Boston's Economy

2015

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REDEVELOPMENT
AUTHORITY

THE BOSTON REDEVELOPMENT AUTHORITY RESEARCH DIVISION (BRA)

We strive to understand the current environment of the city to produce quality research and targeted information that will inform and benefit the residents and businesses of Boston. Our Division conducts research on Boston's economy, population, and commercial markets for all departments of the BRA, the City of Boston, and related organizations.

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CITATION

Please cite this publication as:
Boston Redevelopment Authority Research Division, October 2015

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Produced by the BRA Research Division

DIRECTOR
Alvaro Lima

DEPUTY DIRECTOR
Jonathan Lee

RESEARCH MANAGER
Christina Kim

SENIOR RESEARCHER/ECONOMIST
Matthew Resseger

SENIOR RESEARCHER/DEMOGRAPHER
Phillip Granberry

RESEARCH ASSOCIATE
Kevin Kang

RESEARCH ASSISTANT
Kevin Wandrei

INTERNS
Grace Riascos
Arhan Uguray

DESIGNER
Tajunique Thompson

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Boston's economy

has grown steadily since the end of the Great Recession in mid-2009, outperforming both Massachusetts and the nation with annual job growth of 2.0 percent between 2010 and 2014.

Total employment rose to the highest level in recent decades and unemployment fell to its pre-recession level in early 2015. The Boston economy grew by 2.2 percent annually from 2009 to 2013 as measured by Gross City Product (GCP).[1] Boston's estimated GCP of $109.8 billion, as shown in **FIGURE 1** (page 3), represents 24.6 percent of the total economic activity in Massachusetts for 2013. Boston's economy grew 3.7 percent between 2012 and 2013, surpassing the U.S. GDP growth of 2.2 percent and Massachusetts Gross State Product (GSP) growth of 1.8 percent.

Boston's job growth was positive across most industries since the recession, but was mostly concentrated in health care and social assistance, professional and technical services, and education. The health care and social assistance industry employs the largest number of people in Boston, 18.7 percent of total jobs, while the professional and technical services industry is the fastest growing since the recession, adding more than 12,000 jobs. Educational Services is an area of specialization for Boston with an employment share three times the national average.

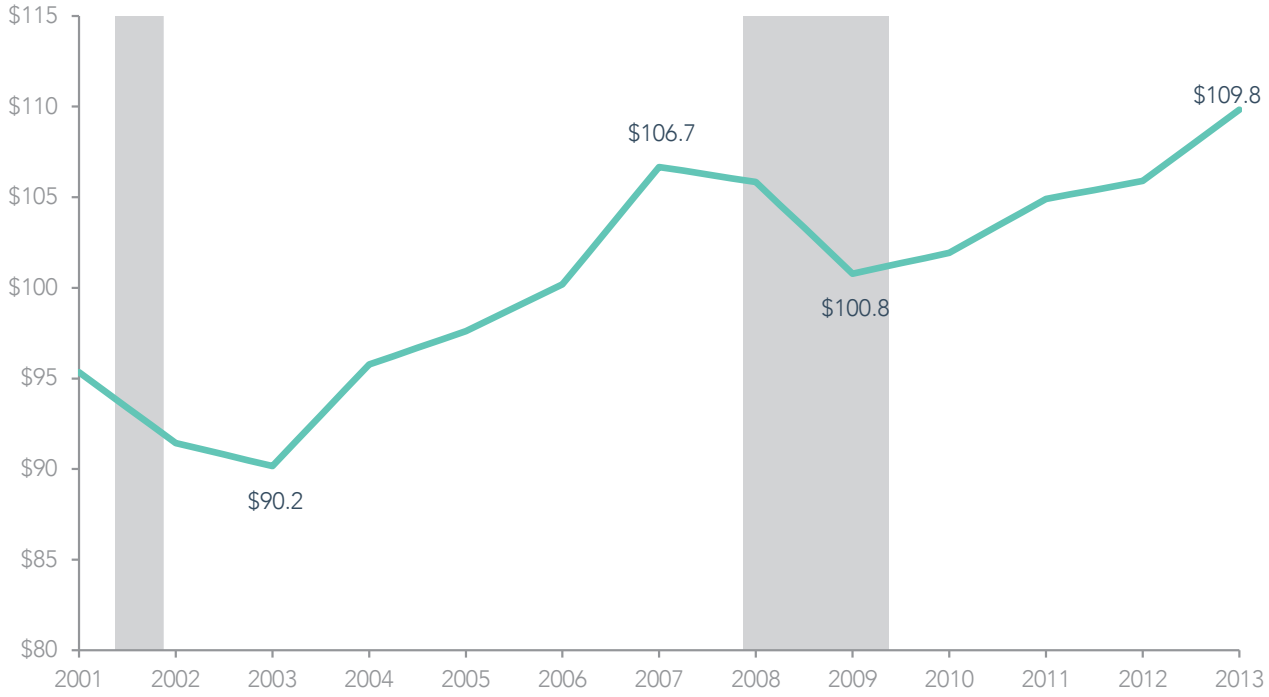
The most recent economic conditions show Boston's steady growth in the labor market, high tech industries, and new development.

"It's an opportunity to define a new era, as we build a new vision for our city. That vision is of a Boston that's thriving, healthy, and innovative. It's thriving – an economic powerhouse and an equitable community. It's a city of opportunity, where businesses reach new heights – and everyone has access to the good jobs and safe homes that are the foundations of middle-class security."

— Mayor Martin J. Walsh to Greater Boston Chamber of Commerce, December 10, 2014

FIGURE 1

BOSTON'S REAL GROSS CITY PRODUCT (GCP)
in billions of 2013 dollars
2001 – 2013



Sources: U.S. Bureau of Economic Analysis (BEA), Massachusetts Executive Office of Labor and Workforce Development (EOLWD), National Bureau of Economic Research (NBER), BRA Research Division Analysis

Report overview

The following sections of this report describe Boston's economy in terms of jobs, unemployment, wages, key industries, real estate, and the way ahead.

JOBS

The total number of jobs in Boston grew by 1.8 percent in 2013.

WAGES

Despite this robust job growth, real wages in Boston remained flat between 2009 and 2013, growing by only 0.2% annually.

UNEMPLOYMENT

Boston's annual average unemployment rate for 2014 was 5.3 percent, which was almost half a percentage point less than the national rate. In May 2015, the unemployment rate dropped to 4.1 percent.

CONSTRUCTION

Construction activity continues to grow in Boston. Based on building permit revenue fees for fiscal year 2014, the value of total construction activity in the City was an estimated $4.71 billion.

HIGH TECH INDUSTRIES

Since the recession, employment in high tech industries grew nine percent a year on average.

ECONOMIC GROWTH

Projections suggest short-term regional economic growth will continue at around 2.6 percent per year.

FERDINAND'S

Employment and Wages:

In 2013, Boston's total payroll and non-payroll jobs grew by 1.8 percent to 698,875.

Boston is a major regional employment center. Boston jobs represent 16.2% of the total statewide jobs, and 61% of Boston jobs are held by commuters from surrounding communities. While final 2014 data is not yet available, the latest payroll job data provided by the Massachusetts Executive Office of Labor and Workforce Development (EOLWD) shows payroll jobs continued to grow steadily through 2014, averaging 595,585 jobs in the third quarter.[2]

