Boston's Economy

Pre-Pandemic Baseline



The Boston Planning & Development Agency

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 BPDA, the City of Boston, and related organizations.

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Summary of Recent Trends in Boston's Economy

Boston's Economy 2020 report is released during a time of economic upheaval due to COVID19. At the time of this report, the full economic impacts of the pandemic are not yet known. The BPDA Research Division will analyze these economic impacts on Boston in future reports. This report uses economic data from 2018 and 2019 to create a profile of Boston's economy prior to the current crisis.

Economic Growth

Boston's economy grew by 3.8 percent from 2017 to 2018 as measured by Gross City Product (GCP), continuing an upward trend in GCP since 2013. Per capita income for Boston residents grew by 2.7 percent to \$43,367.1

Unemployment

The annual unemployment rate for 2019 was 2.6 percent.

Job Growth

From 2017 to 2018, Boston's total payroll and non-payroll jobs increased 2.1 percent to 828,923. The healthcare and social assistance industry is the city's largest industry with 17.5 percent of to-

tal employment. Job growth was concentrated in transportation and warehousing with more than 7,000 new jobs.

Wages

From 2017 to 2018, average weekly payroll compensation in Boston rose 2.8 percent in real terms to \$1,977.

Commercial Real Estate

Commercial office rent rose 16 percent from 2018 to 2019, reaching \$71 per square foot.² The BPDA approved 1.8 million square feet of new office space in 2019.

Housing

Overall, 3,700 new housing units were built in Boston in 2019.³ Housing prices appeared to stabilize in 2019, with single-family home sales prices increasing by 1.8 percent and condominium sales prices decreasing by 1.1 percent.⁴ The weighted average advertised rent for an apartment in Boston was \$2,481 in 2019, down 0.4 percent in real terms from the year before.⁵

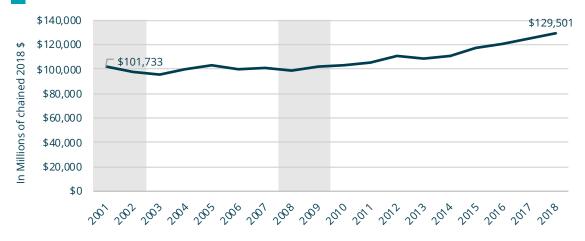
Economic Growth

Boston Economic Growth

Building on strong growth from the prior year, Boston's economy grew by 3.8 percent from 2017 to 2018 as measured by real Gross City Product (GCP).6 Boston's real GCP has grown steadily over the past five years. For 2018, Boston's GCP rep-

resents an estimated \$129.5 billion of economic activity generated in the city. Figure 1 depicts the growth of Boston's GCP from 2001 to 2018, in chained 2018 dollars.





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

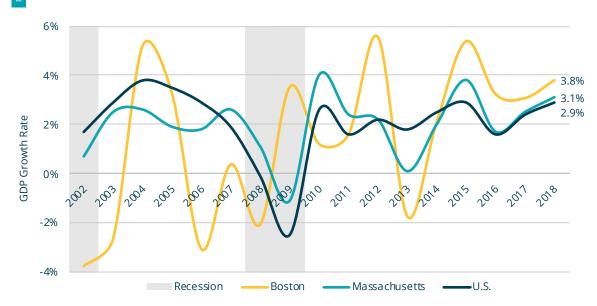
Boston's share of statewide economic activity has been slowly increasing from 20.3 percent in 2010 to 22.7 percent in 2018. After briefly dipping below the national and state growth rates in 2013, Boston's economic growth in each of the past four years surpassed that of Massachusetts and the U.S., which grew by 3.1 percent and 2.9 percent respectively from 2017 to 2018.

Figure 2 shows the economic growth rates for Bos-

ton, Massachusetts, and the U.S. From 2010 to 2018, Boston had compound real annual growth of 2.8 percent, compared to 2.2 and 2.3 percent growth respectively at the state and national levels.

Annual data for 2019 are not yet available for Boston. At the state and national level, annual real GDP growth continued at 2.5 and 2.3 percent, respectively, from 2018 to 2019.

Real GDP growth rate for Boston, Massachusetts, and the U.S., 2002 to 2018



Source: U.S. BEA, Massachusetts EOLWD, BPDA Research Division Analysis.

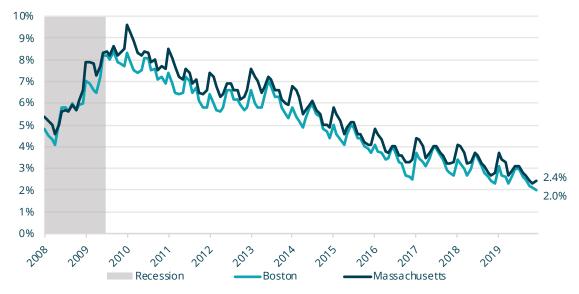
Employment and Wages

Boston's resident labor force grew by more than 5,000 people from 2018 to 2019.7 Through 2019, city residents continued to enjoy historically low levels of unemployment. In 2019, Boston had an average unemployment rate of 2.6 percent. Monthly unemployment rates for Boston have remained under 5 percent since August of 2015, and below 4 percent since July 2017.

Since 2008, Boston's unemployment rate has generally been lower than Massachusetts, though the state and city rates were the same for parts of the

summer in 2009, 2016, and 2017. Unemployment tends to be lowest in December and highest during the summer months. The unemployment rate for 2019 fluctuated between a low of 2.0 percent in December and a high of 3.1 percent in January. While seasonally adjusted unemployment rates are available for the national and state level, only unadjusted rates are available for the city. As of January 2020, the unemployment rate was 2.7 percent for Boston, 3.4 percent for Massachusetts, and 3.6 percent for the United States as a whole.

Monthly Unemployment Rates in Boston and Massachusetts, January 2008 to December 2019



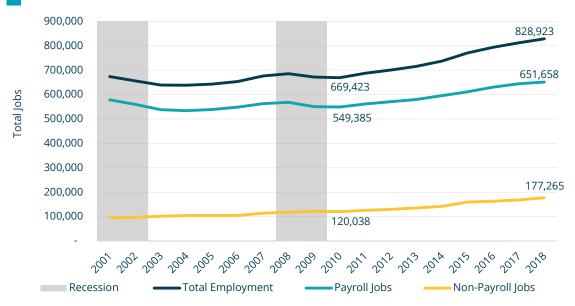
Source: U.S. BEA, Massachusetts EOLWD, BPDA Research Division Analysis.

