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THE BOSTON ECONOMY IN 2010



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THE BOSTON ECONOMY IN 2010

As of fall 2010, Boston's economy, like that of the rest of the nation, is recovering from recession. According to the National Bureau of Economic Research (NBER), the recession that preceded the present one occurred in 2001 and lasted less than a year.¹ However, it can take several years to make back employment losses at regional and local levels, even if the recession lasts for a short duration of time. For example, Boston did not recover all the jobs it lost from the 2001 recession until 2008. At that point—the latter part of 2008—the current recession began at the local level. Employment figures for the city in 2009 showed the first annual job decline since 2003–2004. The outlook for 2010 suggests that there will be employment losses, but it appears that the bottom of the recession has been reached with prospects turning more positive in the coming months.

This report profiles Boston's current economic state and analyzes the past record of recessions since 1974–1975, with an eye toward what the prospects for recovery are this time. It seems that two pillars of the Boston economy—health care and higher education—will continue to become an even larger part of the city's labor market. The other three traditional pillars of the economy—financial services; professional and business services; and retail and tourism—have borne the brunt of the economic downturn in 2009 and 2010. It is anticipated that some of the newer economic growth sectors will help to counteract these losses by beginning to provide a significant boost to local economic prospects in Boston from 2010–2012.

First let us take a look at the Boston economy over the past decade; later we will explore Boston's current economic situation in depth.

I. Boston's Strengths and Advantages

According to the U.S. Census Bureau, Boston is the 20th largest city in the U.S. with just over 645,000 residents. Metropolitan Boston, however, is the 10th largest metropolitan area in the nation with over 4.5 million residents.²

Boston is not only one of the largest residential areas in the U.S., it is also a significant center for jobs and economic activity. Boston is a center for finance, higher education, medicine, a broad range of professional and business services and federal, state and local government activities. In 2008, economic activity in Boston generated \$87 billion in annual Gross Domestic Product (GDP). This figure accounts for approximately 24% of the Massachusetts economy and 10% of that of the six New England states.³

Boston is also an important tourist destination with numerous historic and cultural attractions. Boston's events and attractions bring tourists and visitors from the region, the nation, and the world to the city every year. The economic impact of Boston's tourist industry is large. Suffolk County, anchored by Boston, accounted for \$6.4 billion of tourist spending in 2007, which was 47.6% of total tourism spending in Massachusetts.⁴

Boston's economic and cultural activities, historic importance, and demographic diversity make it one of the top destinations and economic centers in the U.S. and the world. This report will serve two purposes: it will highlight general economic trends from 2000 through 2008 and it will focus on what the current trends and conditions following the 2008–2009 economic recession tell us about Boston and its economic prospects for the future.

II. Characteristics of Boston's People, 2000–2009

As mentioned previously, Boston's 2009 population today is estimated at just over 645,000. This marks a substantial change from the over 589,000 recorded in 2000. The growth in population from 2000 to 2009 marks a 9.5% population increase. Population growth was driven by several factors—steady economic growth from mid-2002 through 2008; the influx of immigrants into the New England regional economy; and the city's policy of expanding housing supply.

¹ National Bureau of Economic Research, "The NBER's Recession Dating Procedure," 2003. www.nber.org/cyclers/recessions.htm

² U.S. Census Bureau, 2009. www.census.gov/popest/estbygeo.htm

³ U.S. Bureau of Economic Analysis, 2009; U.S. Bureau of Labor Statistics, 2009.

⁴ Massachusetts Office of Travel and Tourism, "Economic Impact of Travel of Massachusetts Counties," 2007. www.mass-vacation.com/research/#almpact

Demographics

Over the past three decades the racial and ethnic composition of Boston's population has significantly changed. In 1980, 70% of Boston's population was white, non-Hispanic⁵. By 2000, Boston was a majority-minority city with the city's non-white population making up over 50% of Boston's population. Recently data releases from the American Community Survey (ACS) show the racial and ethnic makeup of the city being fairly consistent with the 2000 Census. Today, just over 50% of Boston's population is white. The changing racial and ethnic makeup of the city is due mainly to the dramatic growth in the city's Asian and Hispanic populations.⁶

Immigrants have been an important part of Boston's population growth over the last 30 years. Boston's foreign-born population has grown at a faster rate than that of the state and nation over the last two decades. In 1990 immigrants accounted for 20% of the city's population. By 2008 that percentage had jumped to 27.5%. Since 1990 the Latino population in Boston has increased by 53.6% and the Asian population by 71.1%. Boston had the sixth-highest concentration of foreign-born among the nation's 25 largest cities in 2008.⁷ The top three nations of origin for immigrants to Boston were China, Haiti, and the Dominican Republic⁸.

Boston has also exhibited changes in household composition in recent years, as it continues to move away from larger family households with children and toward smaller non-family households. Boston has a large number of students and young adults living and working in the city. In 2008, 40% of Boston households consisted of one person living alone.

TABLE 1 FOREIGN-BORN POPULATION, 25 LARGEST CITIES, 2009⁹

Foreign Born % Rank	Population Size Rank	Cities	Population	Foreign-born population	Share
1	2	Los Angeles, CA	3,831,868	1,521,252	39.7%
2	10	San Jose, CA	964,695	376,231	39.0%
3	1	New York, NY	8,391,881	3,079,820	36.7%
4	14	San Francisco, CA	815,358	290,267	35.6%
6	4	Houston, TX	2,257,926	632,219	28.0%
5	21	BOSTON, MA	645,169	177,421	27.5%
9	22	El Paso, TX	620,447	163,178	26.3%
7	9	Dallas, TX	1,299,543	340,480	26.2%
10	8	San Diego, CA	1,306,301	333,107	25.5%
8	5	Phoenix, AZ	1,601,587	384,381	24.0%
11	3	Chicago, IL	2,851,268	615,874	21.6%
12	15	Austin, TX	786,382	154,917	19.7%
13	18	Fort Worth, TX	727,575	134,601	18.5%
14	24	Denver, CO	610,345	109,862	18.0%
16	17	Charlotte, NC	709,441	97,193	13.7%
15	7	San Antonio, TX	1,373,668	179,951	13.1%
17	25	Washington, DC	599,657	76,756	12.8%
18	6	Philadelphia, PA	1,547,297	167,108	10.8%
19	23	Nashville-Davidson, TN	605,473	64,786	10.7%
20	16	Columbus, OH	769,360	72,320	9.4%
21	11	Jacksonville, FL	813,518	67,522	8.3%
22	13	Indianapolis, IN	807,584	54,916	6.8%
23	19	Baltimore, MD	637,418	38,245	6.0%
24	20	Memphis, TN	676,640	36,539	5.4%
25	12	Detroit, MI	910,920	43,724	4.8%

Source: 2006–2008 ACS, U.S. Census Bureau 2009 Current Population Estimates; BRA Research Analysis 2010.

⁵ Officially, the U.S. Census Bureau categorizes "Hispanic" as an ethnicity, not a race. In the popular discourse, however, this line is often blurred. For this analysis, we separate individuals of Hispanic origin from racial categories such as "white" or "black".

