Boston's People and Economy

INTRODUCTION

Boston was first incorporated as a town in 1630 and then as a city in 1822 making it one of the oldest cities in the United States. The City has evolved into a center for innovation and entrepreneurship as well as for social and political change. Boston has become the economic engine and cultural hub of New England.

As the seat of Suffolk County, capital city of Massachusetts and the region's hub, Boston is home to over 600,000 residents, many world-renowned institutions of higher education, some of the world's finest inpatient hospitals, numerous successful corporations, and many professional sports teams and cultural organizations. Tens of millions of people visit Boston each year to take in its historic sites, diverse neighborhoods, cultural or sporting events, and to attend functions in one of Boston's convention centers.

Under the leadership of its first new Mayor in twenty years, Martin J. Walsh, the City is vigorously pursuing economic opportunities, to ensure Boston will continue to be a global leader in the twenty-first century.

BOSTON'S GROWING AND CHANGING POPULATION

The City of Boston ranks as the 23rd largest city by population in the United States. According to the U.S. Census Bureau's American Community Survey ("ACS") Boston's population for 2015 was 669,469. . The average annual growth for the City from 2010 through 2015 is 1.6%. Recent trends suggest Boston's population is growing at faster rates than in prior decades.

The City is the center of the 6th largest Combined Statistical Area (CSA) in the nation. Metropolitan Boston had 4.8 million people and 3.4 million jobs in 2015.

Over the thirty years between 1950 and 1980 Boston's population declined 30% from 801,444 to 562,994. This decline can largely be

Boston, Massachusetts Quick Facts

Government	QUICK FACTS
Founded	Sept. 17, 1630
State (capital)	Massachusetts
County (seat)	Suffolk
County (seat)	
Covernment Type	Strong Mayor- Council
Government Type	
Mayoral Term (years)	4
Councilor Term (years)	2
District Councilors	9
At-Large Councilors	4
U.S. House Reps. (MA)	10
Electoral Votes (MA)	11
People	
Population (2010)	617,594
% of State	9.4%
% Growth (from	
2000)	4.8%
% Non-	1.570
white/Hispanic	53.0%
% White/non-Hispanic	47.0%
Median age (years)	30.8
Geography	0.2
Neighborhoods	23
Land area (Sq. miles)	48.4
Water area (Sq. miles)	41.2
Density (Pop./Sq. mile)	12,752
Public road mileage	917.1
Ft. above sea-level	141.0
Climate	
Climate type	Humid Continental
Avg. Ann. High Temp. (°F)	59.3
Avg. Ann. Low Temp. (°F)	43.9
Avg. rainfall/year (inches)	43.9 42.5
	42.5
Avg. precipitation	10/ 0
days/year	126.0
Avg. snowfall/year	44.0
(inches)	41.8
Avg. snowy days/year	22.5
Ann. Sunshine hours	2,638.2
Boston Firsts	
Public park (Bos. Common)	1634
Public school (Boston	
Latin)	1635
Public library	1653
Telephone	1875
Subway	1897
World Series	1903
Mutual Fund	1924
Community Health Center	1965
Community ricaltif Center	1 /03

attributed to a post-war national trend of suburbanization. Since 1980, however, the City's population has stabilized and grown. The 2010 U.S. Census records the City's population at 617,594, representing a nearly 5% increase over its 2000 population and a nearly 10% increase over 1980.

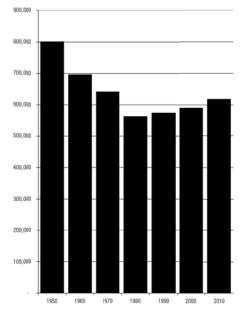


Figure 1 - Boston's Population 1950-2010 Census

With this growth in population has come a change in demographics. A wide range of ethnic backgrounds and countries of origin can be found in Boston's population. The 2010 census results show that non-White/Hispanic peoples continue to make up the majority of Boston's population, as they have for the past 10 years.

The 2010 Census also shows that Boston is a relatively young city. Children ages 19 and under make up 22% of the City's population. More than one out of every three persons in Boston is between the ages of 20 and 34 years old. People ages 35 to 54 years old comprise 24% of the population. People ages 55 to 64 years old comprise 9%. Senior citizens ages 65 and above make up only 10% of the City's population.

