The Greater Boston Housing Report Card 2017

Ideas from the Urban Core

Responsive Development as a Model for Regional Growth

The Boston Foundation tBf

Northeastern University
School of Public Policy & Urban Affairs

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Responsive Development as a Model for Regional Growth

AUTHORS

Barry Bluestone

James Huessy

WITH ASSISTANCE FROM

Eleanor White, Ted Carman, William Reyelt, Tim Reardon, Clark Ziegler and Devin Quirk

EDITOR

Sandra Kendall, The Boston Foundation

Prepared by
The School of Public Policy and Urban Affairs
Northeastern University
for
The Boston Foundation

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Letter

Dear Friends,

This is the 15th *Greater Boston Housing Report Card* published by the Boston Foundation and researched and written by Barry Bluestone, Senior Fellow at the Boston Foundation and Professor of Political Economy at Northeastern University's School of Public Policy and Urban Affairs.

Over the years, these rich and detailed reports have reflected the ups and downs not only of our housing market, but our economy as a whole, including the perilous years of the Great Recession and the foreclosure crisis, which devastated some of Boston's hardest-hit neighborhoods.

In recent years, however, these reports have tracked a period of almost unbelievable economic growth, which began in earnest in 2009 and shows no sign of abating. Indeed, as reflected in these pages, today employment is at an all-time high, with close to 30,000 new jobs created in Greater Boston in the last year alone. Private sector average weekly wages have also hit an all-time high. And Boston, even with its high housing costs, continues to attract young adults and now is also serving as a magnet for retiring Baby Boomers, with seniors making up the fastest growing demographic group of all.

There is good news too about housing production. This report relies on data that measures the number of building permits issued for new housing units in each of Greater Boston's cities and towns. It projects that by the end of 2017, more than 12,900 permits will have been issued, an increase of 12 percent over last year. More good news is that two-thirds of these permits are for large multi-unit complexes—just the kind of housing we need for our young adults, seniors and working families.

The troubling news in this report is that not enough of this activity is taking place outside the City of Boston: In the surrounding cities and towns, fewer permits are being issued overall. Despite the success of Chapter 40R, which has led to the completion of more than 3,600 new housing units, with almost half of those affordable housing, zoning restrictions continue to seriously hamper housing development outside Boston.

Since the significance of the role of housing in Greater Boston's regional economy is hard to overstate, it is encouraging to see the progress that is being made in Boston. This momentum, however, has to extend beyond the urban core if we are to provide homes for the working families that deserve to pay far less of their monthly income for housing costs. If other cities and towns follow Boston's example, we finally will make real progress in responding to the need for affordable housing for everyone. For the first time, this year's *Greater Boston Housing Report Card* includes an innovative plan for achieving just that goal.

Paul S. Grogan
President and CEO
The Boston Foundation

Executive Summary

Each successive annual edition of the *Greater Boston Housing Report Card* since 2002 has included updated information on the state of the Massachusetts and Greater Boston economy; an analysis of changes in population demographics; data on housing production, housing foreclosures and the trajectory of home prices and rents; a review of new public housing policy; and an accounting of public sector funding both for encouraging the development and retention of housing and for combatting homelessness. In that regard, this report is no different. We strive to provide and analyze all the latest information on these dynamics.

In this year's report, however, we venture beyond analysis to propose a plan that could begin to address Greater Boston's growing housing challenge. It advocates for the development of a large array of "21st Century Villages" to serve the needs of young adults entering the workforce, Baby Boomers aging out of the workforce and, most importantly, middle-income working families who are facing ever higher hurdles to afford housing in the region.

To begin, let us summarize key findings.

The Massachusetts Economy

The Massachusetts economy continues to perform extraordinarily well. Economic growth in the Commonwealth as measured by increases in real output (the value of the total production of goods and services) has exceeded the growth in real output in the nation in every single year since 2009. Real inflation-adjusted gross domestic product has increased so fast in the Commonwealth that in 2016, Massachusetts ranked first in the nation in per capita output—up from sixth place in 2015.

Within this strong economy, total non-farm seasonally-adjusted employment has reached an all-time high in the Commonwealth, surpassing 3.5 million jobs, while real private sector average weekly wages, a figure that had been stagnating for years, has now hit an all-time high at $1,432 per week. The Greater Boston region has led the rest of the state in job creation with more than 29,000 new jobs just in the last year.

Greater Boston's Demographic and Economic Profile

The extraordinarily buoyant economy of the region continues to attract new arrivals, particularly among young adults. Since 2010, the five counties of Greater Boston have accounted for 87 percent of the growth in the state's population with Suffolk County leading the pack. Today, Suffolk County has nearly 9 percent more residents than in 2010, compared with just a 1.4 percent growth rate in the state outside of the five-county region.

As for its demographics, the fastest growing cohort includes those age 65 and older. Between 2010 and 2015 alone, this cohort increased in size by nearly 48,000. By 2015, seniors comprised 13.9 percent of the region's population. More and more, Greater Boston is also home to young adults 20 to 34. Hence, average household size remains about 2.6—well below the once typical family of four—suggesting a potential market for smaller housing units to accommodate the new demographic profile of the region.

Greater Boston continues to become more diverse, with Asian Americans, Hispanics and African Americans increasing in number and proportion. By 2015, nearly one-quarter (24%) of the population was Asian, Hispanic or black compared with 18 percent in 2000 and only 12 percent in 1990.

Renters in Greater Boston have a fraction of the income of homeowners. In 2015, the median income of homeowners was $103,267 compared with $43,583 for renters. As such, it is not surprising that those who face the toughest housing challenge in the region are those who rent rather than own their homes or apartments. The percentage of renter households now paying more than 30 percent of their gross income in rent is over 52—the highest percentage on record and up from 39 percent in 2000. And while homeowners tend to be less housing cost–burdened than renters, 36 percent now pay monthly mortgage and tax bills exceeding 30 percent of their gross income, also a record. *So, despite whatever progress the region has made in housing production, affordability is a greater problem than ever.*

Home Sales and Homeownership in Greater Boston

In what may the beginning of a new trend, home sales in Greater Boston are now declining. Our current estimate for 2017 suggests an 11.7 percent *decline* in single-family home sales by the end of the year. If this projection is true, 2017 will mark the largest year-over-year decline in single-family home sales since the beginning of the Great Recession in 2005. Condominium sales are also projected to decrease in 2017 by about 4.1 percent.

For the last few years, homeownership rates in the Greater Boston region have been declining. Younger residents are marrying later and having children later and many of them are overloaded with college debt. From a rate of 65.5 percent in 2008, the 2016 home ownership rate was down to 58.9 percent. While the rate may have risen a bit this year, it is still likely to be below 60 percent.

Housing Production in Greater Boston

To measure housing production, we rely on data measuring the number of building permits issued for new housing units in each Greater Boston city and town. This year there is some encouraging news. We project that by the end of 2017 more than 12,900 permits will have been issued, up from 11,500 in 2016, an increase of more than 12 percent.

Plans for larger housing complexes (five or more units) dominate this surge in permitting, in contrast to past years when most permits were for single-family homes. Such large multi-unit complexes are now responsible for two-thirds of all new permitting, up from less than 30 percent in 2000 and 40 percent in 2009.

Unfortunately, the new permitting is occurring in a relatively small number of the communities in Greater Boston. Outside of the city of Boston, fewer permits are being issued overall. Construction is also lagging. Only about 4,630 units of housing were built and ready for occupancy in the Boston metro market in 2016, down a full third (-33.6%) from the previous year and only slightly more than in 2014. Zoning restrictions in many of the region's cities and towns continue to hamper the development of needed housing, especially units in multifamily buildings and accessory apartments in single-family homes.

At the same time, one heartening sign in Boston is the sharp reduction in the time it takes for a developer to obtain a permit. Permits for larger multifamily developments took, on average, 425 days in 2014. Today, the wait time is less than 120 days.

Nevertheless, with the boom in luxury unit construction, rising development costs and limited subsidies for housing, the proportion of affordable housing units in total production in Boston has been falling since 2003. In the period 1996 to 2003, more than 39 percent of all permits were for affordable units. In the following period, 2004–2010, the proportion was down to less than 26 percent, and since 2011 the proportion has fallen to about 18 percent.

Student Housing Production in Boston

While there has been some progress in the permitting of undergraduate dormitory units since 2013, the number of *graduate* students keeps growing each year and 90 percent of them live off campus. Between 2013 and 2016, undergraduate enrollment declined by 440 students, but this was more than offset by an increase of nearly 3,000 graduate students.

Of the nearly 57,000 graduate students living in Greater Boston, only 5,570 are housed on campus. If the average number of graduate students living together in off-campus housing is 2.5, they occupy nearly 15,500 units of private housing—much of this in housing stock formerly the domain of working families.

The Role of Chapter 40R

As of October of this year, a total of 3,607 units have been completed and occupied or have site plan approval for development under Chapter 40R, the Commonwealth's Smart Growth Overlay District law. Of these, 90 percent are rental units and nearly half of all units (47%) are affordable. Of the total, half have two bedrooms and 37 percent are one-bedroom apartments.

Foreclosure Activity in Greater Boston

Between 2013 and 2016 both foreclosure petitions and deeds were steadily increasing. Annual petitions increased from just under 1,700 to more than 4,200. Completed foreclosures as measured by foreclosure deeds increased from nearly 740 to nearly 1,640. In 2017, we estimate that the number of new petitions and deeds will, for the first time in five years, have fallen. Nonetheless, by the end of this year just over 4,000 petitions will have been issued while 1,550 more households in Greater Boston will have lost their homes to foreclosure.

That foreclosure still remains at levels much higher than before the housing bust that began after 2005 is likely due to the fact that while the economy has continued to improve in Greater Boston, the unevenness of income growth has left too many families and households unable to meet their mortgage obligations.

Home and Condo Prices in Greater Boston

With near record low vacancy rates in Greater Boston, single-family home prices hit an all-time high in 2017 with the median price of a single-family home in the five-county region reaching $447,799. Since 2013, the median price of single-family homes in Greater Boston has shot up 29 percent. Unlike the steadily rising trajectory of single-family home prices, condominium prices in Greater Boston have stabilized over the past three years. This likely is the result of the proliferation of high-end condo production, particularly in the city of Boston, over the past five years. This luxury market may be approaching its saturation point and as it does, the overall median price of this kind of housing should come down.

But, of course, home prices vary wildly depending on location. In some small suburban communities farther away from Boston, median prices today are still as much as 30 percent lower than in 2005, and a large number of other communities continue to have prices no higher than the levels that prevailed before the housing bubble burst. Communities nearest to Boston have seen their home prices explode—and not only in the priciest communities and neighborhoods. Individual communities inside Boston, including the once relatively low-priced neighborhoods of South Boston and Jamaica Plain, have seen home prices rise by 71 to 83 percent since 2005. While the median cost of housing between 2010 and 2015 increased by 36 percent across the city, this was led by a 70 percent increase in Roxbury, a 52 percent increase in East Boston and a 50 percent increase in Mattapan—the neighborhoods that had had the most affordable housing units of all Boston's 20 neighborhoods.

Pressure is now highest on home prices in historically working-class communities. In just two years, Peabody's median home price is up 6.0 percent; Lowell's is up 9.6 percent; and Lawrence is up 14.2 percent—higher than the price appreciation in Brookline (14.0%) and Newton (12.4%). As more middle-income and working-class households move to these lower-cost communities in hopes of finding more affordable housing, demand pressure is driving up prices.

Nevertheless, home prices are still more affordable the further one moves away from the urban core. By measuring the "home price gradient" we find that the median price of single-family homes within five miles of Boston's center now exceeds $775,000. Moving 10 miles from downtown Boston reduces the average median home price by nearly $115,000; another five miles drops the average price by another $95,000 to $565,000. Only when you move at least 30 miles from Boston does the average median price slip below $400,000.

While single-family home prices and condominium prices continued to increase in 2017, once again the largest price increases were found in the older housing stock made up of duplexes and the classic triple-decker. The median price of a triple-decker increased by more than $33,000 in just the past year and is now up by 127 percent over the median in 2009. This is no doubt due to the continued pressure on this market as graduate students, medical interns and residents, and other young professionals move to the area, join economic forces with roommates and bid up rents, translating into higher duplex and triple-decker investment values.

Rents in Greater Boston

Since 2010, the rental vacancy rate in the Boston metro region has been below the 5.5 to 6 percent range that statistical models tell us are needed to stabilize rents in the region. By 2015 the rate was down to just 3.4 percent and thus it was not surprising to see rents rising sharply. Since then, however, with more construction coming on line, the rental vacancy rate has increased for the past three years, reaching 4.7 percent in 2017, a rate surpassed only once since 2011. As such, we see the first signs that rents are beginning to stabilize. In the inner core of the Greater Boston region the median rent in mid-2017 was marginally lower than in 2016, marking the first time rents have fallen since at least 2009. The decline is less than 3 percent, but this compares with an average annual *increase* of 6.9 percent over the period 2009–2016.

That average monthly rents have not fallen further despite the increase in housing construction is likely due to the disproportionate number of new rental units priced at luxury levels. The price of these units might have declined enough to bring the overall average rent down without much affecting median rent or rents in the lower end of the price spectrum. Hence, even as average rents have fallen, the proportion of renters who are housing cost–burdened continued to rise in 2017.

Housing Policy in the City of Boston

Over the past two years, the Commonwealth and the City of Boston have pursued some new approaches to housing policy with the goal of increasing housing production, protecting tenants' rights and linking housing to economic development. The City of Boston has led in this regard under *Imagine Boston 2030: A Plan for the Future of Boston*, with its goal of 53,000 additional units of housing by 2030.

By mid-2017, the cumulative permitting target was 17,212 units. The actual number of permits issued so far is 21,963, or 128 percent of that target. By the middle of this year, the city had also permitted 94 percent of its cumulative target for low-income housing units (1,691 out of 1,803) and exceeded its 2017:II target by 38 percent.

The city's linkage program, which collects financial obligations from commercial developments for use in producing affordable housing units, has increased its annual take from $7.7 million to $10.3 million while its Inclusionary Development program has virtually doubled its annual collections from housing developers from $8.5 million before 2015 to $17.6 million in 2016–2017.

The City has been active in assisting and educating potential homebuyers and doing a creditable job in preserving affordable rental housing from expiring use agreements with private developers. The City's goal was to retain at least 97 percent of at-risk affordable units (29,534) by 2030. By 2017:II, it had preserved nearly 10,700 units—89 percent of its cumulative 2017:II goal. Boston is also working to prevent evictions by providing legal counseling and representation, mediation and rent arrearage payments for tenants facing the loss of their rental apartments or homes; it has just announced a pilot program to reduce the risk landlords face in renting to

homeless individuals and families in order to expand the number of private sector housing units available to the homeless by providing a form of insurance to landlords. For homeowners facing possible foreclosure, the City provides counseling and mediation and connects at-risk homeowners to local advocacy groups that can assist them.

The City has continued to encourage universities in Boston to build more residence halls for undergraduates and begun an Intergenerational Homeshare pilot program that will match graduate students looking for a place to live with older homeowners who have extra rooms to rent.

New Commonwealth Housing Policy

The Commonwealth too has addressed the cost of housing, with funds for Chapter 40R, a new initiative for a Workforce Housing Trust Fund, additional funds for public housing and increases in housing tax credits. One fairly new initiative is the Workforce Housing Production Trust Fund (WHTF), which included a $25 million authorization to help support the development of market-rate housing in Gateway Cities.

The Baker-Polito administration is committed to using new bonding authority to fund a multiyear, $650 million program for public housing modernization and redevelopment, $400 million for the production and preservation of traditional affordable housing, and $216 million for housing that serves "vulnerable populations." An earmark of $750,000 has been established to expand the state's Housing Court system, to which currently only one-third of the state's residents have access due to budget constraints. Finally, a new section 26C of Chapter 121B Housing Policy provides for three statewide capital assistance teams to work collaboratively with local housing authorities, providing them with capital, maintenance and repair planning technical assistance.

Additionally, members of the legislature have filed amendments to the state's housing code that would require cities and towns to have zoning ordinances or by-laws that permit multifamily development by right in one or more zoning districts within their communities. These amendments face opposition from some localities, which decrease their likelihood of becoming law, but advocates correctly continue to identify these changes as necessary to address the high cost of housing in our region.

Public Spending on Housing and Homelessness Programs

In fiscal year (FY) 2018, the Commonwealth will spend from its own resources a total of $432 million on a series of housing programs plus initiatives aimed at combatting homelessness. Of the total, $183 million goes to the former with the larger share ($249) going to homeless programs. However, this amount represents the second annual funding cut in a row so that the state budget for housing-related spending is now $71 million below the amount in the FY 2016 budget, a 14 percent reduction. This cut in state funding is made even more serious by coming on top of a sharp reduction in federal funding for housing in the Commonwealth. FY 2018 estimated funds for federal housing programs in Massachusetts are expected to be $71 million less than in FY 2017. Together, the state and federal cuts in the current 2018 fiscal year alone amount to more than $100 million.

A 21st Century Approach to Meeting Greater Boston's Housing Needs

Given the Commonwealth's robust economy, which acts as a magnet attracting more people to the Greater Boston region—which in turn puts greater pressure on the housing market, which then leads to housing cost burdens for more of the region's households—it is incumbent that a new approach to increasing housing supply be crafted. In this year's *Greater Boston Housing Report Card*, we put forward an ambitious, detailed plan to do just that, calling on a much broader coalition of actors to meet the region's housing challenges.

Specifically, we need to focus on building housing for millennials, working families and aging seniors who represent the new demographics of the region. Here we call for the development of a range of "21st Century Villages," housing that is unique in conception, builds community and uses new methods for its production.

A New Building Architecture

From the outside, a new 21st Century Village development will look much like other housing in Boston. We propose multistory buildings that could range in height from five to 35 stories with attractive exteriors, and be developed throughout Greater Boston. Each "village" could contain a range of units from "micro" apartments to studios and multi-bedroom units. Individual units would vary not only in size but also in fit and finish such that rents could range from approximately $900 to $3,000+ per month, to match the pocketbooks of a range of tenants. Each village would have community space with lounges, laundry facilities, seminar rooms, study areas, music practice rooms, gyms and perhaps even areas for small business incubators, roof gardens or performance space.

Wherever possible, these villages should be built near public transit to limit the need for parking. Small parking facilities could be constructed underground for a limited number of vehicles, Zipcars and bicycles. New techniques including panelized construction and prefab modular design should be considered to reduce building cost.

A 10-Step Plan

To move forward in an aggressive manner to develop a substantial number of 21st Century Villages, we propose a 10-point implementation plan.

Step 1: Form a new housing task force to build community and business support for the 21st Century Village concept.

Step 2: The task force should conduct a study of millennials and Baby Boomers to gauge the extent of potential demand for 21st Century Village housing.

Step 3: The Governor, along with local mayors, should convene developers, construction companies and architectural firms to ascertain what is needed—in terms of designs, building techniques, zoning, real estate and financing—to successfully develop 21st Century Villages.

Step 4: The Governor and the region's mayors should meet with representatives of the various building trades unions in Greater Boston to discuss their willingness to help meet the affordability goals of the 21st Century Village.

Step 5: Together, this consortium of professionals can consider fresh approaches to housing based on modular design and panelized construction using new materials and high productivity building techniques. The consortium should also investigate the feasibility of opening a state-of-the-art manufacturing facility in Greater Boston, where modular units and panels could be fabricated.

Step 6: With a firm plan for building the 21st Century Village, the Governor and regional mayors should meet with local university presidents, hospital CEOs and other business community leaders to discuss the role they can play as marketers and master lease holders of these villages, making their financing more readily achievable.

Step 7: The state Department of Housing and Community Development (DHCD) should meet with the neighborhood development and planning offices of the region's cities and towns and MBTA officials to discuss publicly-owned sites for the possible development of 21st Century Village projects.

Step 8: The state DHCD should encourage the planning departments of the region's cities and towns to implement zoning provisions needed to make a range of 21st Century Village typographies legal as-of-right and affordable.

Step 9: Agreements should be established between universities and teaching hospitals working with developers to generate the plans for the first 21st Century Village based on master agreements and deed restrictions on rents and rent increases.

Step 10: Begin construction of the first 21st Century Village.

With such a coordinated effort, this plan has a chance of addressing Greater Boston's housing needs and thus helping to maintain the Commonwealth's prosperity.

CHAPTER ONE

Introduction

The Commonwealth is booming—led by the extraordinary economy of Greater Boston. Last year's *Greater Boston Housing Report Card* began with exceptional news about the progress of the Massachusetts economy coming on the heels of expanding output each and every year since the end of the Great Recession in 2009. If anything, the state's economy in 2017 is even more remarkable, with a higher output growth rate and rising labor force participation given the strong labor market.

During the past year, we have also seen considerable progress toward the construction of new housing in the city of Boston, responding to a strenuous effort on the part of Mayor Martin J. Walsh's administration to permit more housing. We have even seen, as we shall later discuss, the first softening of apartment rents in the region, largely as a result of more new housing coming on stream—at least in the city itself.

Nonetheless, housing remains way beyond the affordability of a large and growing number of residents as the strong economy brings more workers to Greater Boston than the current housing stock can reasonably accommodate. Thus, we have good news about the economy and even some good news on the housing supply front, but that same good news about the economy is producing housing demand that continues to outstrip the growth in supply, even as more housing permits are being issued and more construction is underway. A large reason for this, we find, is that cities, towns and suburban communities outside of Boston are not pulling their weight. Permits for new housing outside of the City actually declined in 2017. Essentially, we are making progress in the region's center, but the communities beyond Boston's borders have much more to do if we are to meet the region's overall housing challenge.

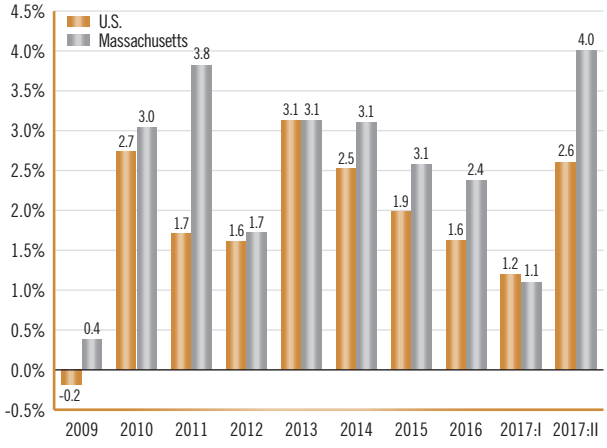
The Massachusetts Economy

As **Figure 1.1** demonstrates, overall economic growth in the Commonwealth as measured by real output—the value of the total production of goods and services—has exceeded real output in the United States as a whole in every single year since 2009, with the dip in the first quarter of this year more than made up for by the extraordinary 4.0 percent growth rate in the second quarter, reversing a two-year trend toward positive but slowing economic growth in both Massachusetts and the United States. Real inflation-adjusted gross domestic product has increased so fast in the Commonwealth that in 2016, Massachusetts ranked first in the nation in per capita output, up from sixth place in 2015.[1] In just the past two years, the state has overtaken Alaska, New York, Connecticut, North Dakota and Delaware on this important measure of economic prosperity.

With such rapid growth, employment has continued to expand across the state, but especially in Greater

FIGURE 1.1

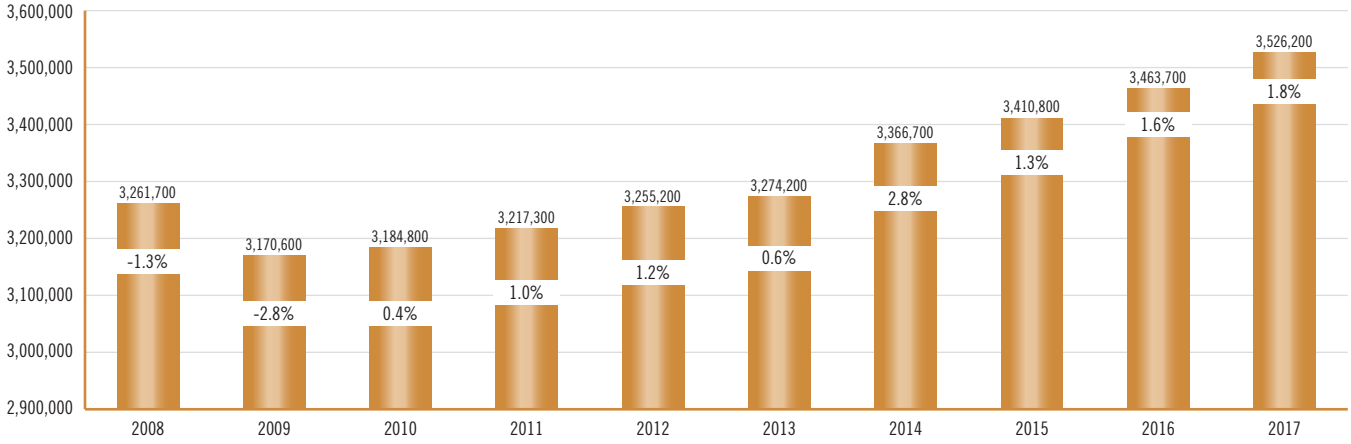
Growth in Real Output, Massachusetts vs. U.S. 2009–2017 (Q2)



Source: Mass Benchmarks; World Bank

FIGURE 1.2

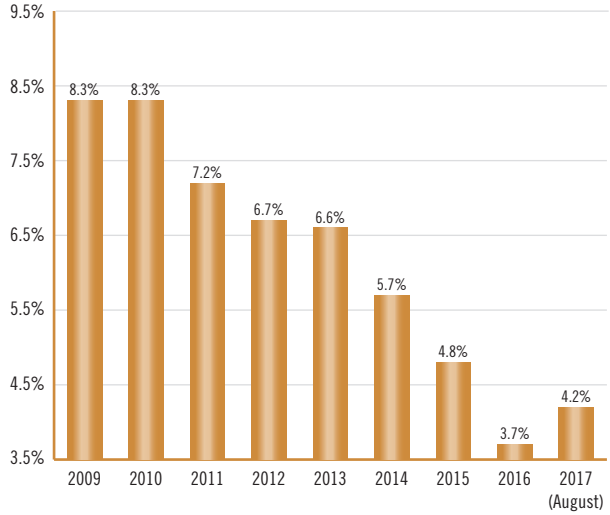
Total Non-Farm Employment Seasonally-Adjusted, Massachusetts 2008–2017, (August) (% = Annual Growth Rate)



Source: Mass Benchmarks; World Bank

FIGURE 1.3

Massachusetts Civilian Unemployment Rate 2009–2017 (August)



Source: U.S. Bureau of Labor Statistics

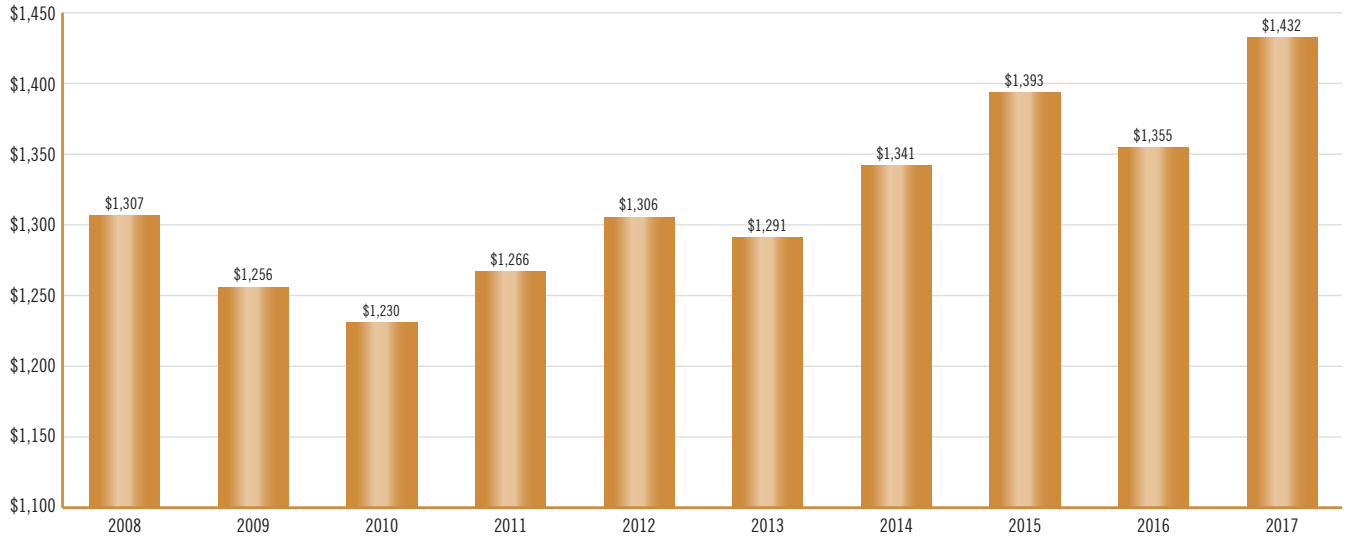
Boston. As **Figure 1.2** reveals, total non-farm seasonally-adjusted employment has reached an all-time high in the Commonwealth, surpassing 3.5 million jobs. Since 2015, the annual rate of employment growth has increased from 1.3 percent to 1.8 percent as of August of this year.

With so much job creation, the unemployment rate has remained low, as shown in **Figure 1.3**. As it turns out, the slight increase in the unemployment rate this year paradoxically reflects a stronger economy, not a weaker one. Because so many employers are hiring workers in the Commonwealth, many of those who have been outside the labor force have returned to the labor market seeking work. While they are still searching, they are counted as unemployed rather than out of the labor market. With so much hiring going on, a small rise in the official unemployment rate represents encouraging news about labor force participation.

With such strong growth in economic output and so much labor demand, inflation-adjusted private industry workforce earnings increased sharply this year, as shown in **Figure 1.4**. For the first time, real average weekly wages in Massachusetts exceeded $1,400—increasing 5.7 percent over 2016 and up 16.4 percent since 2010. With wages up, household income rose dramatically last year by 5.3 percent to $75,300—faster than in any other state save Idaho.[2] Unlike past years, 2017 wages were finally increasing for nearly all groups in the economy, from those with Ph.D.s to even those who never completed high school. Black households, usually at the bottom of the distribution, experienced a 10 percent bounce in income—the most of any demographic group. All of this is extremely welcome news and is testament to how important a rapidly growing economy, sustained over time with strong workforce demand, is for personal economic wellbeing.