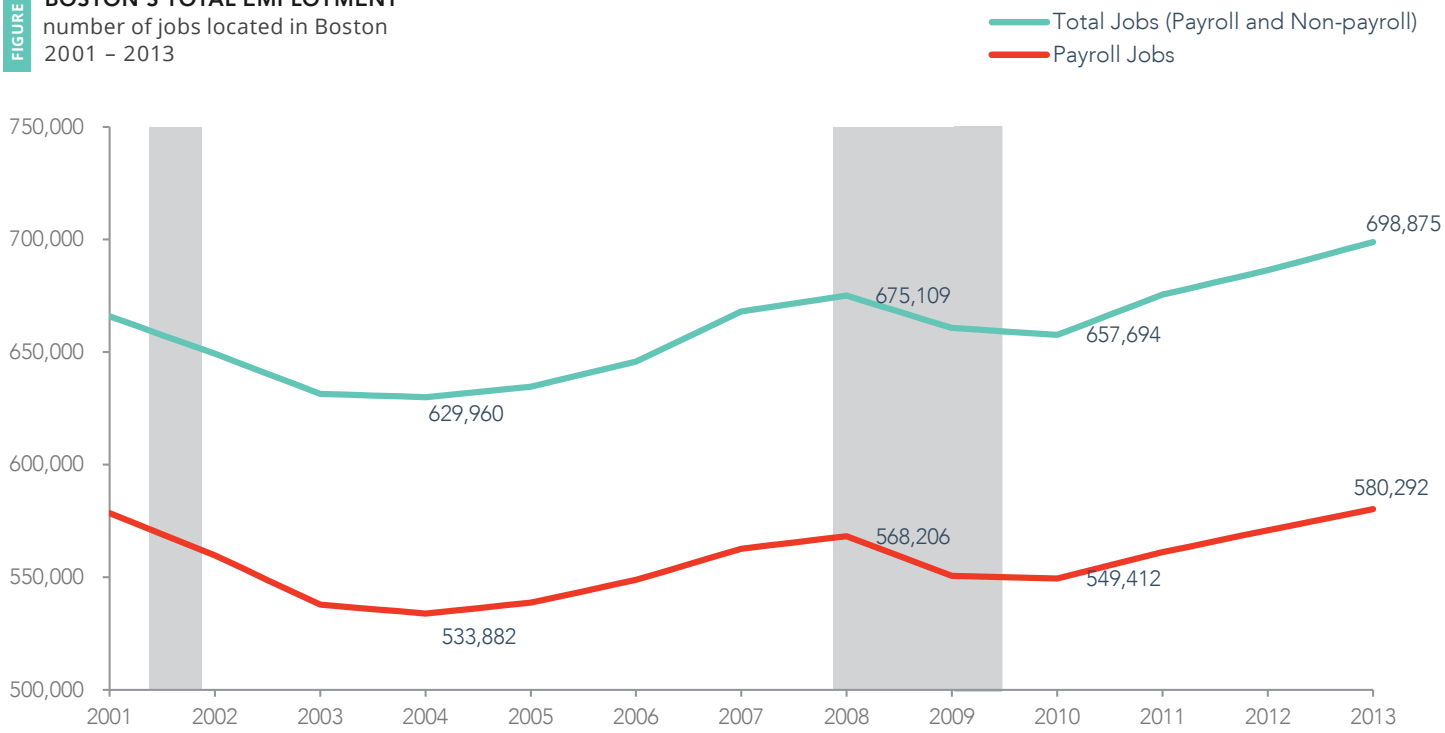
FIGURE 2 (page 7) shows Boston's job growth for payroll and non-payroll jobs from 2001 to 2013. Following the Great Recession, positive job growth returned in February 2010; however, it was not until later in 2011 that total jobs returned to prerecession levels. Between 2010 and 2011, 17,806 total jobs were added, an increase of 2.7 percent. This was followed by a 1.6 percent increase in 2012, or 10,922 new jobs. The top five industries in job creation between 2010 and 2013 were professional, scientific and technical services; health care and social assistance; accommodation and food services; construction; and education. Most of the other major industries showed either moderate gains or marginal losses. Individual industry growth is covered in more detail in the Industry section. In addition, the estimated number of non-payroll jobs grew at an annual rate of 3.1 percent from 2010 to 2013, which could be indicative of changing economic conditions, the rise in contract or consulting positions, or the rise in entrepreneurship and sole proprietorships.

Resident unemployment rate

In 2014, the city's unemployment rate dropped to 5.3 percent, the first time under six percent since the Great Recession. In the beginning of 2015, the preliminary unemployment rates for January to May indicated that Boston's unemployment has plunged to pre-recession levels, with an unemployment rate of 4.1 percent in May.[3] **FIGURE 3** (page 7) shows that Boston's unemployment rate has followed a trend similar to that of Massachusetts and the U.S., but maintained a consistently lower level since 2007. For 2014, Boston's unemployment rate was half a percentage point less than Massachusetts and almost a full percentage point below the U.S.

FIGURE 2

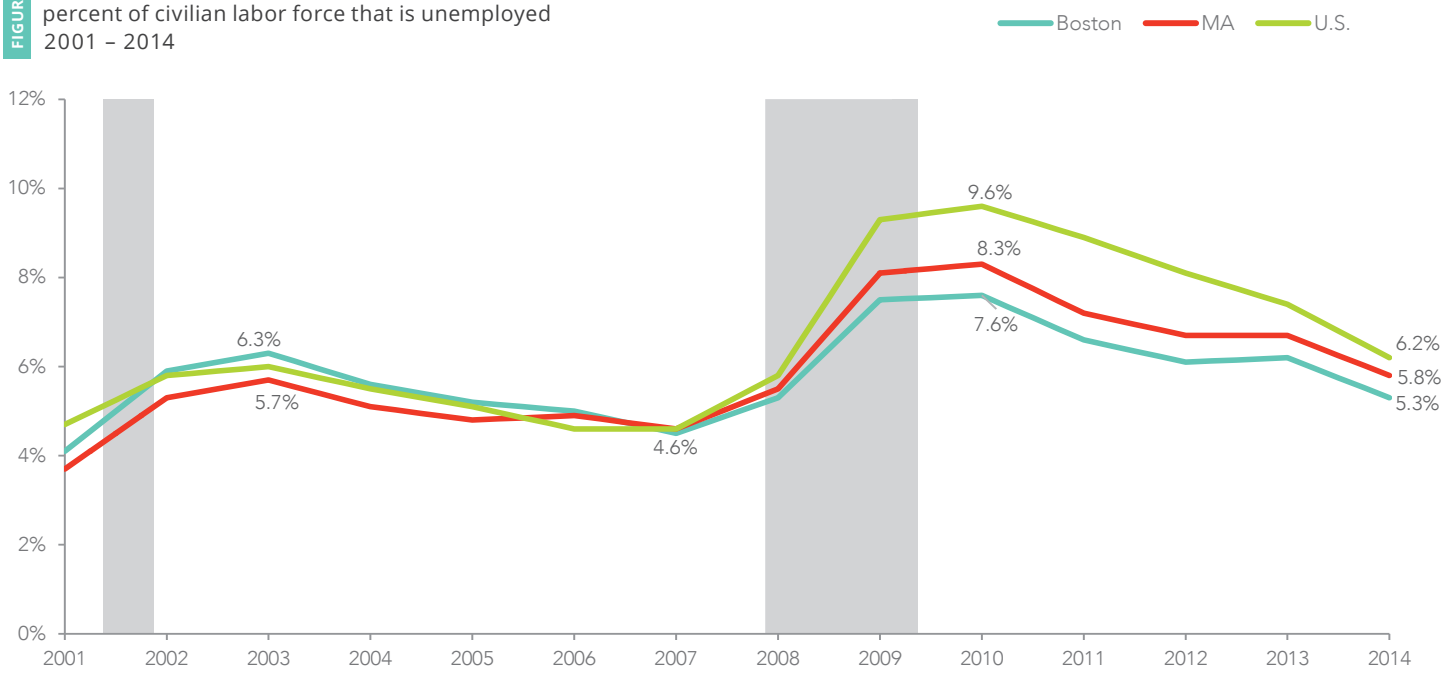
BOSTON'S TOTAL EMPLOYMENT
number of jobs located in Boston
2001 – 2013



Note: Shading signifies recession.
Sources: U.S. Bureau of Economic Analysis (BEA), Massachusetts Executive Office of Labor and Workforce Development (EOLWD), BRA Research Division Analysis

FIGURE 3

ANNUAL UNEMPLOYMENT RATE
percent of civilian labor force that is unemployed
2001 – 2014



Note: Shading signifies recession.
Sources: U.S. Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics (LAUS), 2015

Employment by industry

By far the largest industry in Boston in terms of employees is health care and social assistance with over 130,000 jobs— 18.7 percent of the total jobs located in Boston. Professional and technical services, finance and insurance, and government also employ large numbers of people in Boston.

TABLE 1 (below) shows the total jobs by industry for 2013, ranked from largest to smallest.