Not only is Boston a relatively young city, but the number of families is decreasing. From 2000 to 2010 the number of households in Boston increased by 5.5%, but the number of households with someone under age 18 decreased by 7% and the number of households with someone over age 65 decreased by 15%. The number of householders living alone increased by 5% and the number of nonfamily households (which consists of people living alone and households where no members are related) increased by 11%.

BOSTON'S JOBS, LABOR FORCE, AND INCOME

Boston ranks among the highest in concentrations of employment in the U.S. In 2010, Boston supplied an estimated 657,669 jobs, 96% of jobs in Suffolk County, approximately one out of every six jobs in Massachusetts, and one out of every fourteen jobs in New England. Unemployment in the City continues to decline from a high of 8.6% (not seasonally adjusted) in January 2010, down to 2.7% in December 2016.

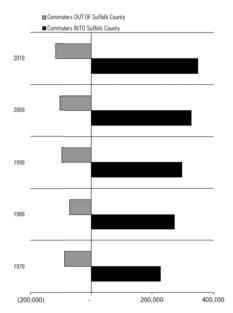


Figure 2 – Commuting Paterns of Workers Suffolk County, MA 1970-2010

With the number of Boston based jobs exceeding the resident labor force by more than double, the City is the recipient of many daily commuters. Between 1970 and 2010, the number of non-Suffolk County residents commuting to jobs in Suffolk County increased over 50% to nearly 350,000. And, as Boston has continually become a better place to live, more residents are choosing to live in the City and commute out for their jobs. From the City's population low point in 1980, the number of Suffolk County residents, in 2000, commuting to jobs outside the county grew nearly 60% and now represents 28% of the resident county labor force.

The City's resident labor force has undergone another transformation. Of the 266,505 Boston residents working in 1970, 45% held blue-collar jobs and 55% held white-collar jobs. In 2010, of

the 327,561 Boston residents working, those holding blue-collar jobs fell to 32%, and those employed in white-collar occupations rose to 68%. The changing needs of a service-based economy have resulted in a better educated and a more highly skilled workforce. In 2000, 79% of the adults in Boston had completed high school,

compared to 53% in 1970. A full 36% of adults in Boston had completed college in 2000, compared to only 10% in 1970. According to the most recent estimates from 2015,85% of adults had completed high school (or GED), and 45% of adults had completed college.

Boston's People

Population	1970	1980	1990	2000	2010
Total Population	641,071	562,994	574,283	589,141	617,594
% White Alone	NA	NA	59%	49%	47%
% Non-White/Hispanic	18%	30%	37%	51%	53%
Black or African-American	NA	NA	24%	25%	22%
Asian	NA	NA	5%	8%	9%
Hispanic or Latino	NA	NA	11%	15%	18%
Other	NA	NA	1%	3%	4%
Income					
Median Household Income	\$7,935	\$12,530	\$29,180	\$39,329	\$49,893
Average Annual Wage (Suffolk County)	NA	\$15,472	\$31,272	\$55,522	\$74,881
Education					
% High School Graduate	34%	35%	27%	24%	24%
% Some College Completed	9%	13%	19%	19%	18%
% College Graduate	10%	20%	30%	36%	44%
Employment					
Labor Force	266,505	NA	304,507	304,224	327,561
Unemployment Rate (resident)	12.8%('75)	7.8%('83)	8.6%('91)	2.7%	7.9%
Number of Jobs	576,125	572,078	622,433	688,077	657,669
% Blue Collar Jobs	45%	40%	33%	31%	32%
% White Collar Jobs	55%	60%	67%	69%	68%
% Manufacturing Jobs	11%	9%	5%	4%	1%
% Trade Jobs	22%	16%	13%	12%	11%
% Finance Jobs	13%	13%	15%	15%	15%
% Service Jobs	25%	36%	42%	46%	58%

Boston Redevelopment Authority, U.S. Census Bureau, Massachusetts Division of Employment and Training, Massachusetts Department of Labor and Workforce Development

Table 1

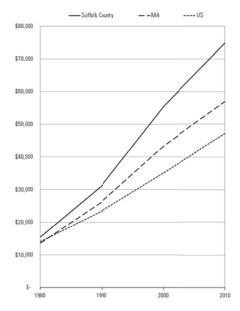


Figure 3 -Average Annual Wages

Along with Boston's well-educated workforce comes comparatively high household incomes and wages. In 2010, median household income in the City was \$49,893, up 27% from 2000 (Table 2). Median household income in Boston is consistently more than 30% greater than the median household income in the United States. Per capita Personal Income in Suffolk County was \$52,856 in 2010. The average annual wage and salary disbursement per job in Suffolk County was \$74,881 in 2010. Beginning around 1990, wages in Suffolk County began to grow faster than the state and the nation. In 2010, the average annual wage per job in Suffolk County was 32% higher than the average Massachusetts wage and 59% higher than the national average wage.