⁶ U.S. Census Bureau, American Community Survey, 2006–2008; BRA Research Analysis 2010.

⁷ U.S. Census Bureau, American Community Survey, 2006–2008; BRA Research Analysis 2010.

⁸ For more information, see the BRA Research Division's previous work on Boston's foreign-born population at www.bostonredevelopmentauthority.org/pdr/PDRSubject.asp?SubjectID=27

⁹ In order to estimate the current number of foreign-born residents in each city, we applied the percentage of foreign-born residents observed in the 2006–2008 ACS to the most recent population estimate for each city.

Educational Attainment

Boston has one of the most highly-educated populations among major American cities. According to the 2006–2008 ACS, 41.3% of Boston’s adult population has at least a bachelor’s degree, ranking Boston 5th amongst the 30 largest cities in the nation. As the following table shows, the top five cities were Seattle, San Francisco, Washington, D.C., Austin, and Boston.

TABLE 2 COLLEGE EDUCATED POPULATION, 30 LARGEST CITIES, 2006–2008

EDUCATION RANK	POPULATION RANK (2009)	CITY	BACHELOR'S DEGREE	GRADUATE OR PROFESSIONAL DEGREE	TOTAL BACHELOR'S & GRADUATE OR PROFESSIONAL
1	23	Seattle, WA	32.0%	21.7%	53.7%
2	12	San Francisco, CA	30.9%	19.4%	50.3%
3	27	Washington, DC	21.3%	26.0%	47.3%
4	15	Austin, TX	26.1%	16.4%	42.5%
5	20	BOSTON, MA	22.3%	19.0%	41.3%
6	8	San Diego, CA	24.6%	16.1%	40.7%
7	18	Charlotte, NC	26.8%	12.9%	39.7%
8	30	Portland, OR	24.1%	15.5%	39.6%
9	24	Denver, CO	22.4%	15.5%	37.9%
10	10	San Jose, CA	22.2%	13.2%	35.4%
11	1	New York, NY	19.2%	13.3%	32.5%
12	25	Nashville–Davidson, TN	20.8%	11.2%	32.0%
13	16	Columbus, OH	21.0%	10.5%	31.5%
14	3	Chicago, IL	18.1%	12.1%	30.2%
15	2	Los Angeles, CA	19.2%	10.0%	29.2%
16	4	Houston, TX	17.3%	10.3%	27.6%
17	14	Indianapolis, IN	17.4%	10.1%	27.5%
18	9	Dallas, TX	17.6%	9.5%	27.1%
19	17	Fort Worth, TX	16.8%	7.7%	24.5%
20	29	Louisville–Jefferson, KY	14.6%	9.8%	24.4%
21	21	Baltimore, MD	12.5%	11.7%	24.2%
22	13	Jacksonville, FL	15.9%	7.8%	23.7%
23	5	Phoenix, AZ	15.4%	8.3%	23.7%
24	7	San Antonio, TX	15.1%	8.1%	23.2%
25	19	Memphis, TN	13.7%	8.5%	22.2%
26	28	Las Vegas, NV	13.6%	7.7%	21.3%
27	22	El Paso, TX	13.9%	7.3%	21.2%
28	6	Philadelphia, PA	12.2%	8.9%	21.1%
29	26	Milwaukee, WI	13.6%	6.8%	20.4%
30	11	Detroit, MI	7.0%	4.3%	11.3%

Source: 2006–2008 ACS, U.S. Census Bureau 2009 Current Population Estimates.

Since 1980 Boston's resident population with less than a high school diploma has gone from 32% to 17%, while the percentage of college educated has grown from 20% to over 41%.

TABLE 3 EDUCATIONAL ATTAINMENT OF BOSTON RESIDENTS 25+ YEARS, 1980–2008

	1980		2008	
	PERSONS	%	PERSONS	%
Less than High School	104,339	31.5	67,069	16.6
High School Graduate or Ged Equivalent	115,787	35.0	98,912	24.6
Some College or Associates Degree	43,451	13.1	70,342	17.5
Bachelor's, Master's or Professional Degree	67,073	20.3	166,561	41.3
	330,650	100.0	402,884	100.0

Source : U.S. Census Bureau

**III.
Boston's Recent
Economic Conditions
& Health,
2008–2010**

In late 2007 the U.S. economy showed warning signs of economic troubles ahead by way of increased unemployment rates, weakening job growth, and job losses. Subsequently the nation entered a recession in December 2007. Boston began to experience job loss in March 2008 and continued to lose jobs throughout 2009.

Employment

Boston's 680,000 jobs in 2008 represented an increase of over 50,000 jobs (6.3%) from the low of approximately 630,000 jobs in 2004 following the previous recession. The financial services, business and professional services, and education and health sectors made the largest employment gains during this period. Employment growth from 2007–2008 totaled over 11,000 jobs or a 1.7% increase. But then preliminary employment numbers for 2009 reveal an estimated loss of over 21,300 jobs or a fall of -3.1%.¹⁰ The two year change from 2007 to 2009 was close to -9,700 jobs or -1.4%.

¹⁰ This figure is based on annualized Massachusetts Department of Workforce Development (DWD) data on the employees covered by the unemployment insurance system.

TABLE 4 CITY OF BOSTON EMPLOYMENT, 2007 – 2009

INDUSTRY	2007	2008	2009*	Absolute Change	% Change
Fishing/mining/agriculture	103.6	160	188	84	81.5
Utilities	2,136	2,214	2,296	160	7.5
Construction	17,263	17,149	14,649	(2,614)	-15.1
Manufacturing	10,521	10,396	9,373	(1,148)	-10.9
Wholesale Trade	10,176	10,649	9,558	(618)	-6.1
Retail Trade (Excludes Food Service)	31,611	32,213	30,475	(1,136)	-3.6
Transportation And Warehousing	19,418	19,873	18,386	(1,033)	-5.3
Transportation	18,392	18,426	17,018	(1,374)	-7.5
Information	16,821	17,132	16,233	(588)	-3.5
Finance And Insurance	82,367	83,484	80,042	(2,325)	-2.8
Banking	21,292	22,354	22,332	1,040	4.9
Securities And Other Financial Investment Activities	41,665	41,255	37,392	(4,273)	-10.3
Insurance Carriers And Related Activities	19,410	19,875	20,318	908	4.7
Real Estate And Rental And Leasing	21,459	22,734	22,445	986	4.6
Professional, Scientific, And Technical Services	74,006	76,452	72,353	(1,652)	-2.2
Legal Services	20,855	21,242	19,720	(1,135)	-5.4
Accounting, Tax Preparation, Bookkeeping	9,661	9,551	9,245	(416)	-4.3
Architectural, Engineering, Design, And Related	9,582	9,809	8,494	(1,088)	-11.4
Computer Systems Design And Related Services	6,816	7,303	7,060	245	3.6
Management, Scientific, And Technical	12,244	13,117	13,810	1,565	12.8
Scientific Research And Development Services	7,937	8,376	8,699	762	9.6
Other Professional, Scientific And Technical Serv.	6,911	7,054	5,323	(1,589)	-23
Management Of Companies And Enterprises	7,341	6,953	6,434	(907)	-12.4
Admin. & Support, Waste Mgmt., Remediation Service	45,795	43,753	37,606	(8,189)	-17.9
Educational Services	47,047	48,218	49,187	2,140	4.5
Colleges And Universities	40,631	41,651	42,622	1,991	4.9
Health Care And Social Assistance	114,804	116,962	119,566	4,762	4.1
Hospitals	79,545	80,837	82,686	3,141	3.9
Arts, Entertainment, And Recreation	13,882	14,424	14,431	549	4
Accommodation And Food Services	47,364	49,005	47,967	603	1.3
Accommodation	11,069	11,395	10,875	(194)	-1.8
Food Service And Drinking Places	36,295	37,609	37,092	797	2.2
Other Services (Except Public Administration)	28,332	29,140	29,112	781	2.8
Government	77,952	79,141	78,445	493	0.6
Total	668,399	680,052	658,746	(9,653)	-1.4