TABLE 1

BOSTON'S PAYROLL AND NON-PAYROLL JOBS BY INDUSTRY
number and percent share of Boston industry employment
2013

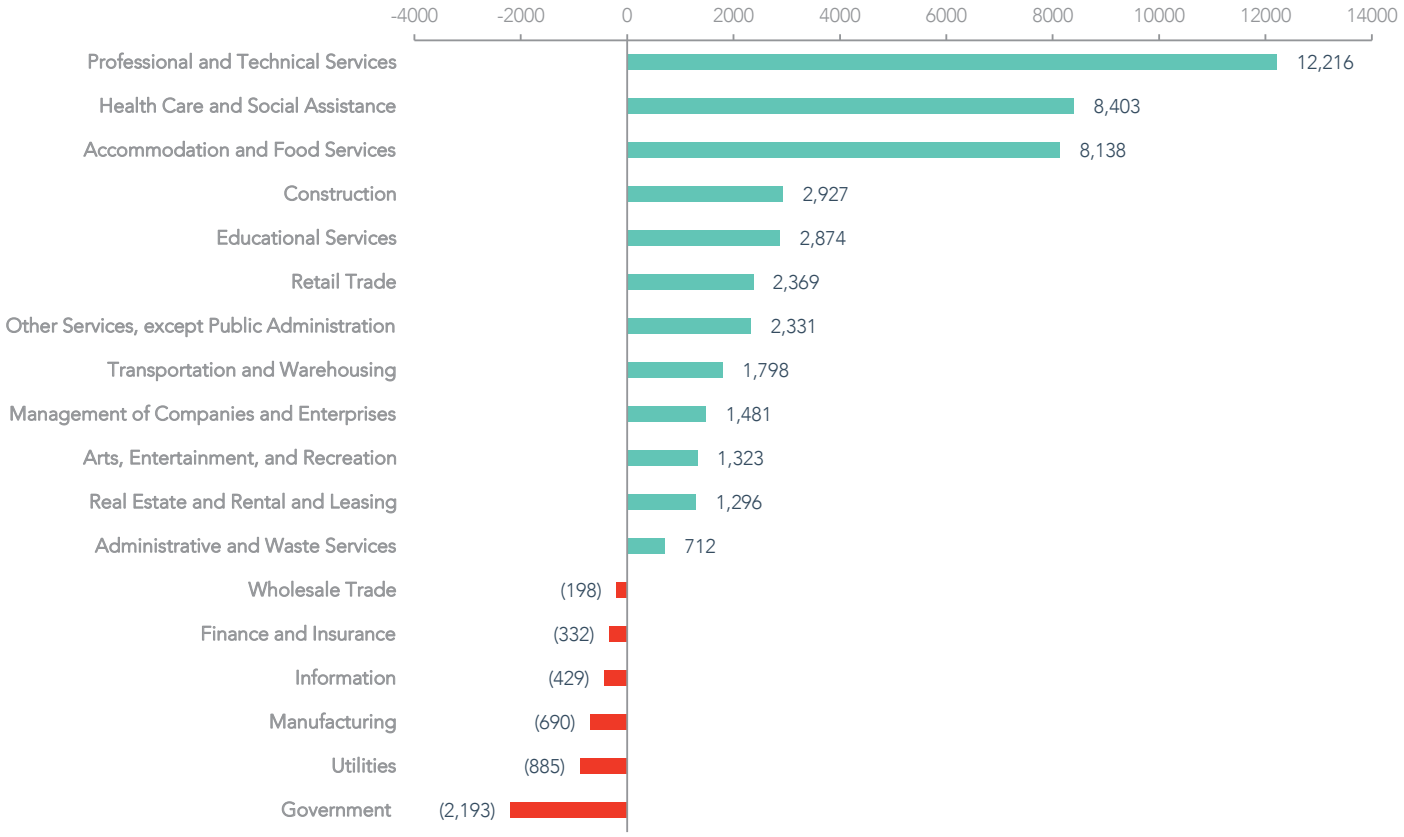
INDUSTRY	2013	%
Health Care and Social Assistance	131,004	18.7%
Professional and Technical Services	84,083	12.0%
Finance and Insurance	79,316	11.3%
Government	76,145	10.9%
Accommodation and Food Services	57,465	8.2%
Educational Services	54,902	7.9%
Administrative and Waste Services	34,529	4.9%
Retail Trade	33,814	4.8%
Other Services, excluding Public Administration	31,666	4.5%
Real Estate and Rental and Leasing	23,608	3.4%
Transportation and Warehousing	20,298	2.9%
Construction	16,656	2.4%
Arts, Entertainment, and Recreation	15,577	2.2%
Information	15,529	2.2%
Wholesale Trade	9,066	1.3%
Manufacturing	8,133	1.2%
Management of Companies and Enterprises	7,658	1.1%
Utilities	1,519	0.2%
Forestry, Fishing and Mining	250	0.0%
TOTAL	**698,875**	**100.0%**

Sources: U.S. Bureau of Economic Analysis (BEA), Massachusetts Executive Office of Labor and Workforce Development (EOLWD), BRA Research Division Analysis

FIGURE 4 (below) provides the change in employment from the period 2010 through 2013 by industry. Overall job growth in Boston was positive, led by professional and technical services, which added over 12,000 new jobs. High tech jobs grew particularly strongly, increasing by around nine percent per year and adding 9,319 jobs.[4] Health care and social assistance also grew significantly, followed by accommodation and food services and construction. Boston's construction sector is showing significant growth after heavy losses during the recession and shortly thereafter. The industry sectors that saw losses are in red, primarily manufacturing, utilities, and government. Finance also saw a decline in jobs, but remains one of the largest industries in Boston. Additional detail for Boston's key industries is provided in the following sections.

FIGURE 4

EMPLOYMENT GROWTH BY INDUSTRY
change in numbers of jobs in Boston
2010 – 2013

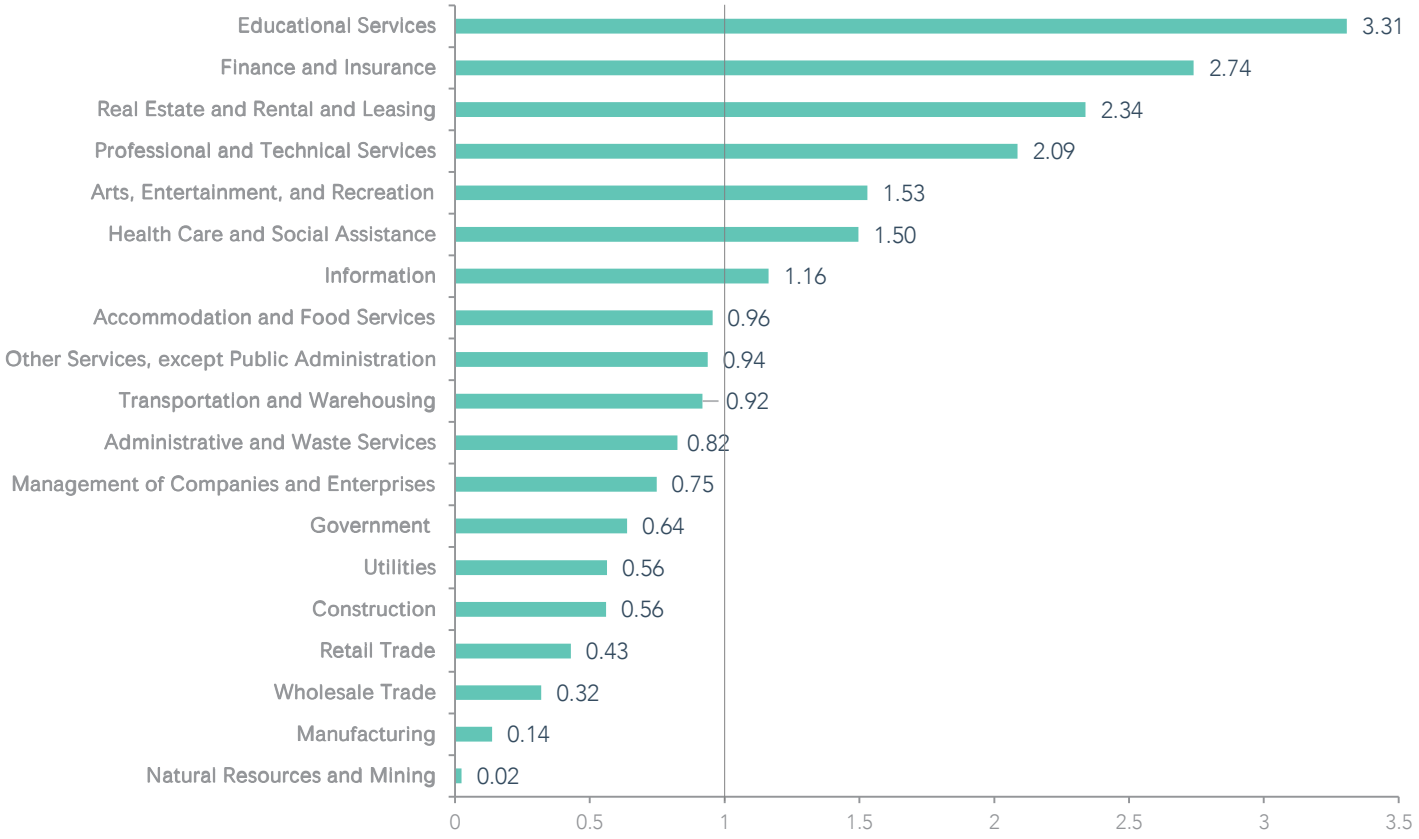


Sources: U.S. Bureau of Economic Analysis (BEA), Massachusetts Executive Office of Labor and Workforce Development (EOLWD), BRA Research Division Analysis

The location quotients in **FIGURE 5** (below) measure the degree to which jobs in each industry are concentrated in Boston compared to the national average. A location quotient greater than one for an industry indicates that the proportion of Boston's employment in that industry exceeds that industry's share of national employment. Boston's employment share in educational services is more than three times the national average. Finance remains a strong local industry despite a decline in jobs since 2010, while professional and technical services is growing and highly concentrated in Boston. Although accommodation and food service jobs grew significantly since 2010, the location quotient shows that the concentration of those jobs in Boston is no greater than the national average. The full list of Boston's location quotients by industry are shown in the figure below.