KEY SECTORS IN THE BOSTON ECONOMY

Transportation

A key to any city's economic health is its ability to transport residents, workers, visitors, and goods efficiently and safely to their intended destinations, whether in the city or throughout the region.

Local Transportation

According to the 2010 census, 36% of households in Boston do not have a vehicle, which makes public and alternative transportation particularly important to city residents.

Boston's public transportation system reaches into every neighborhood of the City whether by trolley, subway, bus, or commuter train. The MBTA provides commuter rail, subway, local bus and express bus services, and water ferry service to 175 cities and towns in eastern Massachusetts, offering public transit to a population of almost 4.8 million people in an area of 3,200 square miles. The MBTA currently serves about 1.3 million passengers per day.

Several major transportation initiatives are increasing access and reducing travel time. Government Center station was re-opened in March 2016. The Massachusetts Bay Transportation Authority (MBTA) plans for the following capital improvement projects within Boston: the Fairmount Line Improvements, State Street and Orient Heights Station accessibility improvements, Light Rail Accessibility Project (LRAP) improvements, and new vehicles for the Red and Orange subway lines.

MBTA officials announced plans to equip the Mattapan trolleys, running through Dorchester, Milton, and Mattapan, with new propulsion, brakes, and power supply systems, and spend \$1.1 million for a study of the Mattapan line. The MBTA also pledged \$7.9 million to give the aging streetcars an overhaul.

The State Transportation Improvement Program ("STIP") is a federally mandated prioritized listing of highway, bridge, intermodal and transit projects expected to be undertaken during the next four federal fiscal years There are several Boston-based projects listed in fiscal 2017 - fiscal 2021 STIP including improvements along Blue Hill Avenue and Warren Streets, reconstruction of Melnea Cass Boulevard, improvements to Boylston Street, repairs to the North Washington Street Bridge, signal and intersection improvements at the intersection of the VFW parkway and Spring Street, reconstruction of Rutherford Avenue from City Square to Sullivan Square, and traffic signal improvements at ten locations across the city.

Given the needs and preferences of residents, the City has made investments into "greener" transportation for its residents, visitors and employees. A contract for a bike sharing program has put bike stations in various points around the City for users to rent for trips around town. In 2016, the Boston Transportation Department completed a bike count, counting an average of nearly 30,000 bike trips per day at over 60 locations across the City. In some locations, bike traffic accounted for more than 15% of vehicles during peak commute times.

The City itself has moved to limit emissions and increase the fuel economy of its fleet by purchasing hybrid vehicles and requiring new taxi cabs to be hybrids as well. With the national and international rise of car-sharing companies, the City is also running an internal fleet-sharing program. "FleetHub" is an online reservation system allowing City employees to reserve pooled vehicles for departmental use. This innovative system reduces the total number of vehicles needed by the City through vehicle-sharing across departments and functions and by increasing utilization of individual vehicles to their maximum. Thus far the system is functioning in 5 locations with 36 vehicles (including seventeen hybrids, eight electric, and five propane vehicles) shared among approximately 500 active drivers.

Regional Transportation

In 2014, Boston's Logan International Airport was the most active airport in New England, the 18th most active airport in the United States. In 2016, Logan served 36.3 million international and domestic passengers, a 8.5% increase from 2015. Logan Airport is also very important to the economy as a center for processing air cargo. In 2016, Logan Airport's air cargo and mail volume totaled 616.9 million pounds. This was a 7.1% increase from 2015 air cargo and mail volume.

The Port of Boston provides New England businesses with excellent deep-water port facilities and access to world ports, as well as feeder service to Halifax, Nova Scotia, and New York. The Port of Boston ranked as the 14th largest container port on the U.S. Atlantic Coast by container volume. The Port of Boston has also become a major cruise ship port, hosting 309,027 cruise ship passengers in 2016, a decrease of 6% from the year before.

National and International Travel

In 2013, Boston's Logan International Airport was the most active airport in New England, the 20th most active airport in the United States, and the 52th most active airport in the world. In 2015, Logan served over 33.4 million international and domestic passengers, a 5.7% increase from 2014. Logan Airport is also very important to the economy as a center for processing air cargo. In 2015, Logan Airport's air cargo and mail volume totaled 575.8 million pounds. This was a 1.7% decrease from 2014 air cargo and mail volume.