* 2009 is a preliminary estimate based upon 2009 data from Mass. DWD and 2008 data from BEA. As of December 2010, there was no data available for Boston.
Source: U.S. Bureau of Economic Analysis (BEA), Massachusetts Department of Workforce Development (DWD) and the Boston Redevelopment Authority Research Division.

Employment Specialization or Location Quotient

Location Quotient (LQ) is a measure of local concentration of a particular variable relative to a larger geography. In this case, we are comparing industrial concentration in Boston relative to the U.S. economy. An LQ above 1.00 indicates the industry is particularly concentrated in Boston relative to the U.S. average. The higher the LQ is above 1.0, the greater specialization. Industries with numbers below 1.0 indicate a relative lack of specialization. Boston employment is specialized in several industrial sectors. The hospitals sub-sector has the highest LQ of any industry in Boston. After hospitals, the four industries that round out Boston's top-five most specialized are financial securities; higher education; legal services; and finance and insurance. The bottom-five industries, or those industries in which Boston is not very specialized are agriculture/fishing/mining; manufacturing; construction; wholesale trade; and retail trade.

CHART 1 SPECIALIZED INDUSTRIES IN BOSTON, 2008¹¹



Source: U.S. Bureau of Economic Analysis, Massachusetts Department of Workforce Development; Boston Redevelopment Authority Research Division analysis, 2010

Unemployment

Boston's unemployment rate in July 2010 was 9.4%, an increase from 8.9% in July 2009. The overall annual average unemployment rate for Boston in 2009 was 8.1%, better than the 9.3% national rate as well as the rates for Massachusetts (8.4%) and New England (8.3%), though higher than the unemployment rate for Metropolitan Boston (7.8%).

CHART 2 UNEMPLOYMENT RATES, DECEMBER 2008– JULY 2010
(NOT SEASONALLY ADJUSTED)

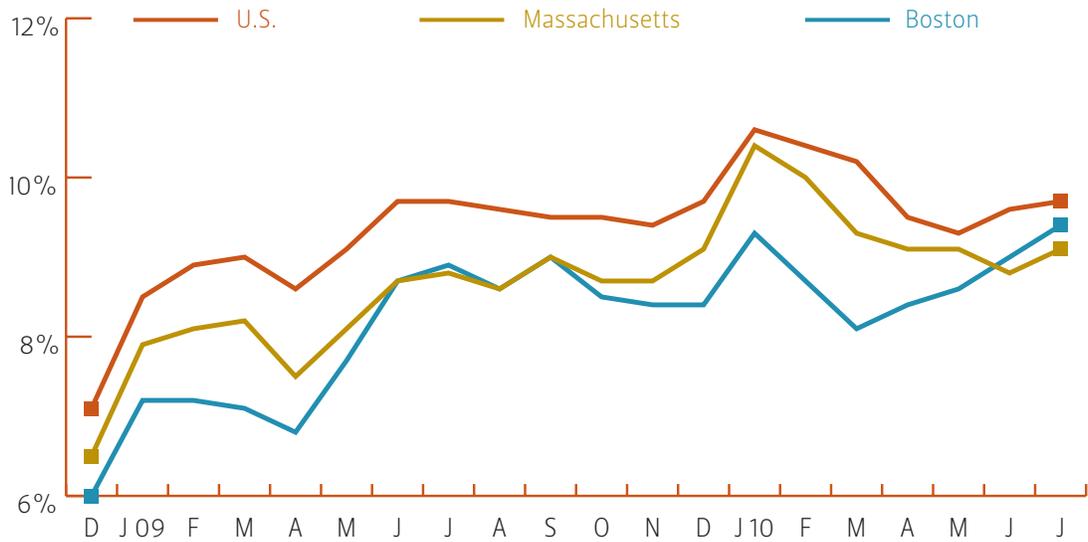


TABLE 5 UNEMPLOYMENT RATES, 2007–2010¹²

	2007	2008	2009	Jul-09	Jul-10
City of Boston	4.4%	5.1%	8.1%	8.9%	9.4%
Metropolitan Boston	4.1	4.8	7.8	8.3	8.4
Massachusetts	4.5	5.3	8.4	8.8	9.1
New England	4.5	5.4	8.3	8.5	8.8
United States	4.6	5.8	9.3	9.7	9.7

Source: U.S. Bureau of Labor Statistics, Massachusetts Department of Workforce Development

Wages

Boston’s average wage in 2008 was \$78,416 for full-time, year-long employment.¹³ Wages and salaries paid to persons who work in Boston reflect the more skilled and professional nature of the industries and occupations in the city. Because Boston has a relatively large share of industries in the financial services, health care, higher education, and professional and business services sectors when compared with jobs in many of the surrounding suburbs, a higher average wage is not surprising.

Boston as a Driver for Economic Growth in Massachusetts

The health of Boston’s economy is an important factor in maintaining a strong economy in the larger region. The major pillars of the Boston economy—health care, higher education, financial activities, and professional and business services—are the segments that must remain strong for other local industries to prosper. Boston’s supporting industries and amenities—tourism; arts and leisure; and food services and hospitality industries—also play an important role in the local economy. Without a strong and healthy Boston economy, the Massachusetts and New England region would find it very difficult to thrive and prosper.

¹² Monthly unemployment rates are not seasonally adjusted data
¹³ Massachusetts Department of Workforce Development.