FIGURE 5

LOCATION QUOTIENTS OF BOSTON INDUSTRIES
ratio of Boston industry employment to national average (1.0)
2013



Source: Bureau of Economic Analysis (BEA), Massachusetts Executive Office of Labor and Workforce Development (EOLWD), BRA Research Division Analysis

Wages

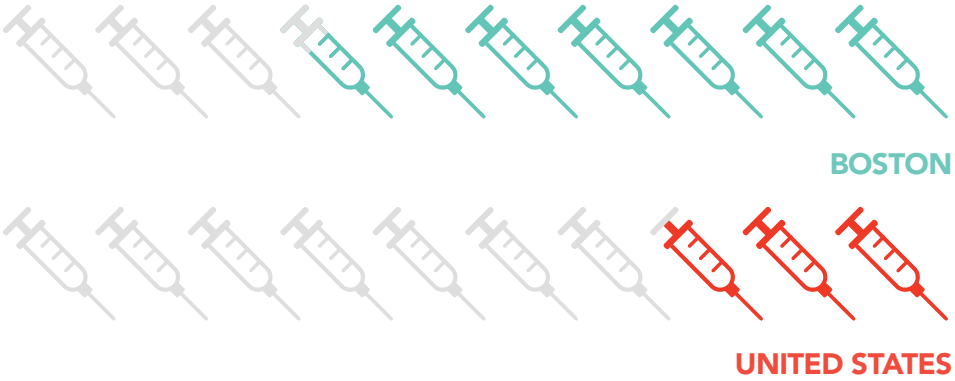
Total payroll wages for Boston in 2013 were $48.4 billion, resulting in an average annual payroll wage of $83,356. From 2009 to 2013, the average nominal wage in Boston grew only slightly faster than inflation, with a 2.3 percent annual growth rate, compared to annual inflation of 2.1 percent. The highest wages were in finance and insurance at $187,252, 125% higher than the average annual wage for jobs in the city. Accommodation and food service has the lowest annual wage of $27,508, which is 67% below the city's average annual wage. While the accommodation and food service industry provides a large number of jobs, the low wages may be a concern, as these wages on an hourly basis are less than the living wage as defined by Boston's Living Wage Ordinance.[5]

Health Care + Social Assistance

The health care and social assistance industry has been growing rapidly in Boston, as it has across the nation.

Composition of industry employment

Sixty-six percent of Boston workers in health care and social assistance are employed in hospitals, compared to twenty-seven percent nationwide.



HOSPITALS

Four of the six largest employers in Boston are hospitals: Brigham and Women's Hospital, Massachusetts General Hospital, Beth Israel Deaconess Medical Center, and Children's Hospital.[6]

LARGEST INDUSTRY

Health care and social assistance is the largest industry in Boston in 2013, providing over 130,000 jobs

GRANTS

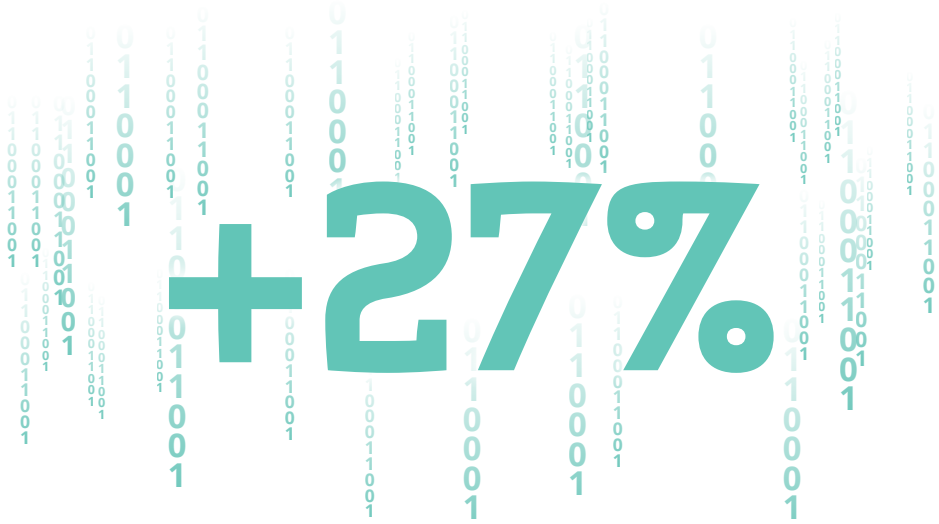
A significant portion of Boston's health care industry focuses on medical research. For 20 consecutive years, Boston has received the most National Institutes of Health (NIH) research grants of any city in the country.

Professional + Technical Services

The top four subsectors of Professional and Technical Services are legal services, management and technical services, computer systems design and related services, and accounting and bookkeeping services.

Job growth

Professional and technical services have contributed the most job growth in the aftermath of the recent recession. From 2010 to 2013, 12,216 jobs were added, which represent 26.6 percent of the total net jobs gained in the city.

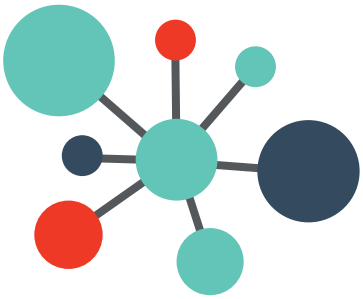


COMPUTER SYSTEMS

Computer systems design is the most rapidly growing professional and technical industry, increasing employment by 31.7 percent from 2010 to 2013.

RANKING

Professional and technical services is the second largest industry in Boston, accounting for 12% of the total jobs in Boston.



GROWTH

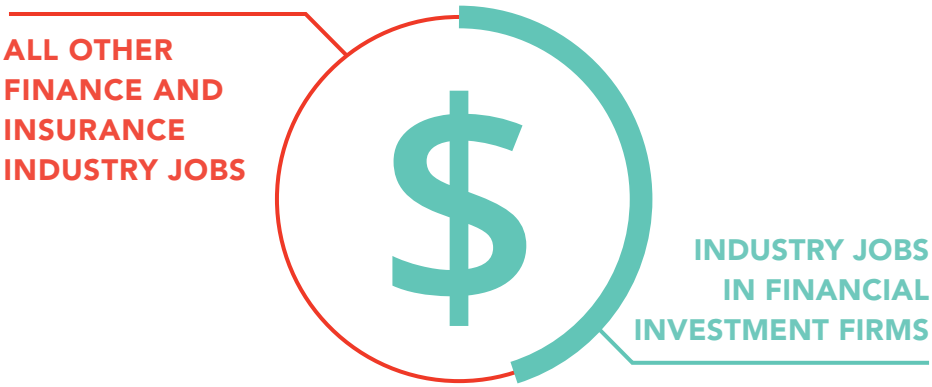
From 2010 to 2013, 30% of the businesses moving to the South Boston Waterfront were professional and technical services firms.

Finance + Insurance

Boston continues to have a prominent finance and insurance industry. Boston's investment firms provide four percent of all the investment jobs nationwide.

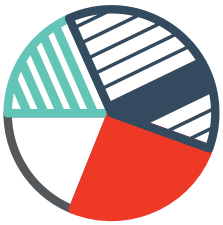
Composition of industry employment

The finance and insurance industry consists of banking, financial investment, and insurance firms. Over 46 percent of all finance and insurance industry jobs in Boston are with financial investment firms.



JOB SHARE

In 2013, 11.3% of the total jobs were in the finance and insurance industry.



INDUSTRY CONTRIBUTION

The finance and insurance industry contributed about 20 percent of Boston's GCP from 2010 to 2013.