Jobs Located in Boston

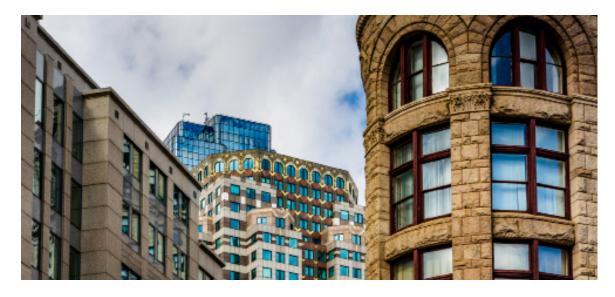
Boston is a regional employment center that offers job opportunities for city residents and workers throughout the region. Job growth in Boston has contributed to low unemployment in the greater metropolitan area. The total number of payroll and non-payroll jobs in Boston rose to

828,923 in 2018, the highest level since detailed employment data became available in 1969. From 2017 to 2018, Boston added 16,770 jobs, an increase of 2.1 percent that outpaced both Massachusetts and the nation.8

Boston's Payroll and Non-Payroll Jobs, 2001 to 2018



Source: U.S BEA, Massachusetts EOLWD, BPDA Research Division Analysis.



Jobs by Industry

The largest industry in Boston is health care and social assistance with over 145,000 jobs, 17.5 percent of total employment, as shown in Table 1. Five of the ten largest employers in Boston are hospitals: Massachusetts General Hospital, Brigham and Women's Hospital, Boston Children's Hospital, Beth Israel Deaconess Medical Center, and Boston Medical Center. Professional, scientific, and technical services, which covers

a variety of industries including computer systems design, scientific research and development, management consulting, architecture, and law comprises the second largest share of Boston's employment. Finance and insurance firms such as State Street Bank, Fidelity Investments, Liberty Mutual, and John Hancock also employ large numbers of people in Boston.

Boston's Total Payroll and Non-Payroll Jobs by Industry, 2018

Industry	2018	Percent of Total	
Health Care and Social Assistance	145,150	17.5%	
Professional, Scientific, and Technical Services	105,985	12.8%	
Finance and Insurance	93,042	11.2%	
Government	75,116	9.1%	
Accomodation and Food Services	65,927	8.0%	
Educational Services	59,486	7.2%	
Transportation and Warehousing	41,515	5.0%	
Administrative and Waste Services	40,475	4.9%	
Retail Trade	38,487	4.6%	
Real Estate and Rental and Leasing	38,178	4.6%	
Other Services, excluding Public Admin.	33,360	4.0%	
Construction	21,714	2.6%	
Information	20,952	2.5%	
Arts, Entertainment, and Recreation	19,495	2.4%	
Wholesale Trade	10,192	1.2%	
Management of Companies and Enterprises	9,735	1.2%	
Manufacturing	8,098	1.0%	
Utilities	1,661	0.2%	
Natural Resources and Mining	355	0.04%	
Total	828,923	100%	

Note: Columns may not add due to rounding.

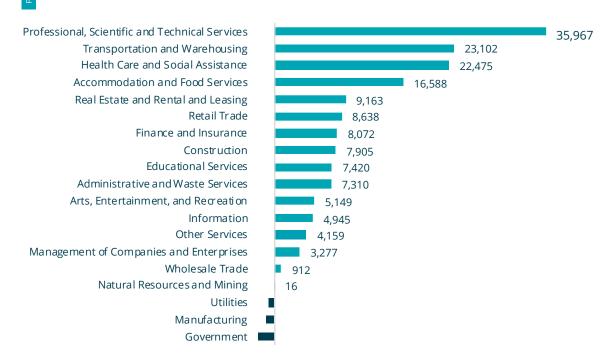
Source: U.S BEA, Massachusetts EOLWD, BPDA Research Division Analysis.

Job Growth by Industry

From 2017 to 2018, Boston's job growth was concentrated in transportation and warehousing (7,242 new jobs), retail trade (2,743 new jobs) and information (1,513 new jobs). Professional, scientific, and technical services, healthcare and social assistance, and transportation and warehousing added the most jobs from 2010 to 2018, as shown in Figure 5. Job growth was positive across all industries except utilities, manufacturing, finance and insurance, health care and social assistance, and government.

High tech industries, here classified as a subset of professional, scientific, and technical services, information, and manufacturing with a high percentage of their workforce in science, technology, engineering and math (STEM) occupations, averaged 3.0 percent job growth each year between 2010 and 2018.9

Boston's Total Job Growth, 2010 to 2018



Source: U.S BEA, Massachusetts EOLWD, BPDA Research Division Analysis.

Wages by Industry

From 2017 to 2018, average weekly payroll compensation in Boston rose 2.8 percent in real terms to \$1,977 according to data compiled by Massachusetts Executive Office of Labor and Workforce Development (EOLWD) based on employer filings. This measure of compensation includes bonuses, stock options, severance pay, travel reimbursement, tips and other gratuities, and employer contributions to certain deferred compensation plans, such as 401(k) plans. Because these employer filings represent the most comprehensive source of employment data at the local level, they are the best source for tracking year-to-year changes in local wages, particularly when disaggregating to the industry level.

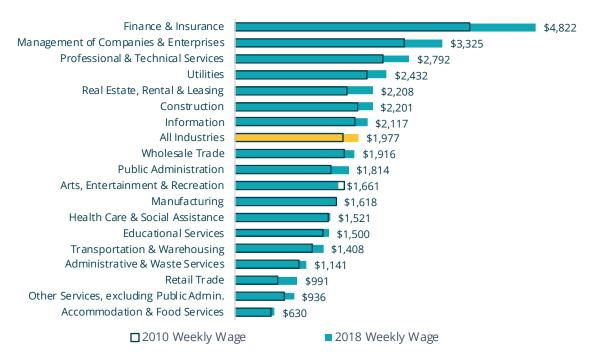
Annualizing this weekly wage over 52 weeks yields an estimate of \$102,804. This likely overstates the annual pay of the typical worker for a number of reasons. First, the average, unlike the median, is influenced by the very high pay of top earners. Second, some non-salaried workers are not typically employed for the full 52 weeks, even in an economy with low unemployment. About 83 percent of workers in Suffolk County who live in Massachusetts were employed 50 weeks or more in 2018, according to the American Community Survey (ACS), while nearly 10 percent were employed for 40 weeks or fewer.¹⁰ Accompodation and food services, arts, recreation and entertainment, retail, education, and construction all have below average rates of full-year employment.

