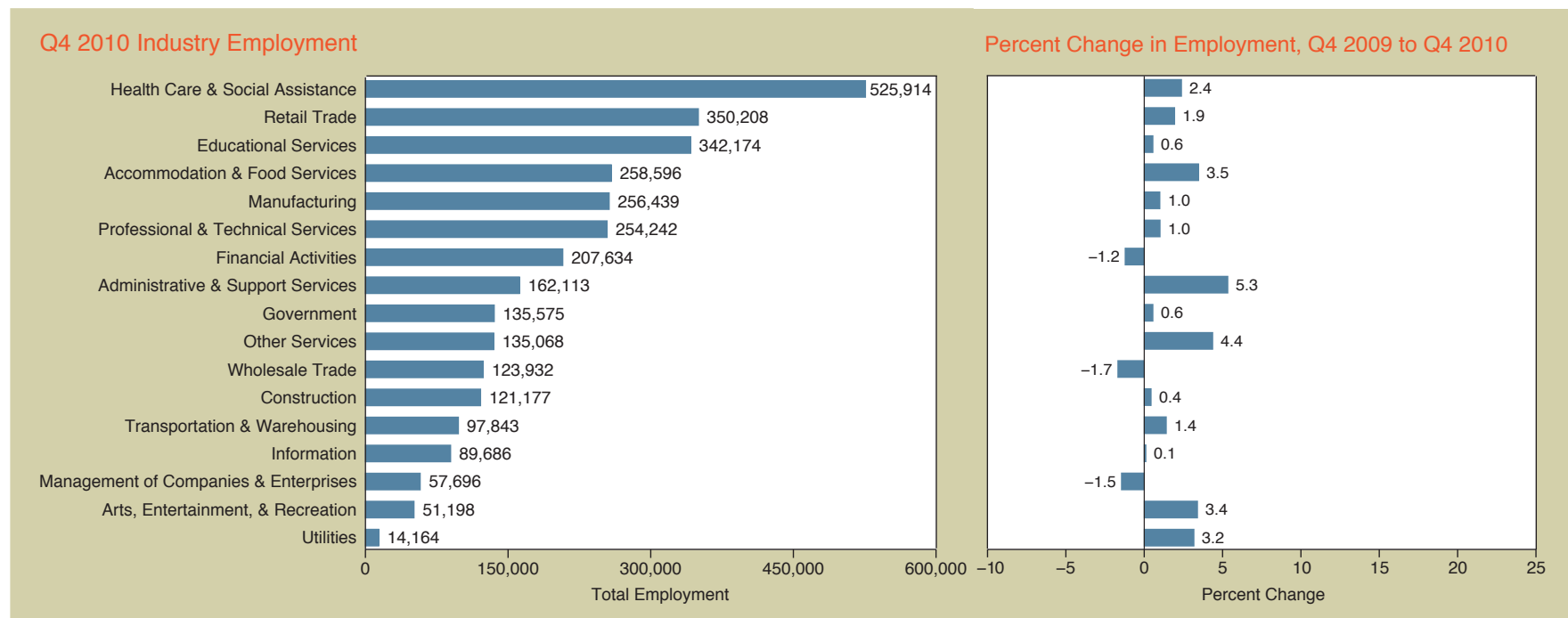
## INDUSTRIES DRIVING THE RECOVERY: MASSACHUSETTS

Massachusetts has also had a broad-based recovery. The state has expanded employment in industries ranging from a 0.1 percent increase in jobs in Information to 5.3 percent in Administrative & Support Services between the fourth quarters of 2009 and 2010. The Health Care & Social Assistance industry added over 12,100 jobs, an increase in employment of 2.4 percent in the recovery to date. Job growth was spread across a number of the sub-industries that make up Health Care & Social Assistance,

including: Social Assistance (3,206 jobs), Ambulatory Health Care Services (3,386 jobs), and Hospitals (5,676 jobs). During the recovery, the state has experienced slight declines in three industries: Financial Activities, Wholesale Trade, and Management of Companies & Enterprises.

**Source:** Massachusetts Executive Office of Labor and Workforce Development ES-202.

**Note:** Industries are sorted by size in Massachusetts in Q4 2010.

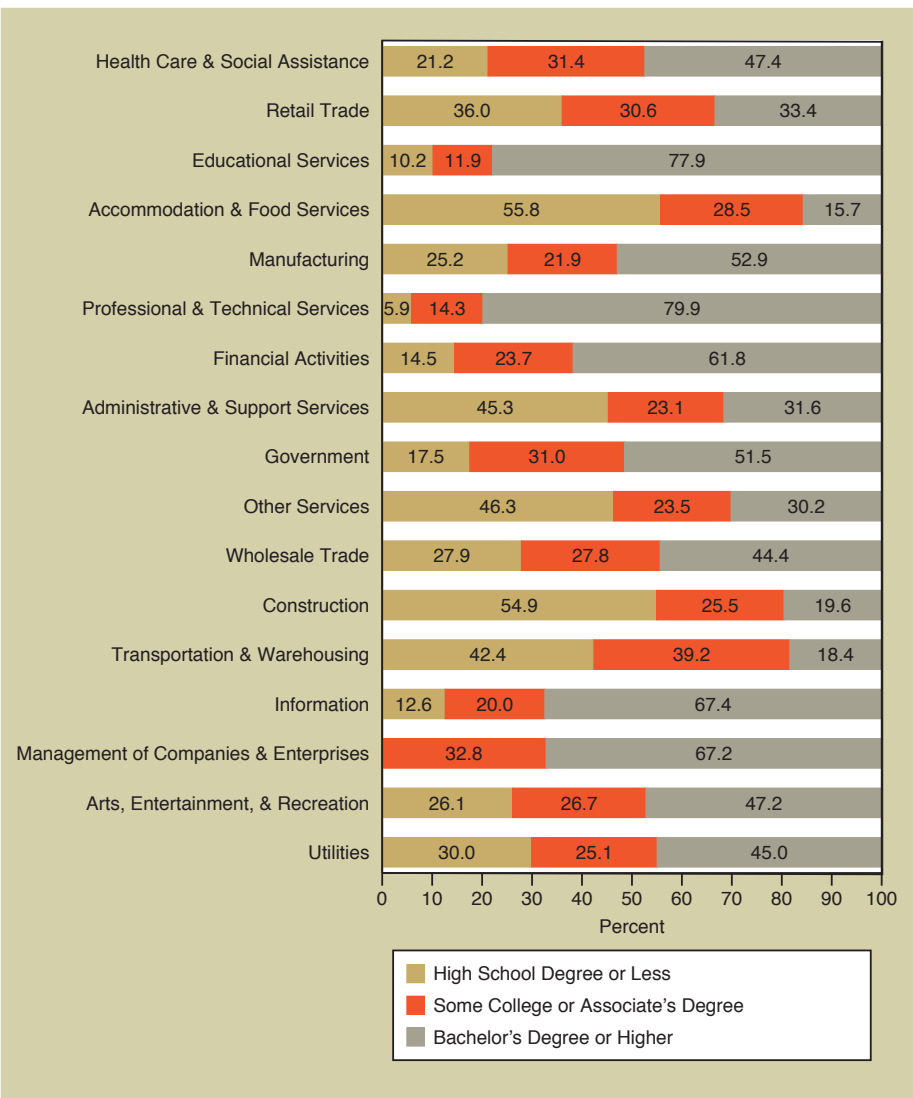


## EDUCATIONAL ATTAINMENT OF EMPLOYEES BY MAJOR INDUSTRY IN METRO SOUTH/WEST (2008-2010)

With a highly educated population working in Metro South/West, it is not surprising that most industries in the region have a highly educated workforce. In 2008-2010, 11 of the 17 major industries in the region had a workforce where more than 40 percent of employees had a Bachelor's Degree or higher. In particular, the region had a high concentration of employees with a Bachelor's Degree or higher in industries that typically employ less educated workers: Manufacturing (52.9 percent) and Wholesale Trade (44.4 percent). In fact, only six industries in the region had employees with educational levels of a High School Degree or less as their largest category. Even in these industries, the majority of employees tend to have at least Some College education or higher, with the exception of Construction and Accommodation & Food Services which have a majority of employees with a High School Degree or less.

**Source:** US Census Bureau 2008-2010 American Community Survey PUMS data files.

**Note:** Industries are sorted by size in Massachusetts in Q4 2010.

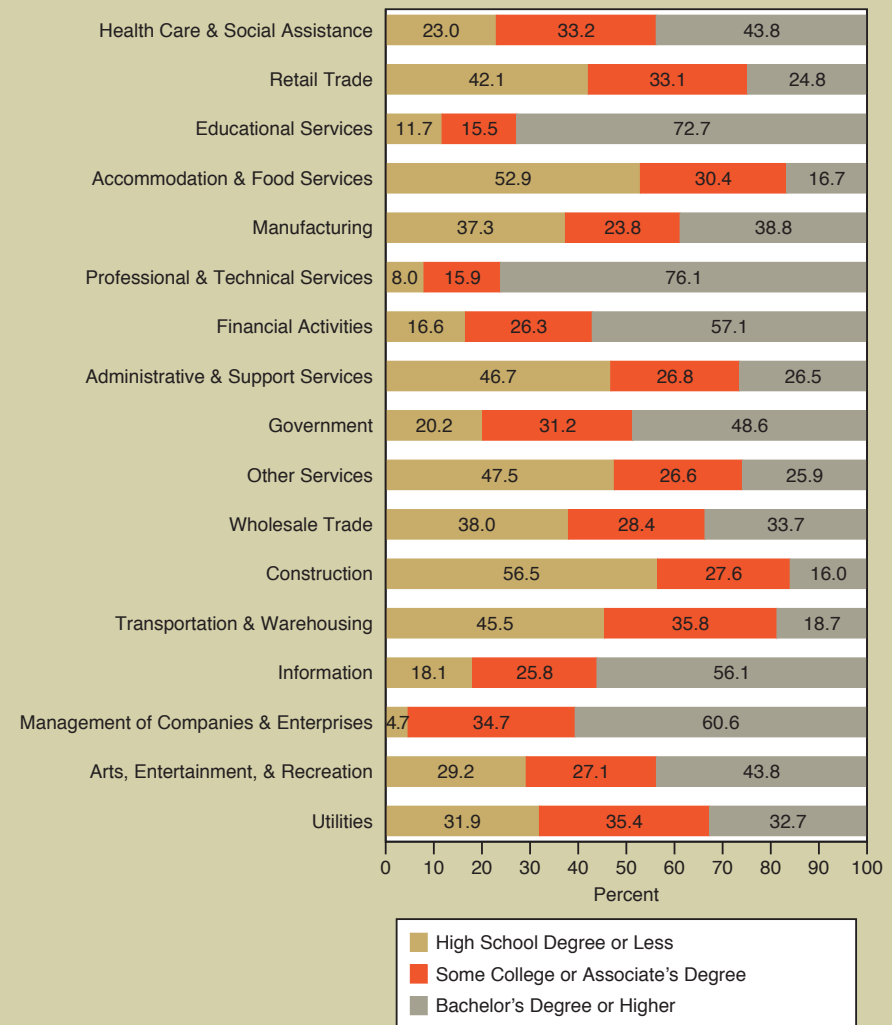


## EDUCATIONAL ATTAINMENT OF EMPLOYEES BY MAJOR INDUSTRY IN MASSACHUSETTS (2008-2010)

The educational attainment across the industries of Metro South/West is much higher than the educational attainment of employees by industry in Massachusetts. In Massachusetts, only eight of the 17 major industries have a workforce where more than 40 percent of employees have a Bachelor's Degree or higher. And in nearly every major industry statewide, the share of employees with a Bachelor's Degree or higher is less than their industrial counterparts in Metro South/West. Even industries that traditionally have lower levels of educational attainment among employees, particularly Utilities, Wholesale Trade, and Manufacturing have a higher share of employees with a Bachelor's Degree or higher in Metro South/West. Conversely, nearly every major industry statewide has a larger share of employees with a High School Degree or less compared with Metro South/West, with the exception of Accommodation & Food Services.