EMPLOYERS

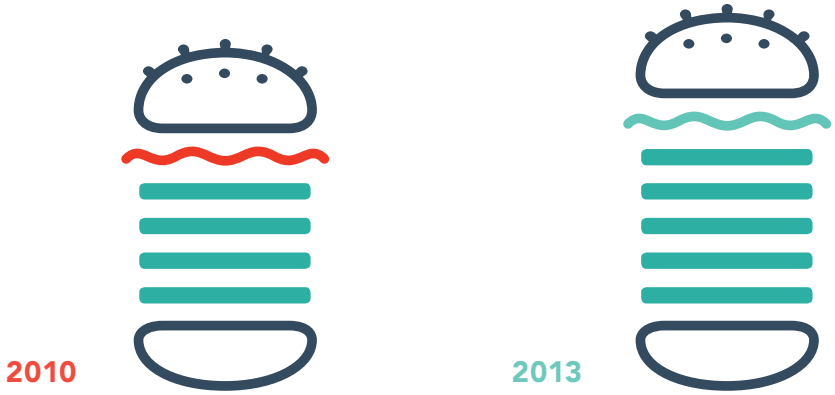
Fidelity Investments and State Street Bank and Trust are major employers in Boston's financial industry.

Accomodation + Food Services

While the industry ranks fourth in terms of total employment in Boston, its average annual wages are the lowest of all industries with a significant presence in Boston.

Job Growth

Food services jobs have increased about 16 percent since 2010, providing more than 57,000 jobs.



TAX REVENUE

In FY14, the hotel room occupancy tax generated $71.1 million in revenues.[7]

RANKING

Boston's hotel market ranks 9th among the top 25 in the US. Boston hotels employ 32.4% of all hotel workers in Massachusetts.

CITY MEAL REVENUE

The food service industry does not appear to be significantly affected by the 0.75 percent city excise tax. The meal tax generated $22.9 million in fiscal year 2013.

Construction

Construction represents 2.4 percent of the total jobs in Boston, and it is the 12th largest industry.

Job Growth

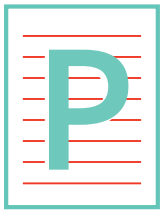
Boston's construction industry employment performed well after 2010, growing by 21 percent from 2010 to 2013.

JOB-YEARS

In 2014, the BRA Board approved projects totaling $3.1 billion in estimated construction costs. The BRA estimated these projects will generate 12,774 job-years.[8]

PROJECT APPROVAL

As of June 2015 YTD, the BRA had approved thirty-three projects with an estimated construction cost of $1.2 billion.



PERMIT REVENUE

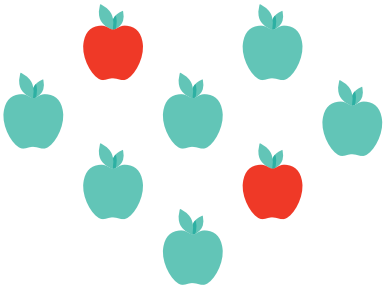
Building permit revenue in 2014 increased by 35.5 percent from 2013 from $29.6 to $40.1 million.

Education

The presence of many colleges and universities ensures that Boston's population is among the nation's most highly educated. 43.9 percent of Boston's residents age 25 and over have a Bachelor's degree or higher.

Large Employers

Boston University has over 10,000 employees in Boston. Harvard University Graduate Schools, Boston College, and Northeastern University also employ large numbers of people in Boston



JOBS

Education jobs are three times more concentrated in Boston than the national average.

ENROLLMENT

Almost 150,000 students are enrolled in Boston's colleges and universities each year.

WAGES

Average annual wages for educational services in Boston for 2013 were $65,260.

Real Estate Market:

Boston's residential and commercial real estate markets have been strong in recent years.

The number of new building permits has increased dramatically since 2010, demonstrating recovery from the recession. In 2013, there were 2,561 new residential building permits. Most of the new residential housing is in buildings with five or more units. These large residential buildings made up 92% of the residential building permits issued in 2013. **FIGURE 6** (page 21) shows the building permit revenue for the last decade. Building permits declined following the recession, but began to pick up in 2011 and returned to prerecession levels in 2012. Between 2013 and 2014, building permit revenue increased 37 percent to $40.1 million, exceeding revenues for the past ten years. The building permit fee revenue for fiscal year 2014 represented total construction activity of an estimated $4.71 billion, compared with an estimate of $3.49 billion for fiscal year 2013. The following provides more detail on recent changes in the housing and commercial markets.

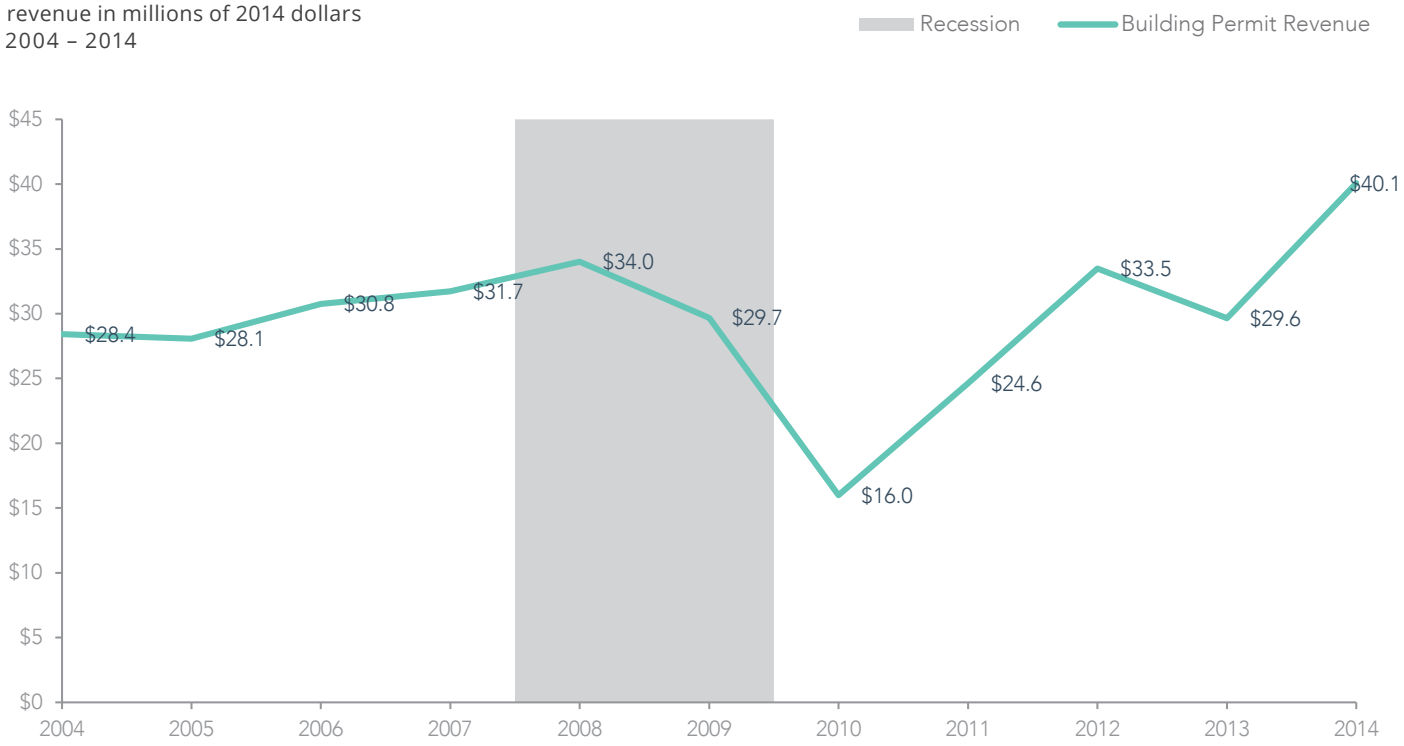
Housing

In 2013, there were 273,113 housing units in Boston, with an occupancy rate of 91.3%.

- In 2014, there were sales of 1,191 single family homes and 4,211 condominiums.[9] This represented a small decline relative to 2013.
- The citywide median single-family home price was $432,750 for 2014. The median sales price increased by 8.7 percent from 2013 to 2014.[10] The median condominium price increased by 7.2 percent in 2014 to $470,500.
- Median prices for single family homes and condominiums increased in the last year, despite a decline in overall unit sales, suggesting strong demand in a market with limited supply.
- According to the Case-Shiller home price index, Boston area home prices have risen 15 percent in real terms since 2012.[11]
- Boston's citywide advertised median monthly rents remained stable at $2,400 from 2013 to 2014. Median rents for an apartment in Boston's neighborhoods ranged from a high of $2,750 in the South End to a low of $1,475 in Hyde Park.[12]
- The goal of "Housing a Changing City Boston 2030", the 2030 housing plan, is to add 53,000 new housing units by 2030, which will bring the total housing units in Boston to 301,772.