Across all industries, the ACS reports that the mean wage earnings for full-time, full-year workers in Suffolk County who live in Massachusetts was \$97,505 in 2018, while the median was \$70,000.

Shown in Figure 6, the highest wages were in finance and insurance (\$4,822/week), management (\$3,325/week), and professional, scientific, and technical services (\$2,792/week). The lowest wages were in retail (\$991/week) and accommodation and food services (\$630/week). While the accommodation and food service industry provides a large number of jobs, low wages are a concern, as the industry average wage barely clears the living wage as defined by Boston's Living Wage Ordinance.11

The average weekly payroll wage for jobs in Boston rose an average of 1.6 percent a year, in real terms, from 2010 to 2018. Wage growth was higher from 2017 to 2018 at 2.8 percent. The most highly paid industries saw the greatest absolute gains in real wages from 2010 to 2018. Finance and insurance gained an extra \$1,058/week, management of companies and enterprises gained \$603/week, and professional, scientific, and technical services gained \$418/week. The lowest paid industries had modest gains in wage growth—accommodation and food services gained \$55/week, other services gained \$156/week, and administrative and waste services gained \$121/week from 2010 to 2018. Of all industries, retail trade had the highest wage growth rate of all industries at six percent from 2010 to 2018. It is possible that increases to the Massachusetts minimum wage contributed to the wage gains for low-wage workers.¹² Arts, entertainment, and recreation, and durable goods manufacturing had small declines in wages during the same time period.

Average Weekly Wages by Industry for 2010 and 2018 In Fixed 2018 Dollars



Source: Massachusetts EOLWD, BPDA Research Division Analysis.

SPOTLIGHT SECTION

Biomedical Research in Boston

Nationwide, Boston is recognized as a predominant player in the Biomedical Research field. From 1994 to 2018, Boston was awarded the most National Institutes of Health (NIH) funds in the U.S., before tying New York City for first place in 2019. In FY 2019, 4,008 NIH awards were given to 59 organizations in Boston, for a total of \$2,188 million.

In FY 2019, the independent hospital awarded the most funding by NIH nationwide was Massachusetts General Hospital, which received \$499 million. The top five hospitals nationwide also included Brigham and Women's Hospital, which received \$338 million, and Boston Children's Hospital, which received \$196 million.13 NIH funding included grants to the Boston College Niu lab for gene research,14 Harvard Medical School for a device to better analyze cells,15 and the Boston University School of Medicine for the Post-baccalaureate Research Education Program.¹⁶ Additionally,

the Dana-Farber Cancer Institute received \$159 million in funding.

According to Jones Lang LaSalle, the Boston Metro area has the most square footage of market laboratory space among life science clusters nationwide.¹⁷ There is a total of 23.9 million market square footage of laboratory space in the area with a low vacancy rate of 5.8 percent. The Boston Metro also has a higher density of occupied labs at 236 square footage per employee, compared to a general lab per employee standard of 333 square footage per employee from the report "Characterizing the Laboratory Market". 18 This may reflect firms economizing on space in the tight Boston Metro lab market, where future development might allow the market to return towards the industry standard range. According to the Greater Boston Chamber of Commerce, every dollar of research funding contributes \$2.60 to the Boston economy.19



Real Estate Market Trends

Development Pipeline

The BPDA oversees a development review process (Article 80) that requires BPDA Board approval of all development projects larger than 20,000 square feet, or residential projects with 15 or more units. The volume of projects approved by the BPDA Board is an indicator of future real estate growth. From January 2014 through December 2019, 66.8 million square feet of development was approved by the BPDA Board, half of which was residential development totaling 34.2 million square feet. In 2019, the BPDA Board approved 10.0 million square feet of new developments in the city, as shown in Figure 7.

Article 80 Development Approved by the BPDA Board, 2014 to 2019 In Millions of Square Feet



Source: BPDA Research Division Analysis, BPDA Pipeline Database, January 2020.

Construction

The number of construction hours worked in Boston in projects subject to the Boston Resident Jobs Policy suggests that the level of construction activity remained strong through 2019.20 Total construction hours worked rose from 9.2 million in 2017 to 10.3 million in 2018 to 11.8 million in 2019.

Table 2 provides annual building permit revenues and an estimate of construction activity in the city for fiscal years 2010 to 2019. In fiscal year (FY)

2019, building permits issued in Boston generated \$61.8 million in revenue. Between 2018 and 2019, building permit revenue increased by 15 percent in fixed terms. Building permits issued do not necessarily result in construction activity, but the estimated revenue from building permit fees during fiscal year 2019 indicated the potential for \$7.2 billion in construction activity. This is higher than the 10-year average of \$4.95 billion and higher than the estimated \$5.5 billion of activity that took place in fiscal year 2018.

Boston's Building Permit Revenues and Estimated Construction Activity, FY2009-2019 In Fixed 2019 dollars

Year	Building Permit Revenues, in millions of dollars		
2010	\$17.4	\$2,037	
2011	\$26.7	\$3,137	
2012	\$36.3	\$4,266	
2013	\$32.2	\$3,777	
2014	\$43.3	\$5,091	
2015	\$55.8	\$6,563	
2016	\$55.7	\$6,552	
2017	\$64.6	\$7,602	
2018	\$53.9	\$5,524	
2019	\$61.8	\$7,273	
Boston Total	\$385.8	\$44,549	
Annual Average	\$42.9	\$4,950	

Note: Columns may not add due to rounding. Potential construction activty is estimated by dividing permit revenues by 0.85 percent, which is the midpoint between permit fees calculated at 0.7 percent of the first \$100,00 estimated value of development cost, and 1.0 percent for the remainder of development cost.

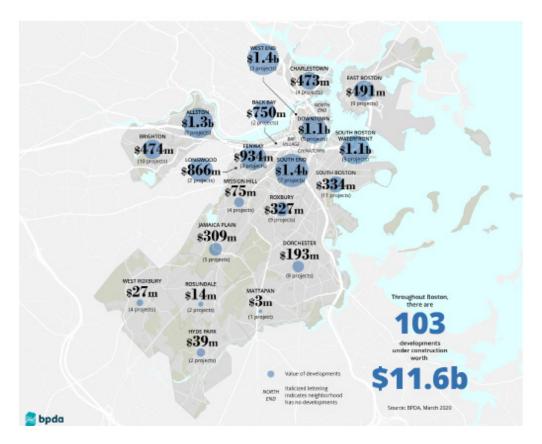
Source: City of Boston, Auditing Department Comprehensive Annual Financial Report, BPDA Research Division Analysis, January 2020.