FIGURE 1.4

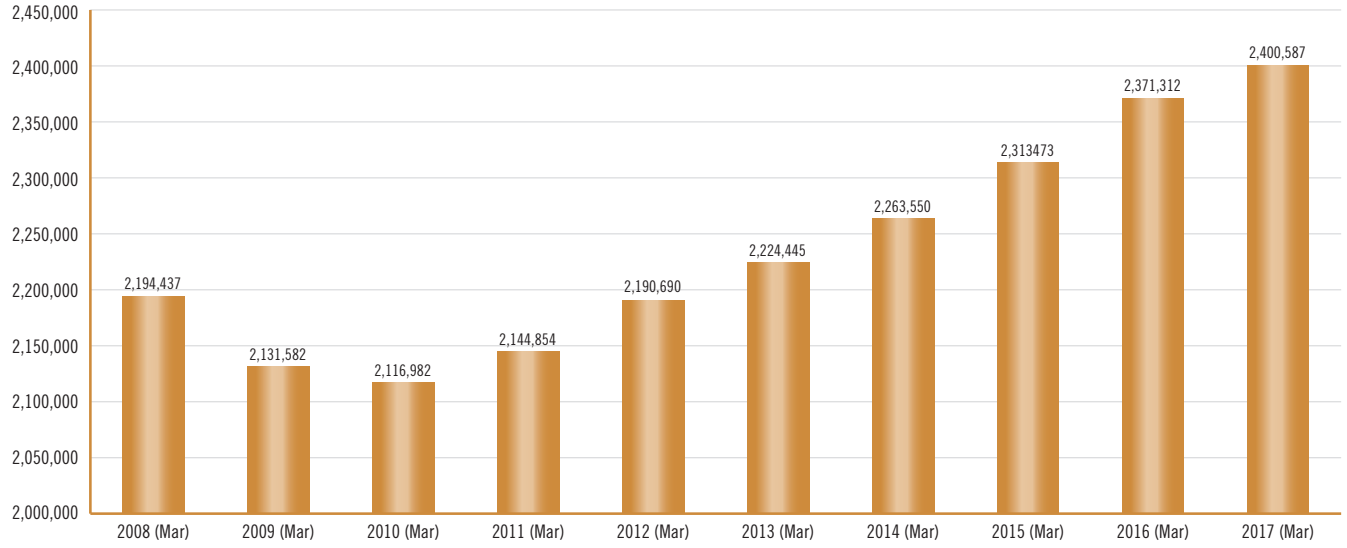
Real Average Weekly Wage—Private Industry, Massachusetts, 2001–2017 (Q1) (Real 2016 $)



Source: MassBenchmarks, Massachusetts Department of Labor and Workforce Development

FIGURE 1.5

Five-County Greater Boston Total Non-Farm Employment, 2008–2017 (March)



Source: U.S. Bureau of Labor Statistics

The Greater Boston Economy

What is true of the Commonwealth's economy is even truer of the economy of the five counties of Greater Boston: Essex, Middlesex, Norfolk, Plymouth and Suffolk. By March of this year, employment in the region peaked above 2.4 million for the first time, with 29,000 more residents employed than a year earlier (see **Figure 1.5**).

Moreover, the population of Massachusetts is becoming even more concentrated in Greater Boston. As **Table 1.1** reveals, two-thirds (66.6%) of the growth in the state's population between 2000 and 2010

TABLE 1.1

Population Statistics

	Massachusetts	Essex	Norfolk	Middlesex	Plymouth	Suffolk	Balance of State	5-County/ State	5-County
2000	6,349,097	723,419	1,465,396	650,308	472,822	689,807	2,347,345	63.0%	4,001,752
2010	6,547,629	743,159	1,503,085	670,850	494,919	722,023	2,413,593	63.1%	4,134,036
2016	6,811,779	779,018	1,589,774	697,181	513,565	784,230	2,448,011	64.1%	4,363,768
2000–2010	198,532	19,740	37,689	20,542	22,097	32,216	66,248	66.6%	
2010-2016	264,150	35,859	86,689	26,331	18,646	62,207	34,418	87.0%	
% Chg 2000–2010	3.1%	2.7%	2.6%	3.2%	4.7%	4.7%	2.8%		
% Chg 2010–2016	4.0%	4.8%	5.8%	3.9%	3.8%	8.6%	1.4%		

Source: U.S. Census, *American Factfinder*

occurred in the five-county region. Since 2010, Greater Boston has accounted for 87 percent of the total growth in the state. The fastest growing county is Suffolk with an 8.6 percent increase in population since 2010, compared with only a 1.4 percent growth rate in the balance of the state outside of the Greater Boston region. In all of the five counties save Plymouth, the population increased faster in just the seven years since 2010 than in the entire decade 2000–2010. Not surprisingly, this rapid growth in Suffolk County and in Greater Boston as a whole has put enormous new pressure on the limited housing stock in this part of the Commonwealth and this has led to rapid increases in home prices and rents.

Greater Boston Demographic and Economic Profile

Using Census data we can take a deeper dive into the demographics of Greater Boston, as shown in **Table 1.2**. As for age, the fastest growing cohort is age 65 and older. Just between 2010 and 2015, this cohort increased in size by nearly 48,000. By 2015, seniors comprised 13.9 percent of the region's population, but were responsible for 35 percent of the increase in overall population since 2010. The average household size remained about 2.6, well below the once typical family of four. Not surprisingly, the size of the average renter households was only 2.24, substantially lower than the 2.73 average of homeowners; a good number of renters are single or households without children.

The fastest growing ethnic populations in the region include people of Asian background, followed by Hispanics and then African Americans. By 2015, nearly one-quarter (24%) of the population was Asian, Hispanic or black compared with only 18 percent in 2000 and 12 percent in 1990.

As for household income, renters in Greater Boston, on average, have a fraction of the income of homeowners. In 2000, median renter income was only 48 percent of median homeowner income. By 2015, the ratio was down to 42 percent. That year, the median household income of homeowners was $103,267 compared with just $43,583 for renters. As such, it is not surprising that those who face the toughest housing challenge in the region are those who rent rather than own their homes or apartments. As **Table 1.3** demonstrates, by 2015 more than 52 percent of renter households (the highest percentage on record and up from 39 percent in 2000) were paying more than 30 percent of their gross income in rent.

Homeowners tended to be less housing cost–burdened than renters. Nevertheless 36 percent paid monthly mortgage and tax bills exceeding 30 percent of gross income in 2015—like renters, the highest percentage on record and up from 27 percent in 2000. While 71 percent of Boston metro renter households could afford rental housing in the region if they earned the region's area median income; only 19 percent could do so if they earned only half the median.[3]

Hence, in spite of rising incomes, housing costs are outpacing them in Greater Boston, boosting the number and proportion of housing cost–burdened households.

TABLE 1.2

Demographic Profile of the Five-County Greater Boston Region

PANEL A	1990	2000	2010	2015	% Change 1990–2000	% Change 2000–2010	% Change 2010–2015
Total Population	3,783,817	4,001,752	4,134,036	4,270,286	5.8%	3.3%	3.3%
Age							
Percent 0–24	33.7%	32.5%	32.0%	31.4%	-1.3%	-1.4%	-1.7%
Percent 25–44	34.7%	32.6%	27.7%	27.7%	-2.1%	-14.9%	0.0%
Percent 45–64	18.7%	22.1%	27.1%	27.2%	3.4%	22.4%	0.4%
Percent 65 and Older	12.8%	12.8%	13.2%	13.7%	0.0%	2.9%	5.5%
Median Age[a]	33.4	36.1	38.3	38.5	8.2%	6.1%	-100.0%
Households							
Average Household Size	2.68	2.61	2.59	2.62	-2.5%	-1.0%	1.4%

PANEL B	1990	2000	2010	2015	% Change 1990–2000	% Change 2000–2010	% Change 2010–2015
Household Size							
Average Household Size, Owner-Occupied Units	2.86	2.75	2.70	2.73	-3.9%	-0.5%	1.3%
Average Household Size, Renter-Occupied Units	2.22	2.16	2.18	2.24	-2.5%	3.5%	2.8%
Percent of Households with One Person	26.4%	28.2%	28.9%	28.6%	1.9%	1.5%	-0.9%
Race/Ethnicity							
Percent White	88.1%	82.0%	77.2%	76.0%	-6.1%	-7.3%	-1.6%
Percent Black	6.2%	6.6%	7.9%	8.5%	0.4%	29.4%	8.0%
Percent Asian	3.1%	4.9%	6.9%	7.7%	1.9%	56.2%	11.4%
Percent Hispanic (Any Race)	4.9%	6.9%	9.7%	10.7%	2.0%	55.1%	10.7%
Household Income							
Median Household Income (Nominal)[a]	$40,160	$55,108	$68,802	$76,131	37.2%	38.1%	10.7%
Median Household Income (2010 $)[a]	$67,002	$69,782	$68,802	$70,573	4.2%	1.1%	2.6%
Median Homeowner Income (Nominal)[a]	$51,682	$71,437	$93,484	$103,267	38.2%	44.6%	10.5%
Median Homeowner Income (2010 $)[a]	$86,225	$90,460	$93,484	$95,746	4.9%	5.8%	2.4%
Median Renter Income (Nominal)[a]	$26,245	$34,207	$39,208	$43,583	30.3%	27.4%	11.2%
Median Renter Income (2010 $)[a]	$43,787	$43,316	$39,208	$40,409	-1.1%	-6.7%	3.1%

Sources: U.S. Census Bureau, 1990 Census of Housing, General Housing Characteristics, Massachusetts; U.S. Census Bureau, 1990 Census of Population, General Population Characteristics, Massachusetts; U.S. Census Bureau, 1990 Census of Population and Housing, Summary Social, Economic and Housing Characteristics, Massachusetts; U.S. Census Bureau, 1990 Census of Housing, Detailed Housing Characteristics; U.S. Census Bureau, 2000 Profile of General Demographic Characteristics; U.S. Census Bureau, 2010 Profile of General Population and Housing Characteristics; U.S. Census Bureau, 2009-2014 American Community Survey. All data are collected at the county level for Essex, Middlesex, Norfolk, Plymouth and Suffolk Counties.

Note (a): These are averages (weighted according to the proper unit of analysis) of the median statistics in Essex, Middlesex, Norfolk, Plymouth and Suffolk Counties.

TABLE 1.3

Housing Cost Burden, Greater Boston

	1990	2000	2015
Renter-Occupied Households Paying More Than 30% of Income on Rent	41.7%	39.2%	52.5%
Owner-Occupied Households with Mortgages Paying More Than 30% of Income on Housing	28.3%	26.7%	35.8%

Source: U.S. Census Bureau

Conclusion

What we have witnessed over the past year is a "good news/bad news" story. The economy of Greater Boston is expanding rapidly, employment is on the rise, and wages and household incomes are rising. That incomes are rising is a welcome new addition to the good news economic account.

The problem is that the region's housing supply—while improving, as we shall see in subsequent chapters—is still not keeping up with population growth and therefore, even with increased incomes, households are paying a larger proportion of their income in housing than ever before. For renters—and especially renters who simply cannot afford homeownership—the housing challenge is immense. More than half of them are paying more than 30 percent of their income to put a roof over their heads. As we shall demonstrate in Chapter 4, these renters are bearing the brunt of the current population surge as young adults continue to flock to the region—particularly its inner core—to pursue higher education, train in our hospitals and medical institutions, and find employment in a growing array of biotech, financial services and other high-tech firms.

At the same time, as we shall see, Greater Boston has a rapidly growing Baby Boom cohort, many of whom are eager to find housing more appropriate to their now smaller households. As such, the housing challenge is not just about building enough of it to meet demand, but to build *appropriate* housing for both young households and seniors.

CHAPTER TWO

Home Sales, Housing Production and Foreclosures in Greater Boston

Given long-term trends described in previous installments of this report, it might be fair to assume that Greater Boston will continue to see increases in home sales, fewer homes going into foreclosure and moderate permit growth as more developers erect housing units to serve an increasing regional population. As this chapter will demonstrate, permitting is, in fact, growing while foreclosure rates continue to decline and homeownership rates increase. However, home sales are down across the region and a new analysis of housing development proves that, although permitting is rising, new housing development is occurring almost exclusively in the city of Boston. Other communities, for the most part, are not pulling their weight on the housing front and need to reassess how they can encourage appropriate new housing development.

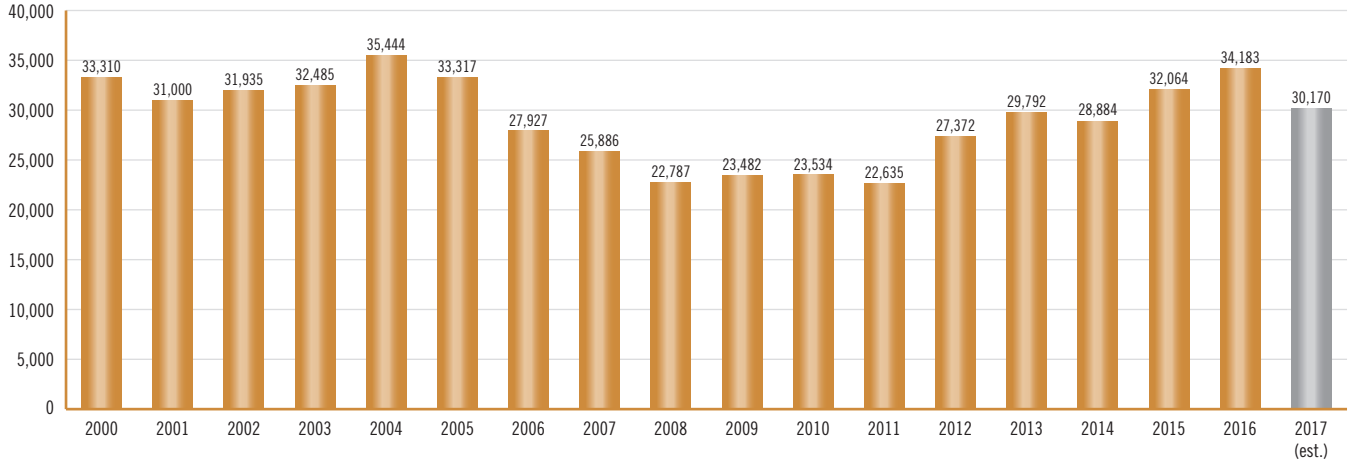
Home Sales Volume

In last year's edition of *The Greater Boston Housing Report Card*, we trumpeted the growth in single-family home sales following the slow recovery in that market after the bursting of the region's housing bubble in 2005. We predicted that we would see a 7 percent increase in single-family homes sales by the end of 2016. When months later the sales figure for the entire year was available, it confirmed that our forecast was close to the mark with a 6.6 percent increase in single-family home sales between 2015 and 2016 (see **Figure 2.1**).

However, this year's data reveal that the market for single-family homes in Greater Boston may be on the decline, with our current estimates for 2017 suggesting an 11.7 percent *decline* in single-family home sales by the end of the year. If this projection is true, 2017 will mark the largest year-over-year decline in single-family homes sales since the beginning of the Great Recession.

FIGURE 2.1

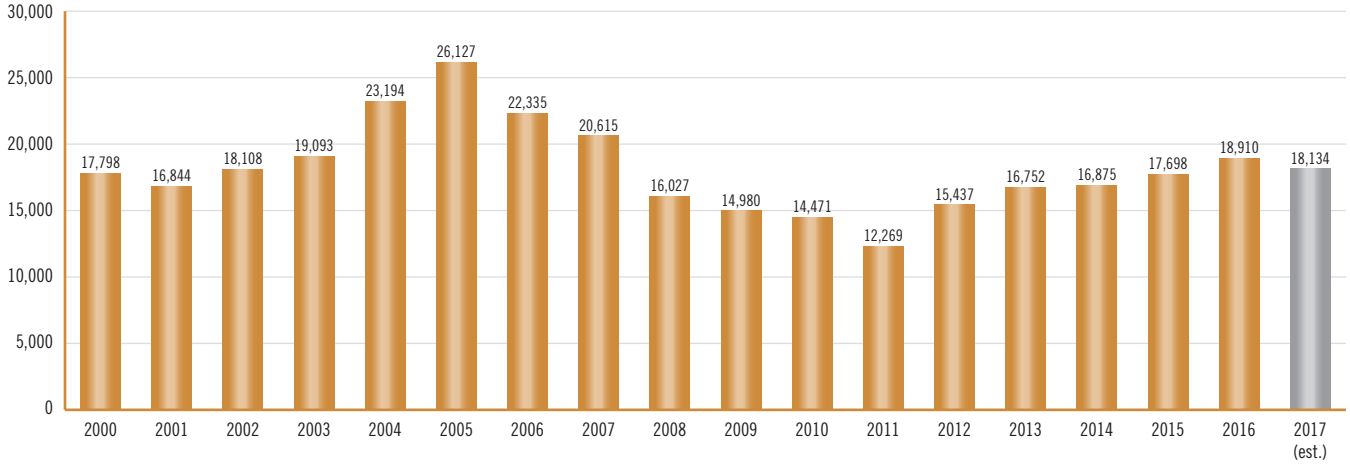
Annual Number of Sales of Single-Family Homes in Five-County Greater Boston Region, 2000–2017 (Est.)



Source: The Warren Group

FIGURE 2.2

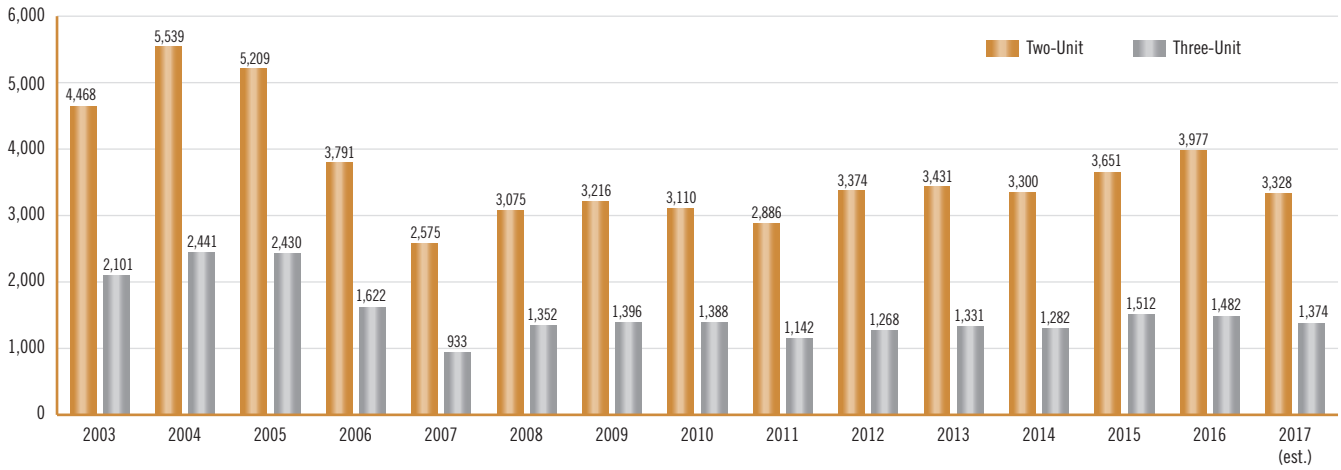
Annual Number of Sales of Condominiums in Five-County Greater Boston Region, 2000–2017 (Est.)



Source: The Warren Group

FIGURE 2.3

Annual Number of Sales of Homes in Two-Unit and Three-Unit Structures in Five-County Greater Boston Region, 2000–2017 (Est.)



Source: The Warren Group

Condominium sales are also projected to decrease in 2017 given the sales volume through the middle of the year. In this case, total condo sales will come in at just over 18,100 units, a 4.1 percent decrease from 2016. As **Figure 2.2** demonstrates, this is the first time since 2011 that condominium sales have declined. This could simply be a temporary downturn but time will tell whether this is a new trend in both the condominium and single-family home markets.

Sales of homes in two-unit and three-unit structures have been relatively stable since 2008, but are now beginning to show signs of decline, as well. We project about 3,300 sales in duplexes, a 16.3 percent decrease from 2016, and about 1,400 triple-decker unit sales, a 7.3 percent decrease from the previous year (see **Figure 2.3**).

TABLE 2.1A

Municipal Leaders in Single-Home Sales in Greater Boston, 2010–2017 (Est.)

	Number of Sales (Ranking in Parentheses)						
	2017 (Est.)	2016	2015	2014	2013	2012	2011
Brockton	934 (1)	983 (1)	772 (1)	619 (3)	660 (2)	659 (2)	552 (2)
Plymouth	784 (2)	845 (2)	713 (2)	624 (2)	617 (4)	582 (3)	512 (3)
Lowell	608 (3)	597 (7)	490 (9)	473 (6)	425 (8)	419 (8)	411 (4)
Framingham	600 (4)	603 (6)	657 (4)	604 (4)	627 (3)	498 (5)	408 (6)
Lynn	592 (5)	681 (3)	602 (5)	473 (6)	418 (9)	394 (11)	356 (8)
Newton	562 (6)	633 (5)	670 (3)	634 (1)	691 (1)	671 (1)	582 (1)
Weymouth	510 (7)	647 (4)	579 (7)	461 (7)	500 (6)	450 (7)	340 (9)
Quincy	500 (8)	553 (8)	592 (6)	547 (5)	576 (5)	507 (4)	394 (7)
Methuen	430 (9)	505 (10)	506 (8)	388 (10)	352 (18)	370 (12)	304 (13)
Wellesley	424 (10)	353 (24)	396 (15)	357 (15)	364 (14)	415 (9)	329 (10)
Haverhill	424 (10)	536 (9)	470 (10)	352 (16)	357 (16)	346 (14)	325 (11)

Source: The Warren Group

Based on estimates derived from data from the first half of 2017 from the region's premier real estate research and publishing firm, The Warren Group, we have estimated what the full-year 2017 sales of single-family homes and condominiums might be in cities and towns throughout Greater Boston. **Table 2.1A** provides the results for the 10 communities in the region with the highest projected single-family home sales for 2017. The city of Brockton maintains its first-place status with anticipated single-family home sales of just over 930, but nevertheless a 5 percent decrease from the previous year. This city south of Boston has ranked in the top three for single-family sales since at least 2011. With a median sales price of $259,000 in July 2017, it is the third most affordable community in Greater Boston (see **Appendix A**).

Plymouth ranks second with expected sales of 784. The median single-family home price in that community is $334,200. The city of Lowell is projected to rank third with 608 total single-family home sales by the end of 2017. Since 2012, Lowell has not ranked higher than sixth in single-family home sales, but with a median single-family home price of $265,000, it appears to be emerging as an attractive location for people looking for an affordable home within commuting distance of Boston. Similarly, the fourth and fifth place ranking cities of Framingham and Lynn are projected to have 600 and 592 single-family home sales in 2017, respectively. These cities have hovered within the top 10 communities in single-family home sales during the past five years and their rise could signal that the single-family home market is shifting to the smaller urban centers outside of Boston where housing is more affordable but where city amenities exist.

Condominium sales have been concentrated primarily in the cities of Boston, Cambridge and Somerville, where multi-unit housing is more common, as shown in **Table 2.1B**. Within Boston, condo sales are highest in South Boston, Dorchester and Jamaica Plain, as they have been for the last few years. However, if our estimation method is correct, this year will mark the first decline in condominium sales in Boston proper since before 2011. Cambridge and Somerville are also expected to have fewer sales this year with 716 and 442 condo sales, respectively. Quincy, which has found itself in the bottom half of the top 10 condo sales list for nearly the past decade, is expected to rank fourth in 2017, with 560 condo sales. Quincy is substantially more affordable than other communities close to Boston.

TABLE 2.1B

Municipal Leaders in Sales of Condominiums in Greater Boston, 2010–2017 (Est.)

	Number of Sales (Ranking in Parentheses)						
	2017 (Est.)	2016	2015	2014	2013	2012	2011
Boston	1,702 (1)	2,043 (1)	1,785 (1)	1,632 (1)	1,827 (1)	1,864 (1)	1,575 (1)
South Boston	764 (2)	743 (3)	709 (3)	708 (3)	721 (3)	692 (3)	527 (3)
Cambridge	716 (3)	777 (2)	710 (2)	751 (2)	937 (2)	918 (2)	790 (2)
Quincy	560 (4)	486 (6)	421 (6)	327 (9)	328 (10)	340 (8)	198 (13)
Brookline	528 (5)	527 (4)	557 (4)	483 (4)	540 (4)	635 (4)	476 (4)
Dorchester	470 (6)	449 (8)	415 (7)	447 (6)	374 (9)	352 (7)	340 (5)
Somerville	442 (7)	491 (5)	400 (8)	471 (5)	430 (5)	450 (5)	340 (5)
Jamaica Plain	416 (8)	431 (9)	453 (5)	401 (7)	411 (6)	368 (6)	302 (6)
Newton	396 (9)	340 (13)	348 (13)	341 (8)	378 (8)	322 (10)	254 (7)
Haverhill	392 (10)	358 (11)	349 (12)	304 (13)	216 (19)	207 (17)	145 (16)

Source: The Warren Group

Homeownership

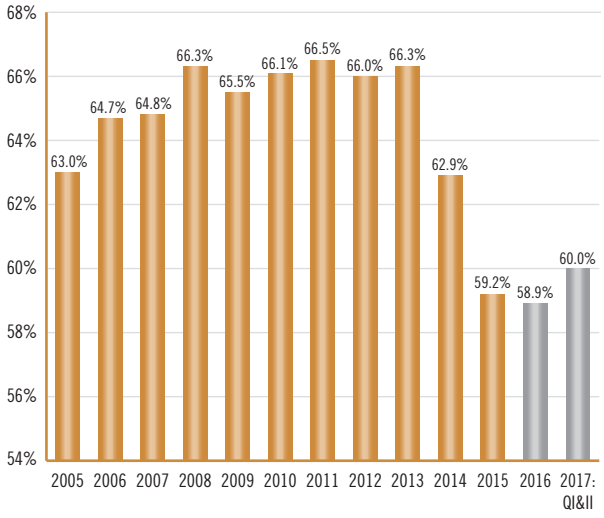
For the last few years, we have been tracking the decline of homeownership in the Greater Boston region. From 2008 through 2013, the rate held nearly steady at 65.5 to 66.5 percent. But in 2014, it dropped to 62.9 percent and then 59.2 percent in 2015 (see **Figure 2.4**). In last year's report we predicted yet another drop for 2016 which was confirmed this year with our most recent data. The drop in 2016's homeownership rate was small. We predicted it slipping down to 58.5 percent by the end of that year and the most recent data reveals that it did in fact decline to almost exactly that rate, 58.9 percent.

This year, however, we are able to predict that homeownership is once again on the rise. Despite the ominous decline in home sales, we predict that the homeownership rate for the Greater Boston area will increase to 60 percent—perhaps due to some residents wishing to get into the homeownership market before mortgage rates increase. This is, nevertheless, more than six percentage points below the peak in homeownership in 2008 and 2013.

Recent studies have suggested that the homeownership rate has been falling over the past few years nationwide, a claim that we investigated in last year's report. What we discovered is that homeownership is declining, but primarily among younger people.

FIGURE 2.4

Homeownership Rate Boston Metro Area 2005–2017 (Q1 & Q2)



Source: U.S. Census Bureau, "Quarterly Vacancy and Homeownership Rates by State and Region"

This suggests many things about the nation's housing market and economy, but points primarily to a housing market with a high barrier to entry for first-time home buyers.

In last year's report we identified three possible reasons that homeownership is declining, especially among younger people:

- Homeowners losing their homes to foreclosures in the continuing aftermath of the housing crisis
- The increased scrutiny of personal finance on the part of mortgage lenders not eager to repeat past lending mistakes
- Decreasing real incomes among young adults, keeping them from affording a down payment, let alone the lifetime cost of a mortgage

These are all possible factors as to why the homeownership rate is declining, the second two being more relevant to the fact that younger individuals and households are not purchasing homes at the same rate as earlier generations. As **Table 2.2** demonstrates, the homeownership rate for 25–34 year-olds in Greater Boston has declined from nearly 41 percent in 2000 to 36 percent in 2010 to only 30 percent as reported in the 2011–2015 American Community Survey. Among 35–44 year-olds, the decline has also accelerated, falling from just over 67 percent in 2000 to 65 percent in 2010 and to 58 percent according to the latest data.[1]

TABLE 2.2

Homeownership Rate for Prime Age Households in Greater Boston, 2000–2015

	Age 25–34	Age 35–44
2000	40.7%	67.2%
2010	36.2%	65.0%
2015	30.0%	58.0%

Source: U.S. Census Bureau

A lower homeownership rate among young adults means that they are remaining in the rental market and thus creating an inflated demand for rental units, lowering rental vacancy rates and thus driving rents higher. If the barriers to homeownership are too high for younger people in Greater Boston, then the region will need to act quickly to avoid the displacement of working families from their rental homes and apartments as waves of 20–34 year-olds hit the rental market, often with a significant other or with roommates. Without more housing units for millennials, the pressure on rents for everyone else, including working families, will continue to mount.

Housing Permits

Last year we were surprised when, amid the countless news articles and government initiatives calling for more housing units to accommodate projected population growth in Greater Boston, the number of housing permits issued for new construction was declining. Fortunately, this appears to have been only a blip in permitting, since in 2017 we have seen a healthy increase in permitting activity. Our best guess, based on the number of permits issued through the middle of this year, is that by the end of 2017 a total of more than 12,900 permits will have been issued, up from 11,500 in 2016, an increase of more than 12 percent (see **Figure 2.5**). Though this figure is not as high as the region's housing permit peak in 2015, it is reassuring to find permitting activity once again increasing and at the third highest level since at least 2000.

Moreover, as **Figure 2.6** reveals, the surge in permitting was dominated by plans for larger housing complexes with five or more units in contrast to past years when most permits were for single-family homes. Indeed, large multi-unit apartment and condo permits in 2017 are expected to reach more than 8,500 units, a 30.7 percent increase over 2016. As **Figure 2.7** demonstrates, large multi-unit complexes are now responsible for two-thirds of all new permitting, up from less than 30 percent in 2000 and 40 percent in 2009.

Table 2.3 provides more detailed information on permitting activity in Greater Boston.

Since 2010, annual permitting is up by more than 130 percent, led by a whopping 279 percent increase in the number of units in larger housing complexes with five or more apartments or condos. At the same time, single-family permitting is up by only 28 percent, reflecting developers' understanding of the demographic revolutions now underway (discussed in detail in Chapter 4).

FIGURE 2.5

Total Housing Permits Issued in Five-County Greater Boston Region, 2000–2017 (Est.)