IV. Recession and Recovery in Boston

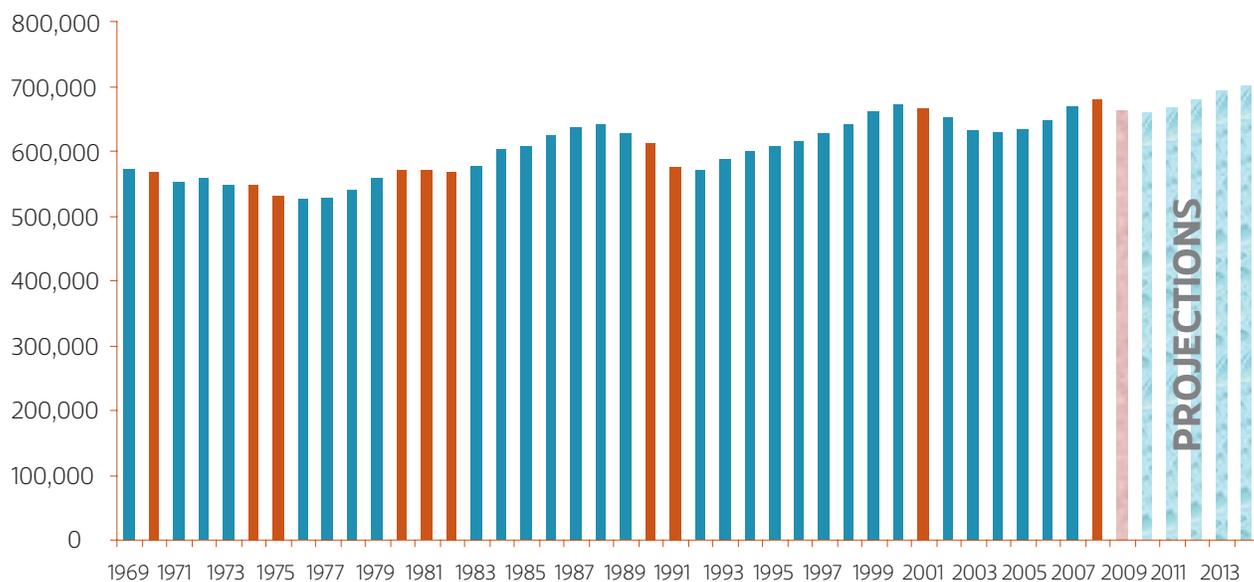
As the first decade of the 21st Century draws to a close, Boston is poised to make a strong recovery from the recent recession. The recession that now appears to be over has been severe in its worldwide impact; it is commonly characterized as the worst economic downturn since the Great Depression. But when measured by local job losses, this Great Recession is shaping up to be no worse for Boston than the “dot com” recession of 2001, and only about half as bad as the bust of 1990–1991.

In this section we will first take a look back at past recessions to see how this one compares. We will then examine the recent recession in Boston, measure its impact, and anticipate the coming recovery. Finally, we will look at how some of Boston’s major industries have fared in past recessions and consider their outlook today and for the coming years.

Economic Cycles in Boston

The NBER, the official arbiter of business cycles, defines a recession as “a significant decline in economic activity spread across the economy, lasting more than a few months.”¹⁴ The NBER uses a variety of indicators, principally GDP and employment, to determine when the economy enters a recession and when it begins to expand again. The beginning and end of a recession are not marked by clear lines. Following the 2001 recession, for example, national job losses continued for 21 months after the official end of the recession.

CHART 3 EMPLOYMENT IN BOSTON¹⁵
RECESSIONS AND EXPANSIONS



Source: U.S. Bureau of Economic Analysis, Massachusetts Department of Workforce Development; New England Economic Partnership; Boston Redevelopment Authority Research Division analysis, 2010.

From Boston’s perspective the worst recession in the past 40 years occurred from 1990–1991, when the city lost 71,000 jobs—11% of total employment—over four years. During this time, Boston lost most of the over 75,000 jobs it had amassed over the previous six years of record-setting growth during the expansion known as the “Massachusetts Miracle”. After job growth resumed in 1993 the city established a new record for job gains, adding over 100,000 jobs over the next eight years. The 1992 – 2000 expansion increased Boston’s total employment figures by nearly 18%.

The 2001 recession was the second worst in recent Boston history. Like the previous one, it was much worse for New England than for the nation overall. The 41,700 jobs (6.2%) Boston lost between 2000 and 2004 had just been reclaimed in 2008 when the current recession hit.

¹⁴ National Bureau of Economic Research, “US Business Cycle Expansions and Contractions,” <<http://www.nber.org/cycles.html>>
¹⁵ Projections for 2010–2014 are based upon the New England Economic Partnership (NEEP) May 2010 forecast.

**The 2008–2009
World Recession
in Boston**

The U.S. recession that began in December 2007 accelerated throughout 2008 and officially hit bottom in June of 2009. The recession has been global in scope and unprecedented in depth, commonly characterized as the worst world and national economic downturn since the Great Depression. The U.S. economy lost 8.4 million payroll jobs from December 2007 through December 2009, or 6.1% of total non-farm employment. National job losses over the four months from November 2008 to March 2009 averaged almost 733,000 per month. Average job losses for the fourth quarter of 2009, however, were just 90,000 per month—a welcome deceleration. Even better, the first four months of 2010 saw accelerating job gains, growing from 14,000 net new jobs in the month of January to 290,000 in the month of April. Private sector job gains in May numbered just 41,000 but the hiring of 411,000 temporary Census workers cut the unemployment rate to 9.7% (9.3% without seasonal adjustment).

Unlike the two previous contractions, Boston and New England are doing much better than the national economy this time. Job losses began later and have been lower. The 5.0% job loss suffered by Massachusetts was one-fifth less severe than the national average, as of the December 2009 low point. The 4.8% employment decline in the Boston area was slightly less than the state average.

Just as employment declines have been smaller, unemployment rates remain lower closer to Boston. While 17 U.S. Metropolitan areas experienced unemployment rates of at least 15% as of July 2010, Boston Metropolitan Division’s rate was just 8.2%, 0.9% below the state average and 1.5% below the U.S. average.

TABLE 6 TAKING MEASURE, 2008–2009 RECESSION

	EMPLOYMENT PEAK	JOB LOSS	UNEMPLOYMENT JULY 2010
U.S.	December 2007	6.1%	9.7%
Massachusetts	March 2008	5.0%	9.1%
Boston Metro	March 2008	4.8%	8.2%

Source: U.S. Bureau of Labor Statistics Unemployment rates not seasonally adjusted Job loss measured through December 2009.

Although there is a time lag in the reporting of city-level employment statistics, we can examine Metro-level data to gain some insight into the shape of the recession thus far. *Chart 4: Boston Metro Employment Change 2007–2008 and 2008–2009* illustrate the changes over those two years, by industry and sector¹⁶.

Total employment in the Boston Metro Division fell by just 0.8% over the twelve months leading up to December 2008, lower than the 2.6% loss experienced in the U.S. during the recession’s first year. The hardest-hit sectors nationwide had a smaller presence in Boston. Comparatively, the city’s leading industries fared relatively well. Some industries, especially construction and manufacturing, suffered substantial losses over those twelve months, but these two constituted just 4% of Boston jobs and 9.7% of Boston Metro Division jobs, compared to 15.6% of all U.S. jobs.