The map below shows the neighborhood distribution of the 103 Article 80 developments under

construction throughout the city as of February 2020.



Dollar Value of Under Construction Developments by Neighborhood, February 2020



Source: BPDA Pipeline Database. Map created by BPDA Office of Digital Cartography and GIS, March 2020.

Projects Currently Under Construction

Some noteworthy projects that are currently under construction include:

- The Omni Hotel in the South Boston Waterfront broke ground in 2019 and the hotel will feature 1,055 guest rooms and 52 suites, with an all-day restaurant, fitness center, spa and the largest hotel ballroom in the Seaport. It is currently set to open in early 2021.
- Phase 2 of redevelopment of the North Station Boston TD Garden is currently under construction and will consist of a 38-story residential tower with approximately 440 units and an 11-story hotel with 269 rooms.
- The redevelopment of the Boston Globe Headquarters into **BEAT** (Boston Exchange for Accelerated Technology) is underway in Dorchester, it is a 695,000 square foot office building with creative office, technology and life science uses.

- Harvard University continues work within Harvard University's Allston Campus Master Plan on a 550,500 square-foot Science and Engineering Complex.
- The Washington Street Block project in the South End began construction in June of 2019. This 617,216 square foot project will include 536 residential units, 139 of which will be income-restricted, in addition to groundfloor retail.
- 125 Amory Street Development in Jamaica Plain began construction in early 2019. This project includes the renovation of an existing apartment building, home to low-income seniors, and the construction of 349 new units of rental housing, 134 of which will be income restricted.



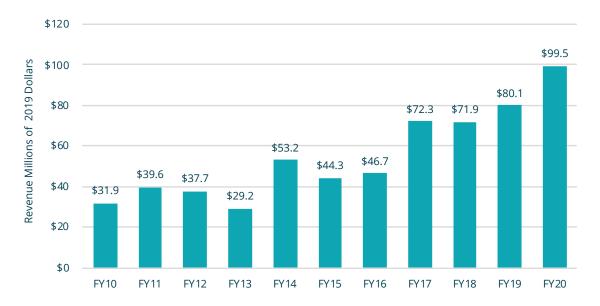
Source: Photo Rendering of Redevelopment of the North Station Boston TD Garden, Boston Properties, 2018.

Completed Developments

The property tax levy has grown strongly for the past five years as Boston continues to build. Figure 8 shows the growth of the new property tax

levy for FY2009 to FY2020. In FY2020, levies grew by \$99.5 million due to major developments added to the tax rolls.²¹

Property Tax Revenue from New Development In Millions of Fixed 2019 Dollars



Source: City of Boston Assessing Department, "Property Tax Facts and Figures: FY 2010 to 2020", BPDA Research Division Analysis.

Commercial & Office Market Trends

Nationally, office employment is projected to grow by 0.3 percent in 2020, this national growth will be driven by tech centers like Boston.²² Boston has experienced sustained job growth since 2010, particularly in industries such as professional, scientific, and technical services and finance and insurance that require commercial office space. Employment growth has driven increased demand for office space in Boston.

According to the BPDA development pipeline database, the citywide inventory of commercial office space grew by 7 million square feet from 2014 to 2019. As of 2019, there was approximately 114.4 million square feet of office space in Boston.²³ Certain neighborhoods in Boston are particularly dense with office space development. Downtown, which includes the Financial District, remains Boston's largest commercial office market with 48.5 million square feet of office space, followed by Back Bay with 17.6 million square feet and the South Boston Waterfront with nearly 14.8 million square feet. South Boston Waterfront is a rapidly growing neighborhood; it added the most new office space between 2014 and 2019, building just over 3 million square feet. Allston and Brighton, characteristically residential neighborhoods, have added 2.1 million square feet of office space from 2014 to 2019.

Boston's Inventory of Commercial Office Real Estate by Neighborhood, 2014-2019

Neighborhood	Existing Stock SF, 2019	Completed Construction SF, 2019	Completed Construction SF, 2014 to 2019
Allston & Brighton	3,502,500	-	2,145,900
Back Bay	17,565,600	-	-
Charlestown & East Boston	4,167,400	-	370,000
Downtown	48,466,800	-	235,700
Jamaica Plain & Roslindale & Mattapan	954,400	1,000	14,000
Longwood & Fenway	8,417,800	-	508,200
North End	2,218,500	-	187,200
West End & Beacon Hill	6,244,000	-	191,700
Roxbury & Dorchester	3,913,200	-	83,900
South Boston Waterfront	14,759,900	111,300	3,090,000
South Boston	486,100	-	-
South End	3,693,000	13,900	173,900
Boston Total	114,389,200	126,200	7,000,500

Note: Neighborhoods were adapted to BPDA standard neighborhoods from CoStar listed neighborhoods. Numbers were rounded to nearest 100, therefore columns may not sum to total.

Source: CoStar Analytics, BPDA Pipeline Database, BPDA Research Division Analysis, 2020.

Major Recent Commercial Completions:

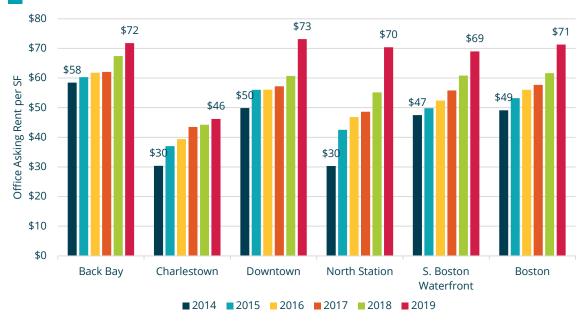
- A large project at 63 Melcher Street in the South Boston Waterfront completed construction, adding 111,000 square feet of office space.
- Phase 1 of Landmark Center in the Fenway, which includes renovations to the Sears Building and the creation of a new park, was completed in 2019.
- Phase 1 of the Hub on Causeway at North Station delivered 162,000 square feet of office space and 234,000 square feet of retail in late 2018.

submarket has surpassed Back Bay for highest average rent of the submarkets, averaging \$73 per square foot, \$23 higher than in 2014. Back Bay remains relatively high within the Boston market, with rents averaging \$72 per square foot, \$14 higher than the 2014 average. North Station saw both the largest 2018 to 2019 rent increase and the largest overall increase since 2014, with average rent per square foot increasing 133%. Overall, rents in Charlestown remain the lowest of all the identified office submarkets.