The Port of Boston provides New England businesses with excellent deep-water port facilities and access to world ports, as well as feeder service to Halifax, Nova Scotia, and New York. The Port of Boston ranked as the 14th largest container port on the U.S. Atlantic Coast by container volume. The Port of Boston has also become a major cruise ship port, hosting 328,305 cruise ship passengers in 2015, an increase of 4.2% from the year before.

Higher Education, Healthcare, Life Sciences, and Financial Services

Higher education, health care and financial services play a major role in Boston's economy. 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, 18.5% of total jobs. Educational services is an area of specialization for Boston with an employment share three times the national average.

Boston hosts 35 universities, colleges, and community colleges, with a combined enrollment of just under 140,000 students annually. Included among the City's colleges and universities are some of the finest educational institutions in the country, including Boston College, Boston University, and Northeastern University.

These institutions of higher education have a major effect on the City's economy. Because many of these students remain in Boston after graduation, the City's educational institutions are a major source of highly-skilled professionals for the City's workforce. Boston's colleges and universities contribute to the economy in ways beyond providing a work force to City businesses and maintaining a stable workforce of just below 50,000 themselves. In 2016, the Boston Planning and Development Agency (BPDA) approved 1.4 million new square feet of institutional development across the city. These new projects were primarily educational developments or expansions, and include a recreation center for Boston College, a student housing development for Northeastern University, and Harvard University received approval to resume construction on a Science and Engineering Complex.

Many of the nation's finest research and teaching hospitals are located in Boston, including Massachusetts General Hospital, Brigham and Women's Hospital, Beth Israel Deaconess Hospital, Boston Medical Center, Tufts Medical Center, and Boston Children's Hospital, as well as 25 community-based health centers. In total there are 21 inpatient hospitals in the City. Furthermore, the City is home to the medical and dental schools of Harvard University, Tufts University, and Boston University. In 2012, there were an estimated 127,000 people, or one in five of all Boston jobs, employed in health services in the City.

The Boston metropolitan area remains the nation's foremost region for the life sciences industry for consecutive years 2011 and 2012 according to the "2012 Life Sciences Cluster Report" a study by the realty group Jones Lang LaSalle. Boston's life science industry benefits from skilled labor force availability, leading universities in basic academic science fields, innovative research and development districts, proximity to major research hospitals, and strategic presence of venture capital resources. The study estimates that there are 74,000 employees in greater Boston within the industry sub-sectors of pharmaceuticals, biotechnology and medical devices; within the nation only San Diego has a greater percentage of its workforce in these industries.

Many of the country's leading financial services firms are located in Boston, including Fidelity Investments, John Hancock/Manulife Financial, State Street Corporation, and Wellington Management. In 2016, there were over 120,000 people employed in the finance, insurance and real estate industries in Boston.

Largest Private Employers in Boston

Over 10,000 Employees

Brigham & Women's Hospital Massachusetts General Hospital 5,000 to 9,999 Employees

Beth Israel Deaconess Medical Center
Boston Medical Center
Boston University
Children's Hospital Boston
Fidelity Investments (FMR Corp.)
Harvard University (Graduate Schools)
Northeastern University
State Street Bank & Trust Co

Figure 4

Travel, Tourism, and Culture

The City entertains many types of visitors each year. For those seeking historical sites, museums, sporting events, restaurants, theatre or business conventions, Boston is a great place to visit. According to the Greater Boston Convention and Visitors Bureau, an estimated 22.5 million people visited Boston in 2012. Of those, an estimated 1.5 million were international visitors to Boston and Cambridge.

Boston is an attractive destination for conventions, meetings, and gate shows. The **Boston Convention and Exhibition Center** (BCEC), located on a 60-acre site in South Boston, contains 516,000 square feet of contiguous exhibition space designed to accommodate larger conventions. This facility, along with new hotel projects in the City, has given a significant boost to the local economy. In 2016, the Boston Convention and Exhibition Center, along with the John B. Hynes Memorial Convention Center, hosted 255 events, with an aggregate of 762,521 attendees. Boston also has several other sites for small and medium size conventions and conferences including the World Trade Center and Bayside Exposition Center.