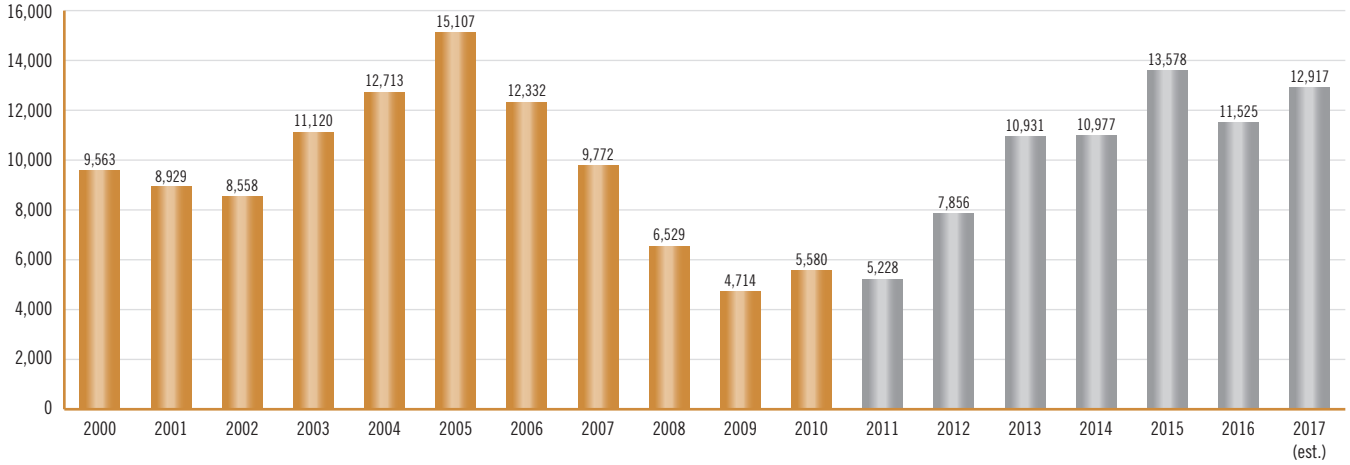


FIGURE 2.6

Number of Housing Unit Permits in Five-County Greater Boston Region, by Structure Type, 2000–2017

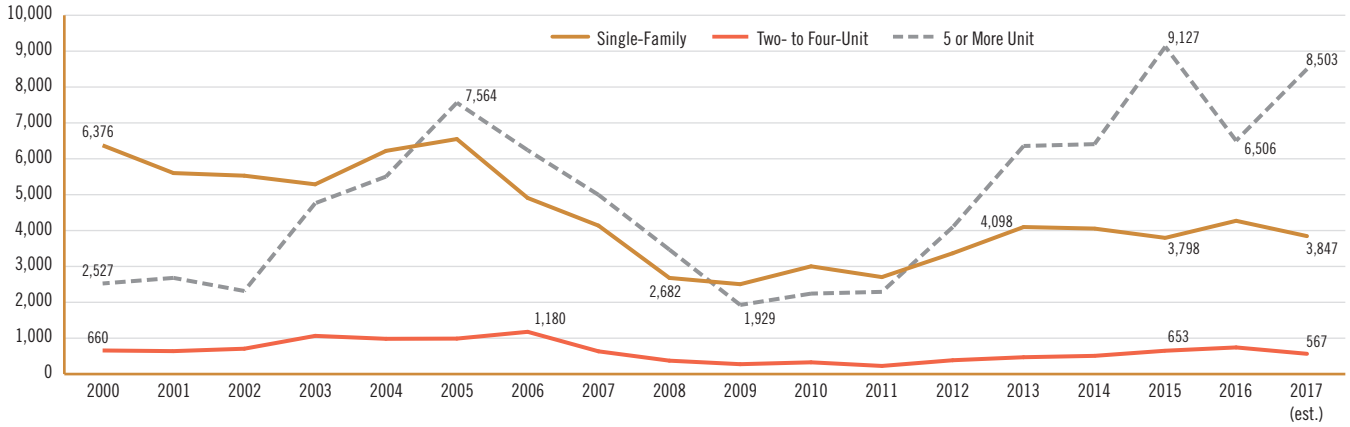
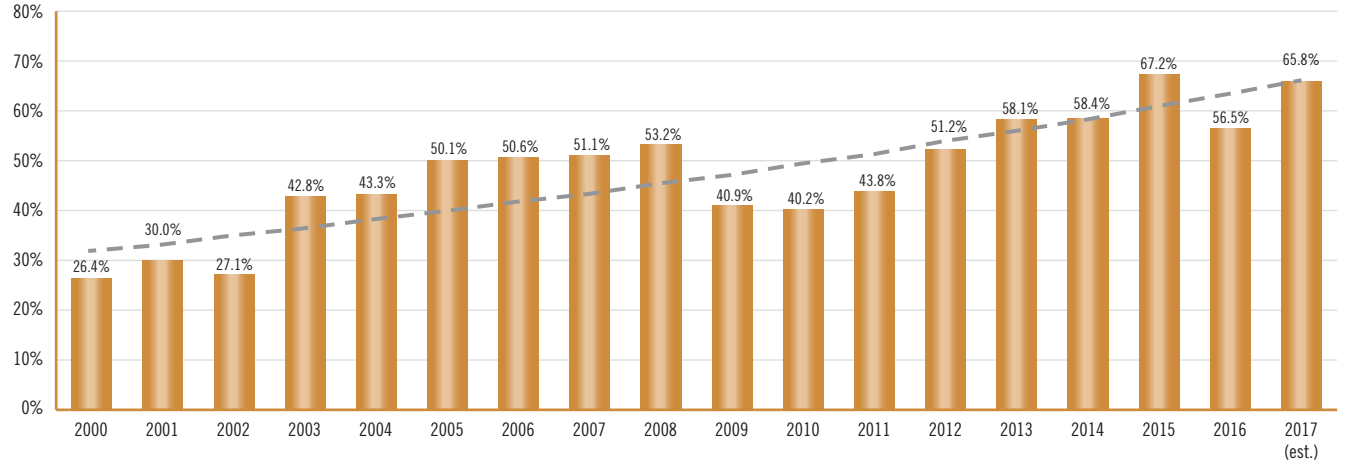


FIGURE 2.7

5+ Unit Housing Permits as a Percent of All Housing Permits in Greater Boston, 2000–2016 (Est.)



Sources: U.S. Census Building Permit Survey for Essex, Middlesex, Norfolk, Plymouth and Suffolk counties

TABLE 2.3

Single-Family and Multifamily Building Permits in Greater Boston, 2000–2017 (Est.)

Year	Total Units	% Change from Prior Year	Units in Single-Family Structures	% Change from Prior Year	Units in 2–4 Unit Structures	% Change from Prior Year	Units in 5+ Unit Structures	% Change from Prior Year
2000	9,563		6,376		660		2,527	
2001	8,929	-6.6%	5,604	-12.1%	642	-2.7%	2,683	6.2%
2002	8,558	-4.2%	5,531	-1.3%	709	10.4%	2,318	-13.6%
2003	11,120	29.9%	5,290	-4.4%	1,067	50.5%	4,763	105.5%
2004	12,713	14.3%	6,222	17.6%	985	-7.7%	5,506	15.6%
2005	15,107	18.8%	6,552	5.3%	991	0.6%	7,564	37.4%
2006	12,332	-18.4%	4,910	-25.1%	1,180	19.1%	6,242	-17.5%
2007	9,772	-20.8%	4,139	-15.7%	636	-46.1%	4,997	-19.9%
2008	6,529	-33.2%	2,682	-35.2%	376	-40.9%	3,471	-30.5%
2009	4,714	-27.8%	2,507	-6.5%	278	-26.1%	1,929	-44.4%
2010	5,580	18.4%	3,005	19.9%	330	18.7%	2,245	16.4%
2011	5,228	-6.3%	2,705	-10.0%	229	-30.6%	2,294	2.2%
2012	7,856	50.3%	3,370	24.6%	388	69.4%	4,098	78.6%
2013	10,931	39.1%	4,100	21.7%	472	21.6%	6,359	55.2%
2014	10,977	0.4%	4,057	-1.0%	510	8.1%	6,410	0.8%
2015	13,578	23.7%	3,798	-6.4%	653	28.0%	9,127	42.4%
2016	11,525	-15.1%	4,274	12.5%	745	14.1%	6,506	-28.7%
2017 (Est.)	12,917	12.1%	3,847	-10.0%	567	-23.8%	8,503	30.7%
Percentage Change								
2000–2005	58.0%		2.8%		50.2%		199.3%	
2005–2009	-68.8%		-61.7%		-71.9%		-74.5%	
2009–2010	18.4%		19.9%		18.7%		16.4%	
2010–2014	96.7%		35.0%		54.5%		185.5%	
2014–2017 (est.)*	17.7%		-5.2%		11.3%		32.6%	

Source: U.S. Census Building Permit Survey for Essex, Middlesex, Norfolk, Plymouth and Suffolk counties

*The annualized estimates of 2015 housing permits were calculated by multiplying the number of permits issued through July by 12/7.

Housing Production by Type and Location

Our estimates for new housing permits vary substantially across Greater Boston cities and towns, as shown in Tables **2.4A-C**. A number of communities, according to our projections, will experience large increases in the number of housing permits this year. Outside of the city of Boston, the towns of Weymouth, Framingham, Plymouth and Sharon are picking up the pace of housing development. Weymouth, for example, permitted only 206 units of new housing in the three-year period between 2012 and 2014. In the three years since (2015–2017), it has permitted nearly 1,100—five times as many. Likewise, Framingham has issued nearly 1,050 permits over the past three years, nearly nine times as many as in the previous three-year period. Municipalities like Sharon and Randolph are seeing sudden increases in permits this year as well. Between 2012 and 2016 these municipalities issued a total of 95 and 109 housing permits, respectively, and now are expected to issue an additional 391 and 173 permits this year alone. Somerville, which saw no permits issued between 2012 and 2015 has jump-started its permitting with 182 units in 2016 and 295 units this year. Most of these are for multifamily housing.

These permitting increases are positive, but the important factor that needs to be addressed is "what" is being permitted "where." In Plymouth and Needham, for instance, 100 percent of their expected new permits are going to be for single-family homes. In areas like Boston, Sharon, Somerville, Chelmsford and Stoughton, at least 90 percent of new permits are being issued for multifamily housing. Much of this is related to the type of zoning in each community.

TABLE 2.4A

Municipalities Permitting the Most New Housing Units, 2011–2017

2017 Rank Most Permits	Municipality	2017 (Estimate)	2016	2015	2014	2013	2012	Change in Total Units 2011-2017	Change in Total Units 2016-2017
1	Boston	5,342	3,347	4,955	2,717	2,561	1,776	3,566	1,995
2	Weymouth	586	382	102	75	55	56	530	204
3	Framingham	567	197	284	77	27	19	548	370
4	Plymouth	458	299	241	236	241	190	268	159
5	Sharon	391	16	10	16	21	32	359	375
6	Cambridge	297	192	535	428	1,054	392	-95	105
7	Somerville	295	182	0	0	0	0	295	113
8	Chelmsford	204	23	60	11	26	18	186	181
9	Stoughton	174	20	59	26	26	5	169	154
	Randolph	174	40	3	61	80	8	166	134
10	Arlington	166	535	285	995	392	34	132	–369
11	Quincy	144	223	385	332	165	113	31	–79
12	Canton	142	201	139	123	87	52	90	–59
13	Everett	134	164	437	432	108	68	66	–30
14	Needham	124	116	123	124	113	38	86	8
15	Stoneham	102	389	13	468	14	220	–118	–287

Source: U.S. Census Bureau, Annual New Privately-Owned Residential Building Permits for Places in Massachusetts

TABLE 2.4B

Municipalities Permitting the Most New Single-Family Units, 2011–2017

2017 Rank Most Permits	Municipality	2017 (Estimate)	2016	2015	2014	2013	2012
1	Plymouth	458	294	237	236	239	239
2	Needham	110	114	95	106	85	85
3	Weymouth	103	68	25	32	55	55
4	Hopkinton	96	148	128	104	60	60
5	Dracut	93	81	41	47	48	48
6	Lexington	84	87	87	85	89	89
7	Wellesley	72	88	95	66	66	66
	Boston	70	55	48	48	34	34
8	Methuen	70	117	114	119	122	122
9	Kingston	62	62	59	69	69	69
10	Middleton	62	36	27	32	36	36
11	Holliston	58	64	39	34	60	60
12	Brockton	57	78	61	53	45	45
13	Norfolk	57	49	57	43	59	59
14	Tewksbury	57	128	76	75	42	42
15	Scituate	53	35	34	29	34	34

Source: U.S. Census Bureau, Annual New Privately-Owned Residential Building Permits for Places in Massachusetts

TABLE 2.4C

Municipalities Permitting the Most New Units in 5+ Structures, 2011–2017

2017 Rank Most Permits	Municipality	2017 (Estimate)	2016	2015	2014	2013	2012
1	Boston	5,033	3,019	4,705	2,475	2,361	2,361
2	Weymouth	470	314	50	43	0	0
3	Framingham	463	0	160	12	0	0
4	Sharon	386	0	0	0	0	0
5	Somerville	271	163	0	0	0	0
6	Cambridge	262	161	493	397	1,037	1,037
7	Stoughton	189	67	0	21	0	0
8	Chelmsford	185	0	0	0	0	0
9	Randolph	153	0	0	0	0	0
10	Canton	120	103	208	115	95	95
11	Quincy	110	93	197	108	100	100
12	Everett	103	101	154	421	413	413
13	Arlington	94	85	164	95	80	80
14	Stoneham	82	0	0	0	0	0
15	Winthrop	75	56	82	49	27	27

Source: U.S. Census Bureau, Annual New Privately-Owned Residential Building Permits for Places in Massachusetts

Note: 2017 estimates derived by taking permitting numbers through June and multiplying by 2.

Housing Production in the City of Boston

The increase in housing permits this year is cause to celebrate. We are building more and more units to accommodate our rapidly growing population in the Greater Boston area. However, before we begin a full-scale celebration, it is important to consider a sobering fact. New permitting is occurring in a relatively small number of the 161 communities in Greater Boston. If we exclude the city of Boston itself, the total number of permits in the region as a whole is actually shrinking.

What the data in the previous tables and now in **Table 2.5** demonstrate is that some communities are stepping up to the housing challenge while others are not. First, let us focus on the issuance of housing permits for 5+ family units. This year we predict that there will be a total of just over 8,500 permits issued for 5+ family homes, but of these more than 5,000 are going to be issued in the city of Boston. That means that of all the multifamily dwellings that will be developed over the next few years, nearly 60 percent are going to be in just one municipality.

TABLE 2.5

Housing Permits Issued: City of Boston vs. Greater Boston

	All Units		5+ Units	
	2016	2017 (est.)	2016	2017 (est.)
Greater Boston	11,525	12,917	6,506	8,503
Boston	3,347	5,342	3,019	5,033
Greater Boston less City of Boston	8,178	7,575	3,487	3,470
City of Boston as % of Greater Boston	29.0%	41.4%	46.4%	59.2%

Source: U.S. Census Bureau, Annual New Privately-Owned Residential Building Permits for Places in Massachusetts

By the end of 2017, we predict that just under 13,000 new housing permits of all types are going to be issued. Of this total, a little more than 5,300, or 41 percent, are going to be issued in Boston alone. Between 2012 and today, Boston has issued no less than 22 percent of the region's annual permits—but it has been pushing this proportion up each year.

Some may argue that these figures show that Boston is merely producing a share of permits proportional to its population and size, but the data suggest otherwise. According to a geospatial analysis of the Greater Boston Region, the city of Boston only makes up 0.62 percent of the total landmass of the region and, according to the 2010 Census, only 9.4 percent of the region's population. But as **Table 2.6** reveals, Boston has been responsible for 23 to 36 percent of all housing permits issued each year since 2012 across the 147 cities and towns in Greater Boston for which we have permit data. As such, given the size of its population, Boston has been issuing 2.4 to 3.8 times as many permits each year as it would be if permitting activity were directly proportional to the number of residents in each Greater Boston community.

TABLE 2.6

Boston Share of Greater Boston Housing Permits 2012–2016

Year	Boston's Permit Issuance Share
2016	29.0%
2015	36.5%
2014	24.7%
2013	23.4%
2012	22.6%

Source: City of Boston Department of Neighborhood Development (DND)

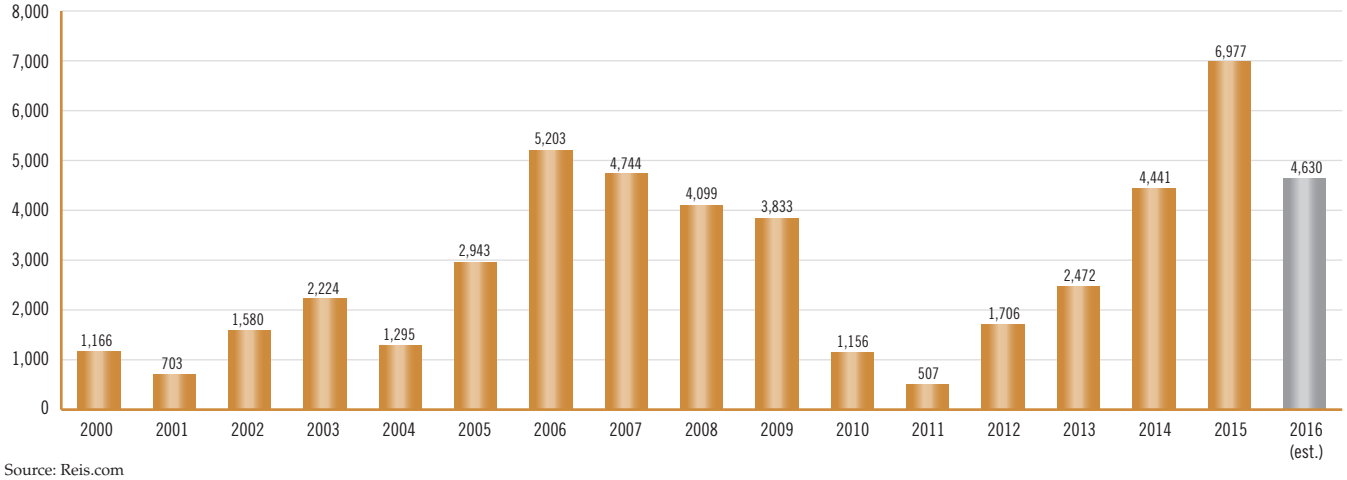
Housing Construction

The issuance of permits is only the second stage in the housing development process. Developers first have to apply for a permit and only after receiving one can they move ahead to construction. Long delays can stretch between a permit application, the issuing of a permit and finally the construction of housing. Data on the number of new apartments completed each year in the Boston metro region are collected by Reis, Inc., a national real estate market research and analysis firm.[2] **Figure 2.8** provides the number of new units going back to 2000.

Housing construction boomed during the middle of the last decade. From only 703 apartment units completed in 2001, the region saw more than 5,200 units come on line in 2006. With the housing meltdown, construction declined to a new low of just 507 units in 2011. Then, as the economy recovered and the

FIGURE 2.8

New Completed Apartment Units, Boston Metro Area 2000–2016 (Est.)



Source: Reis.com

population increased, developers came back into the market and set new records for construction. In 2015, nearly 7,000 apartments were completed in the region.

But in 2016 it appears there was a relative pause in new construction despite near record low housing vacancy rates. By the end of last year, Reis believes that only about 4,630 units will have been built in the Boston metro market, down a full third (-33.6%) from the previous year and only slightly more than in 2014.

Whether this reduction in construction is temporary or more permanent will rely on two key questions. Have developers built most of the high-end luxury housing the market can absorb? Will they figure out a way to build housing for working families and middle-income households so that construction heats up again?

Speeding Up Permitting

One encouraging sign in Boston is the sharp reduction in the time it takes for a developer to obtain a permit. **Table 2.7** lists the average time in days between an application and an issued permit. As recently as 2014, it took on average more than 470 days—more than 15 months—to receive a permit for one single-family home. By 2016, the wait time in the city was down to 74 days. Permits for multifamily developments took, on average, 425 days in 2014. Today, the wait time is less than 120 days—essentially four months—rather than a year or more.

TABLE 2.7

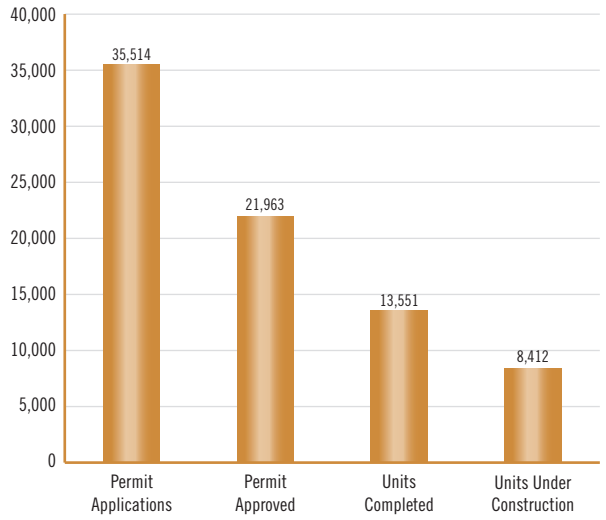
Average Application to Permit Wait Time (in Days) by Housing Type, 2014–2016 (September)

	2014	2015	2016
Single-Family Home	472	218	74
Two-Unit	453	232	94
Three-Unit	485	189	53
Four-Unit	551	321	115
Multifamily	425	221	119

Source: City of Boston Department of Neighborhood Development (DND)

FIGURE 2.9

City of Boston Units of New Housing 2014–2017 (Q2)



Source: City of Boston Department of Neighborhood Development (DND)

Figure 2.9 summarizes the housing activity undertaken by the City of Boston since the inauguration of Mayor Walsh's 2030 housing initiative. From the beginning of 2014 through the middle of 2017 (2017:II), the City's Inspectional Services Department received more than 35,500 permit applications for new housing units. By the end of this period, it had approved nearly 22,000 applications. From these, more than 13,550 units have been constructed with another 8,400 under construction. As such, by mid-2017, the City was already well on its way to fulfilling the promise of 53,000 new housing units by 2030, with 40 percent built or under construction.[3]

Affordable Housing Production in Boston

The City is proud of the fact that it is on track to meet its production targets for low-income households. With 362 units completed to date or in the pipeline for "extremely low-income households," which have incomes under 30 percent of the area median income (AMI), Boston continues to come close to its annual target. The same is true for "low-income families," whose income is under 60 percent of AMI. Nearly 1,400 units have been completed, are under construction or have been permitted to meet this target.

Development of units for those with incomes under 60 percent of AMI are made possible by an array of federal and state subsidies that render their construction financially feasible.

Nevertheless, with the proliferation of luxury units, the costs of development rising, and subsidies for housing limited, the *proportion* of affordable housing units in total production has been falling since 2003. In the period 1996 to 2003, more than 39 percent of all permits were for affordable units. In the following period, 2004–2010, the proportion was down to less than 26 percent and since 2011 the proportion has fallen to only about 18 percent.[4]

Even more difficult is producing housing for "middle-income" households. For these households with incomes between 60 and 120 percent of AMI, a total of more than 3,700 units have been produced or permitted to date, but this is only 68 percent of the City's ambitious production target.

What has been permitted, under construction or completed from the beginning of 2014 through the end of 2016 is, in large measure, housing for upper middle-income and wealthier households. Fewer than 5,500 of the more than 17,000 units permitted since 2014 are for low-income or middle-income families. That means that more than two-thirds (68%) of Boston's housing pipeline to date has been built for higher-income families and households that presumably can afford the extremely high prices and rents in the region's housing market.

It is clear that Boston continues to face the challenge of creating a housing stock that benefits working households—along with everyone else who strives to live in the city.

Student Housing Production in Boston

The Department of Neighborhood Development (DND) also reports some progress in the permitting of undergraduate dormitory units since 2013.[5] Between then and June of 2016, permits have been issued for 3,170 additional dorm units. While a welcome addition, this still represents only 72 percent of the City's target for such housing. Moreover, there has been no increase in the number of housing units built by universities or for them by private developers for graduate students, of whom more than 90 percent live off campus.

Of the nearly 150,000 undergraduate and graduate students enrolled in Boston-based universities and colleges, more than 77,000 live off campus in private homes somewhere in the Greater Boston region.[6] Of these, more than 30,000 are living within the city of Boston. More than 15,000 of these live in rental apartment buildings with four or more units or in "multi-use properties." Notably, more than 13,000 students currently occupy single-family, two-family, three-family or condo units within the city of Boston—many in the traditional triple-deckers and duplexes that were once homes for working families. The top locations for students in the city are the Fenway/Kenmore, Allston, Mission Hill and Brighton neighborhoods. Given the limited increase in the supply of housing in the face of such student demand, it is not surprising that apartment rents have increased sharply in the city, at least through 2016.

Table 2.8 provides more detail on where students in Greater Boston are living. Of the more than 92,000 undergraduates in Greater Boston in 2016, 46 percent are living in on-campus residence halls while the remaining 54 percent live off campus. Of these, more than 35,400 are living alone or with roommates in off-campus housing and not at their parents' or guardians' homes. These students have a "high impact" on the region's private housing market. Another 3,169 live in university-managed off-campus housing, but much of this was previously private market housing that local universities and colleges purchased to house their students. This has a "moderate impact" on the private housing market because if these units were not university-owned, they presumably would have remained as part of the private market stock.

The Boston-based universities with the largest enrollments of *undergraduates* living off campus and not at home are:

UMass Boston	7,956
Northeastern University	6,594
Boston University	4,146
Berklee School of Music	2,639
Suffolk University	2,024

These five schools, of the 30 operating in the city, account for 75 percent of all full-time undergraduates living off campus and not at home. But the real pressure on the Boston housing market is now coming from *graduate students* who make up an ever-larger share of university enrollments. Between 2013 and 2016, total student enrollment in the 30 institutions of higher education with programs in the city of Boston increased by more than 2,500. Undergraduate enrollment actually declined by 440 students, but this was more than made up for by an increase of nearly 3,000 graduate students. Indeed, the key to student

TABLE 2.8

Students Living On-Campus vs. Off-Campus in Greater Boston, 2016

	Total Number	On-Campus	No Impact on Private Housing Market: Off-Campus Study Abroad/ Co-op	Low Impact on Private Housing Market: Off-Campus Commuter Living at Home	Moderate Impact on Private Housing Market: Off-Campus University Managed Housing	High Impact on Private Housing Market: Off-Campus Not Living at Home	Percent Living on Campus	Percent Living Off Campus Not Living at Home	Percent Off-Campus Commuter Living at Home	Percent Abroad or Co-op	Percent Living in Off Campus Managed Housing	Percent Off-Campus excluding Living at Home
Undergraduates	92,202	42,342	1,519	9,754	3,169	35,418	45.9%	38.4%	10.6%	1.6%	3.4%	43.0%
Graduate Students	56,979	5,570	123	12,432	305	38,549	9.8%	67.7%	21.8%	0.2%	0.5%	86.5%
Total	149,181	47,912	1,642	22,186	3,474	73,967	32.1%	49.6%	14.9%	1.1%	2.3%	58.2%

Source: Student Housing Trends 2016-2017 Academic Year, Department of Neighborhood Development, City of Boston

growth in higher education today is the admission of graduate students as the pool of undergraduates begins to shrink. Between 2013 and 2016, Northeastern increased its undergraduate enrollment by 261, but its graduate enrollment swelled by 2,801. Boston University reduced its undergraduate student body by 68 while adding 450 grad students. Mass College of Pharmacy and Health Sciences took most dramatic in this category: It increased its graduate student enrollment by 792 while enrolling 794 fewer undergrads.[7]

This growing cohort of graduate students overwhelmingly occupy private market housing units—often with roommates, allowing them to out-compete working families for this housing by their ability to pool income and share the cost of rent. Of the nearly 57,000 graduate students living in Greater Boston, only 5,570 are housed on campus. More than 38,500—over two-thirds—live off campus and not with parents or guardians. If the average number of graduate students living together in off-campus housing is 2.5, they are occupying nearly 15,500 units of private housing, largely where working families used to live.

The Role of Chapter 40R in Housing Production

In successive *Greater Boston Housing Report Cards*, we have been keeping track of housing production developed under Chapter 40R, which provides monetary incentives from the state to communities that create "Smart Growth Zoning Overlay Districts."[8] Chapter 40R and its companion legislation Chapter 40S, which provides additional state assistance to 40R communities whose school costs increase as a result of making additional housing available, were passed in 2004 and 2007, respectively. **Table 2.9** provides the latest data on 40R units that are already constructed or that have site approval for development.