Office Rents

As shown in Figure 9, Boston's overall average rent per square foot has increased from \$49 to \$71, a 45% increase from 2014 to 2019. The Downtown

Boston's Office Asking Rents per Square Foot by Neighborhood, 2019 In Fixed 2019 Dollars



Note: Due to changes in JLL reporting, the South End neighborhood is no longer included and the Financial District area has been renamed to Downtown.

Source: JLL "Office Statistics: Boston Q3 2019", BPDA Research Division Analysis.

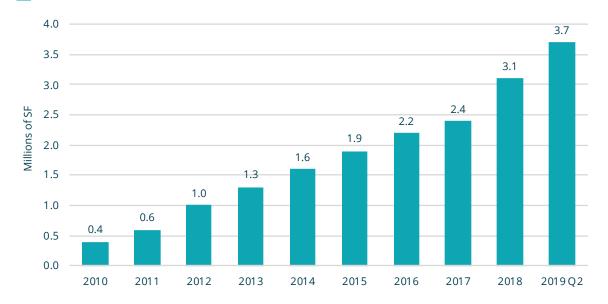
Flexible and Coworking Spaces

Coworking or flexible office space is a growing share of the commercial and office real estate market nationwide. Coworking varies from traditional office rentals by providing short-term memberships to an existing office space for individuals or businesses. Coworking is often thought of as a service for entrepreneurs, freelancers, and startup companies. However, this industry is growing and many corporate and traditional companies are increasingly leasing up flex or coworking spaces and traditional companies now comprise 40 percent of coworking industry revenue.24

According to Jones Lang and LaSalle (JLL), flexible office inventory grew to 51.2 million square feet nationwide by 2017. The expansion of the flexible space/coworking market accounts for a quarter of total U.S. office space absorption from 2015 to 2017.

The Greater Boston area ranks third in the United States for total leased coworking square footage. According to the recent report from commercial brokerage firm CBRE, coworking space accounts for 1.7 percent of Boston's office inventory in the second quarter of 2019. Boston's 1.7 percent still lags the national average of 1.8 percent and it is well below the coworking shares in San Francisco (4.0 percent) and Manhattan (3.6 percent). The chart below shows the historical growth of coworking space in Boston region:

Coworking Office Space Inventory (in millions of SF)



Source: CBRE Research The U.S. Flexible Office Market in 2019, Boston Section.

From 2010 to the second quarter of 2019, the Boston' coworking space expanded by about 3.3 million square feet and coworking space as a share of the office market increased from near zero to 1.7 percent. Boston coworking space experienced an explosion of growth from 2017 to the second quarter of 2019, with an increase of 54 percent. WeWork, the largest coworking space operator in the Boston Region, increased by over 90 percent from 2018 to 2019. In Boston alone, WeWork operates 13 locations and retains a significant portion of the coworking/flexible space market share. In addition, other coworking companies including Industrious, WorkBar, and Oficio have multiple locations in Boston.

The table below shows the largest operators of coworking space in the Greater Boston Area by square footage.

The Largest Coworking Space Operators in Greater Boston in 2019, by square feet

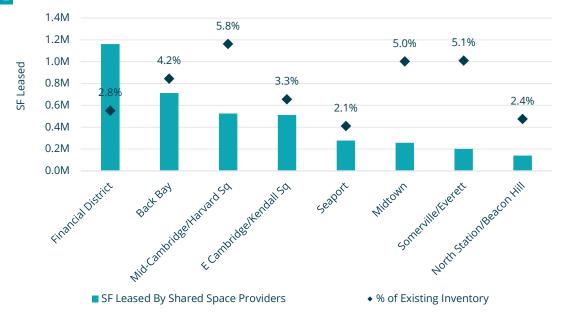
Space Operator	Total Square Footage
WeWork	1,464,106
Regus	434,160
Cambridge Innovation Center	432,500
SmartLabs	219,800
Industrious	111,900
Workbar	104,400
Greentown Labs	93,000
Flex by BXP	88,900

Source: CoStar Analytics.

According to CoStar, in 2019, the Financial District and Back Bay had nearly 2 million square feet of coworking space. Coworking space accounted for 2.8 percent of office inventory in the Financial District and 4.2 percent of office inventory in Back Bay.

Coworking/flexible office space has altered the commercial real estate market. Since 2010, the sector grew at an average rate of 22 percent. It is uncertain how flexible office space will fare in this time of economic uncertainty, given Covid-19/ Coronavirus and the devaluation of the WeWork company. However, the underlying trend of companies and individuals demanding pre-built, flexible leasing and amenity rich space will likely continue.

Total Square Footage Leased by Coworking Space Providers by Submarket, 2019



Source: CoStar Analytics, BPDA Research Division Analysis.

Office Vacancy

As shown in Table 5, third quarter office vacancies for 2019 were 7.4 percent citywide, up 0.6 percentage point from the previous year, flattening the trend of declining vacancies year-over-year since 2014. Within the city's submarkets tracked by Jones Lang LaSalle (JLL), three neighborhoods

showed an increase in vacancy rates. The Seaport District, North Station, and Charlestown all had slight increases. Notably, Fenway had a dramatic decrease to 0 percent, down from 7.1 percent the previous year. Downtown and Back Bay also had modest decreases.

Boston's Office Vacancy Rates by Neighborhood, 2014-2019

Neighborhood	2014	2015	2016	2017	2018	2019
Back Bay	11.2%	11.0%	7.0%	8.7%	7.0%	4.5%
Charlestown	11.9%	5.8%	3.7%	3.3%	0.7%	1.6%
Fenway	5.5%	14.5%	2.6%	1.4%	7.1%	0.0%
Downtown	12.7%	8.8%	8.8%	7.5%	7.7%	6.7%
North Station	4.5%	4.3%	4.3%	2.7%	1.5%	4.2%
Seaport District	7.3%	7.3%	7.3%	5.5%	6.6%	9.4%
Total Boston	10.9%	8.9%	7.5%	6.7%	6.8%	7.4%

Source: JLL "Office Statistics: Boston Q3 2019", BPDA Research Division Analysis.

Future Commercial Office Development

In 2019, the BPDA approved 1.8 million square feet of new office space. These office developments will come on line over the coming years.