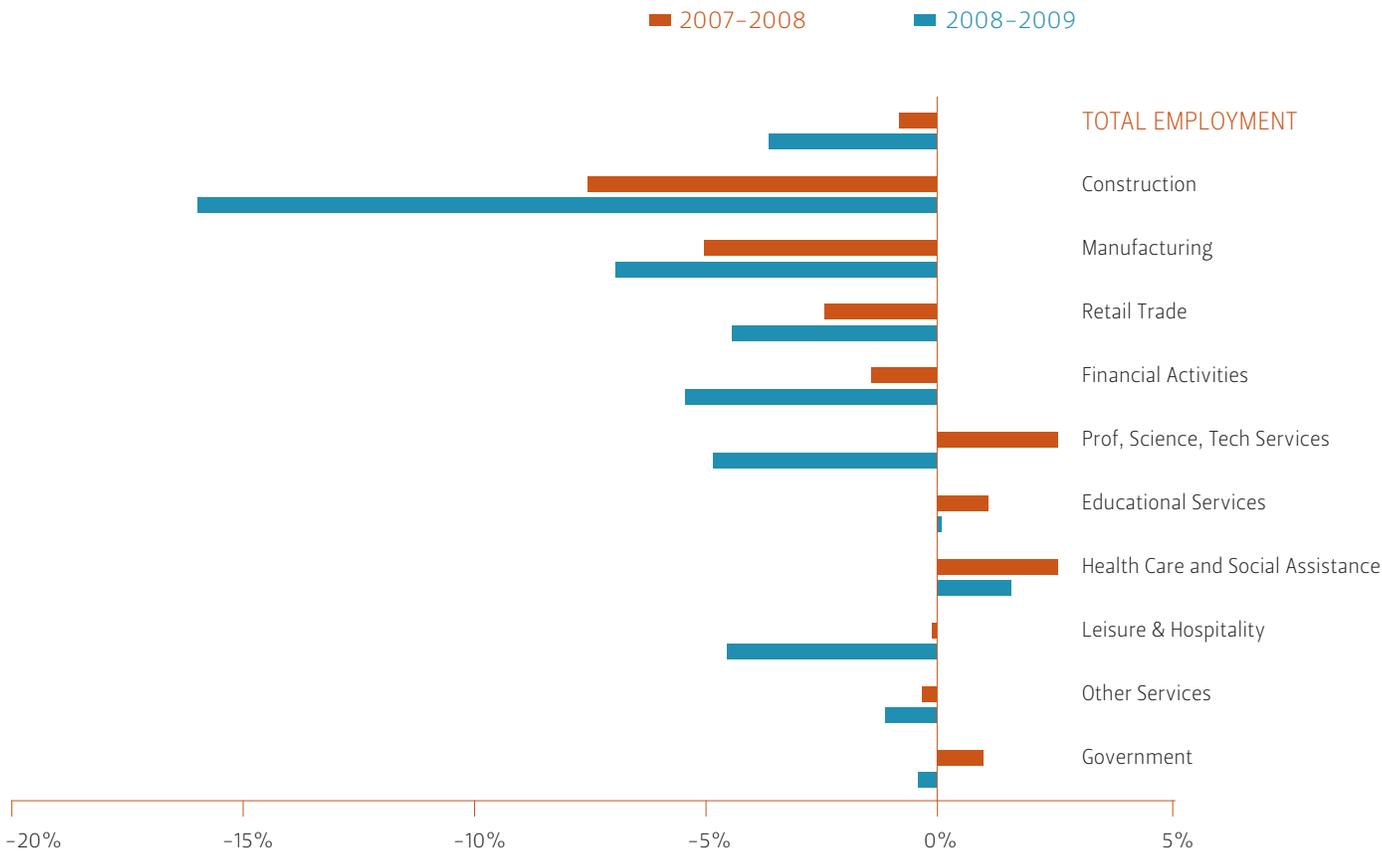
¹⁶ The Boston–Cambridge–Quincy Metropolitan Division (Boston Metro Division) of the Boston–Cambridge–Quincy Metropolitan Area contains more than half of all Massachusetts jobs, with one-third of those jobs in the city itself. City and metro results are seldom identical, but they are often similar. Because these data are not seasonally adjusted, the graphs show percentage employment changes to December 2009 (the US, Mass. and Boston job trough) from the same month in 2008, and from December 2007 (the official start of the national recession) to December 2008.

Boston’s financial activities sector lost just 1.4% of its jobs, half of the U.S. average decline, due in large part to the strength of local banking, which shed just 0.5% of its jobs, compared to 4.3% nationally. Non-depository banking, a sector that deals with credit markets, bonds and commercial paper, suffered severely while commercial banks, more important to Boston, withstood modest losses.

Wholesale and retail trade lost 3.3% and 2.4% of its jobs, respectively. Other industries posted net gains, led by professional, scientific, and technical services; health care and education; and government. The employment services industry (comprised primarily of temporary workers) lost 20.7% of its jobs and accounted for more than half of Boston Metro Division net job losses during the recession’s first year.

In the recession’s second year, the 12 months leading up to December 2009, Boston Metro Division’s total employment dropped by 3.6%, matching average U.S. losses. Losses accelerated in every industry except health care and education, both of which slowed substantially. Professional/scientific/technical services lost two times the number of jobs they had gained over the previous 12 months. Employment services suffered another double-digit percentage loss.

CHART 4 BOSTON METRO EMPLOYMENT CHANGE, 2007-2008 AND 2008-2009
(DECEMBER TO DECEMBER PERCENTAGE CHANGE)



Source: U.S. Bureau of Labor Statistics

Looking Forward to 2010 and Beyond: New Growth

The first four months of 2010 were encouraging, with the national economy gaining an increasing number of jobs each month and Massachusetts adding jobs in February, March and April. Massachusetts' 18,700 net new jobs in April was the largest monthly gain in 17 years. The forecast for Massachusetts delivered by the New England Economic Partnership (NEEP) in May 2010 was also encouraging. NEEP's forecast predicts that: "employment growth will gradually accelerate to a 2.0% annual rate in 2012 through the first half of 2013."¹⁷

The forecast is even more favorable for Boston. The most severely impacted sectors—manufacturing and construction—have only a small presence in the modern Boston economy (about 4% of total jobs) while the strongest—professional and business services, health care, and educational services—encompassed 43% of the city's jobs at the time the recession began.

Chart 3: Employment in Boston, Recessions and Expansions shows the overall implications of that forecast when applied, industry by industry, to Boston. Although the NEEP forecast is tailored to the state economy and statewide industry composition, it can give us some insight into the Boston economy, which contains 17% of all Massachusetts jobs. By 2013 Boston would exceed its 2008 pre-recession employment peak of over 680,000 and establish an all-time record that could grow to over 700,600 jobs in 2014.

Boston's Major Industries Through Recessions Past and Present

Recessions and recoveries do more than just lower and restore business volume and job levels. They also change the shape of economies, as different industries are affected differently by business cycles.

This is especially true for health care and education. Starting at 12.4% of Boston jobs in 1972, these industries gradually rose to make up 16.3% of Boston jobs in 1988, just before the "Great Recession of New England". By 2014 the health care and education share of Boston jobs could approach 27% and one-fifth of Boston jobs could be in colleges and hospitals, largely due to their relative gains over the three intervening recessions.

HEALTH CARE: The Recession-Proof Growth Industry

Boston's health care sector has grown through both recession and expansion without two consecutive years of declining payroll employment since at least 1972, when detailed records began. As the first recession of this decade set other sectors back, health care increased its presence from 14.4% of Boston jobs in 2001 to 17.2% in 2007. By 2014 the health care sector could encompass 19% of the city's employment base if it grows at the pace projected by NEEP for the larger health care and education sector statewide.