TABLE 2.9

Chapter 40R Statistics by Community

City/ Town	District	Site Plan Approval only*	Studios/ Lofts	1 BR	2 BR	3BR +	4 BR	Total Units	Ownership	Rental	Affordable Units
Amesbury	Gateway (Amesbury)		0	99	136	5	0	240	0	240	60
Belmont	Oakley Neighborhood		0	0	0	17	0	17	17	0	3
Boston	Olmsted Green	377	0	75	68	16	0	159		159	159
Bridgewater	Waterford Village	0	0	0	0	0	0	0	0	0	0
Brockton	Downtown (Brockton)	0	0	0	2	0	0	2	0	2	2
"	"	0	5	4	16	0	0	25	0	25	14
"	"		0	63	45	5	0	113	0	113	71
"	"	102	0	0	0	0	0	0	0	0	0
"	"	48	0	0	0	0	0	0	0	0	0
Chelsea	Gerrish Ave	0	53	5	40	20	2	120	26	94	55
Chicopee	Chicopee Center	0	3	0	0	0	0	3	0	3	3
Dartmouth	Village @ Lincoln Park		0	8	24	4	0	36	0	36	36
"	"	84	0	0	0	0	0	0	0	0	0
Easthampton	Downtown	0		11	30	9	0	50	0	50	50
Easton	Queset Commons	0	10	26	14	0	0	50	0	50	13
"	"	48	0	0	0	0	0	0	0	0	0
"	"		0	12	38	10	0	60	60	0	3
Fitchburg	SGOD (Fitchburg)	0	0	21	76	8	0	105	0	105	27
"	"		0	29	58	9	0	96	0	96	39
Grafton	Fisherville Mill	0	0	0	0	0	0	0	0	0	0
Great Barrington	North SGOD	0	0	0	0	0	0	0	0	0	0
Great Barrington	South SGOD	0	0	0	0	0	0	0	0	0	0

City/ Town	District	Site Plan Approval only*	Studios/ Lofts	1 BR	2 BR	3BR +	4 BR	Total Units	Ownership	Rental	Affordable Units
Haverhill	Downtown (Haverhill)	0	193	0	112	0	0	305	0	305	61
"	"	0	0	11	46	0	0	57	0	57	33
"	"	62	0	0	0	0	0	0	0	0	0
Holyoke	Downtown (Holyoke)	0	0	0	5	0	0	5	3	2	0
"	"	0	6	24	24	0	0	54	0	54	54
Kingston	1021 Kingston's Place	0	0	0	0	0	0	0	0	0	0
Lakeville	Lakeville Station	0	0	55	149	0	0	204	0	204	100
Lawrence	Arlington/Malden Mills	0	0	17	58	0	0	75	0	75	72
"	"		4	16	36	6	0	62	0	62	62
Lowell	Downtown (Lowell)	0	0	33	19	0	0	52	0	52	26
"	"	75	0	0	0	0	0	0	0	0	0
"	"		4	20	44	2	0	70	0	70	57
Ludlow	SGOD	0	0	63	12	0	0	75	0	75	66
Lunenburg	Tri-Town Landing	0	0	12	48	6	0	66	0	66	60
"	"	0	0	6	24	3	0	33	0	33	33
"	"	0	0	5	23	4	0	32	0	32	32
Lynnfield	SGOD (Lynnfield)	0	0	108	72	0	0	180	0	180	45
Marblehead	Pleasant Street	0	0	0	0	0	0	0	0	0	0
Marblehead	Vinnin Square	0	0	0	0	0	0	0	0	0	0
Natick	Paperboard	0	0	54	84	0	0	138	0	138	28
Newburyport	SGOD	84		0	0	0	0	0	0	0	0
North Andover	Osgood Landing	0	0	0	0	0	0	0	0	0	0
North Reading	Berry Center	0	0	238	168	0	0	406	0	406	102
Northampton	Village Hill/State Hospital	0	0	19	25	18	0	62	22	40	32
"	"	0	71	12	0	0	0	83	0	83	43
Norwood	Guild St	40	0	0	0	0	0	0	0	0	0
Norwood	St. George Ave.	0	0	10	3	2	0	15	15	0	3
Pittsfield	SGOD (Pittsfield)	0	0	16	51	0	0	67	0	67	67
"	"	0	0	19	20	6	0	45	0	45	43
Plymouth	Cordage Park	204	0	0	0	0	0	0	0	0	0
Reading	Downtown (Reading)	0	0	23	30	0	0	53	0	53	11
"	Downtown (Reading)	50	0	0	0	0	0	0	0	0	0
"	Gateway (Reading)	0	0	94	106	0	0	200	200	0	40
Rockland	DRROD	0	0	0	0	0	0	0	0	0	0
Sharon	Sharon Commons	192	0	0	0	0	0	0	0	0	0
South Hadley	S. Hadley Falls SGOD	0	0	0	0	0	0	0	0	0	0
Swampscott	Vinnin Square	0	0	0	0	0	0	0	0	0	0
Westfield	Southwick Rd	0	0			0	0				
	2017 Total	1,366	349	1,208	1,706	150	2	3,415	343	3,072	1,605
	2016 Total	1,465	346	1,226	1,639	139	4	3,354	283	3,069	1,599
	Added/Corrected in 2017	-99	3	-18	67	11	-2	61	60	3	6
	Percentage Change	-7%	1%	-1%	4%	8%	-50%	2%	21%	0%	0%

Source: Massachusetts Department of Housing and Community Development, October, 2017

*building permits pending

Back in 2010 when the legislation first took hold after the housing crisis abated and housing construction was finally moving ahead, the Commonwealth Housing Task Force estimated that a little more than 12,000 units of 40R housing could eventually be constructed in the 33 cities and towns that were considering adoption.[9] As of October of this year, a total of 3,607 units have been completed and occupied or have site plan approval for development. Of these, 90 percent are rental units and nearly half of all units (47%) are affordable. Of the total, half have two bedrooms with another 37 percent being one-bedroom apartments.

Annual production of 40R units hit its peak in 2014 when 370 units were produced or had site approval. As of October of this year, the number is 283—a number almost exactly the same as in 2016.

The communities that have produced the most since 2010 are:

North Reading	406
Haverhill	362
Reading	253
Lakeville	204
Fitchburg	201
Sharon	192
Lynnfield	180

Given the slow progress toward meeting the production levels anticipated back in 2010, one would expect that it will require the Commonwealth to more aggressively market 40R and 40S so as to encourage more cities and towns to adopt these housing production tools and move more quickly toward site approval and construction.

Foreclosure Activity in Greater Boston

When the housing crisis hit, beginning in late 2005, foreclosure petitions and completed foreclosures (deeds) for single-family homes in Greater Boston exploded. The number of petitions to foreclose increased by a factor of 10 between 2003 (863) and 2007 (8,977), as **Figure 2.10** shows. The number of actual foreclosures increased by a factor of 120, rising from just 25 in 2003 to over 3,000 four years later (see **Figure 2.11**). While petitions and deeds remained at high levels through 2009, the number began to recede in subsequent years. By 2013, the number of petitions had fallen to fewer than 1,700 and the number of deeds to only a little more than 700.

Yet between 2013 and 2016 both petitions and deeds were on the rise again. Annual petitions increased from fewer than 1,700 to more than 4,200. Completed foreclosures as measured by foreclosure deeds increased from nearly 740 to nearly 1,640. In 2017, we estimate that the number of new petitions and deeds will, for the first time in five years, have fallen. We estimate that by the end of this year just over 4,000 petitions will have been issued while about 1,550 more households in Greater Boston will have lost their homes to foreclosure. This marks a small decrease in both petitions and actual foreclosures from 2016.

That the number of petitions and deeds nevertheless remains well above the level before the housing bust that began after 2005 is likely due to the fact that while the economy has continued to improve in Greater Boston, the unevenness of income growth has left too many families and households unable to meet their mortgage obligations. If this is true, we may see a heightened level of foreclosure for a number of years.

Conclusion

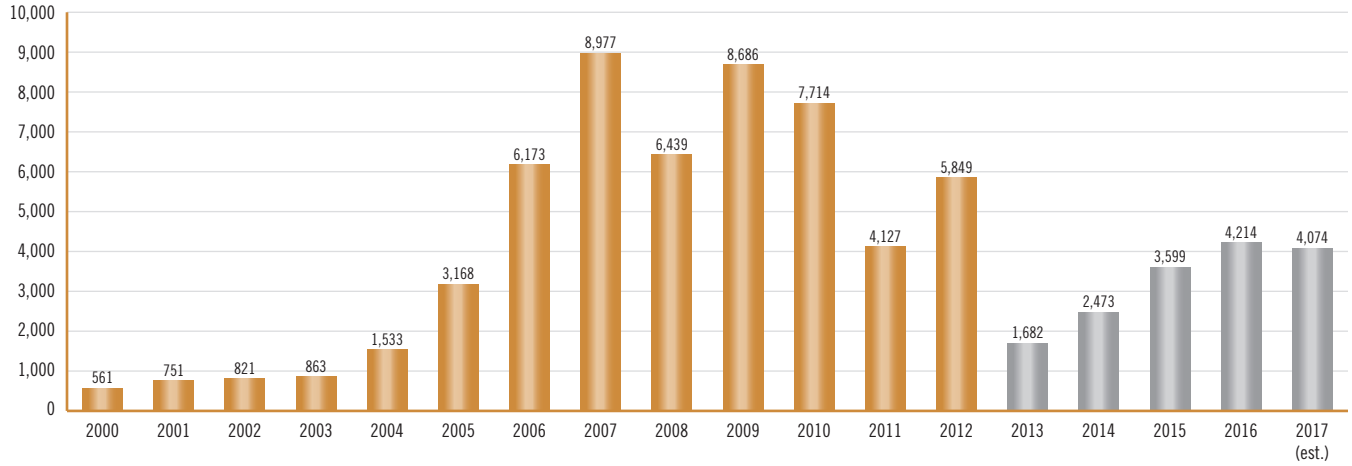
This year brings some good news, but also continues some unsettling news about the housing market in our region. On the cheerier side, the region saw an overall increase in housing permits issued, continuing the trend from 2011 that we thought had ended last year. Between 2016 and this year, the number of permits is up 12 percent. Of these permits, almost two-thirds are for units in multifamily developments with five or more units, nearly a 31 percent jump from last year. Homeownership rates saw a moderate increase this year, bringing the region's total to about 60 percent of residents owning their home.

On the more gloomy side, this year saw the first serious decline in single-family home sales since 2006 and the first decline in condo sales since 2011. Though homeownership is going up, it is not increasing evenly across age groups: We are seeing 10 percent fewer 25–34 year-olds owning homes in 2015 than they did in 2000 and 9 percent fewer 35–44 year-olds owning homes in that same period.

Moreover, as far as new permitting and new construction goes, the City of Boston remains the region's leader with the rest of Greater Boston falling behind. In housing permit issuance, the City was responsible for more than 41 percent of the region's housing permits in 2017. This imbalance in permitting effort could cause housing markets in other communities to experience continued increases in housing prices and rents.

FIGURE 2.10

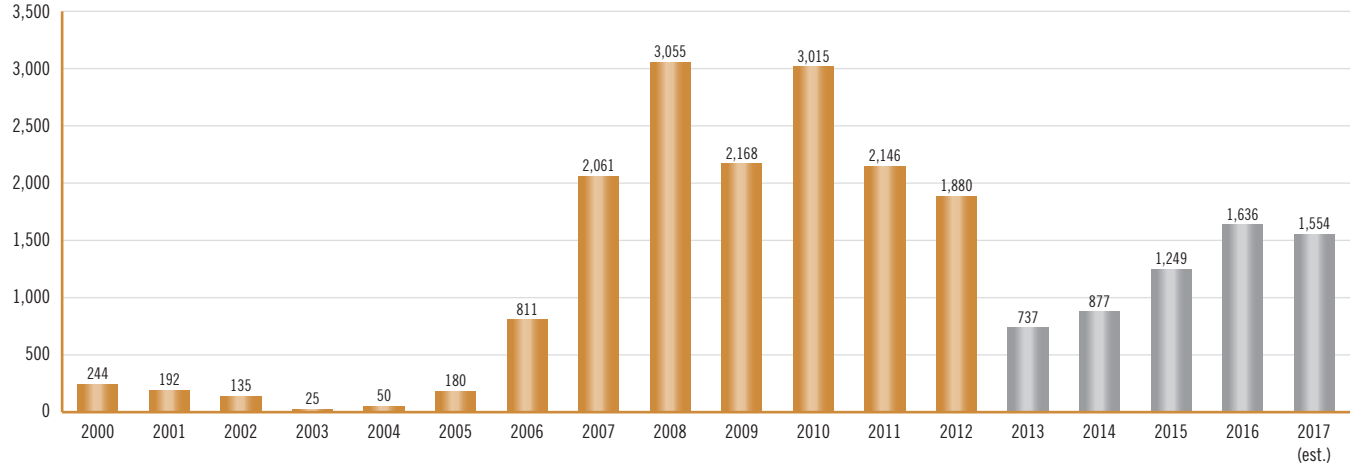
Annual Number of Foreclosure Petitions in Single-Family Homes in Five-County Greater Boston Region, 2000–2017 (Est.)



Source: The Warren Group

FIGURE 2.11

Annual Number of Foreclosure Deeds in Single-Family Homes in Five-County Greater Boston Region, 2000–2017 (Est.)



Source: The Warren Group

CHAPTER THREE

Home Prices and Rents in Greater Boston

As we noted in last year's *Greater Boston Housing Report Card*, the dynamics of home prices and rents depend on a wide array of factors. Reprising **Table 3.1** provides a summary of these. A strong economy, rising household income, population growth, low mortgage rates and, most importantly, a limited supply of new homes for sale will almost inevitably put upward pressure on home prices. On the other side, rising household indebtedness, delayed marriage and child-bearing, and an aging population will often lead to a softening of home prices as more households find it difficult to secure mortgages; young adults continue to rent until they form families and begin having children; and older adults begin to consider selling their larger single-family homes for apartments, condos or skilled nursing facilities.

As for rents, a strong economy, increased income inequality, and delayed marriage and child-bearing along with a limited supply of rental housing will lead to rising rents. Those who are at the low end of the income distribution often must rent because they cannot afford or qualify for homeownership. As such, income inequality as we have in Greater Boston leads to higher rents. About the only thing that can counter rising rents is the development of a larger supply of reasonably priced rental apartments. Because this has not occurred in Greater Boston, the upward pressures on rents have for years offset any downward pressure.

Home Prices in Greater Boston

According to the latest report of the Warren Group at the time of this writing, across all of Massachusetts the median sale price of single-family homes in August of this year reached $379,900, up from $364,900 the year before, and this marked the 17th consecutive month of year-over-year increases in median sale price.[1] Prices were up 4.1 percent over their August 2016 level.

In Greater Boston, home prices spiked even more, as **Figure 3.1** demonstrates. By 2017, according to the Case-Shiller Single-Family House Price Index, annual home price appreciation has increased for three years running. In the latest year, prices climbed 4.9 percent, about a point higher than Massachusetts statewide. Over the past two years (June 2015–June 2017), prices are up by more than 11 percent.

What is leading to these outsized annual home price increases is the lack of housing supply in the single-family home market. The best measure of this is the single-home vacancy rate—the number of unoccupied homes that could potentially be on the market. During the current year, as **Figure 3.2** reveals, the vacancy rate

TABLE 3.1

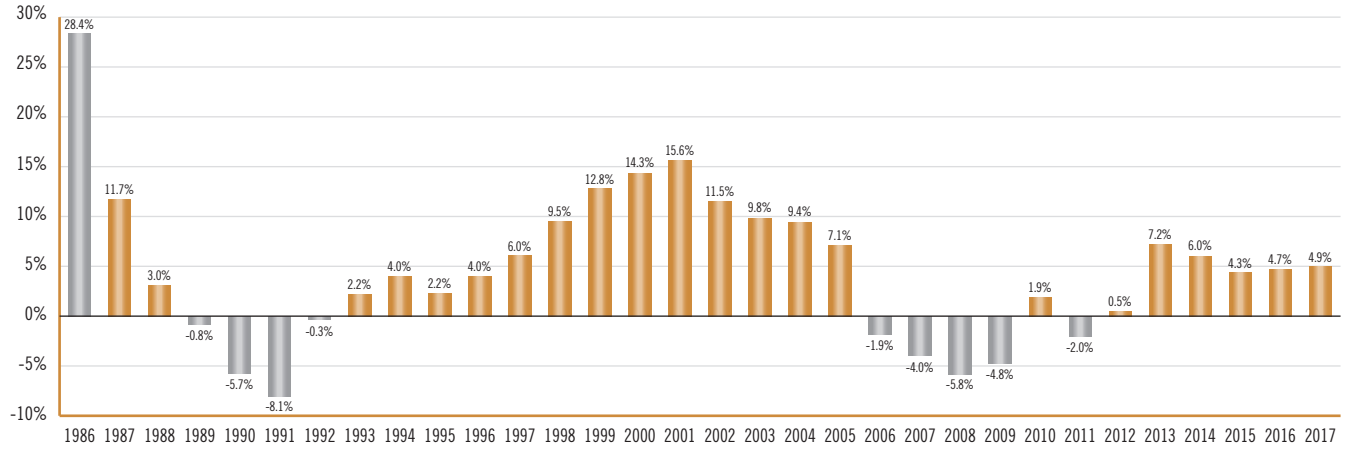
Factors Affecting Home Prices and Rents

Upward Pressure on Home Prices	Downward Pressure on Home Prices	Upward Pressure on Rents	Downward Pressure on Rents
Strong Economy		Strong Economy	
Rising Household Income	Household Indebtedness	Increased Income Inequality	
Population Growth	Delayed Marriage/Childbearing	Delayed Marriage/Childbearing	
	Aging Population		
Limited Supply of New Homes		Limited Supply of New Apartments	Increased Supply of New Apartments
Low Mortgage Rates			

Source: Dukakis Center for Urban and Regional Policy

FIGURE 3.1

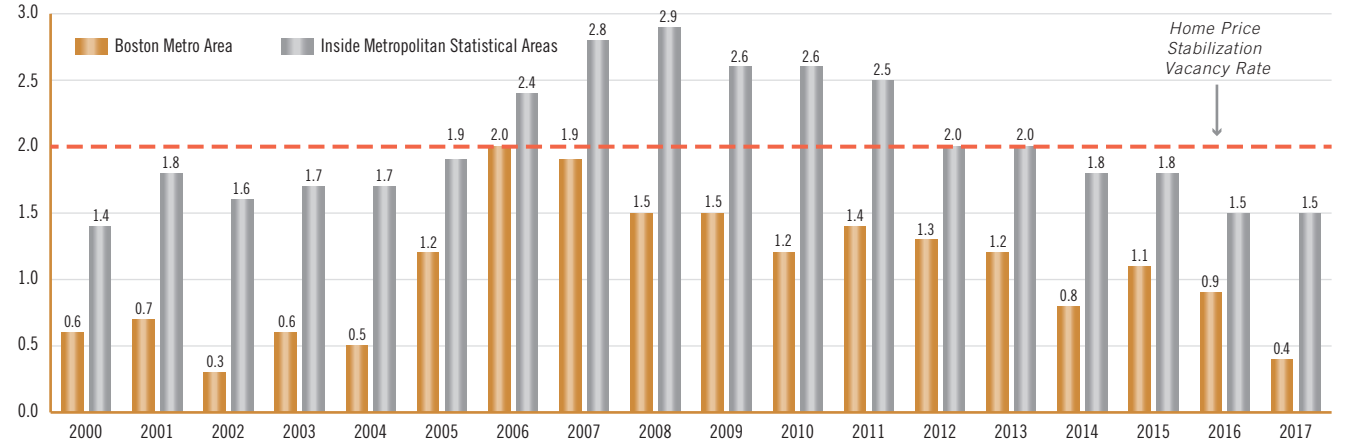
Annual Percent Change in Case-Shiller Single-Family House Price Index, Greater Boston Metropolitan Area, 1987–2017 (Est.)



Source: S&P Dow Jones Indices LLC

FIGURE 3.2

Homeowner Vacancy Rates, Greater Boston vs. U.S. Metro Areas, 1990–2017 (Through June)



Source: U.S. Census Bureau, Housing Vacancy Survey

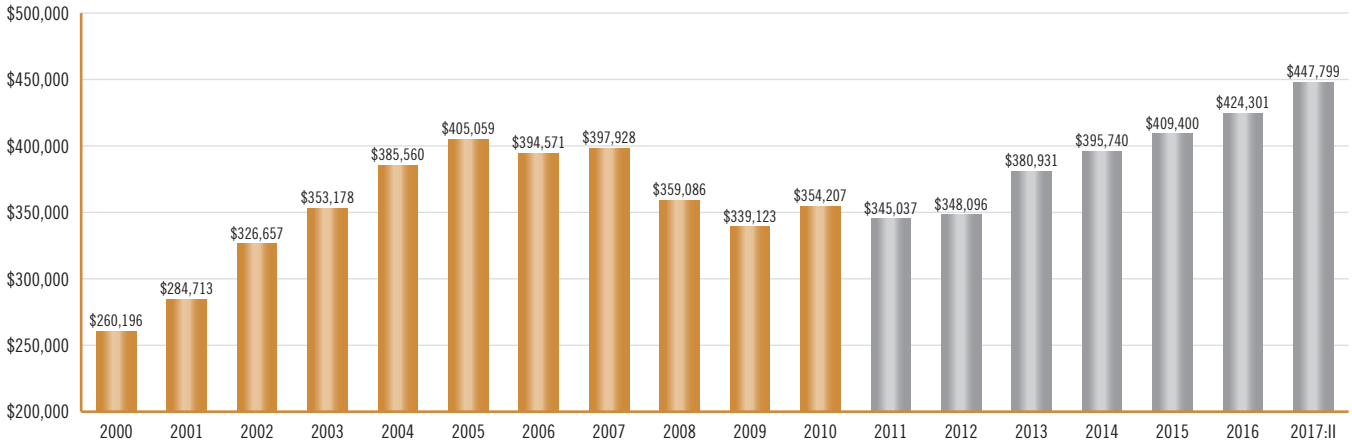
for homeowner housing in the Boston metro area has fallen to its lowest rate since 2002. At 0.4 percent, the current vacant home inventory in the area is little more than a quarter of the national rate and well below the 2 percent rate usually necessary to stabilize home prices. As of June of this year, the vacancy rate was less than half that in 2016 and a third of what it was in 2013.

With such a low vacancy rate, home prices have hit an all-time record this year, as **Figure 3.3** reveals.[2]

According to the Warren Group, the median price of single-family homes in the five-county Greater Boston region reached $447,799. If you bought the median-priced home in the second quarter of 2017, you had to pay nearly $25,000 more than if you had purchased it a year before and you would have paid nearly $100,000 more than if you had been in the home market in 2013. That is, since 2013, the median price of single-family home in Greater Boston has shot up 29 percent.

FIGURE 3.3

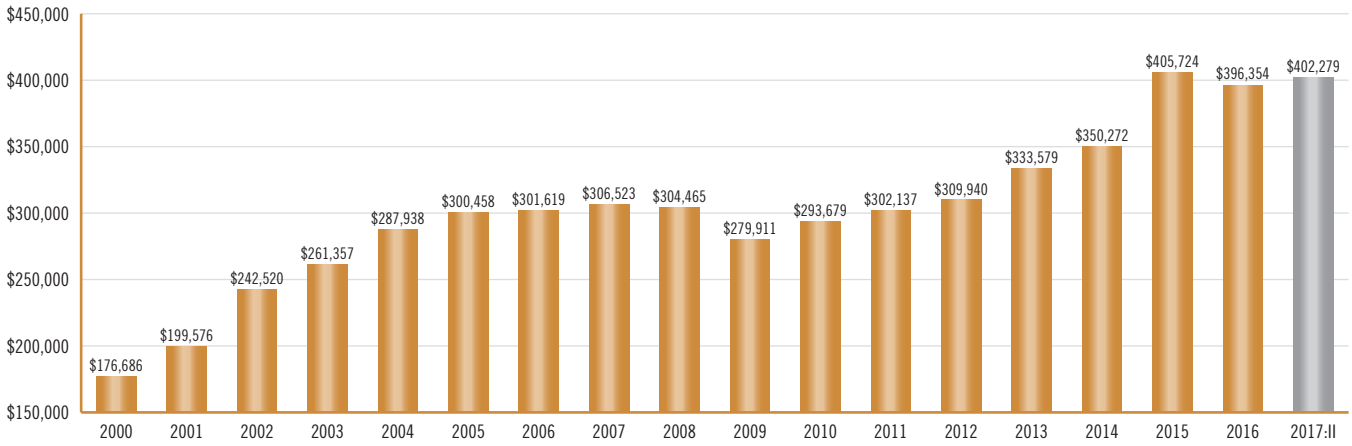
Annual Median Price of Single-Family Homes in Five-County Greater Boston Region, 2000–2017



Source: The Warren Group

FIGURE 3.4

Annual Median Price of Condominiums in Five-County Greater Boston Region, 2000–2017



Source: The Warren Group

Condominium Prices in Greater Boston

Unlike the steadily rising trajectory of single-family home prices, condominium prices in Greater Boston have stabilized over the past three years, as **Figure 3.4** demonstrates. This likely is the result of the proliferation of high-end condominium production, particularly in the city of Boston over the past five years.

This luxury market may be approaching its saturation point and as it does, it reduces the overall median price, providing strong evidence that increased supply of a particular kind of housing product eventually affects its price.

This shift in relationship between median prices of single-family homes and condos is depicted in **Figure 3.5**. For 15 years (2000–2015), the ratio of condo prices to single-family home prices continued to rise, more

or less steadily, from .68 to near parity. This was due to the fact that condo production was limited in many areas while the demand for this type of housing surged as young professionals and an increasing number of seniors entered the condo market. Meanwhile the production of single-family homes continued apace. With the production of luxury condos rising in the region, however, supply and demand for them has reached near equilibrium so that prices are stabilizing and home prices are once again reliably higher than condo prices.

Diverging Home Price Appreciation

As we demonstrated in last year's report, while single-family home prices are generally rising, they are not doing so everywhere and the rate of price appreciation varies dramatically across cities and towns in Greater Boston, as **Table 3.2** demonstrates. Here we compare the 2017:II median price with the median price in 2005.

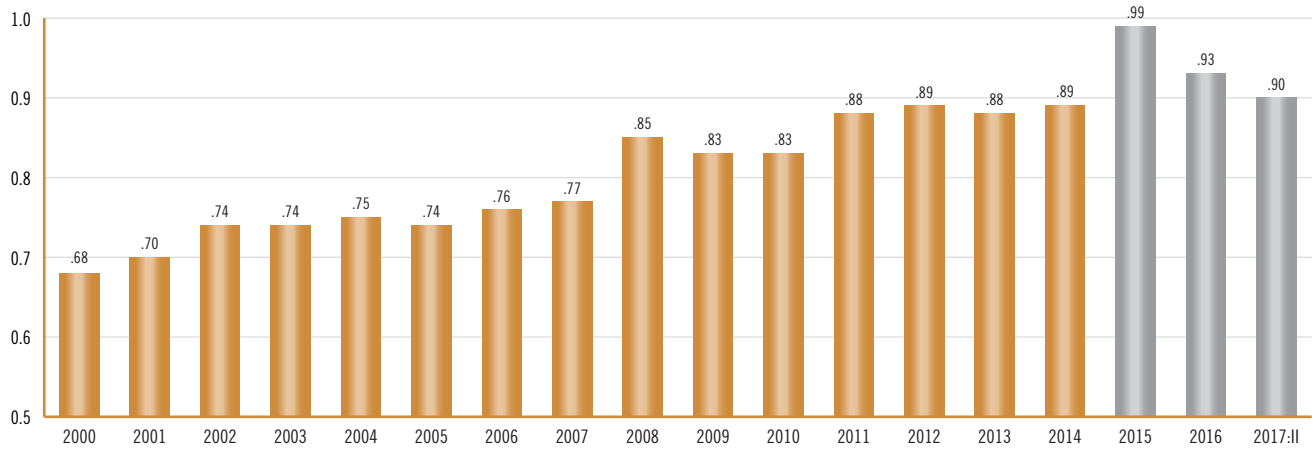
In some small suburban communities farther away from Boston, median prices today are still as much as 30 percent lower than they were in 2005. These towns include Dunstable, Hanson and Pepperell. A large number of other communities continue to have prices no higher than the levels that prevailed before the housing bubble burst.

On the other hand, communities near to Boston have seen their home prices explode. Cambridge leads the pack by far with a median selling price of single-family homes up 85 percent since 2005. Lexington is second at 63 percent; Somerville and Brookline both at 62 percent; and Boston at 55 percent (see **Appendix A**). Individual communities inside Boston, including South Boston and Jamaica Plain, once relatively low-price neighborhoods, have seen home prices rise by 71 to 83 percent. Roxbury's home prices are up 29 percent while Dorchester is up 40 percent. This trend has accelerated. Taking 2010 as the basis of comparison with prices in 2015, the median price of housing has increased the fastest in many of the city's lowest-income neighborhoods. While the median cost of housing between 2010 and 2015 increased by 36 percent across the city, it was led by a 70 percent increase in Roxbury, a 52 percent increase in East Boston and a 50 percent increase in Mattapan—the three neighborhoods of the 20 in the city where the most affordable housing units were located.[3]

Tony suburbs including Newton and Brookline are up more than 50 percent while Somerville has now become a hot market with single-family prices up 62 percent. Clearly, as the old saw goes, the three most important factors in home prices are "location, location and location" and the inner core is where households would like to live … if they can afford it.

FIGURE 3.5

Ratio of Condominiums to Single-Family Home Prices in Five-County Greater Boston Region, 2000–2017



Source: The Warren Group

TABLE 3.2

Ratio of Single-Family Home Prices: 2017 (Q2) vs. 2005

0.65 to 0.85	
Dunstable	0.71
Hanson	0.82
Pepperell	0.85
0.86 to 0.90	
Bellingham	0.87
Wareham	0.87
Rochester	0.88
Boxford	0.90
0.91 to 0.95	
Rockland	0.91
Middleboro	0.91
Shirley	0.91
Carver	0.92
Medway	0.92
Ayer	0.92
West Bridgewater	0.93
Bridgewater	0.93
North Andover	0.93
Marion	0.93
Lakeville	0.94
Hudson	0.94
Stow	0.94
Marlborough	0.94
Brockton	0.94
Amesbury	0.94
Ashby	0.95
Haverhill	0.95
Townsend	0.95
Carlisle	0.95
Holliston	0.95
Gloucester	0.95
Holbrook	0.95
Plymouth	0.95
0.96 to 1.00	
Lincoln	0.96
Plympton	0.96
Plainville	0.96
Lowell	0.96
Georgetown	0.97
Randolph	0.97
Lawrence	0.97
Sudbury	0.98
Marshfield	0.98
Swampscott	0.98
Groton	0.98
Abington	0.99
Nahant	0.99
Salisbury	0.99
Littleton	0.99
Tyngsboro	0.99
East Bridgewater	0.99
Franklin	0.99
Whitman	1.00
Wenham	1.00
Scituate	1.00
1.01 to 1.09	
Peabody	1.01
Halifax	1.01
Sherborn	1.01
Maynard	1.01
Ashland	1.01
Stoughton	1.01
Ipswich	1.02
Avon	1.02
Rowley	1.02
Westford	1.02
Methuen	1.02
Foxboro	1.03
Norfolk	1.03
Newbury	1.03
Millis	1.03
Groveland	1.03
Walpole	1.04
Medfield	1.04
Saugus	1.04
Boxboro	1.04
Canton	1.04
Pembroke	1.04
Dracut	1.04
Wrentham	1.04
Salem	1.04
Tewksbury	1.05
Hamilton	1.05
Danvers	1.05
Dover	1.05
Marblehead	1.06
Revere	1.06
Hanover	1.06
Chelmsford	1.06
Hopkinton	1.06
Chelsea	1.07
Mattapoisett	1.07
Mattapan	1.07
Merrimac	1.07
Topsfield	1.07
Lynn	1.08
Kingston	1.08
Duxbury	1.08
Framingham	1.08
Cohasset	1.08
Hyde Park	1.09
Norwood	1.09
Andover	1.09
West Newbury	1.09
Manchester	1.09
Over 1.10	
Weymouth	1.10
Hull	1.11
Weston	1.11
Middleton	1.12
Braintree	1.13
Hingham	1.13
Billerica	1.13
Acton	1.13
Winthrop	1.14
Sharon	1.14
Lynnfield	1.14
North Reading	1.15
Quincy	1.15
Wilmington	1.16
Rockport	1.16
Beverly	1.16
Wakefield	1.16
Dedham	1.17
Woburn	1.17
Wayland	1.17
Everett	1.17
Newburyport	1.17
Malden	1.18
Westwood	1.19
Natick	1.20
Norwell	1.21
East Boston	1.21
Burlington	1.22
Stoneham	1.24
Brighton	1.26
Waltham	1.26
Essex	1.28
Reading	1.29
Roxbury	1.29
Bedford	1.30
West Roxbury	1.31
Milton	1.33
Wellesley	1.34
Roslindale	1.35
Watertown	1.37
Belmont	1.39
Dorchester	1.40
Medford	1.41
Concord	1.44
Arlington	1.44
Melrose	1.45
Winchester	1.47
Needham	1.48
Newton	1.52
Charlestown	1.57
Brookline	1.62
Somerville	1.62
Lexington	1.63
Jamaica Plain	1.71
South Boston	1.83
Cambridge	1.85
Boston	2.26

Source: The Warren Group

Unfortunately, families with limited income who wish to join the homeownership market must move further and further away as in-close communities and neighborhoods become increasingly overpriced.