Approved projects with office space include:

- 10 Stack Street, which is part of the Hood Park Master Plan in Charlestown. Once complete, this office building will bring 340,000 square feet of office space as well as groundfloor retail.
- The **Allston Yards** project, which is adjacent to the Boston Landing Commuter Rail Station, was approved in late 2019. In addition to 352,000 square feet of office space, this mixed-use project will also have residential, retail, public open space, and even a flagship grocery store.
- In August, the Board approved Turnpike Air Rights Parcel 12, a project in Back Bay on Boylston Street. This project will provide retail, hotel, and parking space as well as 450,000 square feet of office space and create half an acre of publicly accessible open space consisting of a civic plaza and an elevated landscaped plaza.
- The upgrades to One Post Office Square, adjacent to Post Office Square Park Downtown, began construction in June of 2019. These upgrades include ground-floor retail, a below-ground parking deck, and 191,000 square feet of office space.

- Construction began on Phase 3 of the **Hub on** Causeway at North Station, which consists of a 651,500 square foot office tower above the Podium building.
- In Charlestown, construction began on Cambridge Crossing, the two buildings of the NorthPoint project's mixed-use campus that will lie in Boston. This site is close to both the Community College MBTA station on the Orange Line and the Lechmere MBTA station on the Green Line, and will consist of 270,000 square feet of lab and office space.
- Bulfinch Crossing at One Congress, part of the Government Center Garage redevelopment, began construction in 2019. When complete, it will deliver just over one million square feet of office space.

Residential Market Trends

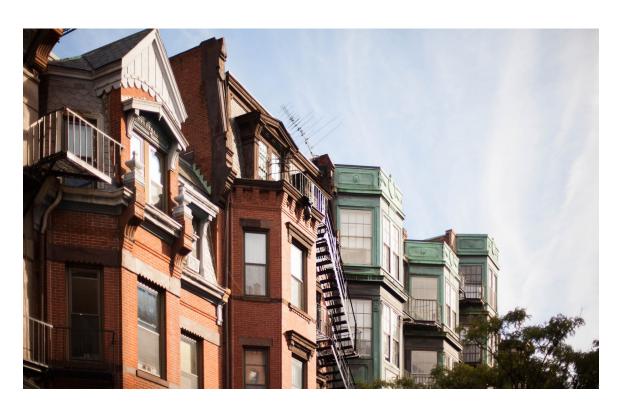
The 2018 American Community Survey (ACS) 1-year estimates that there are 274,674 occupied housing units in Boston, an increase of 6,370 occupied units from the 2017 ACS. The trend of Boston's growing population is holding strong and the city is still facing a need for adequate and affordable housing. BPDA population projections estimate Boston's 2030 population will be 759,000 residents, and the current housing stock would be unable to accommodate such growth.

The plan Housing A Changing City: Boston 2030 (HB2030), released in 2014, set a target to build 53,000 new units by 2030. With population continuing to grow rapidly, these goals were revised upwards in 2018, with a new target of 69,000

units, 15,820 of which will be income restricted. As of the end of 2019, the city has 24,419 units completed, 9,171 units permitted/under construction, 30,855 units in the pipeline, and 4,555 units remaining to meet the goal.²⁵ Overall, 3,700 new housing units were built in Boston in 2019.²⁶

Large residential completions of 2019:

- The Andi in South Bay in Dorchester: 475 units
- Hub on Causeway at North Station (phase
 2) in West End: 440 units
- The Echelon at Block M in the South Boston Waterfront: 255 units in 2019; 500 more projected to be online in 2020.

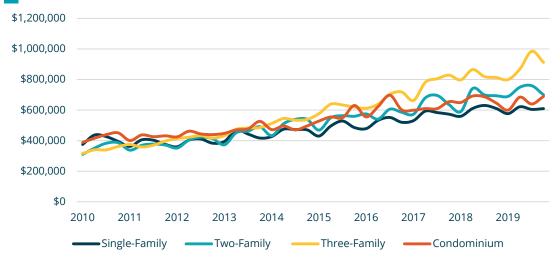


Housing Costs

In Q2 2019, the average cost of single-family homes in Boston was \$622,000, and the average cost of a condominium was \$685,000.²⁷ From Q2 2018 to Q2 2019, single-family home sales prices increased by 1.8 percent. However, the compounded annual growth rate of average single-family sales prices from Q2 2010 to Q2 2019 was 3.6 percent, suggesting a faster rise in prices over the last decade. For condominium sales, there was a decrease of 1.1 percent in average sales prices from Q2 2018 to Q2 2019. The decrease in condominium sales prices suggests stabilization of prices, since the condominium sales prices have risen year over year by 3.8 percent from Q 2010 to Q2 2019.

The sales volume of single-family homes decreased by 8.2 percent in 2019. Single-family homes represent a smaller proportion of available homes in Boston, compared to condominiums in a multi-family building. Condominium sales volumes were also down by 4.5 percent in 2019. The inventory of homes for sale in Boston is considerably low given the high demand for units. Data in Figure 12 show the average residential sale prices for the past decade.

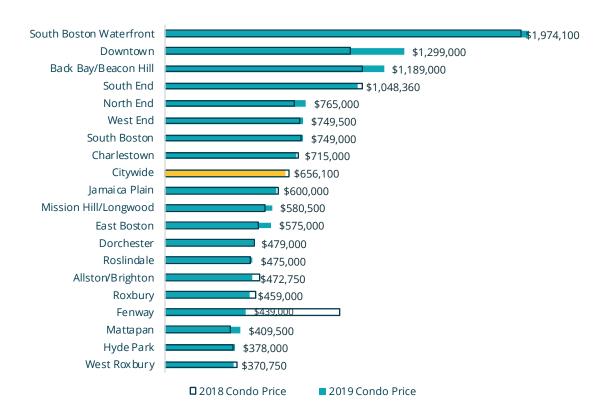




Source: City of Boston, DND using Banker and Tradesman Data, BPDA Research Division Analysis, January 2020.

Condominium sales volume and prices also showed variability across Boston neighborhoods in 2018 and 2019. The four most expensive neighborhoods for condominiums were South Boston Waterfront (\$1.97 million), Downtown (\$1.29 million), Back Bay and Beacon Hill (\$1.89 million) and South End (\$1.05 million). Additionally, Charlestown, South Boston, the North End and the West End all exceeded the citywide median condominium sale price of \$656,100, as shown in Figure 13.