Health care's steady growth has been a national phenomenon, but elements of Boston's experience are unique because of the city's preeminence as an academic medical community. Boston has 20 hospitals, three medical schools and two dental schools. Hospitals constitute two-thirds (69%) of Boston's health sector, compared to one-fourth nationally (26%). In addition to serving patients, Boston's hospitals teach tomorrow's doctors and conduct medical research. These research activities have made Boston the leading recipient of National Institutes of Health (NIH) research grants for 14 consecutive years¹⁸.

The U.S. Bureau of Labor Statistics (BLS) issued a very positive long-term outlook for the health care sector in its ten-year projections for the national economy, issued in December 2009. The sector is projected to add jobs at more than twice the rate of the overall economy, led by home health care services, offices of health practitioners and ambulatory health care services. Employment in hospitals is projected to grow only slightly faster than the overall economy, but Boston hospitals' multiple roles could spur a faster pace.

EDUCATION: *The Great Stabilizer and a Leader for the Coming Decade*

Boston's educational services sector has experienced two years of consecutive employment decline just three times in the past 40 years. Representing about 3% of Boston's employment base in the early 1970s, the educational services sector's share of Boston jobs climbed to 5% in 1977 after five years of non-stop growth during a period of pervasive job losses throughout the rest of the city's economy. Education made up between 4.6% and 5.1% of Boston jobs between 1977 and 2000. It climbed to the top of that range during recessions as other industries lost jobs, and trended toward the bottom of that range during expansions as the rest of the economy grew.¹⁹

This pattern can still be observed. Starting at 6.6% of Boston jobs in 2001, when that year's recession was just beginning, education rose to make up 7.6% of jobs in 2004. Since that point education employment remained stable as growth in the rest of the economy pulled ahead and reduced education to 7.0% of the city's job base in 2007.

During the recent recession, employment in educational services within the Boston Metropolitan Division rose in the 24 months between December 2007 and 2009, while the overall economy lost jobs.

The BLS issued a very positive outlook for education in its ten-year projections for the national economy. Employment in colleges is expected to expand by 1.5% annually until 2018 and the educational services sector overall is projected to grow at an average annual 2.4% compared to 1.0% for total U.S. employment.

FINANCIAL ACTIVITIES

The two recessions of this decade have severely affected Boston's finance and insurance industries. They lost over 9,800 jobs during the three years following 2001, more than any major sector other than government, which lost over 13,300. These losses were not widely shared, but were concentrated in the securities and investments industry, which includes mutual funds and brokerages and which comprises half of the sector's jobs. The 20.5% loss in securities jobs (-9,565 jobs) was accompanied by a 5.3% loss in insurance jobs (-967) and offset by a 3.7% gain in banking jobs (+715).

Finance and insurance had regained most of its lost employment by 2008, when the current recession hit Boston. While securities & investments in 2008 was still over 5,300 jobs below its 2001 level, banking and insurance combined for a net gain of over 4,400 jobs. The related real estate, rental & leasing industry boomed during this time—its employment was up over 3,500 jobs (18.7%) in 2008 compared to the 2001 base.

The national recession that began in December 2007 initially hit banks and other credit intermediaries as home prices fell and mortgages defaulted. When stock markets stumbled the securities & investments industry suffered also, leading to additional job losses. Between December 2007 and December 2009 the Boston Metro Division's financial activities super-sector lost 6.7% of its jobs, compared to a 4.4% loss for the overall metro economy.

Although overall local financial activities job losses were almost identical to the national average, there were important differences. Local losses were most severe in securities (-14.9%). The proportionate hit to Boston Metro's securities and investment industry was more than twice as bad as the US average (-6.7%). Metro banking fared better, shedding just 2.8% of its jobs as the nation overall lost 7.8%. The Boston area insurance industry held its own, with small gains during the first year of the recession edging out losses in year two to yield 0.2% growth compared to a U.S. loss of 4.1% over the two recession years. Real estate and leasing declined 6.3% in the region.

The outlook for recovery in financial activities is muted. The NEEP forecast for Massachusetts expects slow job growth beginning in 2012 with employment in 2014 still 4.4% below the 2008 mark. Due to increased efficiency and productivity, the BLS ten-year projections call for strong growth in output but below average job growth. Boston will remain a great capital of finance, but in the near future finance may play a lesser role in the growth of national and local labor markets.

¹⁸ For more information see the BRA's Research Division report on NIH funding in Boston at: www.bostonredevelopmentauthority.org/PDF/ResearchPublications/BostonNIHReport2009.pdf

¹⁹ The North America Industry Classification System (NAICS) that went into effect in 2001 defines the education industry more broadly than the old Standard Industry Classification (SIC) system, but this pattern continues.

PROFESSIONAL AND BUSINESS SERVICES

Professional and businesses services made up 18.6% of Boston city employment in 2008, a share even greater than the 15.6% found in financial activities, the other anchor of Boston's office market. Although job losses in professional and business services have been steeper than average over the two years of this recession, the NEEP forecast for Massachusetts foresees a full recovery of lost jobs by 2013. This sector, along with health and education, is expected to be one of the state's growth sectors over the next five years. The following are details on major industries within this sector:

Legal services: With 21,400 jobs in 2008 legal services is the largest of Boston's Professional Services industries, containing 3.1% of all employment in the city. After suffering minor losses during the 2001 recession, Legal had made up for those losses by 2008. Minor downsizing during the first year of the recent recession quickly accelerated over 2009, leaving Boston Metro Division employment in legal services down 9.2% over the 24 months between December 2007 and December 2009. This was the worst loss suffered by any area professional services industry. The BLS forecasts solid job growth over the coming decade, with employment expected to expand an average 2% annually, twice the overall average for the US economy.

Accounting: After a sharp 16% employment loss between 2001 and 2004, the accounting industry in Boston reclaimed less than half of those losses by 2008. The recent recession then cost Boston Metro Division accounting another 5.3% of its jobs. The BLS outlook for national accounting firms is bullish, however, with 1.9% average annual job growth forecast.

Architecture, Engineering and Design: This has been one of Boston's hardest hit industries during both recessions of the first decade. After downsizing by 16.7% between 2001 and 2008 Boston's architects, engineers and designers have been in the center of the metropolitan area's 5.4% job loss between December 2007 and December 2009. But the BLS sees better than average growth ahead, with national employment expected to grow at double the nation's 1% overall annual job expansion up to 2018.

Computer Systems Design and Related Services: After the demand surge created by concerns over "Y2K", employment in Boston's computer systems firms plunged 19.5% from 2001 to 2004. But the following four years witnessed a 45% resurgence, giving the industry within the city a net gain between 2001 and 2008 of close to 1,100 jobs. During the current recession Boston Metro Division computer systems firms added another 5.8% to their workforce. The BLS projects 3.8% average annual job growth for the nation's computer systems design industry, among the fastest in the economy.

Management, Scientific and Technical Consulting: Boston's consulting industry had increased its numbers by almost 3,500 jobs (32.6%) from 2001 to 2008. By 2008 it had passed both Accounting and Architecture/Engineering to become Boston's second largest Professional Services industry, with over 13,000 jobs. Boston Metro Division's consulting firms downsized by less than 1% over the recent recession. The BLS projects such consulting establishments to show the very fastest employment growth among all industries over 2008 – 2018, averaging 6.2% annually.