With the growing demand for housing in working-class communities, this is where we have seen some of the fastest appreciation in home values over the past two years. In Everett, the median selling price of a single-family home has leapt by a remarkable 33 percent since 2015—from $307,500 to $410,000. In Lynn, the median price has jumped 20 percent from $278,250 to $335,000 and in Malden prices are up 19.5 percent to a median of $430,000.

Statistically correlating the 2015 median price level for each of the 147 Greater Boston communities—as a measure of the relative cost of housing in a community—with the percentage increase in prices between 2005 and 2015 reveals a powerful positive relationship suggesting that over this 10-year period the communities with the highest home prices also saw the highest appreciation. The simple correlation is +.707. Thus over the long run, already wealthy communities like Newton, Brookline and Lexington experienced the greatest run-up in home values. Over this same time period, older working-class communities experienced almost no price appreciation or saw home values deteriorate. From 2005 to 2015, the median price of a single-family home in Peabody increased by just 0.5 percent while the median price over this decade declined by 2.0 percent in Lawrence, by 3.3 percent in Randolph and by 3.6 percent in Lowell.

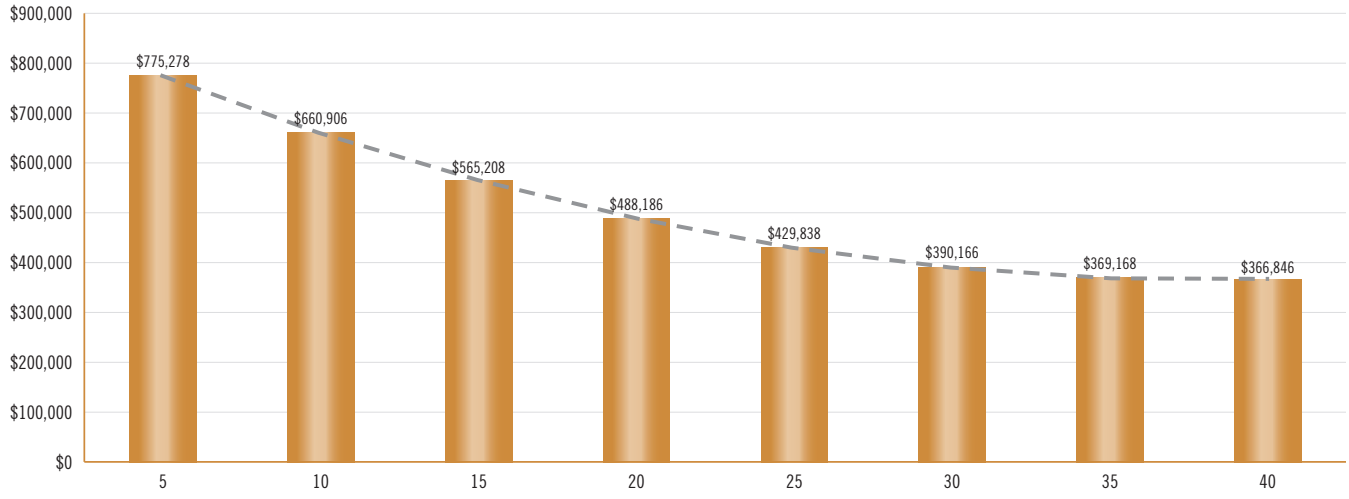
Since 2015, however, the correlation between high median home price and rapid price appreciation has totally disappeared and even turned negative. The simple correlation is now -.096. In just two years, Peabody's median home price is up 6.0 percent, Lowell is up 9.6 percent and Lawrence is up 14.2 percent—outstripping the price appreciation in Brookline (14.0%) and Newton (12.4%)! What this almost inevitably reflects is a movement by middle-income and working-class households into lower cost communities, yet in making this move driving up prices in areas that were once quite affordable.

Home Price Gradient

A new statistical analysis provides evidence on just how much location matters in terms of home prices in Greater Boston. In this case, we have measured the average median price of homes recently sold in each of the region's 147 communities and the distance from the center of the city of Boston to each of these cities and towns. The result is a "home price gradient" that summarizes prices found as one moves further and further away from the urban core.[4] **Figure 3.6** provides a depiction of the gradient.

FIGURE 3.6

Greater Boston Home Price Gradient (Median Price vs. Distance from City of Boston in Miles), 2017



Source: Warren Group Data; Authors' Analysis

While communities at any given distance from the city vary greatly, there is a reasonably strong statistical tendency for housing to remain substantially less expensive and more affordable the further one goes out from the inner cores, despite the recent price increases in communities like Lowell, Lawrence and Peabody. According to this analysis, the median price of single-family homes within five miles of Boston's center now exceeds $775,000. In Cambridge, the median sales price in 2017 is now $1.2 million while in Brookline the median price was north of $1.8 million. Just slightly beyond five miles from the center of Boston, Milton's median single-family home sold for $630,000 where in what once was working-class Somerville the median is now only slightly less than $700,000.

Moving 10 miles from downtown Boston reduces the average median home price by nearly $115,000. Moving out another five miles drops the average price by another $95,000 to $565,000. Beyond that the median price continues to fall but at a decelerating rate. Only when you move at least 30 miles from Boston, however, does the average median price slip below $400,000.

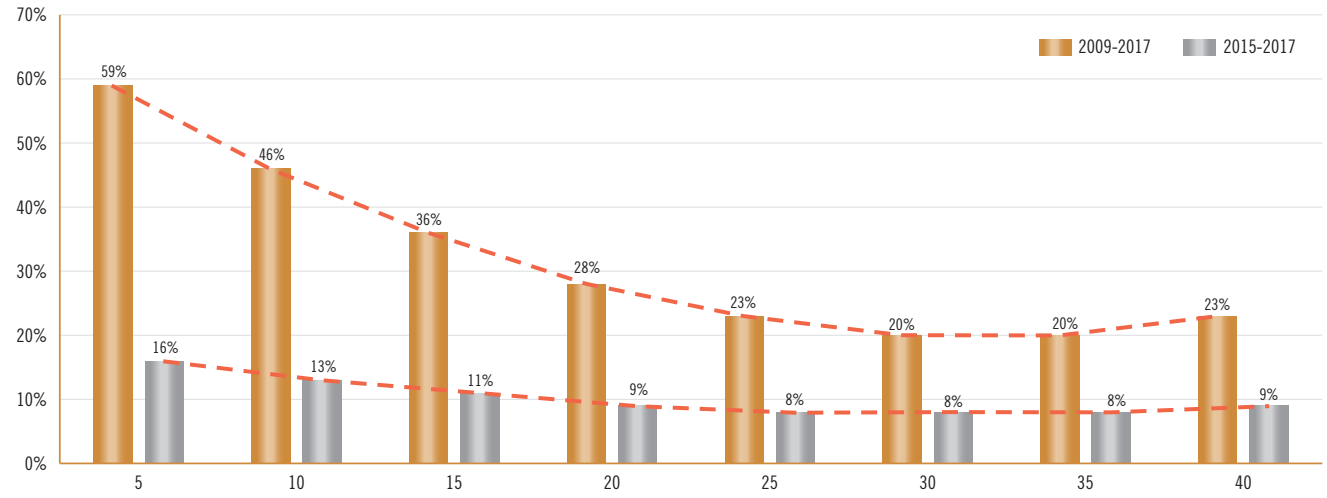
Given this steep price gradient, it is not surprising that more and more families have considered moving further away from Boston to find housing that is more affordable. Ultimately, this drives prices up on homes outside of Boston just as the correlations suggest. As **Figure 3.7** demonstrates, between 2009 and 2017 the average median price of homes within five miles of the center of the city of Boston increased by nearly 60 percent while those 35 miles from the city increased by only 20 percent.[5] Thus, the price increase ratio over this eight-year period was 3 to 1. During the past three years (2015–2017), however, the ratio has declined to 2 to 1, indicating that the home price gradient has been "flattening." This suggests that as more households have moved further away from Boston, demand pressure has begun to boost single-family home prices in both inner and outer suburbs—as simple supply and demand models would predict. Of course, in forcing more households to spread out in the region, the price gradient leads to a greater transportation challenge. The more that home prices push households to the outer suburbs, the worse highway congestion becomes and the more we need to pay attention to not only our housing challenges but our transportation conundrum as well.

Diverging Condo Price Appreciation

The same kind of geographical divergence in home prices we have seen also applies to the prices of condominiums in Greater Boston, as **Table 3.3** demonstrates. In some small suburban communities further away from Boston, median condo prices today are still as much as 35 percent lower than their peak in

FIGURE 3.7

Greater Boston Home Price Gradients Percentage Change in Price: 2009–2017 vs. 2015–2017



Source: Warren Group Data; Authors' Analysis

TABLE 3.3

Ratio of Condo Prices 2017: Q2 vs. 2005

0.35 to 0.65	
Marshfield	0.35
Essex	0.49
Shirley	0.60
Brockton	0.64
0.66 to 0.85	
Kingston	0.69
East Bridgewater	0.73
Boxboro	0.73
Bellingham	0.75
Middleboro	0.76
Randolph	0.76
Carver	0.78
Townsend	0.79
Whitman	0.80
Bridgewater	0.80
Newbury	0.81
Franklin	0.82
Lawrence	0.82
Halifax	0.82
Georgetown	0.82
Norfolk	0.83
Hyde Park	0.84
Hanover	0.85
Hudson	0.85
0.86 to 0.90	
Plymouth	0.86
Lowell	0.88
Westford	0.88
Walpole	0.89
Wilmington	0.90
Wayland	0.90
Salisbury	0.90
Millis	0.90
0.91 to 0.95	
Amesbury	0.91
Holbrook	0.91
Rowley	0.91
Saugus	0.92
Groveland	0.92
Maynard	0.92
Framingham	0.92
Abington	0.92
Wareham	0.92
Chelmsford	0.93
Wrentham	0.93
Acton	0.94
Norwell	0.94
West Bridgewater	0.94
Medway	0.95
0.96 to 1.00	
Stoughton	0.96
Dracut	0.96
Haverhill	0.97
Lynn	0.97
Mattapan	0.98
Ashland	0.98
Hingham	0.98
Pepperell	0.99
Methuen	0.99
Rockport	0.99
Tyngsboro	1.00
1.01 to 1.09	
Dedham	1.01
North Reading	1.02
Andover	1.02
Weymouth	1.02
Pembroke	1.03
Duxbury	1.04
Lincoln	1.04
Swampscott	1.04
North Andover	1.04
Woburn	1.04
Plainville	1.04
Concord	1.05
Tewksbury	1.05
Rockland	1.05
Groton	1.06
Peabody	1.06
Stow	1.08
Norwood	1.08
Merrimac	1.09
Scituate	1.09
Salem	1.09
Over 1.10	
Danvers	1.10
Sharon	1.10
Dover	1.10
Wellesley	1.11
Middleton	1.11
Billerica	1.11
Braintree	1.11
Revere	1.12
Manchester	1.12
Bedford	1.13
Canton	1.13
Weston	1.14
Ayer	1.14
Stoneham	1.14
Milton	1.14
Marblehead	1.15
Rochester	1.18
Quincy	1.18
Ipswich	1.19
Wakefield	1.20
Malden	1.22
Holliston	1.23
Gloucester	1.23
Chelsea	1.23
Burlington	1.23
Lexington	1.23
Hull	1.24
Natick	1.25
Roxbury	1.26
Needham	1.29
Reading	1.32
Hanson	1.34
Beverly	1.34
Marlborough	1.34
Waltham	1.34
Melrose	1.35
Cohasset	1.36
Everett	1.39
Winthrop	1.39
Medfield	1.40
West Roxbury	1.44
Medford	1.45
Newburyport	1.46
Roslindale	1.47
Hopkinton	1.48
Allston	1.49
Belmont	1.49
Dorchester	1.49
Arlington	1.50
Brighton	1.51
Newton	1.52
Charlestown	1.55
Hamilton	1.56
Boston	1.59
Jamaica Plain	1.59
Watertown	1.61
East Boston	1.65
Lakeville	1.67
Cambridge	1.68
Lynnfield	1.68
Brookline	1.71
Somerville	1.72
Winchester	1.73
South Boston	1.78
Sherborn	1.99
Foxboro	2.13
Sudbury	3.34

Source: The Warren Group

2005. These towns include Marshfield, Essex, Shirley and Brockton. A large number of other communities continue to have prices no higher than the levels that prevailed before the housing bubble burst.

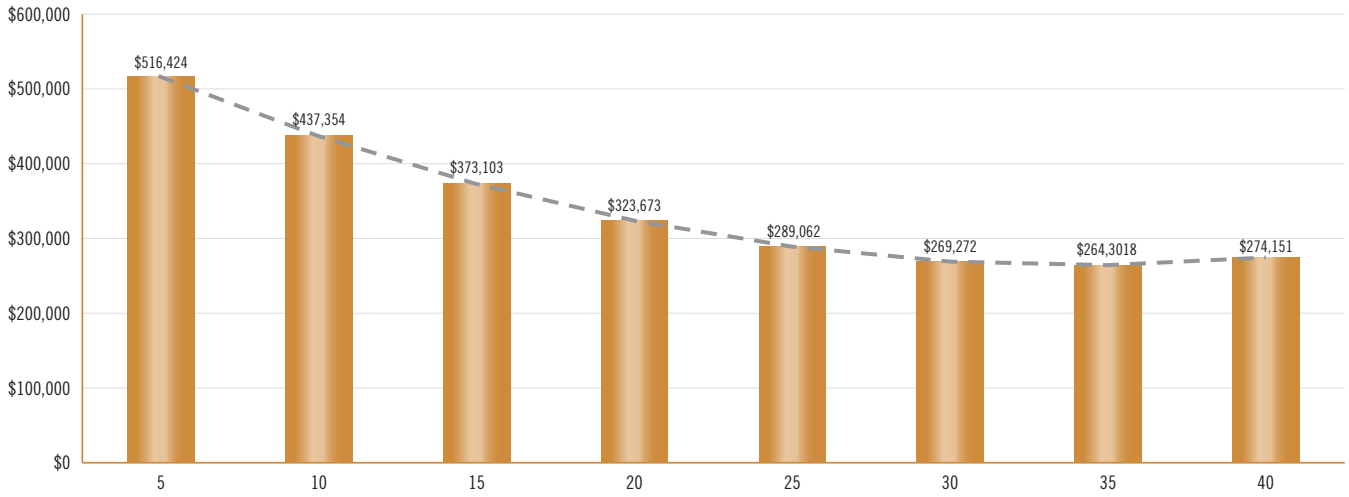
Where condo prices have increased the most since 2009 are in a few Boston neighborhoods including South Boston, East Boston and Brighton, along with several close-in cities including Cambridge and Somerville and a number of suburbs like Foxboro and Sudbury.

The condo price gradient shown in **Figure 3.8** is not unlike the home price gradient (Figure 3.6).[6] Within five miles of downtown Boston, the average median price of a condo unit is $516,000. As one moves further away, the prices drop precipitously. By 20 miles from the city, the average median price is down to $324,000 and by 35 miles away, $264,000. Clearly, for small households on a limited housing budget, moving further away from Boston has a substantial cost advantage if they are in the market for a condominium and can afford the down payment.

However, as **Figure 3.9** shows, the condo price gradient has not declined over time as was the case

FIGURE 3.8

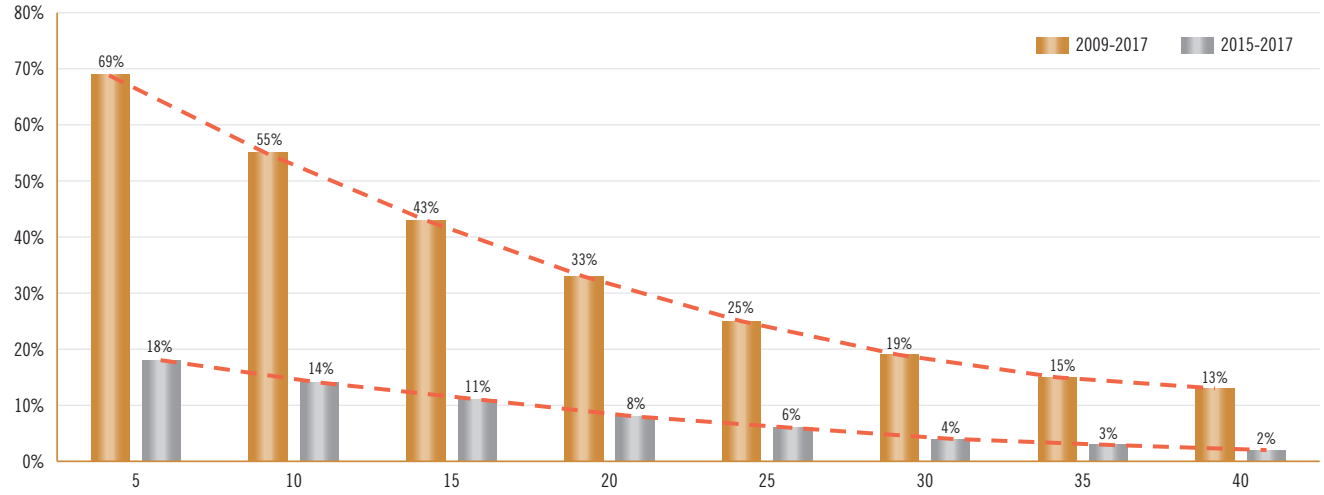
Greater Boston Condominium Price Gradient (Median Price vs. Distance from City of Boston in Miles)



Source: Warren Group Data; Authors' Analysis

FIGURE 3.9

Greater Boston Condominium Price Gradients Percentage Change in Price: 2009–2017 vs. 2015–2017



Source: Warren Group Data; Authors' Analysis

for single-family homes.[7] In Boston, Cambridge and Brookline, condos have appreciated over the past three years at a rate 4.5 times the rate in communities 30 miles away (18% vs. 6%) while over the longer period going back to 2009, the ratio of price appreciation is still substantial at 3.6 times the rate of distant housing markets (69% vs. 19%). What this might indicate is that the demand for downtown or near downtown condos is still so strong that these prices continue to rise at a rate relatively faster than in the more distant suburbs, cities and towns.

Duplex and Triple-Decker Prices

While single-family home prices and condominium prices continued to increase in 2017, once again the largest price increases were found in the older housing stock made up of duplexes and the classic triple-decker. As **Figure 3.10** reveals, the median price of a unit in a triple-decker increased by more than $33,000 in just the past year and is now up by 127 percent over the 2009 median. In the last year alone, this amounted to a 6.5 percent increase—as compared to 5.5 price appreciation in the region's single-family home market and just 1.5 percent in Greater Boston's condo market. Continued pressure on this market, including from the many graduate students, medical interns and residents, and other young professionals coming to the area, finding roommates and bidding up rents, translates into higher duplex and triple-decker investment values.

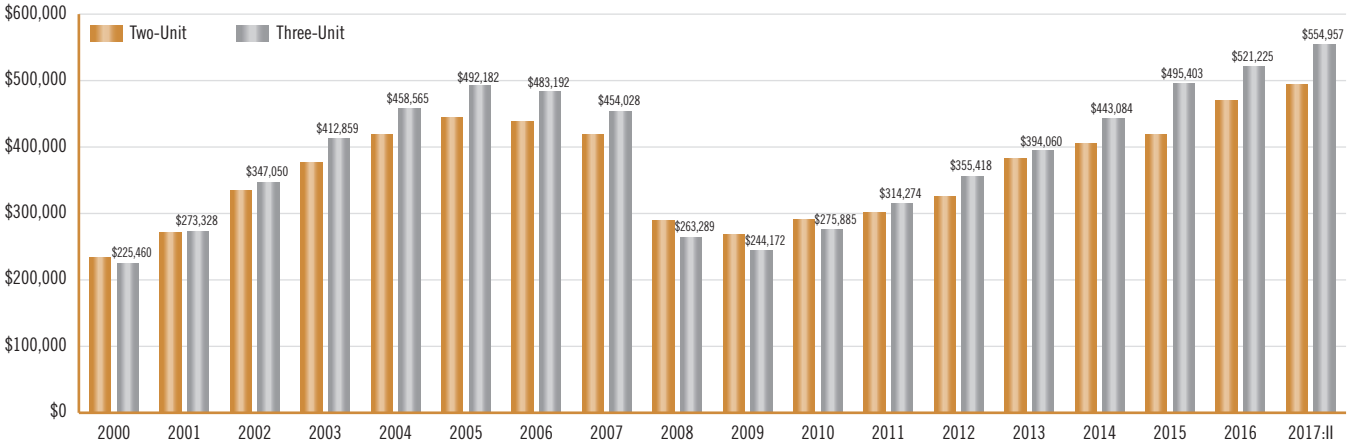
The Greater Boston Rental Market

As noted in the last chapter, the permitting and construction of new housing, particularly condo and rental units in the city of Boston, has picked up apace over the past three years. Enough new housing supply has come on the market to move the rental vacancy rate up another notch in 2017, as **Figure 3.11** reveals. Since 2010, the vacancy rate in the Boston metro area has been below the 5.5 to 6 percent range that statistical models tells us is needed to stabilize rents in the region. By 2015 the rate was down to just 3.4 percent and thus it was not surprising to see rents rising sharply. Since then, with more construction coming on line, the rental vacancy rate has increased for the past three years, reaching 4.7 percent in 2017, a rate surpassed only once since 2011.

According to standard supply and demand analysis, if there is an increase in supply relative to demand, price pressure is reduced and prices can stabilize or even fall. A rising rental vacancy rate is one indication of such an increase in supply as developers and landlords have to consider stabilizing or lowering their asking rents to attract renters to their vacant units. As **Figure 3.12** indicates, this has finally happened in the

FIGURE 3.10

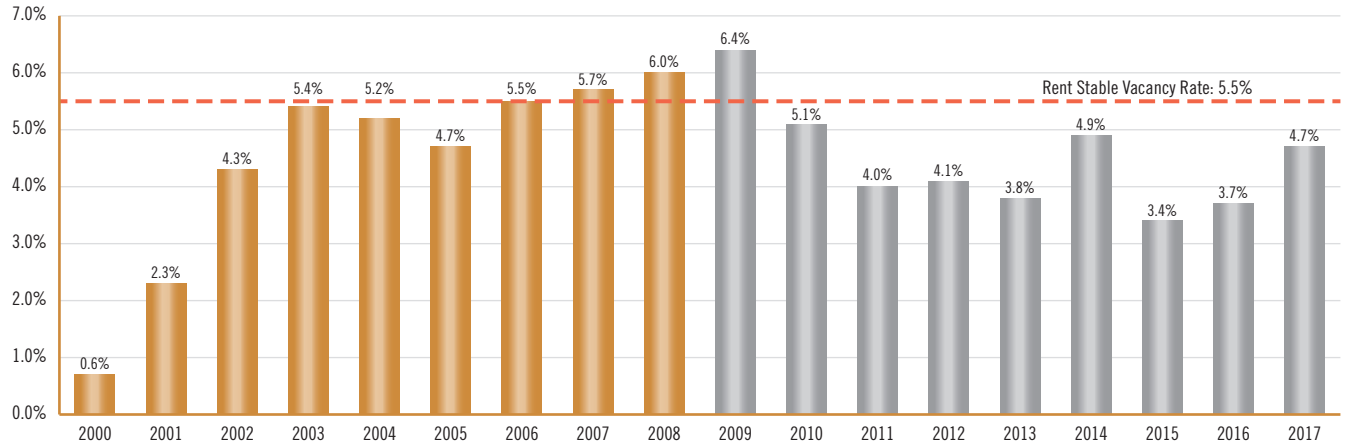
Annual Median Price of Homes in Two-Unit and Three-Unit Structures in Five-County Greater Boston Region, 2000–2017



Source: The Warren Group

FIGURE 3.11

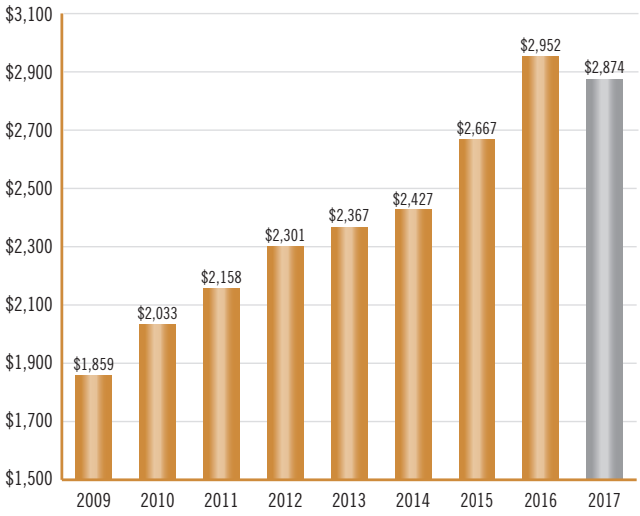
Average Monthly Effective Rents in Selected U.S. Metro Areas (Indexed to Boston), 2016: Q2



Source: U.S. Housing Vacancy Survey Historical Data

FIGURE 3.12

Average Market Rent, Inner Boston Core 2009–2016:Q2



Source: Rent Jungle

inner core of the Greater Boston region as the median rent in mid-2017 was marginally lower than in 2016. This was the first time we have seen rents soften since at least 2009. The decline is less than 3 percent, but this compares with an average annual increase of 6.9 percent over the period 2009–2016.

That average monthly rents have not fallen further despite the increase in housing construction is likely due to the fact that a disproportionate number of the new rental units are priced at luxury levels. The price of these units might have declined enough to bring the overall average rent down without much affecting median rent or rents in the lower end of the price spectrum. Hence, even as the average rent fell, the proportion of renters who are housing cost–burdened continued to rise in 2017.

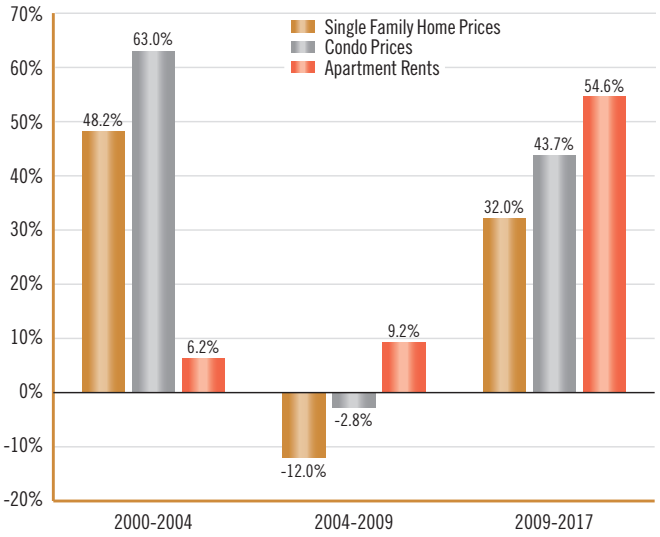
What is clear from a comparison of home prices, condo prices and rents is that these have been rising at different rates since at least 2000, as **Figure 3.13** demonstrates. Back in the period 2000–2004, rents hardly rose while the price of single-family homes and condos increased by 48 and 63 percent, respectively. Apartment rents were reasonably stable. In the subsequent period, 2004–2009, which covered the period of the housing bust, the median price of single-family homes declined by nearly 12 percent while condo prices fell by nearly 3 percent. Meanwhile, rents began to rise despite the weak economy and weak housing market.

Since 2009, however, all three forms of housing have seen a sharp rise in price, but the largest increase in housing cost has been borne by renters—up nearly 55 percent, compared with price increases of 32 percent for single-family homes and 44 percent for condos. Since renters, on average, have substantially less income than homeowners and condo owners, the spike in rents has been particularly severe in its impact on lower-income working families.

As such, the recent increase in housing production has begun to ameliorate somewhat the exorbitant cost of housing in Greater Boston, but in the face of continued population growth, there is still much more to do.

FIGURE 3.13

Percentage Change in Housing Prices: Single-Family Price vs. Condo Price vs. Apartment Rent, Greater Boston, 2000–2017



Source: The Warren Group, Reis, Inc. and Rental Jungle

CHAPTER FOUR

Public Policy and Public Spending on Housing in the Commonwealth

Over the past two years, the Commonwealth and the City of Boston have pursued a set of new approaches to housing policy with the goal of increasing housing production, protecting tenants' rights and linking housing to economic development. In this chapter we will outline some of these new developments as well as update our long-standing series on public spending on housing. The good news is that there are some new housing programs that could show real promise. The bad news, as we shall see, is that total state and federal funding of housing and homelessness programs in Massachusetts is on the decline.

The City of Boston: Increased Permitting and Production

As we noted in Chapter 2, Boston has led the state in the permitting and construction of new housing under a plan first proposed by Mayor Walsh in 2014. As part of its first comprehensive plan in half a century, *Imagine Boston 2030: A Plan for the Future of Boston*, the City is moving ahead with a number of initiatives.

The first is continuing to fulfill the original goal of encouraging the development of 53,000 additional units of housing by 2030. The permitting target was 17,212 units by mid-2017. The actual number of permits issued so far is 21,963, or 128 percent of the current target.[1] Moreover, it appears the pace of permitting has become even more aggressive in the first six months of this year. The permit goal for 2017:II was 663; the number of permits issued was 1,684, 254 percent of the quarterly target. This was a new 20-year record for the number of units permitted in a single quarter.[2]

While 56 percent of the permits issued in earlier years were for downtown luxury units, 69 percent of new permit applications are for developments located outside of the downtown core and many of these are expected to be more affordable. In 2017:II these include the Residences at Fairmount, a mixed income transit-oriented development on the commuter rail line in Hyde Park, where all 27 rental units will be deed-restricted with three units reserved for those making 61–80 percent of area median income (AMI), 13 for those earning 60 percent, five for those earning 50 percent, and three each reserved for those earning less than 30 percent or who have been homeless.[3,4] Other permitted projects include 1235 VFW Parkway with 80 units of two- and three-bedroom family-sized apartments and Upper Washington in Dorchester's Four Corners neighborhood with all 35 rental units deed-restricted.

By the middle of this year, the city had also permitted 94 percent of its cumulative target for low-income housing units—1,691 out of 1,803—and exceeded its 2017:II target by 38 percent. In addition, the City has acquired 428 existing market-priced housing units and converted them to low-income units protected from market forces. Boston has done this using a $7 million fund in its Acquisition Opportunity Program, which provides for a $75,000 subsidy per unit.[5]

Moreover, the city's linkage program, which collects financial obligations from commercial developments, has increased its annual take from $7.7 million to $10.3 million while its Inclusionary Development program has virtually doubled its annual collections from housing developers, from $8.5 million before 2015 to $17.6 million in 2016–2017.