**Source:** US Census Bureau 2008-2010 American Community Survey PUMS data files.

**Note:** Industries are sorted by size in Massachusetts in Q4 2010.

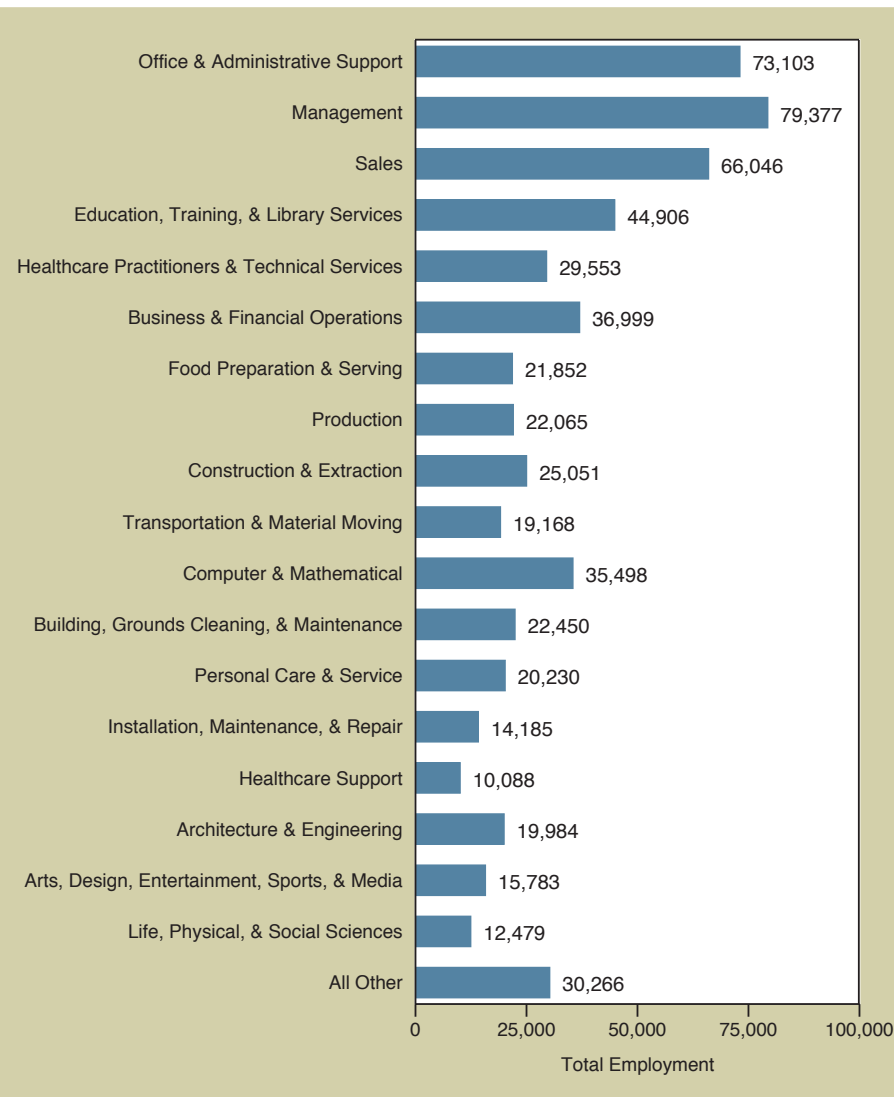


## EMPLOYMENT BY MAJOR OCCUPATION: METRO SOUTH/WEST (2008-2010)

Industries are where people work, but occupations are what people do. Occupations help to capture what types of workers are in demand by businesses. In Metro South/West, Management is the largest occupational group, accounting for over 13 percent of the region's jobs. The number of Management jobs has grown over the past decade. While Office & Administrative Support occupations are the second largest occupational group, jobs in these occupations have declined over the past decade. Occupations that are closely associated with growing industries have increased, such as Healthcare Practitioners & Technical Services occupations with very high employment in the Education & Health Services. Similarly, some occupations, such as Production occupations, that are strongly concentrated in Manufacturing have declined.

**Source:** US Census Bureau 2008-2010 American Community Survey PUMS data files.

**Note:** All Other occupations are composed of Community & Social Services, Legal, Protective Services, Farming, Fishing & Forestry, and Military Specific. Occupations are sorted largest to smallest by size in Massachusetts. See the Data Appendix for occupational employment trends.



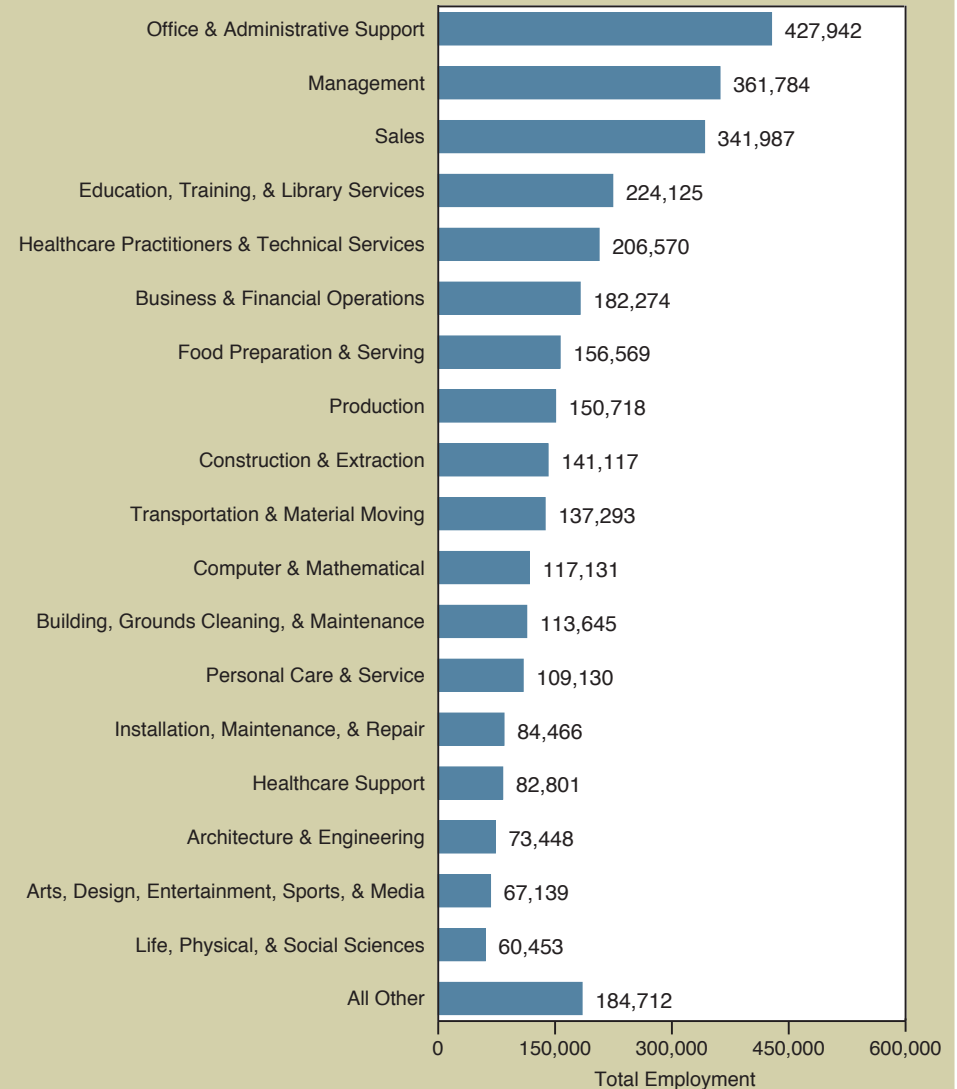


## EMPLOYMENT BY MAJOR OCCUPATION: MASSACHUSETTS (2008-2010)

Massachusetts has a higher concentration of employees in Office & Administrative Support occupations than does the Metro South/West region. These occupations account for over 13 percent of employment in the state. The state also has higher shares of employees in occupations such as Healthcare Practitioners & Technical Services, and smaller shares in Business & Financial Operations and Computer & Mathematical occupations. Despite variations in occupational composition, the patterns of occupational growth were similar in Metro South/West and Massachusetts over the past decade. The few exceptions were the stronger growth in Healthcare Support occupations at the state level and a slight decline in Construction & Extraction occupations in Massachusetts (while employment in such occupations grew slightly in Metro South/West).

**Source:** US Census Bureau 2008-2010 American Community Survey PUMS data files.

**Note:** All Other occupations are composed of Community & Social Services, Legal, Protective Services, Farming, Fishing & Forestry, and Military Specific. Occupations are sorted largest to smallest by size in Massachusetts. See Data Appendix for occupational employment trends.



## DISTRIBUTION OF OCCUPATIONS ACROSS SUPERSECTORS IN GREATER BOSTON (2008-2010)

Because changes in industries and occupations impact each other, it is important to see how occupations are distributed across industries. Unfortunately, data limitations make this difficult to do so for small geographic regions. However, due to the similarities and integration between the Metro South/West and Boston/Metro North labor markets, we can combine the regions to see where groups of employees are concentrated in what we call the Greater Boston region. Some occupations are concentrated in one or several industries, while other occupations are spread across a number of industries. Consider that nearly 90 percent of Healthcare Practitioners & Technical occupations are located in the Education & Health Services supersector. In contrast, jobs in

Management occupations are distributed across many industries. Other occupations are split between a few major industries. For example, Business & Financial Operations occupations are strongly concentrated in the supersectors Professional & Business Services (30.5 percent) and Financial Activities (32.2 percent).

**Source:** US Census Bureau 2008-2010 American Community Survey PUMS data files.

**Note:** Due to sample size limitations in the Census and American Community Survey it is not possible to provide an occupational distribution across industries for small geographic areas. Therefore Metro South/West was grouped with Boston/Metro North to increase observations to provide an occupation/industry distribution for Greater Boston. While there are differences between these two labor markets, industrial and occupational concentrations are similar enough to be representative of the distributions for both labor markets.