FIGURE 6

BOSTON BUILDING PERMIT REVENUE
revenue in millions of 2014 dollars
2004 – 2014



Source: City of Boston, Auditing Department and City of Boston Annual Reports 2004 to 2014. DND Analysis of Consolidated City of Boston Permit Data (DND, ISD, and BRA), BRA Research Division Analysis

TABLE 2

BRA APPROVED DEVELOPMENT
residential and non-residential projects
2012 – 2014

YEAR	# OF PROJECTS	UNITS	DEVELOPMENT COST	DEVELOPMENT FT²	≈ CONSTRUCTION JOBS
2012	36	4,488	$3.0 billion	9.3 million	12,511
2013	78	7,529	$8.2 billion	16.3 million	34,264
2014	62	4,158	$3.1 billion	8.8 million	12,774

Source: BRA Research Division Analysis

Commercial

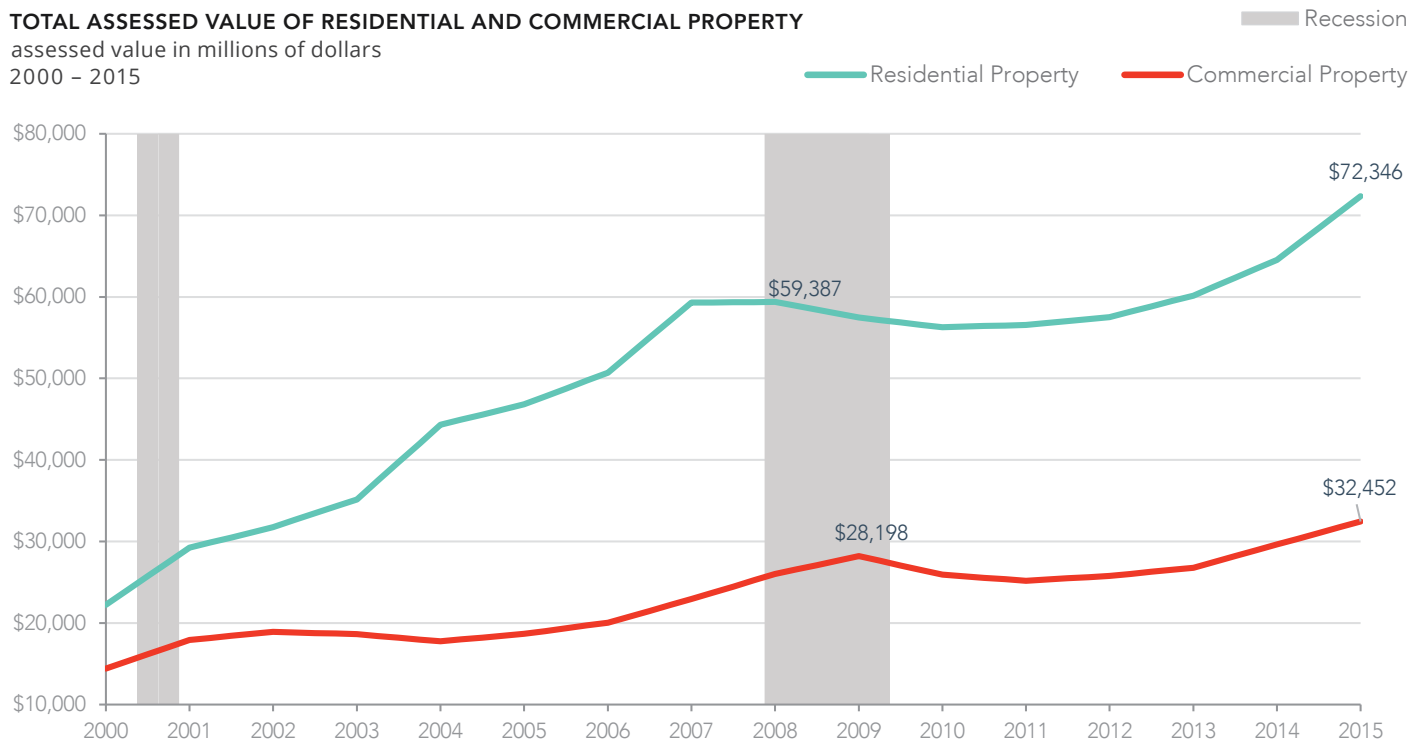
- Boston's commercial office space has grown by 2.4 percent since 2013, reaching 63.1 million square feet at the end of 2014.[13] The largest supply of commercial office space is in the Financial District (33.8 million square feet), but the Seaport District has the fastest growing supply of commercial office space, increasing 16 percent from 2013 to 2014.
- The Boston citywide vacancy rate for commercial office space has declined over the past several years to 10.8 percent in the first quarter of 2015. Boston absorbed 1.8 million square feet of commercial space in 2014.[14]
- The neighborhood with the highest office quoted rate in the first quarter of 2015 was Back Bay with $50.84. Citywide, the median quoted rent was $32.91 per square foot.
- As of the first quarter of 2015, Boston had a total of 1,892,871 square feet of industrial space with a vacancy rate of 7.2 percent.
- In 2015 first quarter, Boston had 491,116 square feet of retail space with a vacancy rate of 2.1 percent.[15]

Real Estate Value

- At the end of 2015, the assessed value of Boston's building stock was at $72 billion for residential property and $32 billion for commercial property. Boston's property taxes are "ad valorem", based upon assessed property values. Boston offers a residential exemption to homeowners that occupy their property as the principal residence. The residential exemption, which reduces the tax bill by exempting a portion of the value from taxation, will save each qualifying homeowner $1,879.53 for Fiscal Year 2015, and is equivalent to a property value reduction of $155,205.[16] The commercial property tax rate is $29.52 per $1,000 assessed value. The residential property tax rate is $12.11 per $1,000 assessed value. Commercial property taxes contributed 35 percent of Boston's total city revenue in FY2014, while residential property taxes contributed 26 percent.[17]

FIGURE 7

TOTAL ASSESSED VALUE OF RESIDENTIAL AND COMMERCIAL PROPERTY
assessed value in millions of dollars
2000 – 2015



Source: City of Boston Assessing Department, Property Tax Facts & Figures FY 2015, BRA Research Division Analysis

LEGAL
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STOP
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Moving Forward:

While recent growth in Boston has exceeded statewide and national growth, conditions are improving across all three geographies.

In 2014 the Massachusetts economy experienced the strongest expansion since 2000[18], and according to the Council of Economic Advisors (CEA) the U.S. added jobs "at the fastest pace since 1990s" pushing the unemployment rate to its lowest level in the past six years.[19] Projections for the national economy from the CEA, Federal Reserve Bank, and Congressional Budget Office (CBO) anticipate growth between 2.7 and 3.0 percent through 2017, settling into a long-run average of 2.3 to 2.5% for 2018 and beyond.[20] At the state level, the New England Economic Partnership (NEEP) projects the Massachusetts economy will grow by 2.6 to 2.7 percent in 2016 and 2017. NEEP also expects statewide growth to level off in 2018, with slower growth at 2.0 percent per year.

On an industry basis, NEEP's employment forecast suggests the following:

- Professional and business services will outperform other industries;
- Growth in the construction industry will continue; and
- Job growth in health care, education, and leisure and hospitality will exceed the anticipated average growth rate of 2.6 percent.

In the last two years, Boston's economy grew significantly, resulting in more jobs, lower unemployment, and increased development within the city. Strategic investments in education, housing, and transportation infrastructure will be important to ensure long term economic growth. The citywide plan "Imagine Boston 2030" will provide a framework for Boston's future. The current economic conditions that support projections of economic growth include the following:

- **INTEREST RATES.** Historically low interest rates of 0 to 0.25 percent have reduced the cost of borrowing.
- **FINANCIAL HEALTH.** The City of Boston's AAA bond rating was confirmed in 2015 on the basis of fiscal management and strong economic activity.
- **LABOR MARKETS.** Statewide unemployment forecasts suggest an unemployment rate in the five percent range by 2018. Boston's unemployment rate is already below five percent, and has remained lower than the state and nation since 2007.

While there is still some uncertainty in local and national markets, the overall economic indicators and projections suggest positive

economic growth will continue in the region.

APPENDIX A: Boston GCP Estimate Methodology

To estimate Gross City Product for Boston, the BRA Research Division uses data from the Bureau of Economic Analysis (BEA) on Gross State Product (GSP) by industry for Massachusetts, and personal income and earnings by industry for Massachusetts and Suffolk County.