As for its 2030 plan for housing for the middle class, a total of 6,926 permits have been issued, 107 percent of the cumulative goal through 2017:II. Of these, 2,087 are deed-restricted and 4,839 are "market rate middle." Many of these permits have already turned into completed units. By the middle of this year, 1,092 deed-restricted and 3,056 market-rate units affordable to middle-income households have been constructed. It is likely that this construction has led to the softening of rent increases in Greater Boston and the modest decline in Boston rents in 2017.[6]

While most of the new middle-income units are for rentals, 745 of the middle-income units permitted to date (11%) are ownership units. This may begin to reduce price pressures in the ownership housing segment in Boston, but much more will be needed to stabilize home prices in the future.

The City has also been active in assisting and educating potential homebuyers. So far, it has assisted 668 first-time homebuyers, helping them to purchase 365 units of City-created housing and 303 units of market rate homes. Since Boston's 2030 housing program began, it has offered homebuyer training to more than 24,000 residents and assisted more than 1,000 non-seniors to maintain their homeownership. It has also assisted 284 seniors to retain their homes.[7] To do this, it has set aside a new $1.75 million line item in the City's budget to help offset the average annual loss of $9.75 million in Federal Section 202 housing.[8]

Boston is also doing a creditable job in preserving affordable rental housing from expiring use agreements with private developers. The City's goal was to retain at least 97 percent of at-risk affordable units (29,534) by 2030. By 2017:II, it had preserved nearly 10,700 units—89 percent of its cumulative 2017:II goal—and it has another 1,233 units in the preservation pipeline.[9]

In addition, Boston has continued to encourage universities within its borders to build more residence halls for their undergraduates. Since the beginning of the 2030 Housing Plan, the City has permitted 5,664 dormitory beds, 72 percent above its original cumulative target. Moreover, there are nearly 1,600 net beds in the dormitory pipeline—all of which should help maintain the number of off-campus undergraduates at around 23,000.[10]

The increase in housing production in Boston has finally resulted in some good news on the rental front. Citywide rents in older buildings are now at levels somewhat below 2015, ranging from average rents that are 8 percent lower in studio apartments, 9 percent lower in one-bedroom units and 2 percent lower in two-bedroom apartments.

Nonetheless, all of the City's efforts have yet to impact citywide rents in new housing stock in most neighborhoods. In Allston/Brighton, rents for new units were 33 percent higher in 2016 than 2015—rising from an average of $2,663 to $3,547. In Central Boston, they are up 25 percent to $4,488 and in the Fenway/Kenmore neighborhood up by 16 percent to $3,371. Only in South Boston, as a result of the enormous increase in the supply of luxury apartment units, has the price finally dipped—by 6 percent—so that the average rent is now "only" $3,507.[11]

The City of Boston: Eviction, Foreclosure Reduction and Homelessness Initiatives

Boston is working to prevent evictions by providing legal counsel representation, mediation and rent arrearage payments for tenants facing the loss of their rental apartments or homes.[12] This action, first proposed in the *Imagine Boston 2030* plan, was approved by the Boston City Council in October of this year as the first ever "just cause" eviction act, known as the Jim Brooks Community Stabilization Act. The new law requires landlords to file a notice of quit/termination with the newly formed Office of Housing Stability prior to eviction.[13]

For homeowners facing possible foreclosure, the City provides counseling and mediation and connects at-risk homeowners to local advocacy groups that can assist them. It is providing these services under another program of the new housing stability office. The office also now provides one-on-one help via Boston's Housing Crisis Hotline as well as counseling for individuals facing homelessness due to natural disaster, eviction or other causes.

Boston has also begun a housing pilot to pair empty nesters with graduate students.[14] The Intergenerational Homeshare Pilot just launched in September of this year will match graduate students looking for a place to live with older homeowners who have extra rooms to rent. According to research by two recent MIT graduate students, there are more than 100,000 Baby Boomer homeowners with more than two spare bedrooms in their homes. This program is good for graduate students since room rents average only about $600 per month; good for older homeowners by providing them some rental income (and often companionship and help with simple home maintenance); and good for working families in the city who might enjoy a softening of rents in the older housing stock if more graduate students opt for this form of housing rather than pooling resources with roommates and competing with working families for a place to live.

Finally, in order to expand the number of private sector housing units available to the homeless, City officials have recently announced a new pilot program to reduce financial risk for landlords who rent to homeless individuals and families. The Landlord Guarantee pilot program will reimburse participating landlords up to $10,000 for losses due to unpaid rent, repairs due to damage, insurance deductibles or court costs. Landlords will also have a dedicated contact in the Office of Housing Stability, intended to assist them in participating in the program. The original target of this two-year pilot program is to help 30 homeless families and 30 chronically homeless individuals transition to permanent housing.[15]

All of these new programs suggest that Boston is now fully focused on providing housing for everyone who would like to live in Boston, regardless of age and income.

New State Policy: Workforce Housing Trust Fund

While Boston is clearly focused on making housing more affordable in the city, over the past two years the Commonwealth has also taken a number of steps toward increasing the amount of market rate and affordable housing in the state. Under the $1 billion initiative to advance community development, workforce training and innovation in the *Economic Development Bill* signed by Governor Charlie Baker in August 2016, several sections address housing. A $15 million capital authorization was included for the Smart Growth Housing Trust Fund. These funds will be used by state's Department of Housing and Community Development (DHCD) to provide Incentive and Bonus Payments and therefore encourage more communities to adopt high density, as-of-right zoning in Smart Growth locations, pursuant to the provisions of Chapter 40R.

A second initiative under the *Economic Development Bill* was the establishment of the Workforce Housing Production Trust Fund (WHTF), which included a $25 million authorization for an initial set of developments.[16] The WHTF provides "support" for market rate housing in Gateway Cities. The housing must be in a Housing Development Incentive Program (HDIP) District and must be eligible for certification as an HDIP project. It covers both new construction and the renovation of units in existing buildings. No more than 20 percent of the units may be below market rate. The support can equal up to 50 percent of the cost of the market rate housing units (which equals twice the amount of the allowed HDIP Tax Credit) and is expected to be in the form of 30- or 40-year loans with a zero-interest rate that is subordinated to other financing, and non-recourse to the borrower. The loan is to be repaid to the Commonwealth with 25 percent of the cash flow and 25 percent of the profits on sale or refinancing of the development. It can be combined with State and Federal Historic Tax Credits in the case of renovated historic buildings.[17]

This program was intended from its conception to be a "production" program, and has been structured so that the increased taxes and the profit sharing realized by the Commonwealth (solely because of the WHTF housing units) exceed the program's costs by five times over a projected 30-year period. It is proposed that the Commonwealth sell taxable bonds to provide the initial funding for the program. The increased state revenues are projected to be 2.7 times the cost of the debt service. Therefore, this is a program that is projected to be fully affordable by the Commonwealth, if implemented.

New housing under the WHTF would be slated for the Gateway Cites in the state: the 26 cities in the Commonwealth with populations that exceed 35,000, a higher-than-the-state-average unemployment rate and a lower-than-the-state-average educational attainment. Sixteen of these cities are connected to downtown Boston by the T—either commuter rail, the subway or bus system. An additional five are in the Route 495 region, and therefore part of the integrated Boston economy.[18]

Because the Gateway Cities, almost without exception, welcome new market-rate housing to their downtown areas, obtaining zoning and other local approvals is relatively easy. And because most of the downtowns are somewhat economically depressed, land and building acquisition costs are reduced, as are market rent levels. As a result, although 80 percent of the housing financed with the WHTF will be at market rates, it will generally be affordable to those in the workforce.

Implementation of this program is awaiting regulations to be promulgated by the Executive Office of Housing and Economic Development and assessment of the pilot. Ultimately, it could become an important driver of housing production in the

Commonwealth. And since, over time, the program is projected to actually increase revenue to the state's coffers, the more housing built under the program, the better for Massachusetts both in terms of housing availability and in terms of the state budget.

Further, new housing created under the WHTF program will allow for additional in-migration to the region, increasing the number of workers to fill potential jobs (that would otherwise remain vacant) without ratcheting up stress on the housing market, home prices and rents.

A third initiative in the 2016 *Economic Development Bill* made changes to the Housing Development Incentive Program itself. First, the amount of the HDIP Tax Credit was increased from 10 percent to 25 percent. Second, it allows for the eligibility of new construction projects as well as projects focused on renovating existing units. This program has a per project tax credit cap of $2 million and an annual statewide tax credit cap of $10 million. All HDIP districts must be in Gateway Cities.

New State Policy: Housing Bond Bill

In April 2017, the Baker-Polito administration filed a $1.287 billion affordable housing bill to increase housing development and improve public housing.[19] Combined with nearly $258 million in current, uncommitted capital authorization, the new housing bond bill creates more than $1.5 billion in capacity to support affordable housing. This funding allows the Commonwealth to fund its current $1.1 billion five-year housing capital plan, increasing the budget for a variety of housing tax credits.

Of the new funding, $650 million is earmarked for public housing modernization and redevelopment, $400 million for the production and preservation of traditional affordable housing, and $216 million for housing that serves "vulnerable populations." The legislation addresses statutory sunset dates in key tax credit programs, removing barriers to the construction of elderly housing and housing for those with disabilities. It also includes language to reform laws governing local housing authorities so as to enhance the ability of these local agencies to enter into partnerships with outside developers and attract private resources for housing. This will allow local housing agencies to act more like community development corporations.

In addition, Governor Baker has earmarked $750,000 in the FY 2018 Commonwealth budget for expanding the state's Housing Court system, to which currently only one-third of the state's residents have access because of the limited budget for the court. The bill was sponsored by Senator Karen Spilka (D-Ashland) and Senator Chris Walsh (D-Framingham) working with the Massachusetts Law Reform Institute and ultimately will allow access to the court by residents statewide.[20]

New State Policy: Proposed Housing Authority Collaboration

A new section 26C of Chapter 121B Housing Policy in the Commonwealth introduced by House Speaker Robert Deleo (D-19th Suffolk) provides for three statewide capital assistance teams to work collaboratively with local housing authorities and provide these local agencies with capital, maintenance and repair planning technical assistance.[21] The new collaboration between state and local administrators is intended to facilitate capturing economies of scale through collaboration in bulk purchasing, capital planning and capital projects. All local housing authorities in the state may participate in the program, but those with 500 or fewer state-aided units must do so—with the only exception being if a small local authority can prove to the state that it is already acting in a cost-effective manner. Each capital assistance team is required to have an 11-member advisory board. The purpose of the advisory board is to review the activities of the capital assistance team director, host meetings with the local housing director, and discuss program performance and coordination. Clearly, the objective of this new approach to housing assistance is to assure that tax dollars destined for public housing are being used as efficiently and effectively as possible.

New State Policy: Senate Passes Sweeping Zoning Reform Bill

In June 2016, the Massachusetts Senate debated and then passed by a 23-15 vote the most comprehensive zoning reform legislation in decades.[22] Under S. 2311, a city or town could receive status as a "certified community" if it promulgated zoning regulations that create within its borders development districts that allow for an appropriate amount of development

to proceed as-of-right and within a specific reasonable time, provides for open space cluster development, and reduces minimum lot sizes for single-family housing development. Municipalities that receive certification would become eligible for a number of state incentive programs. When awarding discretionary funds for municipal infrastructure or other discretionary funds or grants for economic development, transportation, and administration and finance, priority consideration would be given to certified communities. As such, if S.2311 were ever to become law, it would offer an additional "carrot" to local communities beyond Chapter 40R and 40S to ease the production of housing in the Commonwealth. As of mid-2017, however, the House has not passed this legislation and many advocates still believe the bill has slim chances of passage given the strong objections from local communities and the Massachusetts Municipal Association.[23]

New State Policy: Proposed Amendment to Chapter 40A

In January of this year, Rep. Michael J. Rodrigues (D-First Bristol & Plymouth), Angelo J. Puppolo (D-12th Hamden) and Thomas J. Calter (D-12th Plymouth) filed amendments to Chapter 40A of the state's housing code requiring cities and towns to have zoning ordinances or by-laws that permit multifamily development by right in one or more zoning districts that together cover no less than 1.5 percent of the developable land area in that municipality. At the same time, this proposal was introduced as Senate Bill No. 94.[24] Such zoning ordinances or by-laws would establish housing density by-right for multifamily development of not less than 20 dwelling units per acre. Under this proposal, cluster developments shall be permitted by right. In addition, one of the 40A amendments proposed would make "accessory dwelling units" permitted by right in all single-family residential zoning districts and no local zoning ordinance or by-law would be allowed to "unreasonably" regulate the location, dimensions or design of an accessory dwelling unit or lot. This type of legislation has been successfully opposed repeatedly by cities and towns and therefore faces a high hurdle for passage.

There are still more steps toward meeting the Commonwealth's housing challenge that the state could take in the next year.

- Continue efforts to encourage cities and towns to take advantage of Chapter 40R, which would provide additional as-of-right multifamily housing in designated "smart growth districts" within a municipality.
- Complete the development of regulations for the Workforce Housing Trust Fund and begin its implementation.
- Devise an action plan to help develop a greater number of housing units to serve the 55 and over population.

Public Spending on Housing in the Commonwealth

While most housing in Massachusetts is produced by private developers, the Commonwealth has always been a partner in funding a raft of programs that contribute to the housing stock and help find housing for the homeless. **Table 4.1** provides data on the range of state housing programs and the level of funding in FY 2018 for each of them.

In FY 2018, the Commonwealth will spend more than $430 million on these programs with about $250 million or 58 percent going to combat homelessness. Of this total, more than $150 million will be spent on Emergency Assistance for family shelters and services. Another $45 million will go to assisting homeless individuals and $30 million is assigned to the HomeBASE program that can provide funds for the first and last months' rents and security deposit on an apartment or home, furniture (not to exceed $1,000); a monthly stipend to help pay rent for up to one year as well as utilities, travel costs and many other expenses that would otherwise prevent a family from accessing an apartment or home. Families enjoy the support of a case manager and may access agency resources including education, workforce development, childcare and other support to ensure they succeed as new tenants.[25]

The key state housing programs besides those targeted at homelessness are the Massachusetts Rental Voucher Program (MRVP), which this year will provide nearly $93 million worth of vouchers to low-income families to help them pay rent, and funding for public housing. All told, the state will spend $183 million on housing programs beyond the funding set aside explicitly to combat homelessness.

TABLE 4.1

State Financing of Housing and Homelessness Programs (FY 2018)

State Program	FY 2018	% of Total
Emergency Assistance – Family Shelters & Services	$ 154,883,948	35.80%
Mass. Rental Voucher Program – MRVP	$ 92,734,677	21.40%
Subsidies to Public Housing Authorities	$ 62,979,593	14.60%
Homeless Individuals Assistance	$ 45,240,000	10.50%
HomeBASE	$ 30,147,305	7.00%
Residential Assistance for Families in Transition – RAFT	$ 13,000,000	3.00%
Dept. of Housing and Community Development Admin	$ 6,853,469	1.60%
Rental Subsidy for Dept. of Mental Health Clients	$ 5,548,125	1.30%
Caseworkers for Homeless Families and Individuals	$ 5,005,521	1.20%
Alternative Housing Voucher Program	$ 4,600,000	1.10%
Fair Housing Assistance Type I Retained Revenue	$ 2,468,211	0.60%
Low-Income Housing Tax Credit Fee Retained Revenue	$ 2,369,399	0.50%
Housing Services and Counseling	$ 2,041,992	0.50%
Home and Healthy for Good Program	$ 2,000,000	0.50%
Public Housing Reform	$ 950,000	0.20%
Secure Jobs Connect	$ 650,000	0.20%
Tenancy Preservation Program	$ 500,000	0.10%
Service Coordinators Program	$ 350,401	0.10%
Housing Programs	**$ 183,395,867**	**42%**
Homelessness Programs	**$ 248,926,774**	**58%**
Total	**$ 432,322,641**	**100%**

Source: The Massachusetts Budget Dashboard: Massachusetts Budget and Policy Center

These critical initiatives by the Commonwealth have no doubt enabled thousands of Massachusetts households to find decent shelter but, for the second year in a row, the state government has cut the total amount of inflation-adjusted funding for housing programs, as demonstrated in **Figure 4.1**. From FY 2004 through FY 2016, the state more or less increased funding each year for housing and homelessness programs—more than doubling the amount from $226 million to $503 million (an increase of +122%). But last year these funds were slashed by $38 million and this year total funding is down another $33 million so that in FY 2018, there will be 14 percent less funding than two years ago.

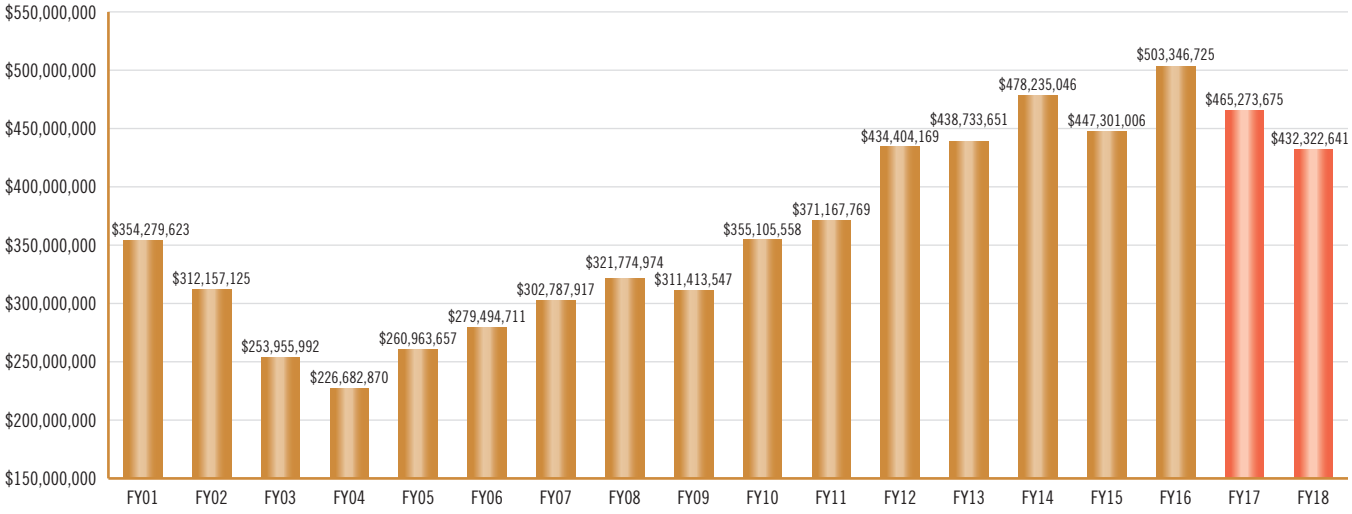
What makes this cut in state funding even more serious is that it is coming on top of a sharp reduction in federal funding for housing in the Commonwealth as shown in **Figure 4.2**. These programs cover a range of needs, including the Section 8 Housing Choice Voucher Program, which assists very low-income families, the elderly and the disabled to pay rent; the Section 202 Supportive Housing for the Elderly Program, which provides capital advances to private developers for the construction or rehabilitation of housing; the HOPE VI program, which provides grants to local public housing administrations to rehabilitate existing public housing projects; the HOME program that provides grants to states and localities to help them build, buy or rehabilitate affordable housing units for rent or ownership; and traditional Public Housing funds to help underwrite the cost of public housing units.[26]

Note that back in FY 2001, the federal government provided Massachusetts with $415 million (inflation-adjusted dollars) for housing and homelessness programs. For the next seven years, the amount rose to between $423 million and a high of $519 million in FY 2004. Then with the onset of the nationwide housing crisis, the Obama administration dramatically increased federal housing expenditures and with the implementation of the *American Recovery and Reinvestment Act* increased housing funding to Massachusetts to more than $860 million in 2011—more than double the amount in 2001.

As the Great Recession receded, federal funding returned to pre-crisis levels. By FY 2013, federal funding was back down to $420 million, but would increase each year to $539 million by the time President Trump took office. This fiscal year, the administration's

FIGURE 4.1

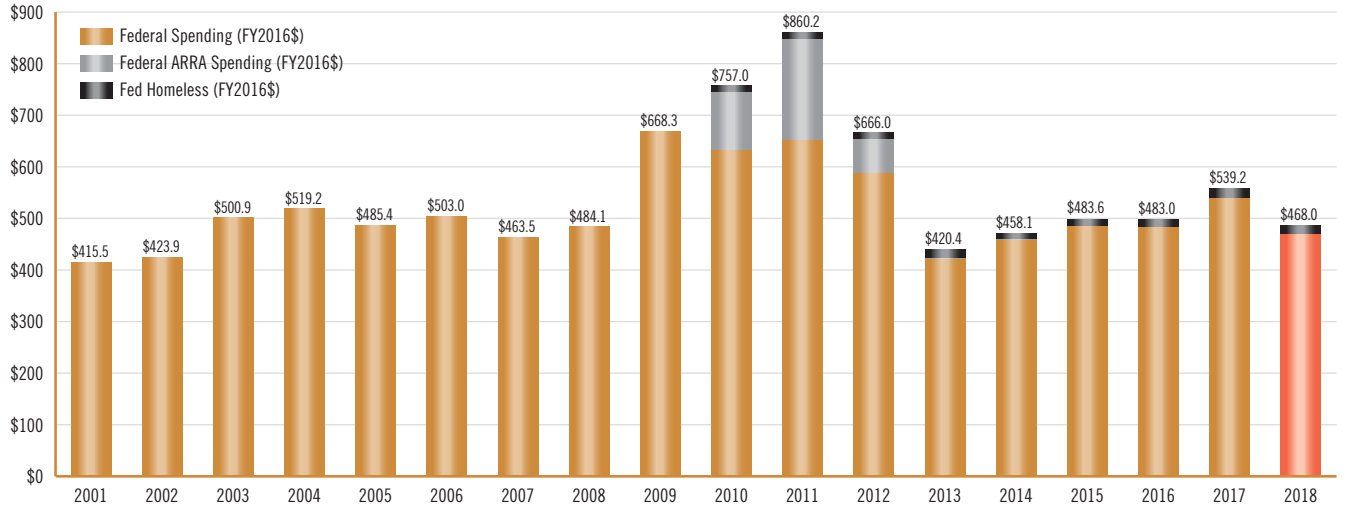
Real Operating Funds for Housing and Homelessness Programs Provided by the Commonwealth (FY 2018 $), FY 2001–FY 2018



Source: The Massachusetts Budget Dashboard: Massachusetts Budget and Policy Center

FIGURE 4.2

Total Real Federal Spending (FY 2016 $), FY 2001–FY 2018 (in Millions $)



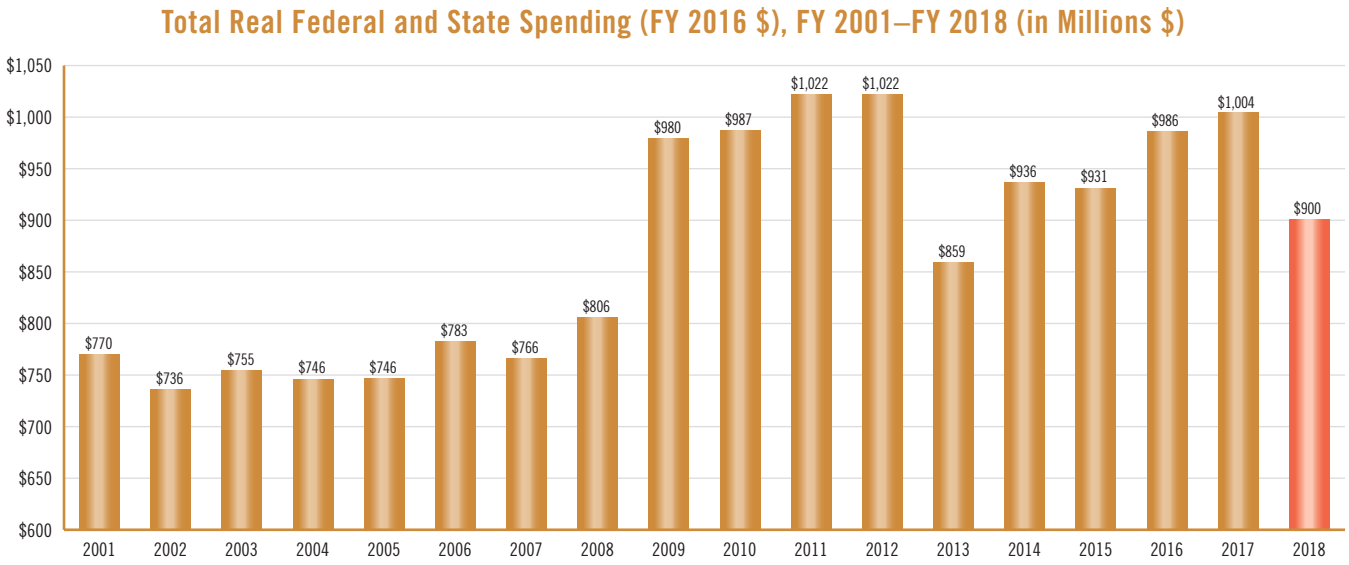
Source: U.S. Office of Management and Budget

budget for housing leaves Massachusetts with an estimated $468 million—$71 million or 13.2 percent less than last year.[27]

Combining the cutback in housing and homelessness funding by both the Commonwealth and the federal government leaves Massachusetts with nearly $105 million less in FY 2018 than last year to spend on housing, a reduction of 10.3 percent in a single year (see **Figure 4.3**). Clearly, with the housing challenge nearly as severe as ever in Greater Boston, cutbacks in public spending to assist low-income households and others who are housing cost–burdened will mean that the proportion of those barely able to afford housing in the region will almost certainly increase this year and next. The City of Boston cannot be expected to carry the full load despite all of its efforts.

More than ever, it is incumbent to consider a new approach to producing a housing supply that will fully meet housing demand and be demographically suitable as well.

FIGURE 4.3



Source: The Massachusetts Budget Dashboard: Massachusetts Budget and Policy Center and U.S. Office of Management and Budget.

CHAPTER FIVE

A 21st Century Approach to Meeting Greater Boston's Housing Needs

Shortly after the end of the American Civil War, wave after wave of European immigrants came to Boston in search of a better life. Many came with families to their new homeland while others came as young workers who would soon marry and begin families of their own. Between 1870 and 1920, the population in the city of Boston would triple in size from just over 250,000 to nearly 750,000—about 75,000 more than live here today.[1] These new immigrant families also flocked to Cambridge, where over the same period the population grew from just 39,600 to nearly 110,000—nearly the same as today. Somerville had fewer than 15,000 residents in 1870. By 1920, it had more than six times that—93,000. By comparison, today's Somerville population is smaller by nearly 12,000. By these standards, trying to house the expected growth in Greater Boston's population over the next two decades should be an easy task. Unfortunately, it is proving to be very difficult.

Demographic Revolution #1

What made it possible then to house such an immense tidal wave of immigrants was the development of a new type of housing perfectly aligned with the needs of small working-class families—the iconic "triple-decker." These buildings are typically of light frame, wood construction where each floor consists of a single apartment suitable for a family of three to five individuals. They were an economical means of housing the newly arrived immigrants who filled the new factories that were sprouting up all over the region.[2] The price of these units was kept within the means of these families as the cost of land, basement and roof were spread among three or six apartments where each unit had an identical floor plan. Typically, once an immigrant family had saved a little of their earnings, they could purchase a triple-decker of their own and rent out the other two apartments—often to newly arriving family members or others from the European towns and cities from where they had come. This is how the first demographic revolution in Greater Boston was housed.

Demographic Revolution #2

The second demographic revolution occurred right after World War II. Returning GIs came home and formed families. Through the new "G.I. Bill of Rights" signed by President Franklin D. Roosevelt on June 22, 1944, returning veterans qualified for education and training subsidies, home loan guarantees and unemployment pay. From 1944 through the end of the Korean War, the Veteran's Administration provided down payment assistance and guaranteed nearly 2.4 million home loans issued by private lenders. In 1947 alone, it approved more than 560,000 home loans for returning servicemen and their families.[3] If you took advantage of the education benefits under the G.I. Bill, you qualified for home assistance.

With millions of loans available for small, affordable homes, the nation's suburbs blossomed. Because the G.I. Bill was "deliberately designed to accommodate Jim Crow," the bill also led to the creation of what became all-white suburbs: Of the first 67,000 mortgages insured by the G.I. Bill, fewer than 100 were taken out by non-whites.[4] Local communities contributed to housing segregation through the redlining of neighborhoods, blockbusting and other racially based programs.

White Americans stampeded to the suburbs. Because owning a suburban home became cheaper than leasing a central city apartment and because suburbia catered to the informal, private and child-centered lifestyles that young parents pursued in the postwar period, America's white population began to shift from the city to the suburbs.[5] The iconic home of the post–World War II period was the suburban single-story ranch house, which met the postwar need for low-cost shelter with room for the kids to play in the backyard and a seamless connection between the indoors and outdoors.

The spatial impact of postwar development was striking. Between 1950 and 1980, for example, the city of Chelsea experienced a 35 percent decline in its population; Boston lost nearly 30 percent of its residents; and

Somerville and Cambridge numbers shrank by more than a fifth. What grew exponentially were the new suburbs surrounding the city. Braintree saw its population increase by 57 percent, Lexington by 70 percent, Andover by 112 percent and Sharon by 180 percent. With the widening of "America's Technology Highway," Route 128, Burlington's population increased from just 3,250 in 1950 to more than 23,000 thirty years later. In suburbs like these, the second demographic revolution of the Baby-Boom generation was housed.

Demographic Revolution #3

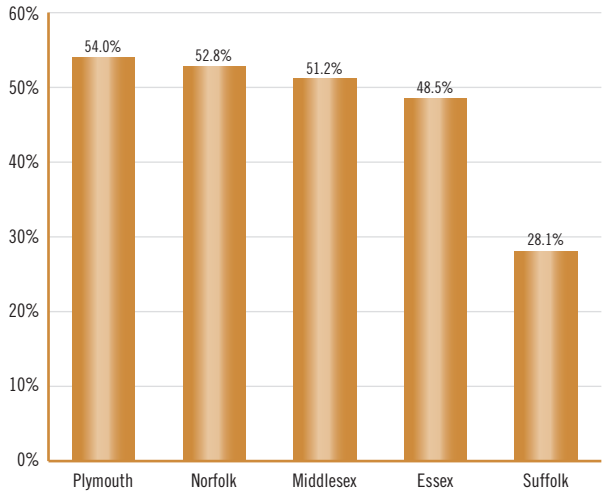
The first demographic revolution brought families to the cities; the second brought them—at least white families—to the suburbs. But the third demographic revolution underway for at least the past two decades nationwide is less about the *spatial* distribution of the population and more about the *structure* of households. Back in 1940, more than three-quarters (76%) of all households in the United States were made up of married-couple families where there were two or more related individuals. Even by 1970, married-couple families comprised nearly 71 percent of total households. But between 1970 and 1980, this fell to 61 percent nationwide. And by 2016, married-couple families represent less than half (47.9%) of all households.[6] The other half is composed of single persons living alone and two or more unrelated individuals sharing the same home or apartment.