The City of Boston is home to five major professional sports teams: the Boston Red Sox baseball team which plays at historic Fenway Park, the Boston Bruins hockey team and the Boston Celtics basketball team, which both play at the TD Garden. The New England Patriots football and Revolution soccer teams play at Gillette Stadium in nearby Foxborough, MA. The New England Aquarium, Museum of Fine Arts, Isabella Stewart Gardener Museum, Institute of Contemporary Art, and many other attractions bring in thousands of tourists each year. The City also provides venues for concerts, ice shows, circuses and other entertainment performances as well as street festivals and parades in its neighborhoods and parks.

ECONOMIC HISTORY & OUTLOOK

During the 1960's, the national economy thrived and unemployment was consistently below 6% in the City. In the 1970's, Boston experienced the same pain felt across the country as the term "stagflation" was coined. The 1980's produced a period of great economic growth. The 1990's gave way to recession again with unemployment over 8% and a collapsing real estate market which transitioned into a long expansion with lower unemployment, more commercial development and increased home values. In the early 2000's, Boston experienced a mild recession along with the rest of the nation but continued to grow afterward. In 2008, the City was swept up with the nation in the "great recession". While Boston and Massachusetts did not fare as badly as some others, especially in the real estate market, the job loss and foreclosures were tough on the City indeed.

Housing

The housing market is a source of growth for many industries and is a barometer of economic health overall. Since the end of the most recent recession, the housing market has come back unevenly across the country. Boston is faring better than many other metropolitan areas that were harder hit to begin with.

Prices of existing homes are slowly increasing according to two sources of data. In the fourth quarter of 2016, the median sale price of a single-family home in Boston was \$488,750, an increase of 7.1% over the same quarter in 2015. A look at the cumulative change in the Freddie-Mac Home Price Index shows that cumulative

price changes since December 2004, negative since September 2008, finally turned positive in June 2013 and have remained positive, surpassing pre-recession peaks.

Indicators of the housing market in Boston continue to improve. According to the Greater Boston Association of Realtors, sales of Boston homes increased 0.5% between December 2015 and December 2016. Inventory of homes for sale is down, days on the market are down, and homes are selling for very close to asking price.

Rents and rental activity in the City have increased recently. The monthly median advertised rent across the entire city for all types and sizes of apartments increased slightly in 2016 to \$2,430. The rental unit vacancy rate was 2.2%.

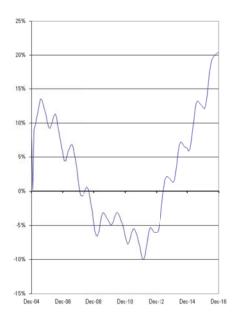


Figure 5 — Cumulative Change in Freddie Mac Home Price Index

December 2004-December 2016

Office Market

With Boston becoming such a white collar town, the market for office space is a strong indicator of the local economy. The City downtown area has roughly 66 million square feet of office space. During the fourth quarter of 2016, Boston's direct vacancy rate was 7.5%, according to realty firm Jones Lang LaSalle. Boston's annual net absorption of office space was 1.2 million square feet. Compared to this

time last year (fourth quarter of 2015), these figures have remained relatively unchanged.

In 2016, the Boston Planning and Development Agency (BPDA) approved 13 projects that include new office space, for a total of over 1.9 million new square feet of office space. The approved buildings will be mixed-use, with six including residential space. The new office developments will be located across the city: four in South Boston Waterfront, two each in South Boston and Roxbury, and one each in Brighton, Chinatown, Dorchester, Downtown, and the South End. Among these newly-approved projects is the GE headquarters in Fort Point, the New John Hancock building at 380 Stuart, and a 13-story office building in the South Boston Waterfront's Parcel Q1.

Hotels

Tourism is a big Boston industry supporting over 11,000 direct jobs in Boston for 2015, accounting for 1.9% of Boston's total payroll jobs, and 32.3% of Massachusetts' hotel industry employment.

The number of hotel rooms built, occupancy and room rate statistics are an indicator of the health of that industry.