## DISTRIBUTION OF OCCUPATIONS ACROSS SUPERSECTORS IN GREATER BOSTON (2008-2010)

	Education & Health Services	Trade, Transportation, & Utilities	Professional & Business Services	Manufacturing	Leisure & Hospitality	Financial Activities	Construction	Other	All Industries
Office & Administrative Support	22.9	22.9	15.1	6.3	3.5	14.3	2.0	12.8	100.0
Management	19.4	6.9	20.2	12.2	6.6	16.0	6.0	12.7	100.0
Sales	2.0	58.5	6.0	5.1	4.7	17.6	0.4	5.7	100.0
Education, Training, & Library Services	93.7	0.4	1.2	0.2	1.1	0.2	0.0	3.2	100.0
Healthcare Practitioners & Technical Services	89.5	4.1	3.3	0.6	0.1	0.5	0.0	2.0	100.0
Business & Financial Operations	8.9	8.6	30.5	7.1	1.2	32.2	1.2	10.1	100.0
Food Preparation & Serving	10.6	3.8	0.4	0.9	82.4	0.3	0.0	1.7	100.0
Production	3.4	12.1	5.5	61.6	2.5	1.6	2.1	11.2	100.0
Construction & Extraction	1.8	3.5	2.2	2.1	0.5	1.3	85.5	3.1	100.0
Transportation & Material Moving	4.0	66.2	5.7	6.4	4.8	2.1	3.6	7.2	100.0
Computer & Mathematical	11.9	5.3	48.0	11.6	0.4	12.5	0.2	10.1	100.0
Building and Grounds Cleaning & Maintenance	19.7	4.3	44.3	1.9	10.3	3.7	0.7	15.2	100.0
Personal Care & Service	36.0	7.2	1.8	0.1	15.0	0.2	0.0	39.8	100.0
Installation, Maintenance, & Repair	5.6	25.7	7.3	10.7	1.9	6.0	8.9	34.0	100.0
Healthcare Support	88.0	1.4	2.1	0.0	0.9	0.3	0.0	7.3	100.0
Architecture & Engineering	2.8	4.9	42.3	37.0	0.7	0.5	4.0	7.8	100.0
Arts, Design, Entertainment, Sports, & Media	11.2	6.5	27.8	6.2	16.1	2.1	0.4	29.7	100.0
Life, Physical, & Social Sciences	41.0	0.8	36.7	14.0	1.1	1.5	0.1	4.8	100.0
All Other	21.5	1.7	31.5	1.2	2.0	2.8	0.1	39.3	100.0
All Occupations	26.1	15.0	17.0	8.1	7.1	9.3	5.1	12.3	100.0

## DISTRIBUTION OF OCCUPATIONS WITHIN SUPERSECTORS IN GREATER BOSTON (2008-2010)

We can also consider what the distribution of occupations within a given supersector looks like. Certain occupations account for the majority of employment within a supersector. For example, nearly 50 percent of employment in Greater Boston's Education & Health Services supersector comes from two occupations: Education, Training & Library Services and Healthcare Practitioners & Technical occupations. Further, the Construction supersector has two-thirds of its employment in Construction & Extraction occupations.

While some occupations account for an overwhelming majority of the employment in a given supersector, others are consistently a large share of employment in each supersector. In fact, the two

largest occupational groups, Office & Administrative Support and Management, together account for roughly 20 percent or more of all occupations employed within every supersector.

**Source:** US Census Bureau 2008-2010 American Community Survey PUMS data files.

**Note:** Due to sample size limitations in the Census and American Community Survey it is not possible to provide an occupational distribution across industries for small geographic areas. Therefore Metro South/West was grouped with Boston/Metro North to increase observations to provide an occupation/industry distribution for Greater Boston. While there are differences between these two labor markets, industrial and occupational concentrations are similar enough to be representative of the distributions for both labor markets.

## DISTRIBUTION OF OCCUPATIONS WITHIN SUPERSECTORS IN GREATER BOSTON (2008-2010)

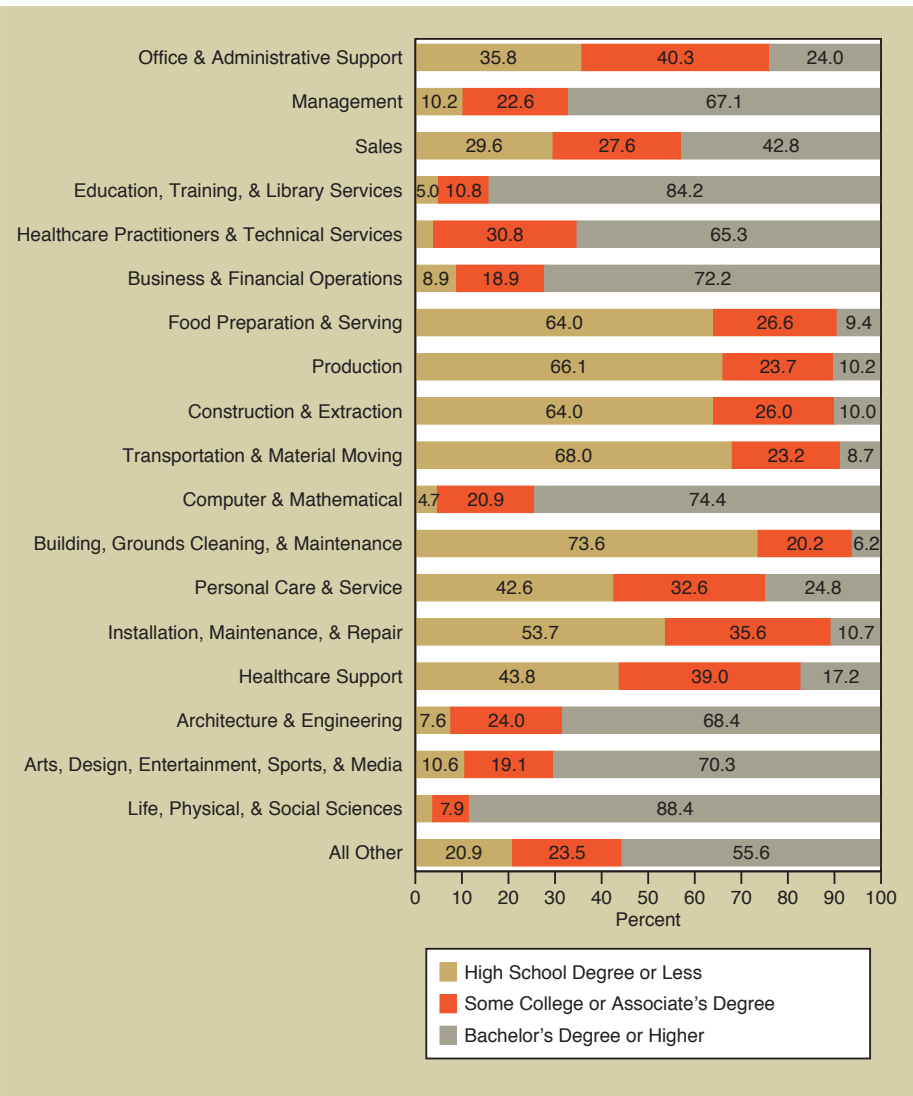
	Education & Health Services	Trade, Transportation, & Utilities	Professional & Business Services	Manufacturing	Leisure & Hospitality	Financial Activities	Construction	Other	All Industries
Office & Administrative Support	10.9	19.0	11.0	9.7	6.1	19.1	4.9	13.0	12.4
Management	9.5	5.9	15.1	19.2	11.8	21.9	15.0	13.2	12.8
Sales	0.7	38.2	3.4	6.2	6.4	18.5	0.9	4.5	9.8
Education, Training, & Library Services	24.7	0.2	0.5	0.2	1.1	0.1	0.0	1.8	6.9
Healthcare Practitioners & Technical Services	22.5	1.8	1.3	0.5	0.1	0.3	0.0	1.1	6.6
Business & Financial Operations	2.5	4.2	13.1	6.4	1.3	25.3	1.8	6.0	7.3
Food Preparation & Serving	1.7	1.1	0.1	0.5	49.0	0.1	0.0	0.6	4.2
Production	0.4	2.5	1.0	23.1	1.1	0.5	1.3	2.8	3.1
Construction & Extraction	0.3	0.9	0.5	1.0	0.3	0.6	66.7	1.0	4.0
Transportation & Material Moving	0.5	15.2	1.1	2.7	2.3	0.8	2.4	2.0	3.4
Computer & Mathematical	2.3	1.8	14.4	7.3	0.3	6.9	0.2	4.2	5.1
Building and Grounds Cleaning & Maintenance	2.6	1.0	8.9	0.8	4.9	1.4	0.4	4.2	3.4
Personal Care & Service	4.1	1.4	0.3	0.0	6.3	0.1	0.0	9.7	3.0
Installation, Maintenance, & Repair	0.5	3.9	1.0	2.9	0.6	1.4	3.9	6.2	2.2
Healthcare Support	6.0	0.2	0.2	0.0	0.2	0.1	0.0	1.1	1.8
Architecture & Engineering	0.3	0.9	6.5	11.8	0.3	0.1	2.0	1.7	2.6
Arts, Design, Entertainment, Sports, & Media	1.1	1.1	4.3	2.0	5.9	0.6	0.2	6.3	2.6
Life, Physical, & Social Sciences	4.4	0.1	6.0	4.8	0.4	0.4	0.1	1.1	2.8
All Other	5.0	0.7	11.3	0.9	1.7	1.8	0.1	19.6	6.1
All Occupations	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

## EDUCATIONAL ATTAINMENT OF EMPLOYEES BY MAJOR OCCUPATION IN METRO SOUTH/WEST (2000)

By looking at the educational attainment of an occupational group, we better understand the education required in that field of employment. In 2000, in Office & Administrative Support occupations, over 40 percent of employees had Some College education or an Associate's Degree, and 24.0 percent of the workers had a Bachelor's Degree or higher. By comparison, 67.1 percent of employees in Management had a Bachelor's Degree or higher. Educational attainment gives some indication of the skills requirement, but it is not a perfect proxy for skill. Some occupations require significant training or other certification. For example, in Installation, Maintenance, & Repair occupations over 50 percent of employees have a High School Degree or less, but these occupations often require apprenticeships, professional certifications, or significant on-the-job training.

**Source:** US Census Bureau 2000 Decennial Census PUMS data files.

**Note:** Occupations are sorted by size in Massachusetts in 2008-2010 American Community Survey PUMS data files.

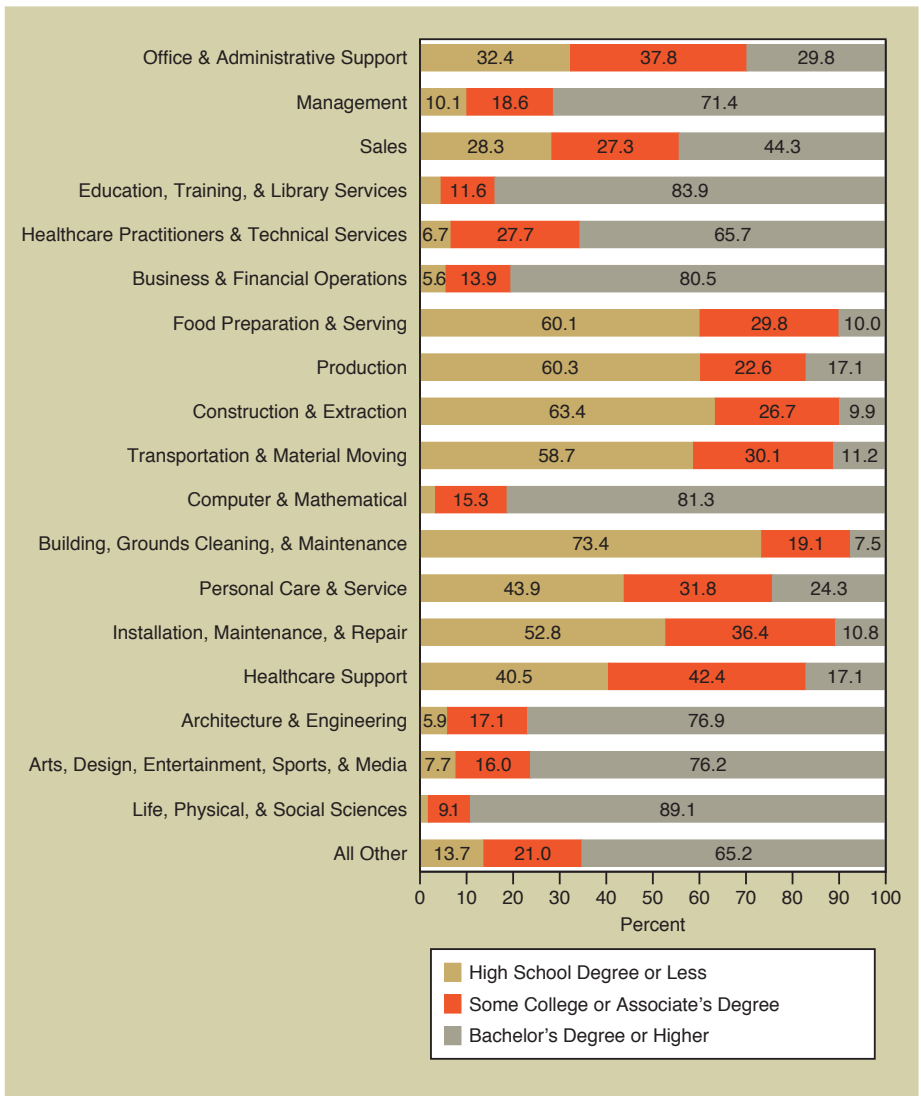


## EDUCATIONAL ATTAINMENT OF EMPLOYEES BY MAJOR OCCUPATION IN METRO SOUTH/WEST (2008-2010)

Over the past decade, the education levels of workers in nearly all occupations have increased. For example, the share of employees working in management jobs who hold a Bachelor's Degree or higher grew by over 4 percentage points to reach 71.4 percent in 2008-2010. Even occupations with a mix of educational levels, such as Office & Administrative Support, saw declines in the share of employees with an Associate's Degree or less and growth in the share of employees with a Bachelor's Degree or higher. The educational attainment of employees even increased in occupations where workers traditionally have less education, such as Production. As such, nine occupations in the region had a majority of employees with a Bachelor's Degree or higher in 2008-2010, while six occupations had a majority of employees with a High School Degree or less. The remaining four occupational groups had a majority of employees with Some College education or higher.