Scientific Research and Development: One of the strongest growth industries in the city and metro economies, scientific R&D establishments grew jobs through contraction and expansion phases of the 2001 recession, adding over 2,000 jobs (32%) in the city between 2001 and 2008. Continued strength was evident in the Boston Metro Division with net job growth during both years of the current recession achieving a cumulative 5.4% expansion. The BLS foresees strong 2.3% annual job growth ahead to 2018.

Management of Companies and Enterprises: Most Boston employment in this industry is found in the headquarters offices of national or regional companies. The sale or merger of Boston companies has levied a heavy toll on employment. Boston management offices shed jobs every year from 2001 to 2008 with cumulative losses totaling over 3,300 jobs (32%). Management establishments in the Boston Metro Division reduced their workforce by 6.3% over the 24 months ending November 2009.

HOSPITALITY AND LEISURE

This sector includes arts, entertainment & recreation; accommodation (hotels); and food services and drinking places.

Boston's arts, entertainment & recreation industry added over 2,100 jobs through the 2001 recession and subsequent recovery, expanding 17.6% between 2001 and 2008. The industry was not as fortunate during the 2008–2009 recession, when it suffered heavier than average job losses during both years. At the end of the 24 months from December 2007 to December 2009 arts, entertainment & recreation had lost 11.6% of its payroll employment within the Boston Metro Division, compared to 4.4% job loss for the overall Metro economy.

Boston hotels were severely impacted by the 2001 recession and by post September 11th travel restrictions. They survived the 2001 recession by drastically cutting room rates to compete with lower-priced rooms in the outer metropolitan area. Boston hotels cut room rates by 21% between 2000 and 2003, a 29% cut when inflation is factored in. Even so, occupancy fell to the lowest level since the 1991 recession, falling from 78.4% in 2000 to 69.6% in 2001. With occupancy and average daily rates reduced, Boston's full-service hotels had to cut their workforces by 910 jobs (8.5%) between 2001 and 2004. But the following four years restored those positions and added 650 more.

Hotel employment was propelled by a sustained building boom that opened new hotels every year from 1997 through 2009 and expanded the city's room supply by 52%. The city built 4,279 hotel rooms in 21 new hotels from 2001–2008 and achieved strong performance results with 74.6% occupancy and a \$213.94 average daily rate in 2008.

Business remained strong for Boston hotels through the summer of 2008. The overall performance for that year saw the average daily room rate inch up 1.7% and demand (total room-nights) increase by 2.2%. Three new hotels with 770 rooms opened in 2008. But as the recession cut deeply into business travel city hotels slashed room rates by 12.5% in 2009 and still saw occupancy fall to 70.9%, its lowest rate since 2001. Boston hotels bounced back strongly during the first five months of 2010. Room demand increased 7.6% over the same period in 2009 and the slide in average daily rates stopped. Revenues per available room were up 13.6%, according to the Pinnacle Advisory Group²⁰. Recovery from the current hospitality recession will be helped by a two-year hiatus from the thirteen-year hotel building boom, as no new hotels are scheduled to open during 2010 or 2011.

Boston has 20% of the state's business in food service and drinking establishments. The over 37,600 city jobs in this industry represented 5.5% of total Boston employment in 2008. Except for a minor one-year drop in 2003, Boston's restaurants and bars have added jobs every year from 2001–2008, during which time they added a net 4,936 jobs (15.1%). The current recession did not touch Boston Metro Division's food services and drinking establishments' jobs during the first recession year, from December 2007 to December 2008, but the recession's second year cut employment by 2.7%. The BLS national outlook calls for future job growth below the economy average, but Boston's strengthening visitor appeal may bring stronger results.

Industry Outlook Following the Recession

Although it is at the center of the highly-cyclical Massachusetts economy, Boston's diversified knowledge-based industrial structure positions it for strong recovery from the recession that closed the first decade of the 21st century. Health care, education, and professional services are among Boston's exceptional areas of strength with bright futures. After being sheltered from the worst of the 2007–2009 recession Boston may nonetheless enjoy the full energy of the subsequent recovery.

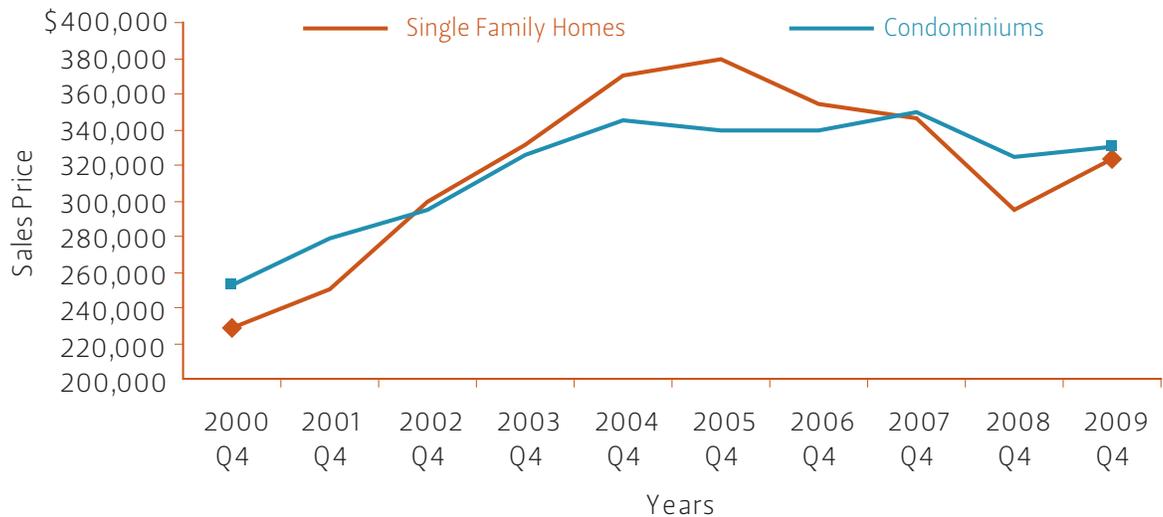
V. The Housing Market

As of April 2000, there were over 250,800 housing units in Boston. Occupied rental apartments numbered over 162,300 and there were more than 77,200 owner-occupied units, of which an estimated 38,000 were residential condominium units. According to the 2006–2008 ACS, housing units had reached 255,000 but as of 2009, from preliminary Boston Redevelopment Authority data, the 2010 housing unit count will climb to over 262,900.

According to the 2008 ACS, the percentage of owner and renter occupied units was 38.1% and 61.9%, respectively. The number of vacant units totaled over 23,000 while the vacancy rate for owner and renter housing were 2.5% and 5.8%, respectively. A 2008 City of Boston survey showed that the median rent for an apartment in Boston in 2008 as advertised in the newspapers was \$1,850 per month, a rise from \$1,700 in 2007²¹. The Census data from the 2006–2008 ACS put the monthly cost for homeowners with a mortgage at \$2,352 and the monthly rent for existing renters (as opposed to advertised rents) at \$1,132 per month.