GDP is an estimate of the economy's total value added, which is equivalent to the total income accruing to all factors of production plus any taxes paid directly by businesses. The BEA estimates state-level GDP based on data on labor income, capital income and business taxes, with labor income accounting for between 65 and 70 percent of Massachusetts's GDP each year.[21] Precisely estimating corporate income and business taxes paid at lower geographies is difficult with existing data, but the BEA's personal income and earnings series allows estimation of labor and proprietorship income at the county level for each industry. In the absence of data on the other components, we use the county-level fraction of personal income and earnings by industry to estimate the fraction of the state's economic activity occurring in Suffolk County. To be precise

$$GDP^{cnty} = \sum_{n=i}^{n} GDP_i^{state} \frac{EARN_i^{cnty}}{EARN_i^{state}}$$

where i indexes industries, GDP_i^{state} is taken from the BEA's state GDP estimate for Massachusetts, and $EARN_i^{cnty}$ and $EARN_i^{state}$ are taken from BEA's county (series CA5N) and state (series SA5N) personal income and earnings series.

Using similar logic, we use data on total earnings in Boston compared to Suffolk County from the Massachusetts Executive Office of Labor and Workforce Development (EOLWD) to estimate the share of Suffolk earnings that occur in Boston. We find this ratio varies little over time, and therefore use a uniform value of 97.75% for simplicity.

We use nominal estimates of GDP and earnings in our calculations, then index the final calculations to 2013 real dollars using the BEA's national GDP deflator.[22]

APPENDIX B: Location Quotient Analysis

A location quotient is a relative measure of local industrial concentration compared to the national average. In this case, the location quotient is the percent of total employment in an industry in Boston divided by the percent that same industry makes up in the U.S. economy.

$$LQ_i = \frac{e_i / e_T}{E_i / E_T}$$

Where:
e_i= Industry *i* employment in Boston
e_T= Total employment in Boston
E_i= Industry *i* employment in U.S.
E_T= Total employment in U.S.

Values over one indicate a greater industry concentration in Boston as compared to the U.S. Values below one denote a local industry concentration less than the U.S. The chart below provides location quotients for the major top four private industries and their associated sub-industries.

TABLE 3

LOCATION QUOTIENT OF SELECTED INDUSTRIAL SUB-SECTORS
ratio of Boston industry employment to national average (1.0
2013

INDUSTRY	LOCATION QUOTIENT
Health care and social assistance	1.5
Ambulatory health care services	0.6
Hospitals	3.7
Nursing and residential care facilities	0.4
Social assistance	1.0
Professional, scientific, and technical services	2.1
Legal services	3.3
Computer systems design and related services	1.6
Finance and insurance	2.7
Federal Reserve Banks, Credit Intermediation & Related Activities	1.6
Securities, Investments, Funds, Trust & Other Financial Vehicles	8.7
Insurance Carriers & Related Activities	1.8
Accommodation and Food Services	1.0
Accommodation	1.2
Food services and drinking places	0.9

Sources: U.S. Bureau of Economic Analysis (BEA), Massachusetts Executive Office of Labor and Workforce Development (EOLWD), BRA Research Division Analysis

APPENDIX C: Supplemental Data

TABLE 4

REAL GROSS DOMESTIC PRODUCT (GDP) AND GROSS CITY PRODUCT (GCP)
in billions of 2013 dollars
2001 - 2013

YEAR	BOSTON		MASSACHUSETTS		U.S.	
	GCP	% Change	GCP	% Change	GCP	% Change
2001	$95	-	$380	-	$13,733	-
2002	$91	-4.1%	$381	0.3%	$13,979	1.8%
2003	$90	-1.4%	$389	2.1%	$14,371	2.8%
2004	$96	6.2%	$398	2.2%	$14,915	3.8%
2005	$98	1.9%	$402	1.0%	$15,414	3.3%
2006	$100	2.7%	$406	1.2%	$15,825	2.7%
2007	$107	6.5%	$417	2.5%	$16,107	1.8%
2008	$106	-0.8%	$415	-0.4%	$16,060	-0.3%
2009	$101	-4.8%	$409	-1.4%	$15,614	-2.8%
2010	$102	1.1%	$421	3.0%	$16,009	2.5%
2011	$105	2.9%	$427	1.4%	$16,266	1.6%
2012	$106	1.0%	$438	2.6%	$16,643	2.3%
2013	$110	3.7%	$446	1.8%	$17,013	2.2%

Sources: U.S. Bureau of Economic Analysis (BEA), Massachusetts Executive Office of Labor and Workforce Development (EOLWD), BRA Research Division Analysis

TABLE 5

ANNUAL MEAN WAGE BY INDUSTRY
payroll jobs
2013

INDUSTRY	BOSTON	MASSACHUSETTS
Finance and Insurance	$187,252	$127,400
Management of Companies and Enterprises	$126,724	$118,456
Professional and Technical Services	$118,040	$109,876
Utilities	$100,152	$97,136
Construction	$92,144	$65,936
Real Estate and Rental and Leasing	$90,948	$69,628
Information	$87,308	$93,340
Wholesale Trade	$82,056	$84,500
Public Administration	$77,688	$65,988
Arts, Entertainment, and Recreation	$77,064	$35,256
Manufacturing	$76,908	$63,596
Health Care and Social Assistance	$70,928	$52,260
Educational Services	$65,260	$56,004
Transportation and Warehousing	$60,112	$49,140
Administrative and Waste Services	$49,764	$41,600
Other Services, Ex. Public Admin	$40,352	$33,176
Retail Trade	$33,124	$28,912
Accommodation and Food Services	$27,508	$20,540
Agriculture, Forestry, Fishing & Hunting	$26,780	$52,676
TOTAL, All Industries	**$83,356**	**$61,776**

Sources: Massachusetts Executive Office of Labor and Workforce Development (EOLWD), BRA Research Division Analysis

FIGURE 8

HISTORICAL ANNUAL UNEMPLOYMENT RATES
percent of civilian labor force that was unemployed
1969 - 2014

Sources: Boston (1969 – 1989), Massachusetts (1969 – 1975): Collected by BRA Research Division
Boston (1990—2014), Massachusetts (1976 – 2014), U.S. (1969 – 2014): U.S. Bureau of Labor Statistics (BLS)

TABLE 7

BOSTON EMPLOYMENT
by industry
2001 - 2013

INDUSTRY	NAICS	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Natural Resources and Mining	11,21	125	180	175	168	92	100	104	149	174	212	290	315	250
Utilities	22	2,691	2,388	2,184	2,148	2,118	2,079	2,137	2,249	2,293	2,404	2,293	1,486	1,519
Construction	23	19,560	18,639	17,592	16,522	16,699	17,042	17,258	16,644	14,844	13,728	13,997	14,909	16,656
Manufacturing	31-33	18,131	16,219	14,155	13,881	12,260	11,326	10,528	9,753	8,914	8,823	9,282	9,085	8,133
Wholesale Trade	42	10,910	10,418	9,557	9,456	9,494	9,448	10,179	10,622	9,699	9,264	9,265	8,951	9,066
Retail Trade	44-45	30,787	30,289	30,834	31,629	31,569	31,468	31,616	31,117	29,837	29,817	30,997	31,381	32,186
Transportation and Warehousing	48-49	24,389	22,172	21,286	19,770	18,727	18,062	19,428	19,595	18,511	18,500	19,236	20,015	20,298
Information	51	22,217	20,735	17,792	16,615	16,239	17,248	16,828	17,090	16,118	15,958	15,310	15,666	15,529
Finance and Insurance	52	84,148	81,192	75,751	74,383	76,471	78,443	82,204	83,887	82,447	79,647	80,754	79,102	79,316
Monetary Authorities-Central Bank	521	1,321	1,340	1,296	1,157	1,070	961	959	1,001	1,003	996	1,056	1,134	1,218
Credit Intermediation & Related Activity	522	18,035	17,539	18,076	18,919	18,994	18,894	20,291	21,461	22,000	19,745	20,184	19,455	19,476
Financial Investment & Related Activity	523	44,377	41,789	36,724	34,996	35,546	37,073	40,032	40,180	37,296	36,684	37,065	35,978	37,090
Insurance Carriers & Related Activities	524	18,320	18,368	17,672	17,361	18,766	19,302	19,371	19,971	20,928	21,071	21,337	21,388	21,525
Funds, Trusts & Other Financial Vehicles	525	2,095	2,156	1,984	1,949	2,095	2,213	1,551	1,274	1,220	1,151	1,112	1,146	7
Real Estate and Rental and Leasing	53	18,896	18,653	18,338	19,456	20,524	20,862	21,215	21,543	21,776	22,311	23,344	23,280	23,608
Professional and Technical Services	54	72,124	67,357	65,338	66,222	67,888	70,124	72,044	74,164	71,242	71,867	76,503	79,963	84,083
Legal Services	5411	20,188	20,079	19,562	19,615	19,565	19,564	20,302	20,607	19,418	19,256	19,055	18,726	18,582
Accounting and Bookkeeping Services	5412	10,107	8,962	8,118	8,387	9,289	9,310	9,404	9,265	9,103	8,697	9,579	10,709	11,451
Architectural and Engineering Services	5413	10,812	10,186	9,350	8,725	8,679	8,835	8,433	8,584	7,546	7,198	7,565	7,868	8,173
Specialized Design Services	5414	957	786	730	787	805	778	895	932	818	843	874	856	829
Computer Systems Design and Services	5415	6,251	4,940	5,004	4,988	5,072	5,845	6,635	7,084	6,952	7,311	8,676	11,145	13,311
Management & Technical Consulting Svc	5416	10,527	10,058	10,489	11,024	11,388	12,433	11,920	12,724	13,598	14,630	15,788	15,811	16,440
Scientific Research and Development Svc	5417	6,350	6,434	6,386	6,708	7,030	7,186	7,726	8,125	8,566	8,276	8,602	8,047	8,065
Advertising and Related Services	5418	5,548	4,749	4,480	4,665	4,651	4,641	5,044	5,220	3,921	4,336	4,865	5,360	5,680
Other Professional & Technical Services	5419	1,385	1,163	1,219	1,324	1,408	1,533	1,685	1,623	1,320	1,320	1,497	1,440	1,552