**Source:** US Census Bureau 2008-2010 American Community Survey PUMS data files.

**Note:** Occupations are sorted by size in Massachusetts in 2008-2010 American Community Survey PUMS data files.

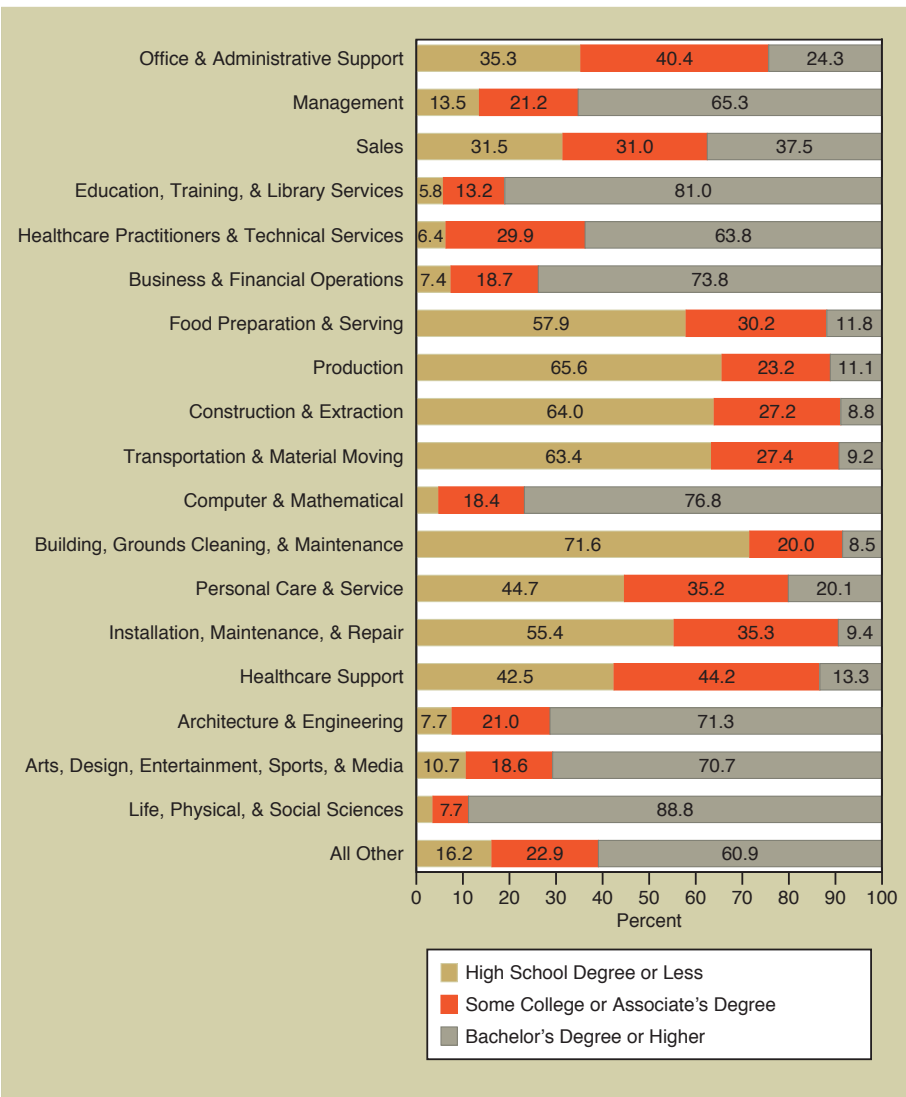


## EDUCATIONAL ATTAINMENT OF EMPLOYEES BY MAJOR OCCUPATION IN MASSACHUSETTS (2008-2010)

The higher level of educational attainment of workers in Metro South/West in different occupations stands out in comparison with the educational levels in Massachusetts. Within the 19 major occupation groups in Massachusetts, 17 have a lower share of employees with a Bachelor's Degree or higher compared with those in Metro South/West. This includes occupations that have a majority of employees with high levels of education (e.g., Management and Business), mixed educational attainment (e.g., Office & Administrative Support), and predominantly lower education levels (e.g., Production). In only two occupational groups (Building and Grounds Cleaning & Maintenance and Food Preparation & Serving) is the share of employees with a High School Degree or less higher in Metro South/West than in Massachusetts.

**Source:** US Census Bureau 2008-2010 American Community Survey PUMS data files.

**Note:** Occupations are sorted by size in Massachusetts in 2008-2010 American Community Survey PUMS data files.





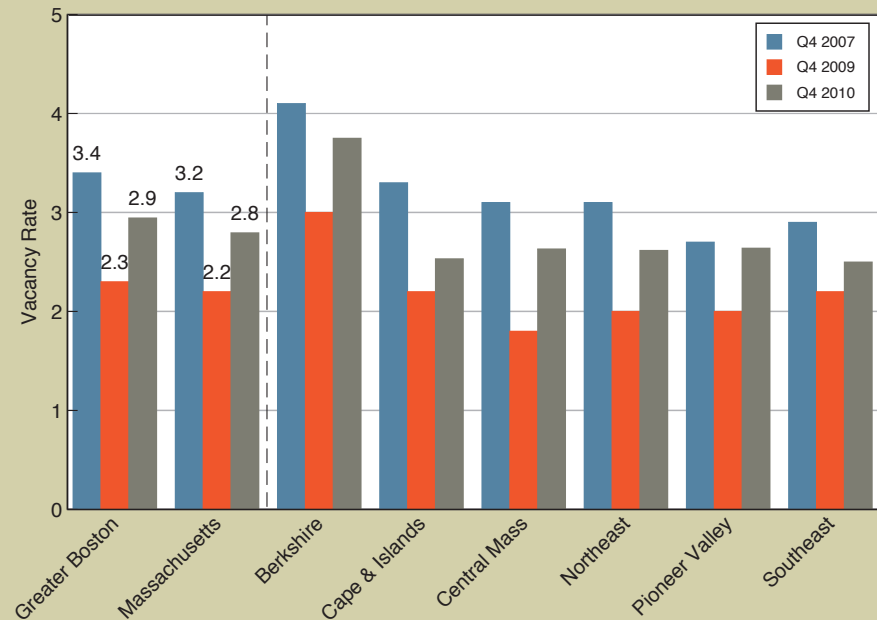
## JOB VACANCIES IN THE GREAT RECESSION AND RECOVERY

Job vacancies exist even in a healthy labor market due to turnover and constant flux in the labor market. As businesses expand, they need to hire individuals who meet specific skill requirements, and employees with skills that are in demand leave jobs for better positions. As the economy enters a downturn, job vacancies decline due to an overall decline in labor demand, an increase in the number of applicants available to fill positions, and lower turnover as employees stay longer in jobs. Preceding the Great Recession, the job vacancy rate in Greater Boston was 3.4 percent at the end of 2007. During the Great Recession, the vacancy rate declined by more than a full percentage point by the end of 2009, and as the economy has recovered, it has since risen to near 3.0 percent. As the largest labor market in the state, Greater Boston accounts for more than 45 percent of employment. However, nearly 55 percent of the job vacancies in Massachusetts are in Greater Boston.

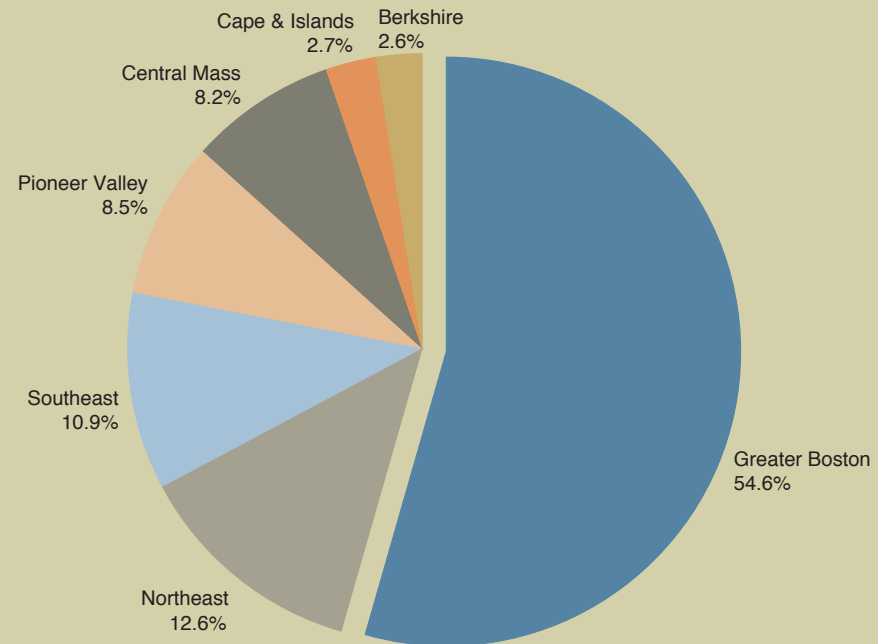
**Source:** Massachusetts Executive Office of Labor and Workforce Development Job Vacancy Survey.

**Note:** The Massachusetts Job Vacancy Survey is collected for seven regions in the state. The Greater Boston Region covers portions of the Boston/Metro North, Metro South/West, Central Mass, and Southeastern regions of the regional labor market profiles. The vacancy information for the Greater Boston region is used as an approximation of the vacancies trends experienced in the Metro South/West and Boston/Metro North regions. Vacancy rates are calculated by taking the total number of job vacancies and dividing by the total number employed in the region.

Job Vacancy Rates



Distribution of Job Vacancies Across Regional Labor Markets, Q4 2010



## JOB VACANCIES AND VACANCY RATES BY MAJOR OCCUPATION IN GREATER BOSTON (Q4 2010)

At the end of 2010, nearly 70 percent of the vacancies in Greater Boston were concentrated in six occupations. Sales positions accounted for the largest share of vacancies (20.5 percent) and had the highest vacancy rate (5.5 percent) of all occupations in Greater Boston. Some of these positions, especially in retail, are seasonal in nature. Other occupations with a large number of vacancies and an above-average vacancy rate included Computer & Mathematical occupations, Business & Financial Operations, and Management occupations. Some large occupational groups such as Office & Administrative Support account for a large number of vacancies (11.0 percent), but they have a relatively low vacancy rate (1.7 percent). Not surprisingly, the number of vacancies and vacancy rates in occupations hit hard by the Great Recession, such as Production, were extremely low in the region.

**Source:** Massachusetts Executive Office of Labor and Workforce Development Job Vacancy Survey.

**Note:** Vacancy rates are calculated by taking the total number of job vacancies and dividing by the total number employed in the occupation.