The number of hotel rooms available in the City has grown dramatically over the last 10 years increasing from about 14,000 rooms to just below 20,000 rooms. Much of this was in response to demand resulting from the construction of the Boston Convention and Exhibition Center (BCEC). The BCEC and the smaller Hynes Convention Center produce considerable demand for hotel nights. Enough so that the Massachusetts Convention Center Authority (MCCA) is seeking to have two more hotels built on MCCA land abutting the BCEC to meet demand for more and closer hotel rooms for that facility. The two D Street hotels, the Aloft and Element, opened in February 2016, and the Godfrey hotel on Washington Street in Downtown Crossing opened in February 2016. In 2016 construction began on a hotel at Seaport Square Block J and the South Boston Boutique Hotel. Construction also commenced at the AC Hotel, a European "select-service" style hotel with 200 rooms, and the Moxy Hotel, a 346 room "micro" hotel in Downtown. The

BPDA board approved three other major hotel projects in 2016; the Haymarket Hotel, Chain Forge, and the Harbinger Hotel.

Boston's hotel market is doing well, both in terms of occupancy rates and average daily room rates. In 2016, the average daily room rate was \$255.51 and occupancy was at 81.2% citywide. These figures are a roughly stable with 2015.

Development

There are many long-term economic development projects proceeding in Boston. These include plans to develop the East Boston and South Boston waterfronts; further enhancements to Boston's neighborhoods through the Empowerment Zone and Main Streets initiatives; and continuing development of retail and business districts citywide. In December 2016, Reebok announced it would move its headquarters to Boston in fall of 2017, making it the third footwear company to move its headquarters to Boston.

Dudley Square, in the heart of the Roxbury neighborhood, is currently undergoing revitalization. The City completed construction of the Bruce C. Bolling municipal office building in Dudley Square in December 2014. It is now the new Boston Public School administrative headquarters, with approximately 500 School Department employees, primarily administrators, now working in the new building. The cost of design and construction was \$126.5 million. This project will help stimulate the economy around Dudley Square, allowing it to grow to its potential as a major neighborhood commercial center.

Longwood Center, a \$350 million project located in the heart of the Longwood Medical and Academic Area added 350,000 square feet of R&D space in Boston's strongest life sciences cluster. One-third of Longwood Center has already been leased to Dana Farber. In addition Vertex Pharmaceuticals moved into its newly constructed headquarters in January 2014. Most of Vertex's 1,300 employees in Massachusetts will work in the headquarters, and hundreds of additional jobs are expected to be added in the next several years. Including Vertex Pharmaceuticals, Boston has welcomed more

than 14 new life sciences companies accounting for more than 2,700 jobs in recent years.

The Commonwealth of Massachusetts, the City of Boston, and MassDevelopment closed in Spring 2014 on the issuance of \$37.8 million of I-cubed ("Infrastructure Investment Incentive") bonds supporting the cost of public infrastructure that is part of the Fan Pier and Vertex HQ development site in South Boston. In addition, The Commonwealth of Massachusetts, the City of Boston, and MassDevelopment closed in September 2015 on the issuance of \$34.8 million of I-cubed bonds for public infrastructure for the Boston Landing project in Brighton that includes an expanded HQ for New Balance, Inc. and a new commuter rail station. An additional \$6 million was recently approved in 2017 to complete the \$16 million I-cubed financing in support of the Van Ness mixed-use project in Fenway. Most recently, the City gave local approval for \$30 million in potential Icubed bond issuance to a project at the site of the old Boston Garden with public infrastructure improvements to North Station targeted. Final approval by the state is required before bonds can be issued. The City still has additional bonding authorization for I-cubed financing due primarily to the state's expanding the total funding allowed statewide in the Icubed program.

Not all development happens in downtown Boston. Revitalization of Boston's neighborhoods occurs through organizations such as Boston Main Streets Program. Main Streets is a partnership between the City and the National Trust for Historic Preservation to improve the local business climate in neighborhoods. The program provides businesses with resources for storefront improvements, programs and training, and local events and promotions to support local businesses. There are currently twenty Boston business districts participating in the Main Streets program. In FY16, 106 new and expanded businesses opened in Main Streets districts, creating 596 new jobs. The Main Streets Program has improved the marketability and business strategy of business districts, and preserved the character of surrounding residential areas.

Twenty-four new or expanded supermarkets have opened in Boston neighborhoods since 1992, bringing the total to 54, with several more projects underway. In 2015, The Boston Public Market, a year-round market featuring fresh, locally sourced food, opened on Hanover Street. Whole Foods Market in the South End, Roche Brothers in Downtown Crossing, and the expanded tropical foods market in Roxbury also opened in 2015. Additionally, Bfresh opened in Brighton in August of 2016. Among the projects currently under construction, there is a 60,000 square foot Star Market at the Hub on Causeway at TD Garden. Once complete, this Star Market will be Boston's largest supermarket.