What is true of the nationwide trend holds for Greater Boston, as **Figure 5.1** reveals. As of 2015, only slightly more than half of all households in Plymouth, Norfolk and Middlesex counties are composed of families with a married couple, and less than half in Essex County. In Suffolk County—essentially the City of Boston—only about 28 percent of all housing units are now occupied by a family with a married couple. The other 70 percent plus are occupied by either a single person or two or more unrelated roommates. And in each of the counties, at least 25 percent of all housing units have only a single occupant. In Suffolk County, more than one out of three units (36.3%) now house a single person.

The demographics of the Inner Core communities of Boston, Cambridge and Somerville are especially noteworthy because it is here that "millennials"—now aged 20–34—have been flocking as graduate students to the region's universities, as interns and residents to Greater Boston's teaching hospitals, and as young professionals coming to work in finance, biotech and other industries.[7] As **Figure 5.2** demonstrates, more than half (54.3%) of the 2000–2015 increase in population in these three cities was made up of these millennials, a large proportion either living alone or often with roommates.

FIGURE 5.1

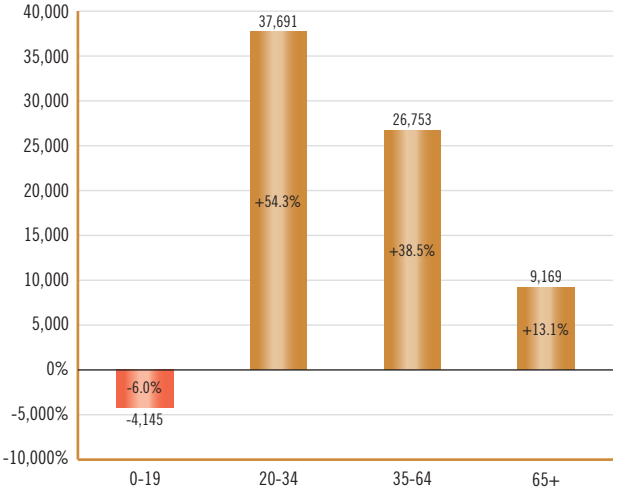
Married-Couple Households as Percent of All Households, 2015



Source: U.S. Census Bureau, American Factfinder

FIGURE 5.2

Change in Population of Boston, Cambridge and Somerville by Age, 2000–2015



Source: U.S. Census Bureau, American Factfinder

This demographic boom in 20–34 year-olds is actually a very recent phenomenon throughout much of Greater Boston, as **Table 5.1** demonstrates. Across its five counties, between 2000 and 2010, the number of these young adults actually declined by 4,000—from 888,000 to 884,000, according to the U.S. Census. But between 2010 and 2015, the number grew by more than 52,000. This growth was led by an increase of nearly 30,000 in Middlesex and Suffolk counties alone. For these two counties with a concentration of universities, high tech and financial services, this marked an acceleration from an already large increase in the first decade of this century. Boston itself now has the highest concentration of millennials among the 25 largest U.S. cities. Somerville has become the new destination for many millennials. Between 2000 and 2015, Somerville's population increased by only 1 percent, but the number of 20–34 year-olds increased by 9 percent—suggesting that these young adults are likely displacing older residents.[8]

TABLE 5.1

Number of 20–34 Year-Olds Residing in Greater Boston

	2000	2010	2015
Essex	131,642	129,099	138,841
Middlesex	330,127	320,070	338,839
Norfolk	124,252	117,953	125,360
Plymouth	83,689	76,238	81,661
Suffolk	218,649	240,905	252,053
Total	**888,359**	**884,265**	**936,754**
	2000–2010		**2010–2015**
Change in Number of 20-34 Year-Olds	-4,094		+52,489
Change in Number of 20-34 Year-Olds Middlesex & Suffolk Counties	+12,199		+29,917

Source: U.S. Census Bureau, American Factfinder

In Boston, millennials are concentrated in two neighborhoods—Allston/Brighton and Fenway/Kenmore—near Boston College, Boston University and Northeastern University. Eight in 10 residents of the Fenway/Kenmore neighborhood are between the ages of 18 and 34, the highest percentage in any neighborhood in the city while approximately two-thirds of Allston-Brighton residents are now of this age.[9]

Not surprisingly, in a recent survey of Greater Boston's millennials, "the lack of affordable housing" was the number-one concern they had about remaining in the region. More than 70 percent reported that they were either somewhat dissatisfied (45%) or very dissatisfied with Greater Boston's housing market.[10]

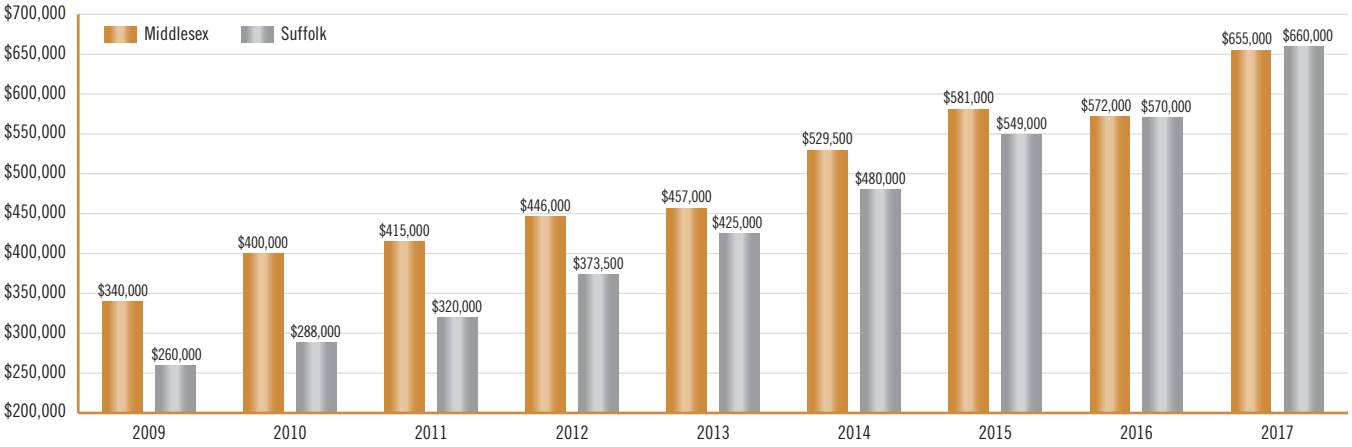
A substantial proportion of these young households comprises university and college students who are living in private housing. An estimated 250,000 undergraduate and graduate students attend the region's institutions of higher education.[11] In addition, the area's rich array of hospitals and medical institutions provide training opportunities for thousands of interns and medical residents each year, while the region's numerous high tech and biotech firms, along with its financial institutions, are attracting a large number of highly skilled young professionals who are moving here to find excellent job opportunities. Indeed, in 2015, the total number of 20–34 year-olds living in the five counties of Greater Boston amounted to nearly 937,000 and could easily surpass one million in the near future.

From a housing perspective, this latest demographic revolution has had a profound impact on prices and rents, especially in the older stock of triple-deckers. As noted, a recent survey of millennials in Greater Boston revealed that half of them have dealt with the high cost of housing by either downsizing, taking on roommates or both. Most of these—amounting to one out of three (32%) who responded to the survey—indicated that they had added roommates in order to afford rent.[12]

Working families have been the "victims" of the housing choices these millennials are forced to make. By doubling, tripling or quadrupling up in a single unit of one of these traditional forms of housing, these young professionals have outbid many working families for this category of housing, making the owning of a triple-decker one of the most financially rewarding investments one can make. As **Figure 5.3** reveals, the median price of a triple-decker in Middlesex County increased from $340,000 in 2009 to more than $655,000 in 2017, an increase of 93 percent. Prices in Suffolk County increased even more sharply from $260,000 to exceed the prices in Middlesex County by 2017—a remarkable increase in price of more than 150 percent. The only way these

FIGURE 5.3

Median Price of Three-Unit Housing in Middlesex and Suffolk Counties, 2009–2016 (June)



Source: The Warren Group

buildings could command such high prices is that the competition among renters for this housing has been so fierce that rents have skyrocketed to make these investments worthwhile.

Demographic Revolution #4

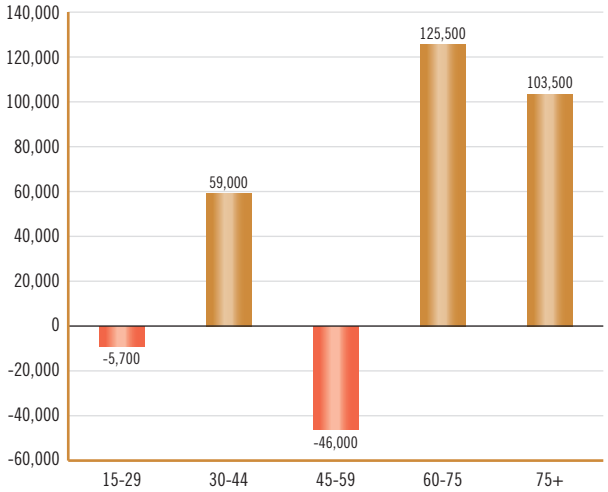
This demographic revolution of the young may continue for at least another decade or two, but now is boosted by a powerful surge among aging Baby Boomers. According to adjusted projections from the Metropolitan Area Planning Council (MAPC), Greater Boston's population is expected to increase to somewhere between 4,558,000 and 4,888,000 in 2030 from the current estimated (2015) population of 4,270,000.[13] That amounts to a potential increase in the number of Greater Boston residents of as many as 318,000 over the next decade and half. Translated into households, adjusted MAPC projections for 2015–2030 suggest increased housing demand of up to 233,000 units under its "stronger region" assumptions of slightly more in-migration and slightly less out-migration than exists today.

Behind this coming demographic revolution will be a remarkable shift in the age distribution of the Greater Boston population. Between 2015 and 2030, virtually all of the increase in population is projected to be among those aged 30 to 44—the young prime-age workforce—and those aged 60 and older (see **Figure 5.4**). Between these two groups, the Baby Boomers clearly dominate in numbers.

Because of this projected age shift, the type of housing needed by the region's growing population will be far different from that needed during the previous two demographic revolutions when larger families prevailed. As shown in **Figure 5.5**, the demand for housing units for smaller households—especially older ones—will dominate the Greater Boston landscape. Of the projected 233,000 new units needed, about 106,000 will likely be occupied by a single individual while another 105,000 will be home to

FIGURE 5.4

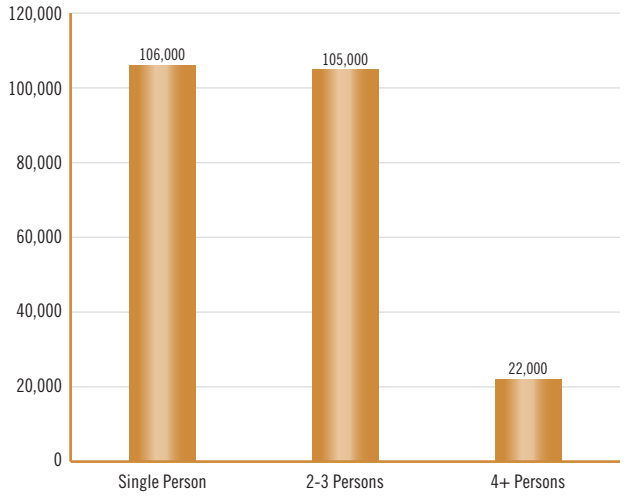
Change in Population of Boston, Cambridge and Somerville by Age, 2015–2030



Source: Adjusted MAPC Projections

FIGURE 5.5

Projected Growth in Number of Households in Metro Boston by Household Size, 2015–2030



Source: Adjusted MAPC Projections

a household of two or three persons. There will be the need for only 22,000 new housing units for larger households of four persons or more for prime-age working families.

Building 21st Century Village Housing Developments

During the first two demographic revolutions, architects, developers and financial agencies came up with unique forms of housing that perfectly matched the needs of the families and households. In this way, Greater Boston was able to accommodate the immense flow of immigrants during the last third of the 19th century and the first two decades of the 20th. And in this way, Greater Boston's suburbs were able to accommodate the needs of servicemen and women—at least those who were white—seeking to raise their families in communities with new single-family homes and backyards that they could afford.

Now facing its third and fourth demographic revolutions, a new generation of architects, developers and construction companies are considering both new types of housing and new construction techniques to meet the needs of millennials and Baby Boomers who desire to live in housing that is right-sized, affordable and offers plenty of amenities, with a premium put on rebuilding a sense of community that typifies a "village" lifestyle often absent from our urban centers and suburbs. For lack of a better term, we shall refer to these as "21st century village housing developments" or simply "21st Century Villages."

Such housing as we shall describe here has two purposes. One is to provide new forms of exciting housing opportunities for individuals and small households at both ends of the adult age continuum. The second is to free up as many of the older triple-decker and duplex units and as many suburban homes as possible for larger working families that cannot afford them now. By reducing demand pressure on the existing housing stock and reestablishing vacancy rates more in line with normal levels, rents and home prices can finally moderate. Over time, if rents and home prices stabilize and household incomes continue to rise, more and more of Greater Boston's working families—those in the middle of the region's income distribution—will be able to afford good housing in neighborhoods where they most would like to live, including Boston, Cambridge and other inner core communities.

A New Building Architecture

From the outside, a new 21st Century Village development will look much like apartment and condo buildings that are common in Boston. They will be multistory buildings that could range in height from five to 35 stories with attractive exteriors. They could be developed throughout the Greater Boston region, not simply in the inner core.

- Each building or "village" could be arrayed with a range of units from small/"micro" apartments to studios and a few multi-bedroom units for graduate students, medical interns and residents, and other millennials as well as Baby Boomers who wish to live in a "community" with younger residents.
- Individual units would vary not only in size but in fit and finish so that rents could range from something in the $900–$1,100 range to something above $3,000 per month.
- The most affordable units might constitute "pods" with four to six small, single-room apartments each with a private bath, but sharing a common kitchen/dining room and living room. Each individual unit might be no more than 300 square feet in size.

- The more upscale units would have more space—up to 900 square feet—and be outfitted with high-end baths and kitchens.
- To maximize the livability of these village developments, there would be shared space with lounges, laundry facilities, seminar rooms, study areas, music practice rooms, work-out gyms and perhaps even work-live space for small business incubators.
- The first floor of each village could house retail establishments including a grocery store, drycleaners and a coffee shop.
- To provide additional entertainment space, roof gardens could be constructed allowing tenants to hold barbecues and in-season activities.
- Each village might also house a small "black box" theater where music, comedy and other performances could be scheduled for tenants and community neighbors.
- Wherever possible, these villages should be built near public transit to limit the need for parking. Small parking facilities could be constructed underground for a limited number of vehicles, Zipcars and bicycles.
- Storage lockers would be available for tenants.

New Housing Prototypes

Fortunately, in Boston there are already a number of initiatives underway that could provide prototypes for this type of housing. Among the smallest of these are the urban housing units (UHÜ) designed by Addison Godine of LiveLight LLC and Tamara Roy, an architect at Stantec and immediate past president of the Boston Society of Architects. Based on a mock-up, these 385-square-foot modular houses, which may be assembled into a multi-unit apartment or condo building, could be constructed for less than $75,000 and fully developed for perhaps no more than $150,000 including common space. Each unit has one bedroom, a hallway and living room plus a bathroom with space for closets and a fully-functional kitchen. It even has a pull-down screen for watching TV/video from a projector hanging from the ceiling.[14] A full-scale model of the UHÜ was on display in neighborhoods throughout Boston in 2016 to gauge interest in such small housing quarters. There was an enthusiastic response from both millennials and seniors who toured the unit.

Local architect Irena Matulic has developed a new concept for what she calls "high standard middle-income affordable urban living." The Doma Homes model provides "options for owners and renters; suits diverse income, social and age groups; and supports intergenerational and extended family living" and is significantly larger than a "micro-unit" like the UHÜ.[15] This "three-unit in one" model is designed to provide the owner a variety of sizes and layout options with an adjustable cluster of bedrooms, kitchen and bathroom in a space totaling 1,800 square feet. The same unit can have up to six different floor plans and can be applied in a single home, a townhouse, a duplex, stacked in a multi-family triple-decker form, or built in a condominium building.

A revolutionary design based on a new form of manufactured housing is being developed by World Homes, or WoHO for short, a company being jumpstarted by the Winn Companies and led by Jared Curtis. These units based on a European design include energy-efficient appliances, dishwashers, a full laundry with washer and dryer, an 18-foot ceiling height in the living room, full-span windows with natural ventilation, and premium European finishes.[16] WoHo units would be built in a new Boston-area factory which would produce "flat-packed," easy transportable fully-integrated building elements including walls, floors, kitchens, bathrooms and facades. On site, these lightweight pieces would be assembled with a small portable crane. The result is high-quality housing units, built at considerably lower cost than conventional housing, allowing lower rents. Construction could be completed in half the time of traditional methods, reducing disruption to the neighborhoods where they would be assembled. In building the WoHo manufacturing facility, hundreds of jobs would be generated for local workers.

None of this is a pipedream. Jenny and Anda French of French 2D with Neshamkin French Architects, Inc. have already completed the development of a full-scale micro-unit apartment building on Commonwealth Avenue in Boston. This building is temporarily leased to Boston University for its students while the school is refurbishing one of its old dormitories, but it will be open to the public to rent in two years. Kevin Saba has developed work-live microloft housing on Admirals

Way overlooking a marina in Chelsea with stunning city and harbor views from large windows and an outdoor deck space. Its nine units range in size from 285 to 445 square feet and rent for $1,300 to $1,800 per month, fully furnished with parking included. Each unit has been designed with a flexible living area complete with full, high-end kitchen and modern bath.[17]

These developments begin to show us what is possible both architecturally and financially to meet the needs of single and two-person households.

A New Coalition to Develop 21st Century Villages

To develop these new forms of housing to accommodate even a quarter of the projected growth in smaller households will require the construction of villages capable of housing 50,000 households or more throughout Greater Boston by 2030. Such potential demand is already providing a powerful stimulus toward the creation of a multi-stakeholder consortium of architects, developers, construction firms, the construction trades and even a number of institutions of higher education. A series of meetings has already been concluded among these parties and they have pledged to continue their efforts in this regard.

Ultimately, to be successful, all members of the consortium have to find a way to develop the 21st Century Village.

ARCHITECTS – As noted above, a number of local architects have been developing prototypes for the village units. Working with local developers and construction firms, these architects could transform the models into full-blown housing production and help create a world-class housing manufacturing industry in Greater Boston.

CONSTRUCTION FIRMS – A number of construction firms and developers working with them are considering building a manufacturing facility in the Boston area where panelized housing could be constructed, providing either components for village units or entire modular units. Developing new construction materials and techniques is critical if housing production is to become more affordable. A major reason why new housing has become so expensive is that productivity improvements in the construction industry have been essentially zero for at least the past 70 years.[18] Builders are using fundamentally the same techniques and materials they did when constructing the post–World War II suburbs. Over the same period, overall productivity in the U.S. economy increased by nearly 400 percent while manufacturing productivity improved by over 800 percent. The main problem is that building today is just as labor intensive as it was decades ago. New building techniques including panelized construction and modular development hold the key to reducing construction costs.[19] If Greater Boston were to invest heavily in new housing construction techniques, the region could become a hub for this new industry, much as it has for biotech.

UNIONIZED CONSTRUCTION TRADES – In order to reduce the cost of village construction, the construction unions should be encouraged to provide some relief from their normal labor rates for large scale commercial development. What they might give up in terms of compensation on individual projects would likely be made up for by the manifold increase in the number of housing projects under construction, providing their members with years of full employment. A recent report from Suffolk Construction compared union and non-union construction costs for a range of building trades. According to their analysis, rough carpentry costs about $12,574 per housing unit under a union contract while the non-union equivalent is just $8,525, a differential of 47 percent. In plumbing, in HVAC installation and in drywall construction, the differentials are: 67 percent, 90 percent and 103 percent, respectively.[20] Across all trades, a typical unit of housing produced in Assembly Row in Somerville cost $329,913 if built entirely union; a similar unit built non-union cost $242,262—a total labor + materials differential of 36 percent under the condition that identically priced building materials were used in both projects. The unionized trades would not have to bring their labor rates down to the non-union rate, but closing the gap by even one-third would reduce the average construction cost of such a housing unit to just about $300,000, a savings of nearly $30,000. The trades could also play a role in training apprentices from inner city neighborhoods and work with the region's vocational schools to train workers for employment in a new housing manufacturing industry.

DEVELOPERS – Those who become pioneers in the development of 21st Century Villages should agree to deed restrictions that limit rent increases over time

independent of market pressure. If private for-profit developers are unwilling to do so, one would hope that nonprofit developers including the rich array of Community Development Corporations in Greater Boston would agree to such deeds.

QUASI-PUBLIC LENDERS – For village developments that provide units that are affordable to middle-income households, the state's quasi-public lenders, including MassDevelopment, MassHousing, the Massachusetts Housing Partnership and the Massachusetts Housing Investment Corporation, should be empowered to provide financing to appropriate developments.

UNIVERSITIES AND TEACHING HOSPITALS – A brand-new player in the consortium should be the major universities and major teaching hospitals in the region, whose students and trainees are now occupying so much of the existing housing stock. In order for private developers to secure commercial financing for these 21st Century Villages, local universities and hospitals should be encouraged to join together and agree to master leases for some of the units in each village—with each of these nonprofits agreeing to take a share of leases with the right to trade shares if necessary among themselves. The leases could be for 15 to 30 years. These institutions would market this housing to their graduate students, interns and residents and rent units not occupied by their own students or trainees to their alumni and seniors who would like to live there. As a model for this development, a number of local conservatories including Berklee and the New England Conservatory have been in discussion with Boston city officials to create an "Artists' Village" based on the principals outlined here.

MUNICIPAL GOVERNMENT – In order to keep these 21st Century Villages as affordable as possible and developed throughout the region in urban centers and suburbs alike, municipal government must reform zoning regulations to permit smaller unit sizes, allow higher density cluster development and permit units with shared kitchens and living rooms. They should also be encouraged to eliminate or greatly reduce parking requirements. Finally, they should make surplus municipal-owned land available for the construction of this housing stock at substantial reduction in market price. A combination of less expensive land and less expensive construction costs will help make these villages substantially more affordable than current new housing. By siting some of these new 21st Century Villages outside the urban core, land costs can be sharply reduced. Making sure that we have public transit to accommodate residents in less dense communities will have to part of the solution to the housing challenge.

STATE GOVERNMENT – The Commonwealth also has a role to play in this development. It could use state bonding authority to provide low interest loans for the production of these villages. It might consider the possibility of implementing a state tax credit available to private developers who build villages with deed restrictions on rents. And state-owned surplus land and unused or underutilized MBTA sites could be made available for these housing projects at a substantial reduction in market price. Most importantly, it needs to lead a powerful legislative effort to reform local zoning regulations. In particular, the Governor, the House and the State Senate should initiate legislation to provide:

- Statewide zoning for multifamily housing
- Cluster development as-of-right
- Accessory dwelling units as-of-right
- Replacement of the super-majority (2/3) vote needed to make zoning changes with a simple majority (51%)
- Increased revenue sharing to localities that make meaningful changes to their zoning regulations and work with developers to create more affordable multifamily housing and 21st Century Villages
- Greater regional collaboration in the development of housing
- An increased role for the state in planning new housing development

A 10-Step Program for the Development of the 21st Century Village

To get the ball rolling on the production of 21st Century Village housing, we would like to suggest a 10-step program:

Step 1: Assemble a new housing task force composed of architects, for-profit and nonprofit developers, construction firms and the building trades to review the 21st Century Village concept in order to enhance, improve and then endorse the plan once fully vetted.

Step 2: The Housing Task Force should conduct a study to gauge the demand for 21st Century Village housing, including a comprehensive survey of graduate students, medical interns and residents, other millennials and seniors to assess the types and size of housing units preferred; the amenities desired; the locations most attractive; and the rent levels and condo prices required for affordability.

Step 3: The Governor, along with the mayors of Boston and surrounding communities, should call for a meeting with developers, construction companies and architectural firms to ask what they would need—in terms of new housing designs, building techniques, zoning reform, land availability and financing options—to construct a number of 21st Century Villages in Boston and other Greater Boston communities This meeting would be aimed at coming up with a concrete plan for the development of the first village.

Step 4: The Governor, along with the region's mayors, should meet with the representatives of the various building trades unions in Greater Boston to discuss their willingness to help meet the affordability goals of the 21st Century Village. The meeting should include a discussion of modular and panelized building production, the development of a housing manufacturing facility, and apprenticeship training programs that might be coordinated between the trades and Madison Park Technical High School.

Step 5: The growing consortium should meet with area construction firms, architects and developers to consider new forms of construction based on modular design and panelized construction using new materials including "light steel" framing. The discussion should also investigate the technology and economics of building a state-of-the-art housing manufacturing facility in Greater Boston, where modular units and panels could be fabricated and where young workers could be trained and employed.[21]

Step 6: With a firm plan for building the 21st Century Village, the Governor and the region's mayors should convene a meeting with university and hospital CEOs to discuss the role they can play as marketers and master lease holders of these new housing developments. The universities and hospitals can, in this way, help meet their community responsibility as tax-exempt organizations. The Governor and the mayors could provide a liaison between interested developers and interested university and hospital administrators.

Step 7: The state Department of Housing and Community Development (DHCD), with the neighborhood development and planning offices of the region's cities and towns, as well as MBTA officials, should meet to discuss possible publicly-owned sites for the development of 21st Century Village projects. Priorities should be given to transit-oriented development and the possibility of transforming older industrial sites as well as abandoned retail malls.[22]

Step 8: The Governor and the Legislature should develop and pass legislation that will reform local zoning legislation so that more housing can be developed throughout the state. Meanwhile, the state DHCD should actively encourage the planning departments of the region's cities and towns to initiate zoning provisions needed to help make 21st Century Villages legal and affordable. The region's cities and towns should consider "pre-zoning" specific sites and the use of "overlay zoning districts" for the construction of these housing projects in order to speed up the development process.

Step 9: Establish agreements between universities and teaching hospitals working with developers to generate the plans for the first 21st Century Village and subsequent ones based on master agreements and deed restrictions on rents and rent increases.

Step 10: Begin construction of the first 21st Century Village. Follow it up with more throughout the region.

CHAPTER SIX

Summary and Conclusions

This marks the 15th annual edition of the *Greater Boston Housing Report Card*. We have updated all the information presented in earlier editions on the state of the Massachusetts and Greater Boston economies, important demographic changes, the quantity of housing production, number of foreclosures, trajectories of home prices and rents, new housing policy, and public sector funding for housing and for combatting homelessness. Significantly, for the first time we outline a possible plan for tackling Greater Boston's ongoing housing challenge, advocating for the development of "21st Century Villages" that could serve the needs of a cross-generational population facing ever higher hurdles to afford housing in the region. First, a summary of our findings:

The Massachusetts Economy

- Economic growth in the Commonwealth as measured by increases in real output (the value of the total production of goods and services) has exceeded the growth in real output in the nation every year since 2009. Real inflation-adjusted gross domestic product has increased so fast in the Commonwealth that in 2016, Massachusetts ranked first in the nation in per capita output—up from sixth place in 2015.
- Total non-farm seasonally-adjusted employment has reached an all-time high in the Commonwealth, surpassing 3.5 million jobs while real private sector average weekly wages, stagnating for years, hit an all-time high of $1,432 per week.
- The Greater Boston region has led the rest of the state in job creation with more than 29,000 new jobs in just the last year.

Greater Boston's Demographic and Economic Profile

The extraordinarily buoyant economy of the region continues to attract a growing cadre of young adults to fill jobs especially in the flourishing Greater Boston economy, while the bubble of Baby Boomers moves closer to retirement.

- Since 2010, the five counties of Greater Boston have accounted for 87 percent of the growth in the state's population, with Suffolk County leading the pack. Today, Suffolk County has nearly 9 percent more residents than in 2010, compared with a 1.4 percent growth rate in the state outside of the five-county region.
- The fastest-growing age cohort in the region is 65 years and older. Between 2010 and 2015 alone, this cohort increased by nearly 48,000 individuals mainly the result of individuals aging in place. In 2015, seniors comprised 13.9 percent of the region's population. By 2030, more than one in five residents (20.6%) of Greater Boston could be age 65+.
- Average household size has remained about 2.6—well below the once typical family of four.
- Greater Boston continues to become more racially diverse, led by an influx of Asian Americans, followed by Hispanics and then African Americans. By 2015, nearly one-quarter (24%) of the population was Asian, Hispanic or black compared with 18 percent in 2000 and only 12 percent in 1990.
- Renters in Greater Boston have a fraction of the income of homeowners. In 2015, the median income of homeowners was $103,267 compared with just $43,583 for renters. As such, those who face the toughest housing challenge in the region are those who rent rather than own their homes or apartments.

- More than 52 percent of renter households are now paying more than 30 percent of their gross income in rent—the highest percentage of residents in that situation on record and up from 39 percent in 2000.
- Homeowners tended to be less cost–burdened than renters, but 36 percent (as with renters, a record high) paid monthly mortgage and tax bills exceeding 30 percent of their gross income.

Given all this, housing affordability is a greater problem than ever.

Home Sales in Greater Boston

In what may the beginning of a new trend, home sales in Greater Boston are now declining.

- Our current estimates for 2017 suggest an 11.7 percent decline in single-family home sales by the end of the year. If this projection is true, 2017 will mark the largest year-over-year decline in single-family homes sales since 2005.
- Condominium sales are projected to decrease in 2017 given the sales volume through the middle of the year. In this case, total condo sales will come in at just over 18,100 units, a 4.1 percent decrease from 2016.
- Historically, condominium sales have been concentrated primarily in the cities of Boston, Cambridge and Somerville. This year will likely mark the first decline in condo sales in Boston proper since before 2011. Cambridge and Somerville are also expected to have fewer sales this year with 716 and 442 condo sales, respectively.
- Quincy, which has found itself in the bottom half of the top 10 condo sales list for nearly the past decade, is expected to rank fourth in 2017 with 560 condo sales. This is most likely due to the fact that Quincy is substantially more affordable than other communities close to Boston.

Homeownership

For the last few years, homeownership rates in the Greater Boston region have been declining, likely because younger residents are marrying later and having children later and because many of them are overloaded with college debt. From a rate of 65.5 percent in 2008, the 2016 homeownership rate was down to 58.9 percent. While the rate may have risen a bit this year, it is still likely to be below 60 percent.