	Number of Vacancies	Share of Vacancy (Percent)	Job Vacancy Rate (Percent)
Total	42,880	100.0	2.9
Sales	8,798	20.5	5.5
Office & Administrative Support	4,737	11.0	1.7
Food Preparation & Serving Related	3,916	9.1	3.2
Business & Financial Operations	4,079	9.5	3.6
Healthcare Practitioner & Technical	2,278	5.3	1.9
Computer & Mathematical	4,092	9.5	4.6
Management	3,562	8.3	3.3
Healthcare Support	1,500	3.5	3.6
Transportation & Material Moving	1,142	2.7	1.8
Education, Training & Library	1,638	3.8	1.6
Personal Care & Service	991	2.3	2.4
Production	429	1.0	0.8
Architecture & Engineering	1,061	2.5	2.4
Building & Grounds Cleaning & Maintenance	438	1.0	0.8
Arts, Design, Entertainment, Sports & Media	1,060	2.5	3.2
Community & Social Services	650	1.5	2.1
Life, Physical, & Social Services	1,074	2.5	2.8
Installation, Maintenance & Repair	296	0.7	0.7
Protective Service	662	1.5	1.6
Construction & Extraction	265	0.6	0.6
Legal	187	0.4	1.0

## JOB VACANCIES AND VACANCY RATES BY MAJOR OCCUPATION IN MASSACHUSETTS (Q4 2010)

Similar to Greater Boston, the largest number of job vacancies and highest vacancy rates in Massachusetts are in Sales occupations. However, in contrast to Metro South/West, vacancies are somewhat less concentrated in a few occupations. In Massachusetts, there are lower shares of vacancies in Business & Financial Operations, and Computer & Mathematical occupations and larger shares in Transportation & Material Moving and Healthcare Support occupations, as compared with Greater Boston. While most occupations in Massachusetts have similar vacancy rates to Greater Boston, a few occupations have higher vacancy rates state-wide (e.g., Production) while the vacancy rates in others, such as Management, are larger in Greater Boston.

**Source:** Massachusetts Executive Office of Labor and Workforce Development Job Vacancy Survey.

**Note:** Vacancy rates are calculated by taking the total number of job vacancies and dividing by the total number employed in the occupation.

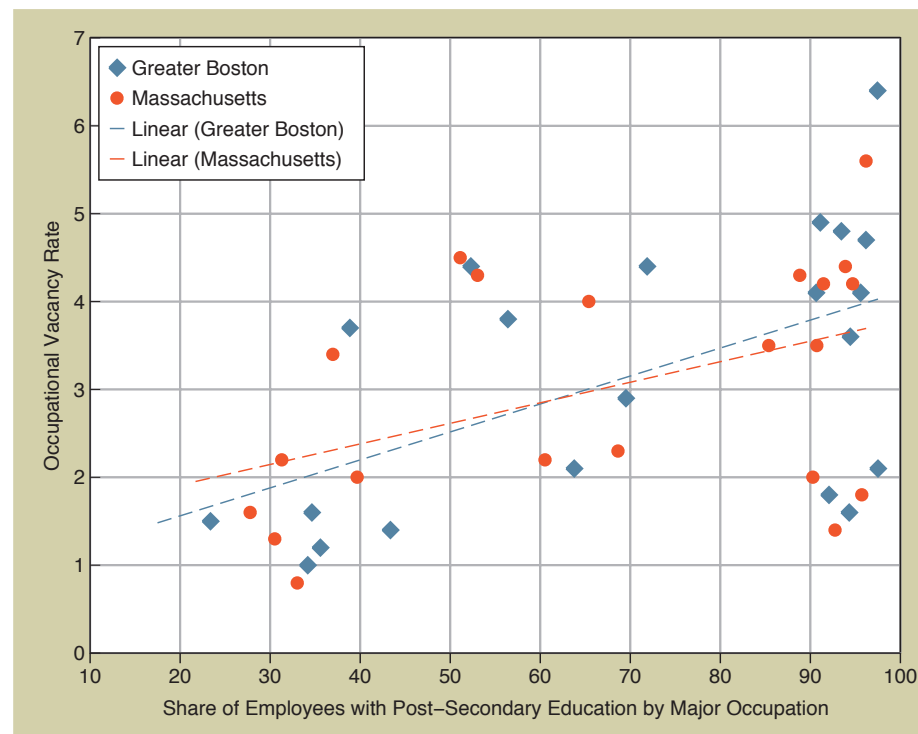
	Number of Vacancies	Share of Vacancy (Percent)	Job Vacancy Rate (Percent)
Total	78,589	100.0	2.8
Sales	16,584	21.1	5.2
Office & Administrative Support	8,650	11.0	1.6
Food Preparation & Serving Related	8,195	10.4	3.1
Business & Financial Operations	6,079	7.7	3.6
Healthcare Practitioner & Technical	5,249	6.7	2.3
Computer & Mathematical	4,950	6.3	4.0
Management	4,595	5.8	2.5
Healthcare Support	3,634	4.6	3.8
Transportation & Material Moving	3,214	4.1	2.1
Education, Training & Library	2,895	3.7	1.3
Personal Care & Service	2,055	2.6	2.4
Production	1,774	2.3	1.1
Architecture & Engineering	1,734	2.2	2.3
Building & Grounds Cleaning & Maintenance	1,555	2.0	1.5
Arts, Design, Entertainment, Sports & Media	1,421	1.8	2.7
Community & Social Services	1,411	1.8	2.2
Life, Physical, & Social Services	1,398	1.8	2.6
Installation, Maintenance & Repair	1,160	1.5	1.2
Protective Service	1,124	1.4	1.5
Construction & Extraction	583	0.7	0.6
Legal	244	0.3	1.0

## COMPARING VACANCY RATES AND EDUCATIONAL ATTAINMENT: PEAK LABOR MARKET

Before entering the Great Recession, there was a correlation between educational attainment and job vacancies in both Greater Boston and Massachusetts. That is, occupations with workers who have higher levels of educational attainment had higher vacancy rates. This is not surprising, as occupations that have larger shares of employees with a High School Degree or less can sometimes be filled by a number of individuals with less training and at lower costs to employers. In contrast, jobs in highly specialized occupations that require specific educational requirements face competition both regionally and globally for the limited number of individuals who can fill such positions. Further, strong growth in industries that employ large shares of individuals with high levels of educational attainment, such as Health Care & Social Assistance and Professional & Technical Services, led to increased vacancies and demand for employees who can fill such positions.

**Source:** Massachusetts Executive Office of Labor and Workforce Development Job Vacancy Survey and US Census Bureau 2005-2007 American Community Survey.

**Note:** Occupational vacancy rates for Greater Boston in Q4 2007 proxy vacancy rates in a peak labor market and educational attainment data by occupation in Greater Boston from the 2005-2007 American Community Survey proxy share of employees with a post-secondary education in a peak labor market. Workers have attained a post-secondary education if they have attended Some College or obtained an Associate's Degree, Bachelor's Degree, or Master's Degree or higher.

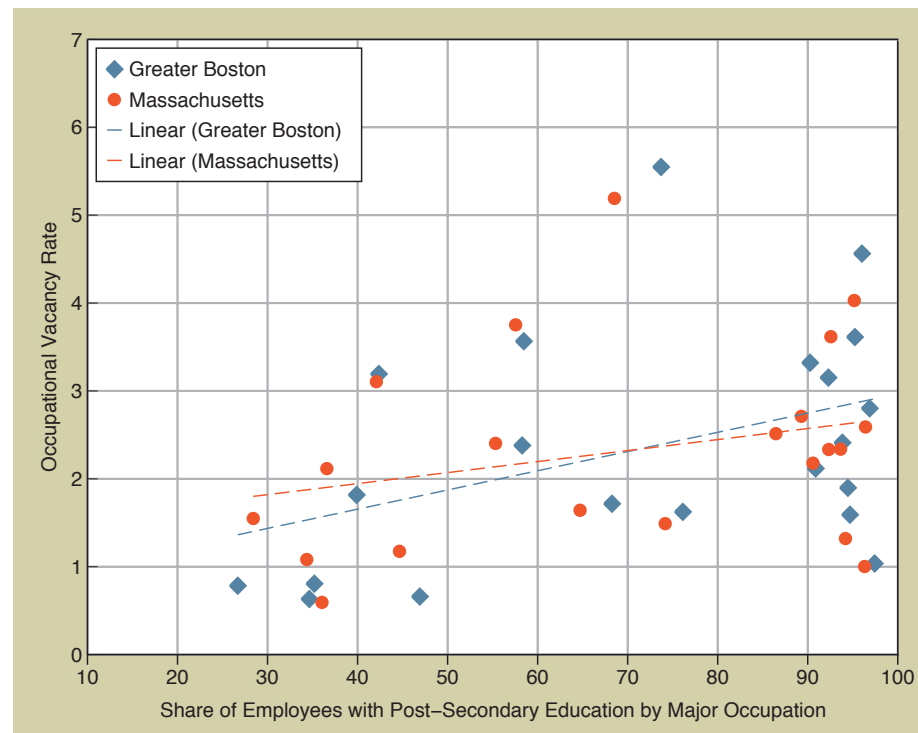


## COMPARING VACANCY RATES AND EDUCATIONAL ATTAINMENT: RECOVERING LABOR MARKET

In Greater Boston and Massachusetts, occupations with higher educational attainment typically had higher job vacancy rates. As the recession impacted the regional and state labor markets this relationship has persisted, though it is weaker in both labor markets than in the peak market situation. However, in both peak and recovering labor markets there is a slightly stronger relationship between vacancies and educational attainment in Greater Boston compared to Massachusetts. This slightly stronger relationship may be driven by three factors: (1) the higher educational attainment of employees in nearly all occupations in Greater Boston, (2) the higher regional vacancy rates in occupations with predominantly higher levels of education, such as Management, and lower vacancy rates in occupations that require less education, such as Production, and (3) the stronger labor market recovery in Greater Boston, driven by the growth of the Metro South/West region, resulting in more vacancies in occupations with higher educational attainment among employees.

**Source:** Massachusetts Executive Office of Labor and Workforce Development Job Vacancy Survey and US Census Bureau 2008-2010 American Community Survey.

**Note:** Occupational vacancy rates for Greater Boston in Q4 2010 proxy vacancy rates in a recovering labor market and educational attainment data by occupation in Greater Boston from the 2008-2010 American Community Survey proxy share of employees with a post-secondary education in a recovering labor market. Workers have attained a post-secondary education if they have attended Some College or obtained an Associate's Degree, Bachelor's Degree, or Master's Degree or higher.



## GROWTH IN POTENTIAL SUPPLY OF EDUCATED WORKERS: FULL-TIME ENROLLMENT TRENDS IN THE PAST DECADE

Between 2000 and 2010, the number of full-time students enrolled at two- and four-year institutions grew in Metro South/West, Massachusetts, and the United States. Enrollment in private two- and four-year institutions in Metro South/West has grown more robustly than enrollment in public institutions, but the number of students enrolled in public two-year institutions is much greater than those in private. In contrast, in Massachusetts, the growth in enrollments in public institutions has outpaced that of private institutions. Full-time enrollment in less-than-two-year institutions in Metro South/West has declined in the past decade, while increasing in both Massachusetts and the United States.