Condo Sales Price by Neighborhood, 2018-2019



Source: City of Boston, Department of Neighborhood Development using Multiple Listing Service (MLS), Rental Beast, January 2020.

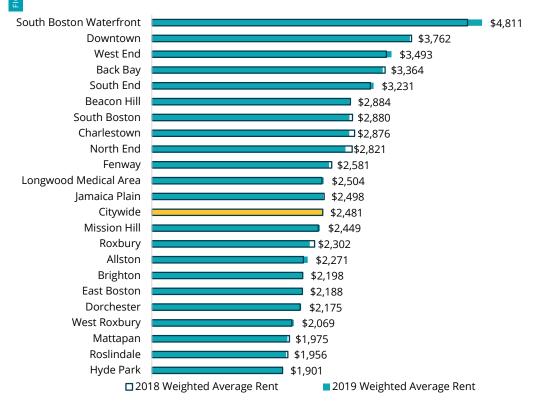
Residential Rents

Renters comprise a large share of the housing market in Boston. In 2018, 66 percent of occupied housing units were renter-occupied.²⁸ Rents have risen more slowly than sales prices over recent years. From 2010 to 2017, real median gross rents increased by an annual average of 3.2 percent. Gross rents are tenants' out-of-pocket costs in both market rate and subsidized housing units and are typically lower than advertised market rents for newly available units. The ACS housing data show the median gross monthly rent in Boston for 2018 was \$1,539. In real terms this is an increase of 4.0 percent over 2017.

Boston's Department of Neighborhood Development (DND) tracks rental listings to better understand recent trends in the rental market. The sample is of rental listings in a given month or year and it does not necessarily represent the composition of units in Boston as a whole, DND uses a weighted average methodology to compare rents across time periods. By holding the composition of units by bedroom and neighborhood constant between the comparison periods, this methodology isolates changes in rent levels from other changes in the sample. For instance, one year's data may contain a higher ratio of three bedroom to one bedroom units, or be more heavily weighted towards more expensive neighborhoods. Weighted averages adjust for any skewing in the sample by geography or bedroom type.

To do the weighting, DND calculates a "total value" for each neighborhood and bedroom type by multiplying the average listing rent by the number of occupied rental housing units from the 2014-2018 5-year ACS.²⁹ The weighted average advertised rent for an apartment in Boston was \$2,481 in 2019, down 0.4 percent in real terms from the year before.30 Rents rising at or below overall inflation reflects stabilization in the rental market compared to increases experienced in recent years. The highest advertised rents are in the South Boston Waterfront (\$4,811) and Downtown (\$3,762), while Hyde Park (\$1,901), Roslindale (\$1,956), and Mattapan (\$1,975) have the lowest rents. The year-to-year weighted average rent increases were smaller for 2018 to 2019 in comparison to year-to-year increases from 2017 to 2018. In 2019, South Boston Waterfront rents grew the fastest, increasing by 4.6 percent in real terms.





Source: City of Boston, DND using Multiple Listing Service (MLS), Rental Beast, January 2020.



Source: Photo of Mattapan, Alex MacLean/ Landslides Aerial Photography, 2014.

Residential Vacancies

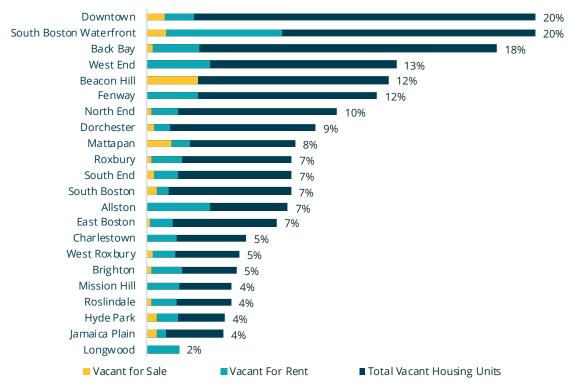
There were 289,763 housing units in Boston and of the 266,724 occupied units, 34 percent were owner-occupied and 66 percent were renter-occupied.31 Vacant housing units totaled 23,039, while the homeowner unit vacancy rate was 1.2 percent and the rental unit vacancy rate was 2.8 percent.32

Despite the growing housing stock, residential vacancy rates have been stable in the past ten years. According to the ACS, the range of overall residential vacancy has fluctuated between 7.9 to 9.1 percent in these past ten years. The share of housing units counted as vacant as defined by the U.S. Census Bureau was 8.0 percent in 2018, up slightly from the prior year, but on par with 2015.33 This inclusive definition of vacancy includes units for rent or sale, those rented or sold but not yet occupied, those for seasonal or occasional use, and those held off market because of legal proceedings, or because the units are being repaired or renovated.

The supply of housing units available for rent or sale remained tight. The rental vacancy rate- the number of rental units available for rent as a share of housing units either available for rent or currently rented- was 2.8 percent in 2018. This low level of vacancy puts upward pressure on rents. Housing experts estimate that rental vacancy rates around 7 percent are more consistent with stable rent levels.34 The 2018 homeowner vacancy rate decreased from 2017 and is now at 1.2 percent, which is still higher than the extreme lows of 0.4 to 0.8 percent in 2013 and 2014.

Downtown and Back Bay have high vacancy rates but relatively low ratios of vacant units that are for sale or for rent. These neighborhoods in particular have a higher rate of vacant units that are rented or sold but not occupied and vacant units for seasonal or recreational use. In comparison, other neighborhoods have lower vacancy rates overall and lower rental and owner units vacancy, as seen in Figure 15.

ម្គុំ Vacancy Rates by Neighborhood, 2018



Source: U.S. Census Bureau, ACS 5-year estimates, 2014-2018, BPDA Research Division Analysis.

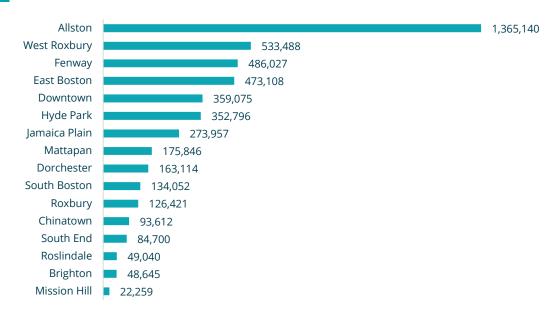
Future Residential Development

In 2019, the BPDA Board approved 10.0 million square feet of development including 4.7 million square feet of new residential development, which is on par with the approved square footage for 2017 but compared 2018. The total approved residential square footage translates to 4,715 potential new housing units across the city and of these units 1,226 will be income-restricted units.