INDUSTRY	NAICS	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Management of Companies and Enterprises	55	10,282	9,755	8,896	7,677	7,565	7,495	7,339	6,970	6,483	6,178	6,455	7,287	7,658
Administrative and Waste Services	56	39,858	38,130	38,826	40,369	40,668	42,802	45,878	43,516	38,497	33,102	34,231	33,946	33,814
Educational Services	61	43,625	44,547	46,832	47,818	47,016	46,714	48,085	48,038	50,107	52,028	53,197	54,272	54,902
Elementary and Secondary Schools	6111	816	703	701	732	710	759	886	999	1,150	1,191	1,122	1,251	1,443
Junior Colleges	6112	643	614	914	961	862	781	778	783	826	932	565	582	377
Colleges and Universities	6113	37,360	38,343	40,206	40,922	40,170	39,749	40,750	40,711	42,594	44,496	45,632	46,250	46,796
Technical and Trade Schools	6115	643	676	783	746	663	729	853	834	871	853	898	845	792
Other Schools and Instruction	6116	2,948	2,910	3,028	3,230	3,227	3,280	3,421	3,415	3,260	3,148	3,363	3,630	3,840
Educational Support Services	6117	496	547	678	766	895	911	843	834	961	978	1,113	1,226	1,255
Health Care and Social Assistance	62	95,970	99,979	101,645	104,073	105,703	108,775	114,595	116,788	118,925	122,601	124,860	127,055	131,004
Ambulatory Health Care Services	621	15,612	14,543	15,046	15,699	15,862	16,478	16,881	17,359	18,103	17,777	19,517	20,501	20,571
Hospitals	622	62,525	67,439	68,503	70,405	71,875	74,339	79,401	80,717	82,242	85,569	85,566	86,449	86,889
Nursing and Residential Care Facilities	623	7,278	6,365	6,348	6,349	6,603	6,557	6,533	6,419	6,309	6,114	6,210	6,318	6,253
Social Assistance	624	10,555	11,632	11,749	11,620	11,363	11,400	11,781	12,293	12,271	13,141	13,568	13,788	17,292
Arts, Entertainment, and Recreation	71	12,155	12,854	12,801	12,784	12,889	12,970	13,864	14,147	14,076	14,253	14,410	14,799	15,577
Accommodation and Food Services	72	43,418	42,717	42,529	43,160	44,161	45,478	47,379	49,197	48,152	49,326	53,273	56,407	57,465
Accommodation	721	10,740	9,501	9,804	9,838	10,225	10,550	11,072	11,440	10,917	10,867	10,971	11,151	11,297
Food Services and Drinking Places	722	32,680	33,216	32,726	33,322	33,936	34,928	36,307	37,757	37,235	38,460	42,302	45,256	46,167
Other Services, Ex. Public Admin	81	26,683	27,441	27,495	27,265	27,877	28,461	29,471	30,277	30,208	29,336	30,007	30,941	31,666
Government	N/A	89,951	85,603	79,444	76,565	76,688	76,836	78,002	79,365	78,405	78,337	77,797	77,563	76,145
TOTAL JOBS		**665,921**	**649,266**	**631,471**	**629,960**	**634,648**	**645,732**	**668,155**	**675,109**	**660,710**	**657,694**	**675,500**	**686,422**	**698,875**

Sources: U.S. Bureau of Economic Analysis (BEA), Massachusetts Executive Office of Labor and Workforce Development (EOLWD), BRA Research Division Analysis
Note: The employment of sub-sectors may not add up to super-sectors due to rounding.

End Notes

[1] Gross City Product (GCP) is an aggregate measure of economic activity, synonymous to national gross domestic product (GDP).

[2] The BRA Research Division uses the Bureau of Economic Analysis (BEA) definition of total employment, which includes both payroll and non-payroll jobs. The BEA releases county-level estimates by industry, and for each industry the BRA Research Division apportions Suffolk County non-payroll employment to Boston based on the city's fraction of county payroll employment as estimated using unemployment insurance data (ES-202) made available at the city and county level by the Massachusetts Executive Office of Labor and Workforce Development.

[3] The unemployment rate from January to April in 2015 is below 5 percent, similar to the level during the same months in 2007 and 2008.

[4] High Tech jobs represent jobs in industries with a high proportion of their workforce in science, technology, engineering and math (STEM) occupations, following a classification developed by the U.S. Bureau of Labor Statistics.

[5] Boston's Living Wage Ordinance requires most firms receiving city contracts or loans to pay a Living Wage of $14.11 an hour to all employees. This amount, updated annually is based on the federal poverty guidelines for a family of four. The Living Wage of $14.11 is in effect through June 30, 2016.

[6] InfoUSA; American Hospital Association; National Center for Education Statistics; Direct Employer Contact; BRA Research Division Analysis. Estimates reflect most recent available data.

[7] Source: "Revenue Estimates and Analysis FY15", City of Boston Department of Revenue, http://www.cityofboston.gov/images_documents/Revenue%20Estimates%20and%20Analysis_tcm3-50814.pdf

[8] A job-year represents one job for one year. If a project takes three years to complete and a construction worker is employed throughout the duration of the project that worker counts as having worked three job-years.

[9] City of Boston, Department of Neighborhood Development using Banker & Tradesman data, February 2015, BRA Research Division Analysis

[10] City of Boston, Department of Neighborhood Development using Banker & Tradesman data, February 2015

[11] 1985 – 2015 S&P/Case-Shiller Home Price Indices Inc., deflated by U.S. Consumer Price Index, BRA Research Division Analysis. The S&P/Case-Shiller Home Price Indices are calculated monthly using a three-month moving average.

[12] City of Boston, Department of Neighborhood Development using Multiple Listing Service (MLS), January 2015, BRA Research Division Analysis

[13] Colliers International, Market Snapshot 1990-2014 Q4 Statistics

[14] Absorption is the net change in the occupied square footage.

[15] CoStar Property, Total Market Statistics 1st Quarter 2015

[16] Property Tax Facts & Figures, City of Boston Assessing Department, Fiscal year 2015

[17] According to City of Boston Office of Budget Management and Assessing Department.

[18] Massachusetts Economy Expansion Strongest Since 2000: Rising Tide is Beginning to Lift More Boats but Challenges Remain, UMass Donahue Institute

[19] 2015 Economic Report of the President, Council of Economic Advisors

[20] The GDP was projected jointly by Council of Economic Advisors, the Department of the Treasury, and the Office of Management and Budget

[21] Bureau of Economic Analysis, Gross Domestic Product by State Estimation Methodology, http://www.bea.gov/regional/pdf/gsp/gdpstate.pdf

[22] Table 1.1.4 Price Indexes for Gross Domestic Product, National Income and Product Accounts Tables (NIPA Tables), BEA, http://www.bea.gov/iTable/index_nipa.cfm