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

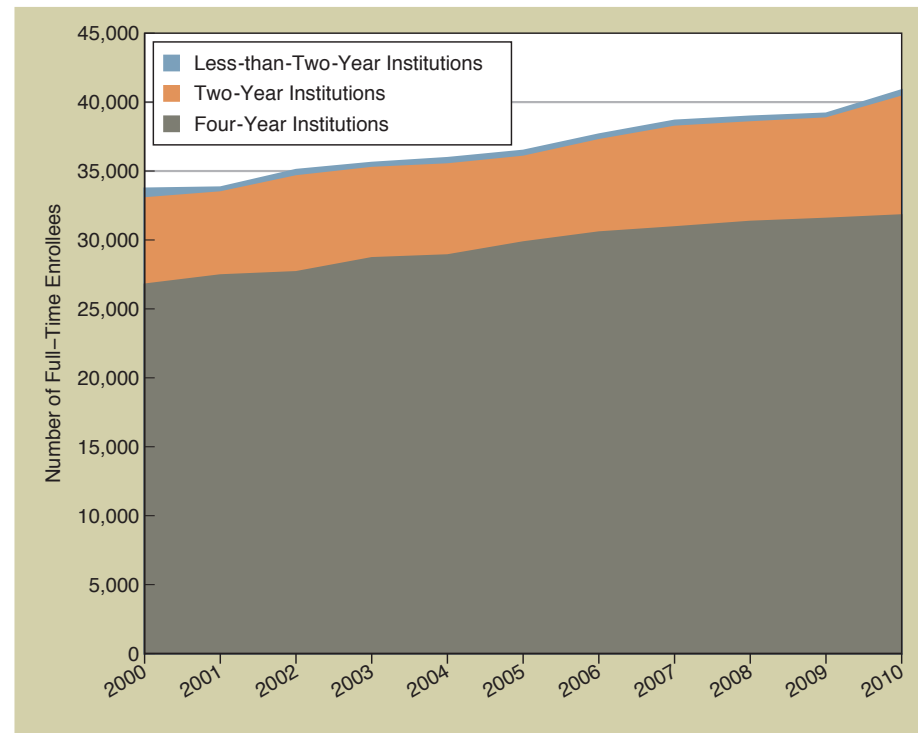
**Note:** Enrollment data are from the fall semester of the academic year. For example, 2010 enrollment is from the fall of 2009 of the 2009-2010 academic year. Enrollment data are provided by the type of institution. Students can earn different types of degrees within an institution. For example, the enrollment at a community college would be categorized as being in a two-year institution for all students enrolled that year. However, students at community colleges complete different types of programs, such as Certificates and Associate's Degrees.

		Less-than-Two-Year Institutions			Two-Year Institutions			Four-Year Institutions		
		Metro South/West	MA	US	Metro South/West	MA	US	Metro South/West	MA	US
Public	Enrollment 2000	105	382	43,504	5,075	31,002	2,008,336	3,083	58,489	3,733,341
	Enrollment 2010	56	316	42,117	6,326	44,278	2,922,622	3,121	73,940	4,904,272
	Absolute Change	-49	-66	-1,387	1,251	13,276	914,286	38	15,451	1,170,931
	Annual Growth Rate (Percent)	-6.1	-1.9	-0.3	2.2	3.6	3.8	0.1	2.4	2.8
Private	Enrollment 2000	509	3,427	138,260	1,260	5,796	259,071	23,683	125,640	1,863,471
	Enrollment 2010	317	9,609	277,341	2,362	5,457	457,134	28,667	153,139	3,000,813
	Absolute Change	-192	6,182	139,081	1,102	-339	198,063	4,984	27,499	1,137,342
	Annual Growth Rate (Percent)	-4.6	10.9	7.2	6.5	-0.6	5.8	1.9	2.0	4.9
Total	Enrollment 2000	614	3,809	181,764	6,335	36,798	2,267,407	26,766	184,129	5,596,812
	Enrollment 2010	373	9,925	319,458	8,688	49,735	3,379,756	31,788	227,079	7,905,085
	Absolute Change	-241	6,116	137,694	2,353	12,937	1,112,349	5,022	42,950	2,308,273
	Annual Growth Rate (Percent)	-4.9	10.1	5.8	3.2	3.1	4.1	1.7	2.1	3.5

## NUMBER OF FULL-TIME ENROLLEES BY TYPE OF DEGREE GRANTING INSTITUTION IN METRO SOUTH/WEST (2000-2010)

Four-year institutions continue to account for most of the full-time enrollment in higher education institutions in Metro South/West, but their share fell over the past decade from 79.4 percent in 2000 to 77.8 percent in 2010. From 2000 to 2006, enrollment in four-year institutions in the region grew at an annualized rate of 2.2 percent. From 2006 to 2010, annual growth in enrollment in four-year institutions slowed to 1.0 percent. Conversely, enrollment in two-year institutions in Metro South/West grew more slowly at the beginning of the decade, growing at 1.1 percent between 2000 and 2006, but increased to an annualized growth rate of 6.4 percent between 2006 and 2010.

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



## GROWTH IN POTENTIAL SUPPLY OF EDUCATED WORKERS: PART-TIME ENROLLMENT TRENDS IN THE PAST DECADE

Growth in part-time enrollment in Metro South/West has occurred only at two-year institutions. Between 2000 and 2010, the overall part-time enrollment at two-year institutions in Metro South/West grew at an annual rate of 2.6 percent. This was the result of a 3.2 percent annual growth in enrollment at public two-year institutions in the region, which exceeded the growth of public two-year institutions in Massachusetts (1.8 percent) and in the United States (1.9 percent). In contrast, part-time enrollment in less-than-two-year institutions stagnated in the

Metro South/West but grew at a robust annual rate of 5.7 percent statewide, due largely to growing enrollment in private institutions. Part-time enrollment in four-year institutions has actually declined in both Metro South/West and Massachusetts over the past decade.

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

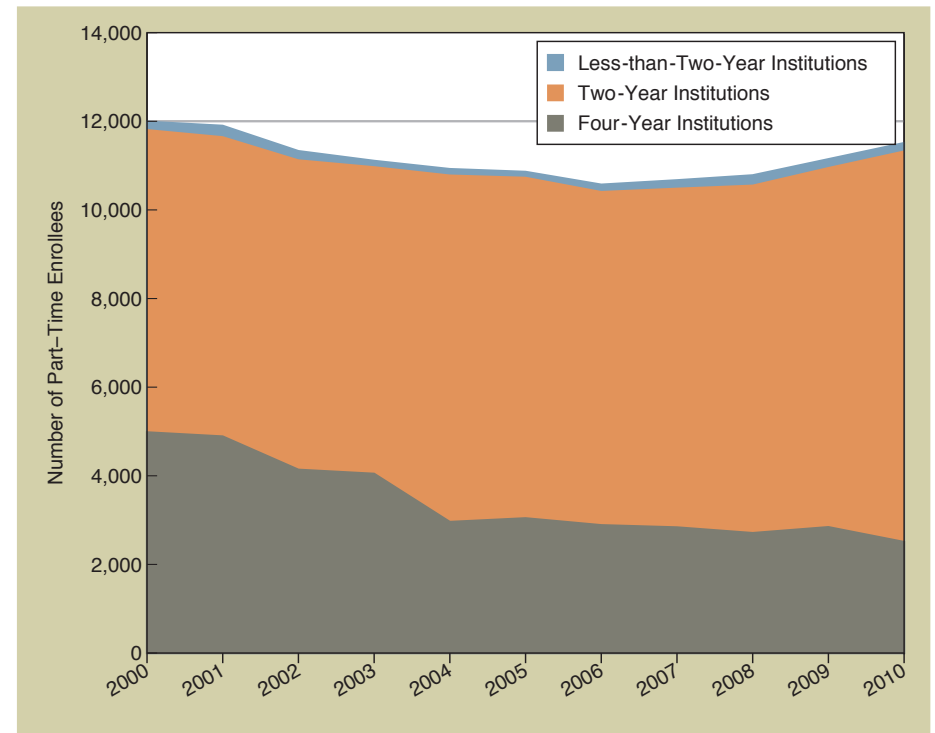
		Less-than-Two-Year Institutions			Two-Year Institutions			Four-Year Institutions		
		Metro South/West	MA	US	Metro South/West	MA	US	Metro South/West	MA	US
Public	Enrollment 2000	0	25	31,407	6,286	48,506	3,509,639	1,213	22,160	1,045,388
	Enrollment 2010	0	65	27,264	8,646	58,043	4,247,674	726	16,120	1,380,877
	Absolute Change	0	40	-4,143	2,360	9,537	738,035	-487	-6,040	335,489
	Annual Growth Rate (Percent)	NA	10.0	-1.4	3.2	1.8	1.9	-5.0	-3.1	2.8
Private	Enrollment 2000	166	1,522	31,827	558	3,536	66,870	3,768	27,425	476,690
	Enrollment 2010	166	2,633	44,382	191	1,554	61,006	1,780	19,155	775,694
	Absolute Change	0	1,111	12,555	-367	-1,982	-5,864	-1,988	-8,270	299,004
	Annual Growth Rate (Percent)	0.0	5.6	3.4	-10.2	-7.9	-0.9	-7.2	-3.5	5.0
Total	Enrollment 2000	166	1,547	63,234	6,844	52,042	3,576,509	4,981	49,585	1,522,078
	Enrollment 2010	166	2,698	71,646	8,837	59,597	4,308,680	2,506	35,275	2,156,571
	Absolute Change	0	1,151	8,412	1,993	7,555	732,171	-2,475	-14,310	634,493
	Annual Growth Rate (Percent)	0.0	5.7	1.3	2.6	1.4	1.9	-6.6	-3.3	3.5



## NUMBER OF PART-TIME ENROLLEES BY TYPE OF DEGREE GRANTING INSTITUTION IN METRO SOUTH/WEST (2000-2010)

Part-time enrollment in two-year institutions in Metro South/ West has picked up in the past few years. Between 2000 and 2006, part-time enrollment in two-year institutions grew at annual rate of 1.6 percent. But between 2006 and 2010, part-time enrollment grew at an annual rate of 4.0 percent. As a result, the number of students enrolled part-time in two-year institutions as a share of total part-time students in Metro South/ West increased from over 57 percent in 2000 to nearly 77 percent in 2010.

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

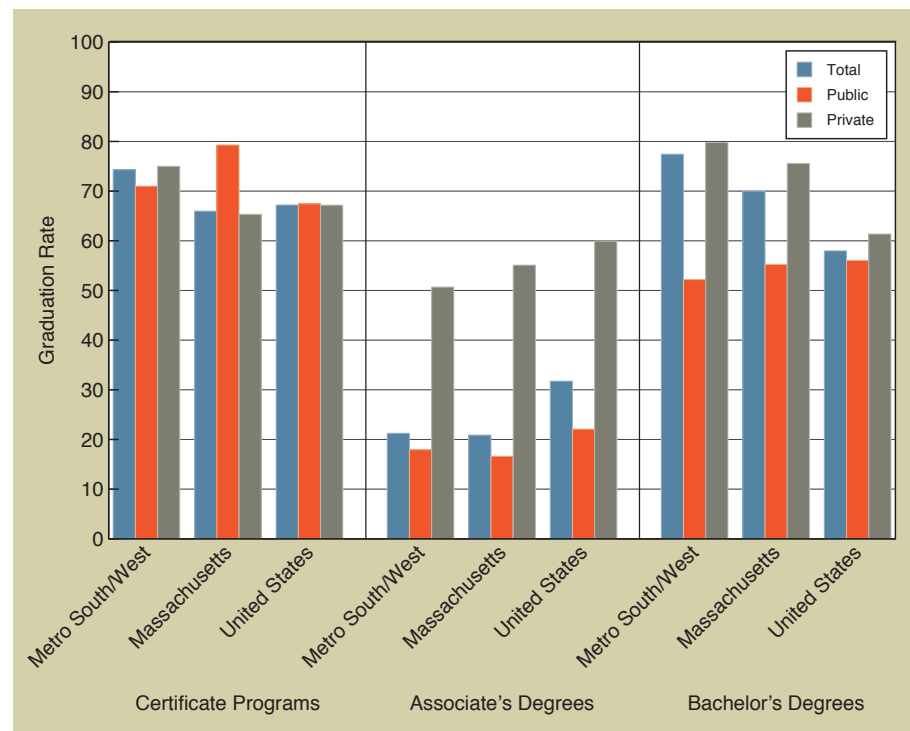


## GRADUATION RATES BY TYPE OF DEGREE (2009)

Enrollment indicates a potential supply of post-secondary educated labor, but the actual supply depends on how many students complete and earn a degree or receive a Certificate. In 2009, about 77 percent of first-time full-time students in Metro South/West institutions earned a Bachelor's Degree within six years. This rate is higher than the statewide rate and substantially higher than the national rate, reflecting the high graduation rates of private institutions in the region. The six-year Bachelor's Degree graduation rate at public institutions (52.2 percent) is lower than those at private institutions but fairly similar to those institutions in Massachusetts and the United States. The three-year Associate's Degree graduation rate (21.2 percent), on the other hand, is substantially lower in the region and in Massachusetts, as compared with national graduation rate. The Certificate program graduation rate is higher in Metro South/West (74.3 percent) than those statewide and nationally. In contrast with the findings for Bachelor's Degrees, the Certificate program graduation rate of public institutions is much higher than those of private ones in Massachusetts.