Figure 16 shows the residential square footage approved by the neighborhood for 2019. Allston

had 1.3 million SF of residential space approved. Allston Yards and Allston Square were two large residential projects approved in 2019; respectively these projects had 868 residential units and 344 residential units. In Fenway, 435 residential units were approved in the 60 Kilmarnock Street project. An entirely income-restricted project at 3668 Washington Street in Jamaica Plain was approved for 202 residential units.

Approved Residential Square Footage by Neighborhood, 2019



Note: If a neighborhood is not listed, then it did not have any approved residential SF in 2019. Source: BPDA Pipeline Database, April 6, 2020.

Conclusion

For 2018 and 2019, Boston's economy overall held strong, continuing its growth from previous years. Boston's economic growth has topped that of Massachusetts and the nation for four years. Unemployment continued to stay low, and 2019 closed with an unemployment rate of 2.0 percent. The number of jobs in Boston grew by 2.1 percent from 2017 to 2018, while wage growth was 2.8 percent in real terms.

Healthcare and Social Assistance is the leading industry in Boston, capturing almost a quarter of employment. Boston is nationally recognized for its concentration of biomedical research and is one of the top NIH funding recipients in the nation

Boston's strong job creation has fueled a construction boom in the past few years. From 2014 to 2019, the BPDA approved 66.8 million square feet of new commercial and residential space. In

2019 alone, the BPDA approved 10 million square feet, of which 5.3 million square feet is commercial space and 4.7 million square feet is residential space.

The Housing Boston 2030 plan set a target to build 69,000 new housing units from 2010 to 2030. As of March 2020, Boston permitted nearly 34,000 housing units, almost halfway to the goal. In 2019, there were 3,700 housing units completed and the BPDA approved 4,715 new housing units.

Due to the Covid-19 pandemic and the havoc it has caused internationally, nationally, and locally, the city's economy is currently suffering from shutdowns and uncertainty. The BPDA Research Division will analyze these economic impacts on Boston in future reports as more data become available and the full effects of the pandemic become known.

Endnotes

- 1 U.S. Census Bureau, ACS 1-year estimates, 2017-2018, BPDA Research Division Analysis.
- 2 JLL "Office Statistics: Boston, Q3 2019", BPDA Research Division Analysis.
- 3 Department of Neighborhood Development, April 2020.
- 4 From Q2 2018 to Q2 2019.
- 5 In fixed 2019 dollars; Source: City of Boston, Department of Neighborhood Development using Multiple Listing Service (MLS), Rental Beast, January 2020.
- 6 On December 12, 2019, the Bureau of Economic Analysis (BEA) published the first official Gross Domestic Product (GDP) by county for 2001–2018. The Boston GCP estimate methodology is revised accordingly using Suffolk County (MA) GDP from 2001 to 2018. Previously, Massachusetts Gross State Product (GSP) released by BEA was the direct input for Boston GCP estimates. The new method based on county-level GDP allows Boston GCP to be aligned with BEA's Suffolk County GDP estimates. Using information on earnings by industry, rental and home values, and property tax collections from the four municipalities in the county, we calculate that 97.5% of production in Suffolk County occurred in Boston in 2018.
- 7 Massachusetts EOLWD, Labor Force and Unemployment Data, 2019.
- 8 U.S. BEA, Massachusetts EOLWD, BPDA Research Division Analysis.
- 9 The BPDA uses a definition of high tech industries originally developed by the Bureau of Labor Statistics (BLS). See BPDA Research Division "High Tech Industries in Boston" 2015. High tech employment growth was estimated using Massachusetts EOLWD ES-202 payroll employment data.
- 10 U.S. Census Bureau, ACS 1-year estimates, 2018, PUMS, BPDA Research Division Analysis.
- 11 Boston's Living Wage Ordinance requires most firms receiving city contracts or loans to pay a living wage of \$15.31 an hour to all employees as of July 1, 2019. This amount, updated annually, is based on federal poverty guidelines for a family of four.
- 12 Massachusetts' minimum wage was \$8.00 per hour in 2010 and \$11.00 per hour in 2018, a 19.2 percent increase in real terms. Minimum wage has gone up to \$12.75 as of January 2020.
- 13 National Institutes of Health, "NIH Funding by Location and Organization," FY 2019.
- 14 BC News, "BC chemist Jia Niu receives \$2.3M New Innovator Award."
- 15 The Harvard Gazette, "With federal funds, Harvard helps drive local economy."
- 16 The American Association for the Advancement of Science (AAAS), "BU's training program receives NIH funding."
- 17 Jones Lang LaSalle, "Life Sciences Outlook," 2019.
- 18 Ernest Orlando Lawrence Berkeley National Laboratory, Characterizing the Laboratory Market, March 2017.
- 19 Greater Boston Chamber of Commerce, Business for Federal Research Funding.
- 20 The BRJP covers private development projects over 100,000 square feet and public projects.
- 21 Boston Assessing Department, "Property Tax Facts and Figures Fiscal Year 2019."

- 22 CBRE Group, "U.S. Real Estate Market Outlook, 2020."
- 23 Costar Analytics.
- 24 Jones Lang Lasalle.
- 25 Kevin McColl, Housing Boston 2030 Performance, Boston Department of Neighborhood Development.
- 26 Department of Neighborhood Development, April 2020.
- 27 City of Boston, Department of Neighborhood Development, Banker & Tradesman Data, January 2020.
- 28 U.S. Census Bureau, ACS 1-year estimates, 2018.
- 29 Note: The total value for 0 to 3 bedroom units is combined, then divided by the total number of occupied 0 to 3 bedroom units in that neighborhood in the ACS to get the final weighted average.
- 30 In fixed 2019 dollars; Source: City of Boston, Department of Neighborhood Development using Multiple Listing Service (MLS) and Rental Beast, January 2020.
- 31 U.S. Census Bureau, ACS 1-year estimates, 2018.
- 32 U.S. Census Bureau, ACS 5-year estimates, 2014-2018.
- 33 U.S. Census Bureau, ACS 5-year estimates, 2014-2018.
- 34 Boston DND, "Housing a Changing City: Boston 2030," pp 129; Mallach, A. (2018).

Lincoln Institute of Land Policy. "The Empty House Next Door: Understanding and Reducing Vacancy and Hypervacancy in the United States," pp 11.

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