Public and publicly assisted housing made up almost 50,000 units in 2002, constituting over 19% of the city’s housing stock. The Boston Housing Authority (BHA), a public agency that provides subsidized housing to low- and moderate-income individuals and families, manages 60 developments as well as scattered site properties, consisting of approximately 14,000 units of housing inhabited by about 27,000 residents. In addition, the BHA administers approximately 12,500 tenant-based rental assistance vouchers that allow families to rent in the private market and apply a subsidy to their rent.

CHART 5 MEDIAN RESIDENTIAL SALES PRICES, BOSTON, 2000–2009



Source: City of Boston, Department of Neighborhood Development, “Real Estate Trends”, Annual Reports, 2001–2009, Fourth Quarter Data. www.cityofboston.gov/dnd/pdr/real_estate_trends.asp

Residential home sales, which were strong through 2005, showed slower sales volume and lower median sales prices through 2009. Data for 2009 showed 6% fewer residential sales in the city than for 2008 (6,717 versus 7,173). Sales of single family homes fell by 2% while condominium sales fell by 10%. By the end of 2009 some small recovery was evident in the Boston housing market. The median sales price of a single family home in Boston registered \$323,000 in the fourth quarter of 2009 compared with \$295,000 for the same period in 2008 but still down from \$379,200 in the fourth quarter of 2005. Median condominium sales prices rose very slightly between fourth quarter 2008 and 2009, going from \$325,000 to \$330,000 over the same time period but below the peak of \$350,000 in 2007.

Housing construction in Boston accelerated between 2000 and 2009, stimulated by the very tight housing market of the 1990s and Boston’s comprehensive *Leading the Way* housing construction strategy plans. The city has counted over 19,100 housing units completed from 2000 through 2008, including more than 5,200 new “affordable rate” units. In addition, over 9,100 net housing units were protected from displacement through city efforts to prevent their subsidized apartments from becoming market-rate. In addition, the BHA has preserved over 5,000 formerly vacant housing units and the city has reclaimed another 2,921 vacant units to create housing, particularly for the homeless.

²⁰ Pinnacle Advisory Group compiles data on the hospitality industry and publishes monthly reports called “the Pinnacle Perspective” for their subscribers. For more information about Pinnacle see: www.pinnacle-advisory.com

²¹ City of Boston Department of Neighborhood Development, “Real Estate Trends 2008”, www.cityofboston.gov/Images/Documents/U_2008_Real_Estate_Trends_tcm3-8295.pdf

Foreclosure activities on residential properties have become a major problem in the nation as well as selected states and metropolitan areas. But, according to data from RealtyTrac of California, which follows foreclosure activity in the nation, Boston and Massachusetts are not among the very worst metro areas and states on these measures. Annual 2009 data from the U.S. showed 2,824,674 foreclosure filings in 2009, 1 per every 45 housing units or a rate of 2.21% of all housing units. Massachusetts, however, had seen 36,119 filings, 1 per every 75 units or 1.33%, a mark better than the nation and good enough for the 22nd highest rate among the 50 states²². Metropolitan Boston ranked 110th out of 203 metropolitan areas by the most foreclosures per housing unit with a rate of 1 per every 76 or 1.31% of all units²³.

Residential home sales, which were strong through 2005, peaked in September 2005 and have shown slower sales volume and lower median sales prices since that time. The most recent data for the Metropolitan area (December 2009) from the Case-Schiller Index reveal that Metropolitan Boston's median sales price fell by 15.7% from its peak. This figure is much less severe than the declines in prices shown in Las Vegas (-55.5%), Phoenix (-50.5%), Miami (-47.1%), Detroit (-42.9%) and Tampa (-41.7%), metro areas that have experienced the highest declines in the nation.

TABLE 7 LOSSES IN HOUSING VALUES IN US METRO AREAS, AS OF DECEMBER 2009

METROPOLITAN AREA	% DECLINE FROM PEAK PRICE	RANK	DATE OF PEAK	PRICE AS OF DEC-09	RANK
Las Vegas, NV	55.5	1	Aug-06	\$142,900	15
Phoenix, AZ	50.5	2	Jul-06	\$137,000	17
Miami, FL	47.1	3	Dec-06	\$211,200	10
Detroit, MI	42.9	4	Dec-05	NA	NA
Tampa, FL	41.7	5	Jul-06	\$140,700	16
San Diego, CA	37.6	6	Nov-05	\$359,500	3
San Francisco, CA	37.5	7	May-06	\$493,300	1
Los Angeles, CA	37.4	8	Sep-06	\$333,900	4
Washington, DC	28.8	9	May-06	\$308,700	6
Minneapolis, MN	27.9	10	Sep-06	\$181,200	13
Chicago, IL	24.5	11	Sep-06	\$199,200	11
Seattle, WA	23.2	12	Aug-07	\$306,200	7
Atlanta, GA	21.9	13	Jul-07	\$123,400	18
New York, NY	20.3	14	Jun-06	\$382,300	2
Portland, OR	19.6	15	Jul-07	\$244,100	8
Cleveland, OH	15.8	16	Jul-06	\$106,800	19
BOSTON, MA	15.7	17	SEP-05	\$332,900	5
Charlotte, NC	13.3	18	Aug-07	\$189,100	12
Denver, CO	9.3	19	Aug-06	\$219,900	9
Dallas, TX	6.0	20	Jun-07	\$145,100	14
20 Metro	29.4				

Source: Standard and Poors Case-Schiller Index, www.standardandpoors.com/indices/sp-case-schiller-home-price-indices/en/us/?indexId=spusa-cashpidf--p-us---; National Association of Realtors, www.realtor.org/research/research/ehsdata

²² RealtyTrac, "RealtyTrac Year-End Report Shows Record 2.8 Million U.S. Properties with Foreclosure Filings in 2009 - An Increase of 21 Percent from 2008 and 120 Percent From 2007," 2010. www.realtytrac.com/content/foreclosure-market-report/realtytrac-year-end-report-shows-record-28-million-us-properties-with-foreclosure-filings-in-2009-5489

²³ RealtyTrac, "Las Vegas, Cape Coral, Merced Foreclosure Activity Rates Highest Among Major Metro Areas In 2009", 2010. www.realtytrac.com/content/foreclosure-market-report/las-vegas-cape-coral-merced-foreclosure-activity-rates-highest-among-major-metro-areas-in-2009-5501

V I.
Boston Holding
Its Own

The financial industry meltdown in 2008 and the bursting of the housing market bubble threw the American economy into a recession. Boston is holding up against an economic storm: the Boston economy compares relatively well against the economic misfortunes of many regions of the nation. Even though, employment losses, rising rates of unemployment, slower business activity, and problems in real estate sales and leasing activity exists in Boston, it appears that the course of the present recession is not as bad as the one Boston experienced in the 1989–1992 time-period.

As Boston emerges from these economic maladies in 2010 and 2011 it is poised to exhibit growth in its traditional economic sectors but also sprout new, burgeoning industries as future foundations of economic growth such as in the life sciences industries and the green building, environmental remediation and clean tech industries, as well as in the nascent creative economy industries such as internet commerce, video game development, sound and music production, and the performing arts.



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