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

**Note:** Graduation rates are the number of first-time full-time students who completed their degree/program within 150 percent of the time expected to complete the degree/program as a share of the number of first-time full-time students that started the degree/program (e.g., a Bachelor's Degree is considered to have been earned on time if it is completed within six years or less, or 150 percent of four years).



## CROSSING THE FINISH LINE: TRENDS IN DEGREE COMPLETIONS OVER THE PAST DECADE (2000-2010)

Total annual completions show the number of people who have earned a degree or certificate in a given year. From 2000 to 2010, the number of Bachelor's and Associate's Degrees granted by institutions in the region increased while the number of Certificates granted by institutions in Metro South/West were almost the same. In comparison, both Massachusetts and the United States increased the number of degrees granted in all three categories at a faster pace than the region. The number of completed Certificates from private institutions in the Metro South/West region grew at a low annual rate of 0.6 percent over the course of the decade, while

Certificates from public institutions declined at a slight annual rate of 0.4 percent. Over the same period, both private and public institutions in Massachusetts and the United States increased the number of Certificates at an annual rate exceeding 4.0 percent.

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

**Note:** Degree completions are for those students who completed degrees at institutions within the defined geography. The students may not actually live in the region. Completion totals are based on degrees completed in an academic year. For example, 2010 completions represent degrees completed in the 2009-2010 academic year.

		Certificates			Associate's Degrees			Bachelor's Degrees		
		Metro South/West	MA	US	Metro South/West	MA	US	Metro South/West	MA	US
Public	Completions 2000	422	2,273	298,282	1,072	7,487	471,339	571	12,718	811,076
	Completions 2010	407	3,618	460,865	1,401	9,831	670,395	722	16,251	1,049,058
	Absolute Change	-15	1,345	162,583	329	2,344	199,056	151	3,533	237,982
	Annual Growth Rate (Percent)	-0.4	4.8	4.4	2.7	2.8	3.6	2.4	2.5	2.6
Private	Completions 2000	361	5,221	258,503	1,342	3,812	135,604	5,533	29,658	431,412
	Completions 2010	382	8,195	430,685	1,330	4,366	249,258	6,456	35,972	603,141
	Absolute Change	21	2,974	172,182	-12	554	113,654	923	6,314	171,729
	Annual Growth Rate (Percent)	0.6	4.6	5.2	-0.1	1.4	6.3	1.6	1.9	3.4
Total	Enrollment 2000	783	7,494	556,785	2,414	11,299	606,943	6,104	42,376	1,242,488
	Enrollment 2010	789	11,813	891,550	2,731	14,197	919,653	7,178	52,223	1,652,199
	Absolute Change	6	4,319	334,765	317	2,898	312,710	1,074	9,847	409,711
	Annual Growth Rate (Percent)	0.1	4.7	4.8	1.2	2.3	4.2	1.6	2.1	2.9

## EDUCATIONAL INSTITUTIONS AWARDING THE MOST DEGREES IN METRO SOUTH/WEST (2010)

Nearly a third of the Certificates completed in Metro South/West institutions in 2010 came from the Bay State School of Technology. Accounting for 245 Certificates in 2010, the private institution's completions more than tripled from the 70 Certificates completed in 2009. In comparison, Massachusetts Bay Community College and Middlesex Community College, both public institutions, together accounted for over 35 percent of the region's Certificates in 2010. These two institutions also accounted for over 50 percent of all Associate's Degrees produced by institutions in Metro South/West in 2010. However, the other 50 percent came from a number of private two- and four-year institutions, most notably the Universal Technical Institute of Massachusetts. In contrast, nearly 90 percent of the region's Bachelor's Degrees were granted by private institutions. Boston College alone accounted for nearly a third of all Bachelor's Degrees produced in the region in 2010.

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

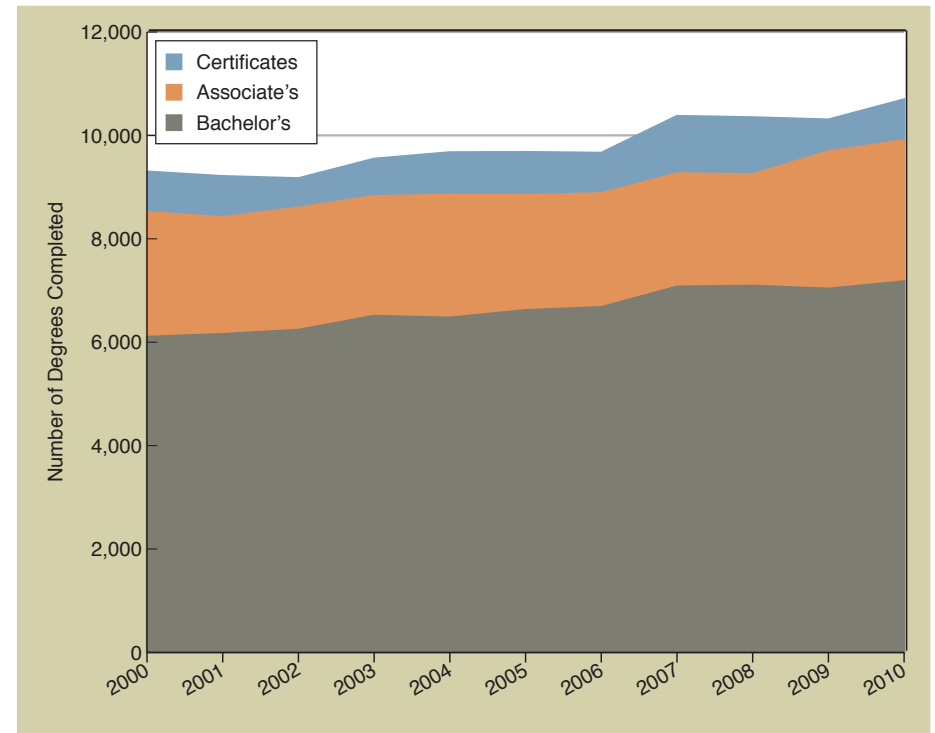
**Note:** See the Appendix D for a full list of degree completions by institution.

	Institution	Type	Public or Private	Degree Awarded	Share of Degree Type Completed in Region
Certificates	Bay State School of Technology	< Two Years	Private	245	31.1
	Massachusetts Bay Community College	Two Year	Public	175	22.2
	Middlesex Community College	Two Year	Public	111	14.1
Associate's	Middlesex Community College	Two Year	Public	1,012	37.1
	Universal Technical Institute of Massachusetts Inc.	Two Year	Private	597	21.9
	Massachusetts Bay Community College	Two Year	Public	389	14.2
Bachelor's	Boston College	Four Year	Private	2,366	33.0
	Bentley University	Four Year	Private	1,034	14.4
	Brandeis University	Four Year	Private	804	11.2

## NUMBER OF DEGREE COMPLETIONS BY DEGREE TYPE: METRO SOUTH/ WEST (2000-2010)

Adding up Bachelor's and Associate's Degrees and Certificates, the total number of people awarded a postsecondary degree by institutions in Metro South/West grew 1.4 percent between 2000 and 2010. Such growth was slower than in Massachusetts (2.5 percent) and the United States (3.7 percent), as both experienced stronger growth in completions, particularly in Certificates and Associate's Degrees. The low growth in the supply of new graduates suggests that Metro South/West may have to rely on commuters or transplants from other regional labor markets and states to meet the needs of its employers who seek to create new high- and middle-skill jobs as the economy continues to recover. While the region may be able to attract highly mobile populations such as recent college graduates with Bachelor's Degrees, the region may face challenges filling middle-skill positions requiring Associate's Degrees or Certificates that are often obtained by less mobile student populations.

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



## CERTIFICATES AWARDED BY MAJOR FIELD OF STUDY (2000-2010)

In Metro South/West, there were fewer Certificates granted in most major fields of study between 2000 and 2010. These losses were slightly offset by increases in the two largest fields of study: Health Sciences and Services. Health Sciences Certificates grew from 27 percent of the region's Certificates in 2000 to 36 percent in 2010. Despite this growth, this increase trailed behind the experience statewide, where the number of Health Science certificates more than doubled to account for almost 50 percent of Certificates in 2010. Services Certificates, the largest major in Metro South/West, had 59 more completions in 2010

in comparison with 2000 and accounted for 49 percent of the region's Certificates in 2010. Services Certificates include a large range of areas of specialization, including Cosmetology, Law Enforcement, Construction Trades, Sports & Fitness Studies, Library Sciences, Social Work, Appliance Installation & Repair, Welding Technology, and Construction Equipment Operations.

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

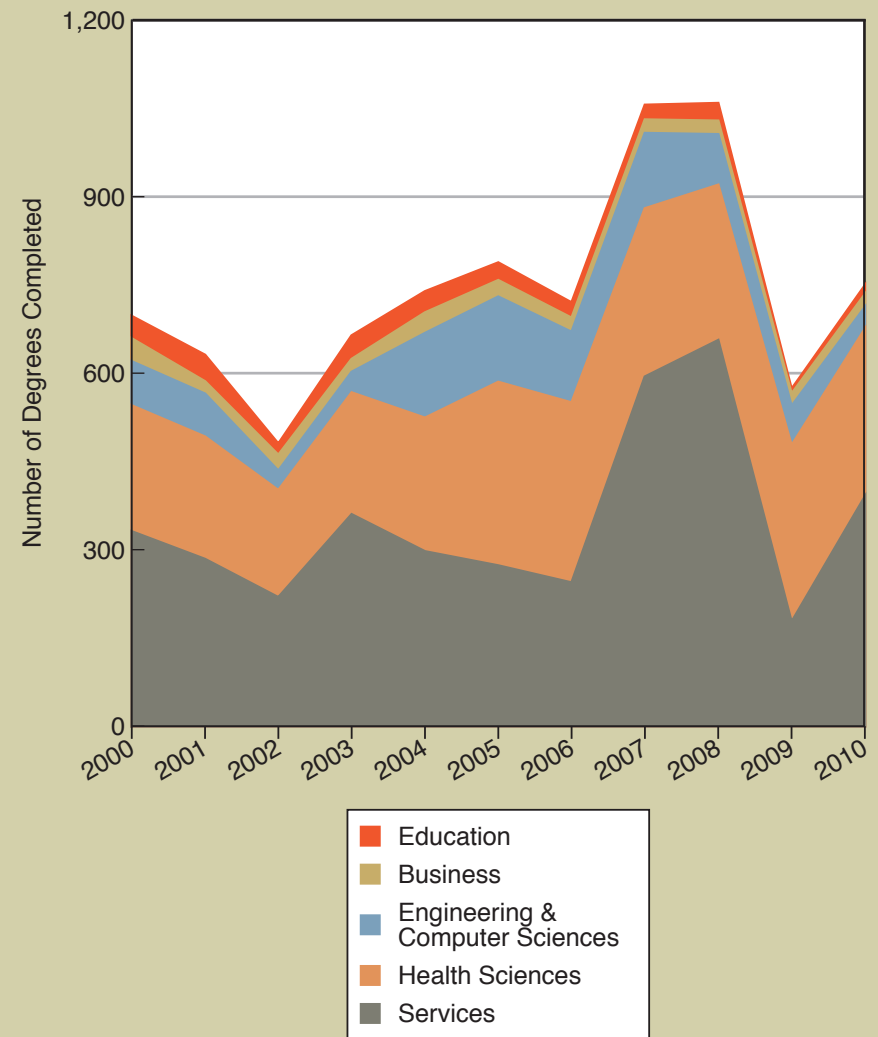
**Note:** For major fields of study by degree type for the United States, see Appendix D.

Major Field of Study	Metro South/West				Massachusetts			
	2000		2010		2000		2010	
	Certificates Completed	Major's Share of Total (Percent)	Certificates Completed	Major's Share of Total (Percent)	Certificates Completed	Major's Share of Total (Percent)	Certificates Completed	Major's Share of Total (Percent)
Health Sciences	214	27.3	285	36.1	2,080	27.8	5,638	47.7
Services	331	42.3	390	49.4	2,479	33.1	3,984	33.7
Engineering & Computer Sciences	75	9.6	37	4.7	1,013	13.5	752	6.4
Business	39	5.0	22	2.8	709	9.5	513	4.3
Arts, Humanities, & Social Sciences	32	4.1	12	1.5	271	3.6	424	3.6
Legal	26	3.3	14	1.8	132	1.8	189	1.6
Education	38	4.9	15	1.9	129	1.7	87	0.7
Science & Mathematics	17	2.2	6	0.8	248	3.3	80	0.7
Other	11	1.4	8	1.0	81	1.1	146	1.2
Total	783	100.0	789	100.0	7,494	100.0	11,813	100.0

## ANNUAL COMPLETIONS BY TOP FIVE CERTIFICATE MAJORS IN METRO SOUTH/WEST (2000-2010)

The number and type of Certificates awarded by Metro South/West institutions can fluctuate considerably from year to year. For example, from 2000 to 2010, Services Certificates in Metro South/West grew at an annual rate of 1.7 percent. However, if the comparison was between 2000 and 2009, then Services Certificate completions declined at an annual rate of 6.7 percent. In fact, the number of Service Certificates spiked in 2007 and 2008 but declined again in 2009 to reach their lowest level in the past 10 years. In comparison, the number of Health Science Certificates has increased at a fairly stable rate over the course of the decade, possibly reflecting persistent demand for employees with such education and training from growing industries, such as Health Care & Social Assistance.

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



## ASSOCIATE'S DEGREES AWARDED BY MAJOR FIELD OF STUDY (2000-2010)

The modest growth of Associate's Degrees granted by institutions in Metro South/West was driven by increases in Services majors. Between 2000 and 2010, the number of Services degrees completed more than doubled in the region, nearly doubling the major's share of all Associate's Degrees completed in 2010 to 32 percent. This was similar to the experience of students earning Services degrees statewide, where the number of degree completions nearly doubled. In addition, Massachusetts also increased the number of completions in its two largest Associate's Degree majors: Arts, Humanities, & Social Sciences and Health Sciences. In fact, the

number of students completing a Health Sciences Associate's Degree statewide increased by over 1,200 over the course of the decade. In comparison, the number of students completing Health Sciences Associate's Degrees in Metro South/West remained nearly the same.

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

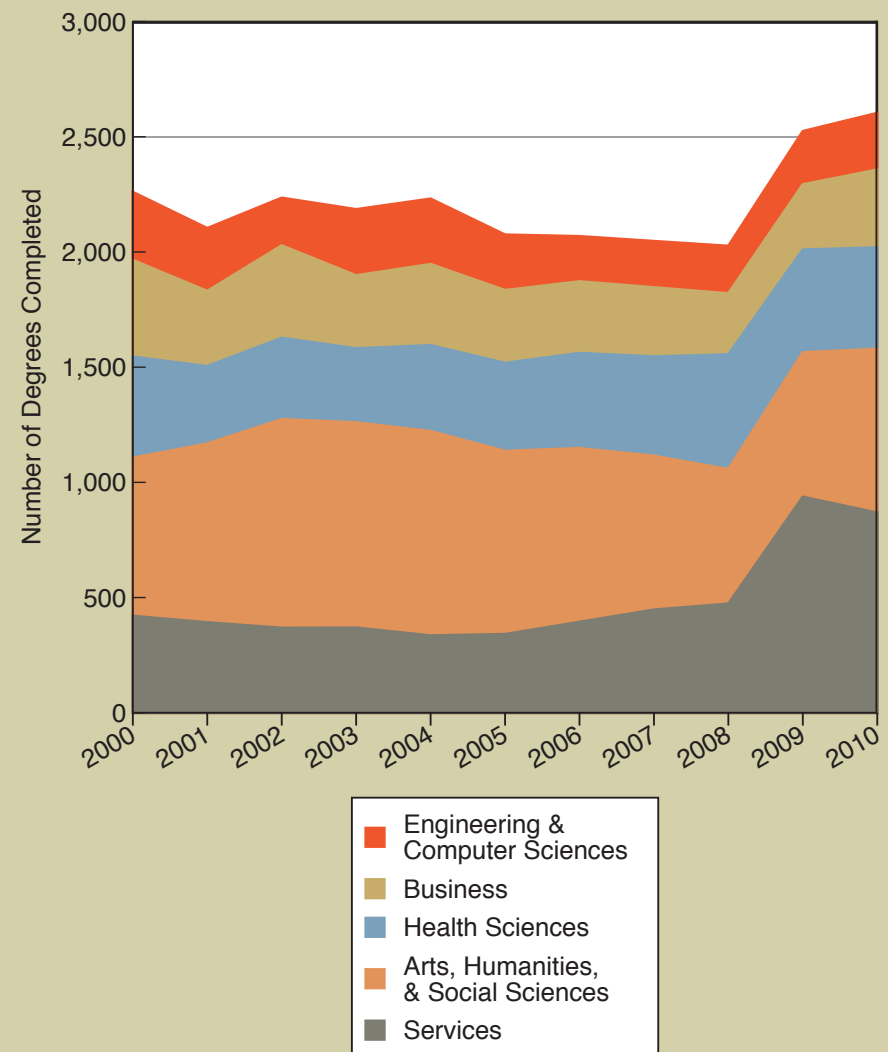
Major Field of Study	Metro South/West				Massachusetts			
	2000		2010		2000		2010	
	Associate's Completed	Major's Share of Total (Percent)	Associate's Completed	Major's Share of Total (Percent)	Associate's Completed	Major's Share of Total (Percent)	Associate's Completed	Major's Share of Total (Percent)
Arts, Humanities, & Social Sciences	686	28.4	711	26.0	3,130	27.7	3,833	27.0
Health Sciences	439	18.2	440	16.1	2,302	20.4	3,559	25.1
Services	420	17.4	868	31.8	1,216	10.8	2,389	16.8
Business	420	17.4	338	12.4	2,198	19.5	2,250	15.8
Engineering & Computer Sciences	295	12.2	246	9.0	1,561	13.8	1,162	8.2
Education	53	2.2	63	2.3	293	2.6	442	3.1
Science & Mathematics	35	1.4	34	1.2	231	2.0	260	1.8
Legal	41	1.7	21	0.8	189	1.7	117	0.8
Other	25	1.0	10	0.4	179	1.6	185	1.3
Total	2,414	100.0	2,731	100.0	11,299	100.0	14,197	100.0



## ANNUAL COMPLETIONS BY TOP FIVE ASSOCIATE'S DEGREE MAJORS IN METRO SOUTH/WEST (2000-2010)

In large part, the growth in the number of Associate's Degrees granted in Metro South/West over the decade is due to the spike in Services degrees granted in 2009 and 2010. In fact, the total number of Associate's Degrees granted in the region declined at an annual rate of 1.4 percent from 2000 to 2008. In 2009, the number of Services degrees granted in the region nearly doubled from their 2008 level, pushing the total number of Associate's Degrees awarded in 2009 and 2010 well above 2000 levels. Conversely, Health Sciences Associate's Degree completions began the decade at 439 degrees and declined to reach a low of 321 in 2003. Thereafter, the number of Health Sciences Degrees increased to peak at 498 in 2008 before moderating to 440 degree completions in 2010. Given that the Health Care industry has experienced strong growth over this time period and institutions statewide have been increasing the number of Associate's Degree completions in the field, it is somewhat surprising that the number of Health Sciences graduates from Metro South/West did not increase over the course of the decade.

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



## BACHELOR'S DEGREES AWARDED BY MAJOR FIELD OF STUDY (2000-2010)

More than three-quarters of the Bachelor's Degrees produced by institutions in Metro South/West are in two fields of study: Arts, Humanities, & Social Sciences (44.7 percent) and Business (32.3 percent). The share of Business graduates in the region is notably higher than the share in Massachusetts as a whole (32.3 percent versus 19.1 percent). In contrast with Massachusetts, the institutions in the region have lower concentrations of degrees in the Science, Engineering, Technology, and Mathematics (STEM) fields (Engineering & Computer Sciences and Science & Mathe-

matics majors). The largest growth in Bachelor's Degrees in Metro South/West came from an increase in Health Sciences degrees, which more than doubled from 133 degrees in 2000 to 311 in 2010 to account for 4.3 percent of all Bachelor's Degrees in the region. While this was stronger than the increase statewide, there was also strong growth in the number of Health Sciences majors in Massachusetts over the course of the decade.

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

Major Field of Study	Metro South/West				Massachusetts			
	2000		2010		2000		2010	
	Bachelor's Completed	Major's Share of Total (Percent)	Bachelor's Completed	Major's Share of Total (Percent)	Bachelor's Completed	Major's Share of Total (Percent)	Bachelor's Completed	Major's Share of Total (Percent)
Arts, Humanities, & Social Sciences	2,795	45.8	3,208	44.7	18,891	44.6	23,405	44.8
Business	2,004	32.8	2,320	32.3	7,596	17.9	9,990	19.1
Science & Mathematics	430	7.0	634	8.8	3,818	9.0	5,054	9.7
Engineering & Computer Sciences	231	3.8	224	3.1	3,726	8.8	3,997	7.7
Health Sciences	133	2.2	311	4.3	2,938	6.9	3,589	6.9
Services	49	0.8	78	1.1	2,495	5.9	3,170	6.1
Education	292	4.8	167	2.3	1,922	4.5	1,362	2.6
Legal	16	0.3	8	0.1	176	0.4	190	0.4
Other	154	2.5	228	3.2	797	1.9	1,466	2.8
Total	6,104	100.0	7,178	100.0	42,376	100.0	52,223	100.0

## ANNUAL COMPLETIONS BY TOP FIVE BACHELOR'S DEGREE MAJORS IN METRO SOUTH/WEST (2000-2010)

From 2000 to 2010, the number of Bachelor's Degrees in the Arts, Humanities, & Social Sciences and Business fields awarded by institutions in Metro South/West grew steadily. In contrast, STEM degrees have ebbed and flowed throughout the decade. Science & Mathematics Bachelor's Degree completions were consistently around 430 per year for most of the early 2000s before rebounding with growth of 6.8 percent annually between 2004 and 2010 to end the decade with a high of 634 Science & Mathematics degrees completed. In contrast, the number of completed Engineering & Computer Sciences degrees experienced a short boom between 2000 and 2002 (20.8 percent annual rate of growth), which was then followed by a decline from 2002 to 2010 (5.0 percent annual rate of decline).

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