Housing Production in Greater Boston

To measure housing production, we rely on data measuring the number of building permits issued for new housing units in each Greater Boston city and town. This year there is some encouraging news.

- We project that by the end of this year more than 12,900 permits will have been issued, up from 11,500 in 2016, an increase of more than 12 percent.
- This year's permitting is dominated by plans for housing complexes with five or more units in contrast to past years when most permits were for single-family homes. Such large complexes now account for two-thirds of all new permitting, up from less than 30 percent in 2000 and 40 percent in 2009.
- The new permitting is occurring in a relatively small number of communities in Greater Boston. Overall, outside of the city of Boston fewer permits are being issued.
- Construction is lagging: Only about 4,630 units of housing were built and ready for occupancy in the Boston metro market in 2016, down a full third (-33.6%) from the previous year and up only slightly over 2014.
- Boston has seen a sharp reduction in the time it takes for a developer to obtain a permit. By 2016, the wait time in the city was down to 74 days. Permits for larger multifamily developments took, on average, 425 days in 2014. Today, the wait time is less than 120 days.
- With development costs rising and subsidies for housing limited, the proportion of affordable housing units in total production in Boston has been falling since 2003: In the period 1996 to 2003, more than 39 percent of all permits were for affordable units.

In the following period, 2004–2010, the proportion was down to less than 26 percent and since 2011 the proportion has fallen to only about 18 percent.

Student Housing Production in Boston

There has been progress in the permitting of undergraduate dormitory units since 2013, yet the number of graduate students keeps growing each year and 90 percent of them live off campus. Between 2013 and 2016, undergraduate enrollment declined by 440 students, but this was more than made up for by an increase of nearly 3,000 graduate students.

- Of the nearly 150,000 undergraduate and graduate students enrolled in Boston-based universities and colleges, more than 77,000 live off campus in private homes somewhere in the Greater Boston region.
- More than 30,000 students are living within the city of Boston, with more than 15,000 of them living in rental apartment buildings of four or more units.
- More than 13,000 students currently occupy single-family, two-family, three-family or condo units within the city of Boston.
- Of the nearly 57,000 graduate students living in Greater Boston, only 5,570 are housed on campus. More than 38,500—over two-thirds—live off campus and not with parents or guardians. If the average number of graduate students living together in off-campus housing is 2.5, they today occupy nearly 15,500 units of private housing—much of this in units where working families have historically lived.

The Role of Chapter 40R

As of October of this year, a total of 3,607 units have been completed and occupied or have site plan approval for development under Chapter 40R, the Commonwealth's Smart Growth Overlay District law. Of these, 90 percent are rental units and nearly half of all units (47%) are affordable. Of the total, half have two bedrooms; 37 percent are one-bedroom apartments.

Foreclosure Activity in Greater Boston

Between 2013 and 2016 both foreclosure petitions and deeds were steadily increasing. Annual petitions increased from fewer than 1,700 to more than 4,200. Completed foreclosures as measured by foreclosure deeds increased from nearly 740 to nearly 1,640.

- By the end of 2017 just over 4,000 petitions will have been issued and 1,550 more households in Greater Boston will have lost their homes to foreclosure. As such, in 2017, we estimate that the number of new petitions and deeds will, for the first time in five years, have fallen.
- That foreclosure nevertheless remains at levels much higher than before the housing bust that began after 2005 is likely due to the fact that while the economy has continued to improve in Greater Boston, the unevenness of income growth has left too many families and households unable to meet their mortgage obligations.

Home and Condo Prices in Greater Boston

With near record-low vacancy rates in Greater Boston, single-family home prices hit an all-time high in 2017 with the median price of single-family home in the five-county region reaching $447,799. Since 2013, the median price of single-family homes in Greater Boston has shot up 29 percent. But unlike the steadily rising trajectory of single-family home prices, condominium prices in Greater Boston have stabilized over the past three years. This likely is the result of the proliferation of high-end condominium production over the past five years, particularly in the city of Boston. The luxury market may be approaching its saturation point and as it does, prices at the high end of the market could soften and result in some reduction in the overall median condo price.

Home prices differ greatly by location.

- In some small suburban communities farther away from Boston, median prices today are still as much as 30 percent lower than in 2005 and many other communities continue to have prices no higher than the levels that prevailed before the housing bubble burst.
- Communities nearest to Boston have seen their home prices explode: Cambridge leads by far with a median selling price of single-family homes up 85 percent since 2005. Lexington is second at 63 percent; Somerville and Brookline both at 62 percent; and Boston at 55 percent.

- While the median price of housing between 2010 and 2015 increased by 36 percent across Boston, individual communities inside the city including South Boston and Jamaica Plain, once relatively low-price neighborhoods, have seen home prices rise by 71 to 83 percent since 2005. The three of Boston's 20 neighborhoods that had had the most affordable housing—Roxbury, East Boston and Mattapan—have now experienced price increases of 70, 52 and 50 percent, respectively.
- In Everett, the median selling price of a single-family home has leapt by a remarkable 33 percent just since 2015—from $307,500 to $410,000. In Lynn, the median price has jumped 20 percent from $278,250 to $335,000, and in Malden prices are up 19.5 percent to $430,000.
- In just two years, Peabody's median home price is up 6.0 percent; Lowell's is up 9.6 percent and Lawrence's up 14.2 percent—greater price appreciation than in Brookline (14.0%) and Newton (12.4%).

Where pressure is now highest on home prices is in historically working-class communities. As more middle-income and working-class households move to these lower cost communities in hopes of finding more affordable housing, demand pressure is driving up prices. Home prices are still more affordable the further one moves away from the urban core. Measuring the "home price gradient" paints a clear picture of this.

- The median price of single-family homes within five miles of Boston's center now exceeds $775,000.
- Moving 10 miles from downtown Boston reduces the average median home price by nearly $115,000.
- Moving out another five miles drops the average price by another $95,000 to $565,000.
- Beyond 20 miles, the median price continues to fall but at a decelerating rate. Only when you move at least 30 miles from Boston does the average median price slip below $400,000.

The same kind of geographical divergence in home prices applies to the prices of condominiums in Greater Boston. As one moves further out, prices generally drop precipitously.

- Within five miles of downtown Boston, the average median price of a condo unit is $516,000.
- By 20 miles from the city, the average median price is down to $324,000 and by 35 miles away, $264,000.

While single-family home and condominium prices continued to increase in 2017, once again the largest price increases were found in the older housing stock made up of duplexes and the classic triple-decker. The continued pressure on this market from graduate students and young professionals coming to the area, finding roommates and bidding up rents translates into higher duplex and triple-decker investment values.

- The median price of a triple-decker increased by more than $33,000 in the past year and is now up by 127 percent over the median in 2009.

Rents in Greater Boston

Since 2010, the rental vacancy rate in the Boston metro region has been below the 5.5 to 6 percent range that statistical models tell us are needed to stabilize rents in the region. By 2015 the rate was down to just 3.4 percent and thus it was not surprising to see rents rising sharply. But since then, with more construction coming on line, the rental vacancy rate has increased for the past three years, reaching 4.7 percent in 2017, a rate surpassed only once since 2011. As such, we see the first signs that rents are beginning to stabilize.

- In the inner core of the Greater Boston region the median rent in mid-2017 was marginally lower than in 2016. This was the first time rents have fallen since at least 2009. The decline is less than 3 percent, but this compares with an average annual *increase* of 6.9 percent over the period 2009–2016.
- That average monthly rents have not fallen further despite the increase in housing construction is likely because a disproportionate amount of the new rental units are priced at luxury levels. The price of these units might have declined enough to bring the overall average rent down without much affecting median rent or rents in the lower end of the price spectrum. Hence, even as average rents have fallen, the proportion of renters who are housing cost–burdened continued to rise in 2017.

Housing Policy in the City of Boston

Over the past two years, the Commonwealth and the City of Boston have pursued a set of new approaches to housing policy with the goal of increasing housing production, protecting tenants' rights, and linking housing to economic development. The City of Boston has led in this regard under *Imagine Boston 2030: A Plan for the Future of Boston* with its goal of 53,000 additional units of housing by 2030.

- As of mid-2017, the cumulative permitting target to date was 17,212 units. The actual number of permits issued so far is 21,963, or 128 percent of the target.
- By the middle of this year, the City had permitted 94 percent of its cumulative target for low-income housing units: 1,691 out of 1,803 and exceeded its 2017:II target by 38 percent.
- The City's linkage program, which collects financial obligations from commercial developments for use in producing affordable housing units, has increased its annual take from $7.7 million to $10.3 million while its Inclusionary Development program has virtually doubled its annual collections from housing developers, from $8.5 million before 2015 to $17.6 million in 2016–2017.
- Boston has been active in assisting and educating potential homebuyers. So far, it has assisted 668 first-time homebuyers, helping them to purchase 365 units of City-created housing and 303 units of market-rate homes. Since the City's 2030 housing program began, it has offered homebuyer training to more than 24,000 residents and assisted more than 1,000 non-seniors to maintain their homeownership.
- Boston is doing a creditable job in preserving affordable rental housing from expiring use agreements with private developers. The goal was to retain at least 97 percent of at-risk affordable units (29,534) by 2030. By 2017:II, it had preserved nearly 10,700 units, or 89 percent of its cumulative 2017:II goal.
- The City has continued to encourage universities in Boston to build more residence halls for undergraduates. Since the beginning of the 2030 Housing Plan, the City has permitted 5,664 dormitory beds, 72 percent above its original cumulative target.
- Boston is working to prevent evictions by providing legal counseling and representation, mediation and rent arrearage payments for tenants facing the loss of their rental apartments or homes.
- For homeowners facing possible foreclosure, the City of Boston also provides counseling and mediation and connects at-risk homeowners to local advocacy groups that can assist them.
- The Intergenerational Homeshare Pilot just launched by the City will pair graduate students looking for a place to live with older homeowners who have extra rooms to rent.
- City officials have just announced a pilot program to reduce the risk landlords face in renting to homeless individuals and families in order to expand the number of private sector housing units available to the homeless. The Landlord Guarantee pilot program will reimburse participating landlords up to $10,000 for losses due to unpaid rent, repairs due to damage, insurance deductibles or court costs.

New Commonwealth Housing Policy

The Commonwealth has also taken steps to deal with the cost of housing. These involve funds for Chapter 40R, a new initiative for a Workforce Housing Trust Fund, additional funds for public housing, and increases in housing tax credits.

- Under the $1 billion initiative to advance community development, workforce training and innovation in the *Economic Development Bill* signed by Governor Baker in August 2016, a $15 million capital authorization was included for the Smart Growth Housing Trust Fund Chapter. These funds will be used to encourage more communities to adopt high density, as-of-right zoning in Smart Growth locations, pursuant to the provisions of Chapter 40R.
- A second initiative created the Workforce Housing Production Trust Fund, which included a $25 million authorization to help support the development of market rate housing in Gateway Cities.

- The Baker-Polito administration filed a $1.287 billion affordable housing bill to increase housing development and improve public housing. Of the new funding, $650 million is earmarked for public housing modernization and redevelopment, $400 million for the production and preservation of traditional affordable housing, and $216 million for housing that serves "vulnerable populations."
- An earmark of $750,000 has been established to expand the state's Housing Court system to which currently only one-third of the state's residents have access due to budget constraints.
- A new section 26C of Chapter 121B Housing Policy provides for three statewide capital assistance teams to work collaboratively with local housing authorities to provide them with capital, maintenance and repair planning technical assistance.
- Members of the legislature have filed amendments to the state's housing code that would require cities and towns to have zoning ordinances or by-laws that permit multifamily development by right in one or more zoning districts within their communities.

Public Spending on Housing and Homelessness Programs

In FY 2018, the Commonwealth will spend from its own resources a total of $432 million on a series of housing programs plus initiatives aimed at combatting homelessness. Of the total, $183 million goes to the former with the larger share ($249) going to homeless programs.

However, this amount represents the second annual funding cut in a row so that the state budget for housing related spending is now $71 million below the amount in the FY 2016 budget, a 14 percent reduction. What makes this cut in state funding even more serious is that it is coming on top of a sharp reduction in federal funding for housing in the Commonwealth. Fiscal year 2018 estimated funds for federal housing programs in Massachusetts are expected to be $71 million less than in FY 2017. Together, the state and federal cuts in the current fiscal year alone amount to more than $100 million.

A 21st Century Approach to Meeting Greater Boston's Housing Needs

Given the Commonwealth's robust economy, which acts as a magnet to attract more people to the Greater Boston region—which in turn puts greater pressure on the housing market—which then leads to housing cost burdens for more of the region's households, it is incumbent that a new approach to increasing housing supply be crafted. This is more urgent than ever. Reduced state and federal funding for housing programs requires housing strategies that rely less on the public purse and more on public-private partnership. In this year's *Greater Boston Housing Report Card*, we have put forward an ambitious detailed plan to do just that, calling on a much broader coalition of actors to meet the region's housing challenges.

Specifically, we need to focus on building housing for millennials, working families and seniors, who represent the "new" demographics of the region. Here we call for the development of a range of "21st Century Villages"—housing that is unique in conception, builds community and uses new methods for its production.

A New Building Architecture

From the outside, a new 21st Century Village development will look much like apartment and condo buildings now common in Boston. They will be multistory buildings that could range in height from five to 35 stories with attractive exteriors, and be developed throughout the Greater Boston region, not solely in the inner core.

- Each building or "village" could be arrayed with a range of units from small "micro" apartments and studios to a few multi-bedroom units. Individual units would vary not only in size but in fit and finish so that rents could range from something in the $900–$1,100 range to something above $3,000 per month, to fit the pocketbooks of a range of tenants.
- The most affordable units might include "pods" with four to six small single-room apartments each with a private bath, but sharing a common kitchen/dining room and living room.
- The more upscale units would have more space and be outfitted with high-end baths and kitchens.

- Each village would have common space with lounges, laundry facilities, seminar rooms, study areas, music practice rooms, gyms and perhaps even work-live space for small business incubators.
- The first floor of each village could house retail.
- To provide additional entertainment or community space, roof gardens could allow tenants to hold barbecues and in-season activities; each village might also house a small "black box" theater where music, comedy and other performances could be scheduled by and for tenants and neighbors.
- Wherever possible, these villages should be built near public transit to limit the need for parking. Small underground parking facilities could accommodate a limited number of vehicles, Zipcars and bicycles. Storage lockers would be available for tenants.
- New techniques including panelized construction and pre-fab modular design should be considered to reduce building cost.

A 10-Step Plan

To move forward aggressively to develop a substantial number of 21st Century Villages, we suggest a 10-point implementation plan, outlined in detail on pages 65–66, and briefly in the executive summary. It recommends getting elected officials, developers and building professionals, universities, hospitals and others to combine their expertise and influence to study, prepare and execute a housing solution for our times.

With a coordinated effort, this proposed plan has a solid chance of easing Greater Boston's housing crunch and thus helping to maintain—and further—the Commonwealth's prosperity.

Endnotes

Chapter 1

1. See U.S. Commerce Department, Bureau of Economic Statistics, State GDP Report, June 2017.
2. See Evan Horowitz, "Household Income in Massachusetts Was Way Up Last Year," *The Boston Globe*, September 14, 2017.
3. Sewin Chan and Gita Khun Jush, "2017 National Rental Housing Landscape: Renting in the Nation's Largest Metros," NYU Furman Center, 2017, Figure 5.1 and Figure 5.2, pp. 25-26.

Chapter 2

1. Comparable numbers for the United States suggest that what is happening to homeownership in Greater Boston is part of a nationwide trend. Between 2006 and 2015, the overall homeownership rate has dropped from 69 percent to 64 percent. Among 25–29 year-olds, the decline has been even more precipitous: from 42 percent to 32 percent. People 30 to 34 years old have seen their homeownership rates decline over this period by a full 10 percentage points, from 56 percent to 46 percent, with a similar double-digit decline for 35–39 year-olds from 66 percent to 55 percent. See Susan Wachter and Arthur Acolin, "Owning or Renting in the U.S.: Shifting Dynamics of the Housing Market," Penn Institute for Urban Research, May 2016, Table 1.
2. The geographic area of the Boston Metropolitan Statistical Area (MSA) is larger than the Greater Boston region used in this report, the latter of which includes the five counties of Essex, Middlesex, Norfolk, Plymouth and Suffolk. The Boston MSA officially known today by the U.S. Census Bureau is called the "Boston-Cambridge-Newton, MA-NH Statistical Area" and includes in addition to the five Greater Boston counties two counties in New Hampshire: Rockingham and Strafford. Reis, Inc. uses this definition of region in compiling its housing data. The two New Hampshire counties add approximately 420,000 residents to the Greater Boston region population total.
3. See Mayor Martin J. Walsh, "Housing a Changing City: Boston 2030, Q2 Report," July 2017.
4. These data were supplied to the authors by staff at the City of Boston Department of Neighborhood Development, October 6, 2016.
5. "Housing a Changing City: Boston 2030, Q2 Report," *op.cit.*, p. 2.
6. See Department of Neighborhood Development, City of Boston, "Student Housing Trends: 2016–2017 Academic Year." Of the 30 institutions of higher education with programs operating within the city, Northeastern University accounts for most of the growth in student population between 2013 and 2016. In that time period, Northeastern saw its enrollment increase from 29,755 students to 32,817, an increase of 10.3 percent while the overall increase across all institutions was just 1.7 percent, including Northeastern.
7. *Ibid.*, Table 2, p. 4.
8. Our thanks to Reyelt Williams of the Massachusetts Department of Housing and Community Development (DHCD) for assembling these Chapter 40R statistics for us each year.
9. See Barry Bluestone, Chase Billingham, Jessica Casey, Anna Gartsman, Eleanor White and Tim David, *The Greater Boston Housing Report Card 2010*, Table 6.3, Number of Potential Permitted Units under Chapter 40R, as of August 2010.

Chapter 3

1. See "Mass. Home Sales Down in August; Median Price Up for 17th Month," The Warren Group Press Release, September 28, 2017.
2. For a discussion of the statistical relationship between vacancy rates, home prices and rents, see Barry Bluestone, Mary Huff Stevenson and Russell Williams, T*he Urban Experience: Economics, Society, and Public Policy* (New York: Oxford University Press, 2008) pp. 417-421.

3. City of Boston, *Imagine Boston 2030: A Plan for the Future of Boston*, 2017, p. 297.

4. The regression equation for this gradient is: $Y=908325.8-28477*X+373.5*X^2 + \varepsilon$
(-3.85) (2.37) Adjusted R^2 =.227

   Where Y = median home price of a Greater Boston community
   X = distance in miles from city of Boston center
   X^2 = distance in miles from city of Boston center (squared)
   (t-statistics)

5. The regression equation for this gradient for 2009-2017 is: $Y=0.7514-0.03407*X +0.0005233* X^2 + \varepsilon$
(-7.90) (5.68)
Adjusted R^2 =.458

   Where Y= percentage change in home price of a Greater Boston community (2009-2017)
   X = distance in miles from city of Boston center
   X^2 = distance in miles from city of Boston center (squared)

   The regression equation for this gradient for 2015-2017 is: $Y=0.2017-0.008547*X+0.0001449* X^2 + \varepsilon$
(-3.59) (2.86)
Adjusted R^2 =.458

   Where Y= percentage change in home price of a Greater Boston community (2015-2017)
   X = distance in miles from city of Boston center
   X^2 = distance in miles from city of Boston center (squared)

6. The regression equation for this gradient is: $Y=610314.5-20260.1X+296.4* X^2 + \varepsilon$
(-3.74) (2.41)
Adjusted R^2 =.2286

   Where Y = percentage change in condo price of a Greater Boston community (2009-2015)
   X = distance in miles from city of Boston center
   X^2 = distance in miles from city of Boston center (squared)
   (t-statistics)

7. The regression equation for this gradient is: $Y=0.8424608-0.0333325 *X +0.0003879* X^2 + \varepsilon$
(-2.26) (1.15)
Adjusted R^2 =.145

   Where Y = percentage change in condo price of a Greater Boston community (2009-2017)
   X = distance in miles from city of Boston center
   X^2 = distance in miles from city of Boston center (squared)

   The regression equation for this gradient for 2009-2017 is: $Y=0.2202572-0.009258*X+0.0001078* X^2 + \varepsilon$
(-1.29) (0.658)
Adjusted R^2 =.044

   Where Y = percentage change in condo price of a Greater Boston community (2015-2017)
   X = distance in miles from city of Boston center
   X^2 = distance in miles from city of Boston center (squared)

Chapter 4

1. "Housing Boston 2030: Q2 2017 Summary," City of Boston, Department of Neighborhood Development, July 2017.
2. *Ibid.*, p. 2.
3. *Ibid.*, p. 3.

4. As of 2014, the income limits for Affordable Units in the Boston-Cambridge-Quincy, Massachusetts HUD Metro area were:

FY2014 Affordable Housing Income Limits, Boston-Cambridge-Quincy, MA-NH HUD Metro FMR Area

Household Size	Extremely Low-Income (30% AMI)	Very Low-Income (50% AMI)	Low-Income (80% AMI)	Lower-Middle-Income (100% AMI)	Upper-Middle-Income (120% AMI)
1 Person	$ 19,800	$ 32,950	$ 47,450	$ 65,900	$ 79,080
2 Person	$ 22,600	$ 37,650	$ 54,200	$ 75,300	$ 90,360
3 Person	$ 25,450	$ 42,350	$ 61,000	$ 54,700	$ 101,640
4 Person	$ 28,250	$ 47,050	$ 67,750	$ 94,100	$ 112,920
5 Person	$ 30,550	$ 50,850	$ 73,200	$ 101,700	$ 122,040

Source: DHCD

Note: Methodology for calculating shelter caseload changed in FY 2015 from an average daily number to contracted units (minus vacancies) to an end-of-month count of occupied shelter units using DHCD's bed registry.

5. "Housing Boston 2030: Q2 2017 Summary," *op.cit.*, p. 5.
6. *Ibid*., p. 6.
7. *Ibid*., pp. 7–9.
8. *Ibid*., p. 9.
9. *Ibid*, p. 12.
10. *Ibid*., p. 11.
11. City of Boston, "Housing Boston 2030: Year Two Snapshot – Accommodating Growth," 2017, p. 3.
12. City of Boston, *Imagine Boston 2030: A Plan for the Future of Boston*, 2017, p. 301.
13. Rich Vetstein, "Breaking: Boston City Council Passes Just Cause Eviction Petition," Massachusetts Real Estate Law Blog, October 8, 2017.
14. See Dan Atkinson and Marie Szaniszlo, "Boston Housing Pilot to Pair Empty Nesters, Students," *The Boston Herald*, September 28, 2017.
15. See Milton J. Valencia, "City Offers Aid to Landlords Who Rent to Homeless," *The Boston Globe*, October 11, 2017.
16. See "Governor Baker Signs Economic Development Legislation," August 10, 2016 http://www.mass.gov/governor/press-office/press-releases/fy2017/governor-baker-signs-economic-development-legislation.
17. See Ted Carman, Eleanor White and Barry Bluestone, "How to Win the Bid for the New Amazon Headquarters," Concord Square Planning & Development, Inc., September 20, 2017.
18. The Gateway Cities include 16 with MBTA transportation service: Attleboro, Brockton, Chelsea, Everett, Fitchburg, Haverhill, Lawrence, Leominster, Lowell, Lynn, Malden, Peabody, Quincy, Revere, Salem and Worcester; five within the Route 495 region: Barnstable, Fall River, Methuen, New Bedford and Taunton; and five in Western Massachusetts: Chicopee, Holyoke, Pittsfield, Springfield and Westfield.
19. See Office of the Governor of Massachusetts, "Baker-Polito Administration Files $1.287 Billion Affordable Housing Bill to Increase Development, Extend Key Tax Credits," April 24, 2017.
20. See "State-Wide Housing Court Coverage a 'Done Deal,'" http:/massrealestatelawblog.com/2017/07/19/housing-court=expansion-bill-gets-funding/.

21. See Massachusetts General Laws, Chapter 121B (Housing and Urban Renewal) Section 26C "Best Practices Program for Allowing Authorities to Work Collaboratively; Provisions of Program; Capital Assistance Team; Director; Members," Title XVII, Section 121B, Spring 2017.
22. See Commonwealth of Massachusetts, S. 2311, June 2, 2016.
23. See State House News Service, "Mass. Senate Passes Sweeping Zoning Reform Bill," June 10, 2016.
24. See Commonwealth of Massachusetts, "An Act Improving Housing Opportunities and the Massachusetts Economy," S.94, January 9, 2017.
25. See Commonwealth of Massachusetts, "HomeBASE Program," https://www.mass.gov/service-details/homebase.
26. See National Coalition for the Homeless, "Federal Assistance Programs," NCH Fact Sheet #16, August 2007.
27. This figure assumes that all states will face an equal proportional reduction in federal housing funds based on the overall reduction in HUD appropriations.

Chapter 5

1. See U.S. Decennial Census.
2. See Wikipedia "Triple-Decker."
3. "GI Bill Turns 62 Today," Military.com.
4. See Ira Katznelson, *When Affirmative Action Was White: An Untold History of Racial Inequality in Twentieth-Century America* (New York: W.W. Norton, 2006).
5. See Clare J. Richfield, "The Suburban Ranch House in Post-World War II America: A Site of Contrast in an Era of Unease, Uncertainty, and Instability," Barnard College, Department of History, Spring 2007.
6. U.S. Census Bureau, Fertility and Family Statistics Branch, November 2016.
7. Millennials are usually defined as those born between 1980 and 1999—now age 18 to 37. Here "young adults" refer to all those between the ages of 20 and 34 at any historical point in time. See Anise Vance and Peter Ciurczak, "City of Millennials: Improving the Future Prospects of Our Region and Its Young Adults," a special report from Boston Indicators in partnership with City Awake and The Greater Boston Chamber of Commerce, The Boston Foundation, May 2017.
8. *Ibid*., Figure 1, p. 7.
9. *Ibid*, p. 8.
10. *Ibid*, Figure 8, p. 11.
11. Studyboston.com, "250,000 College Students in Boston: America's College Town," 2016.
12. Anise Vance and Peter Ciruczak, *op.cit*., Figure 9.
13. The lower estimate is what MAPC calls its "status quo" projection based on current in- and out-migration levels. The higher estimate is what MAPC calls its "stronger region" projection based on "slightly higher in-migration rates and slightly lower out-migration rates due to stronger economic growth." See Tim Reardon and Meghna Hari, "Population and Housing Demand Projections for Metro Boston," Metropolitan Area Planning Council, January 2014.
14. For a good description of the Urban Housing Unit, see Tim Logan, "Boston Taking 385-Square-Foot Apartment for a Spin," *The Boston Globe*, August 12, 2016.
15. See https://www.boston.gov/sites/default/files/competition_doma_homes_presentation_161229.pdf.
16. See World Homes, "Social Housing," 100 Massachusetts Avenue, Boston, MA 02115.
17. See "Brand New Condos Available for Lease," www.305microlofts.com and "Commoncove Microlofts: Reducing the Rent Burden on Moderate Income Households," August, 2017.

18. See "The Construction Industry: Least Improved," *The Economist*, August 19, 2017, p. 53. The data for this story are from the McKinsey Global Institute.

19. *Ibid*. According to The Economist story, BoKlok, a spin-off of IKEA, does only one-fifth of its construction work on site; the rest is done in factories. An American firm, Katerra, builds prefabricated sections of apartments in a factory in Arizona.

20. See Jim English, Jonathan Linehan and Jim Grossman, "City of Boston Work Force Housing Challenge," Suffolk Construction, 2017.

21. There are a number of international models for manufactured housing that have proven results for significant increases in construction productivity. The key is to develop standardized elements, panel production assembled off-site, and limited finishing work conducted on site. Barcelona Housing Systems has improved productivity by up to tenfold in using a replicable design of four-story multifamily buildings that mix housing, retail and service-oriented office space, varying some façade and design elements without fundamental changes to the structure design. All necessary housing components are assembled from prefabricated modules built in a factory on-site or nearby. VBHC, a modular housing provider in India, designed prefabricated room components that can easily convert one-bedroom units to two- or three-bedroom units. In Shanghai, a company is experimenting with a housing construction technique that relies on 3-D printing after developing a 3-D printed office building in Dubai. See Jonathan Woetzel, Sangeeth Ram, Shannon Peloqin, Mourad Limam and Jan Mischke, "Housing Affordability: A Supply-Side Toll Kit for Cities," McKinsey & Co. Executive Briefing, October 2017.

22. See Jonathan Woetzel, et al., *op.cit.*

APPENDIX A

Municipal Scorecard

Municipality	Production and Sales								
	Total Housing Units (2010 Census)	Units Permitted in 2015	Units Permitted 2017 (Estimate)	% Change 2015 to 2017 (Estimate)	Number of Single Family Home Sales 2015	Number of Single Family Home Sales 2017 (Estimate)	Percent Change in Number of Single Family Sales, 2015–2017 (Estimate)	Median Single Family Home Selling Price 2005	Median Single Family Home Selling Price 2015
Abington	6,377	15	39	160.0%	153	142	–7.2%	$349,900	$300,000
Acton	8,530	59	29	–50.8%	219	238	8.7%	$542,000	$530,900
Amesbury	7,110	20	10	–50.0%	165	174	5.5%	$350,000	$320,000
Andover	12,423	47	50	6.4%	377	370	–1.9%	$588,750	$576,000
Arlington	19,974	188	123	–34.6%	355	300	–15.5%	$501,000	$634,500
Ashby	1,191	2	9	350.0%	35	38	8.6%	$275,000	$196,000
Ashland	6,609	17	31	82.4%	136	166	22.1%	$416,250	$386,000
Avon	1,769	10	7	–30.0%	58	54	–6.9%	$320,000	$260,000
Ayer	3,462	43	21	–51.2%	71	62	–12.7%	$335,000	$315,000
Bedford	5,368	108	22	–79.6%	162	142	–12.3%	$520,000	$646,000
Bellingham	6,365	40	24	–40.0%	202	176	–12.9%	$320,000	$280,000
Belmont	10,184	298	3	–99.0%	171	132	–22.8%	$720,000	$907,000
Beverly	16,641	10	26	160.0%	381	304	–20.2%	$386,500	$385,000
Billerica	14,481	43	33	–23.3%	398	328	–17.6%	$372,500	$358,000
Boston	272,481	4955	5342	7.8%	1171	1094	–6.6%	$433,685	$591,429
Boxborough	2,073	255	2	–99.2%	55	54	–1.8%	$585,950	$565,000
Boxford	2,757	5	14	180.0%	114	102	–10.5%	$650,000	$582,500
Braintree	14,302	16	0	–100.0%	337	264	–21.7%	$385,000	$387,000
Bridgewater	8,336	26	50	92.3%	186	182	–2.2%	$387,500	$332,250
Brockton	35,552	67	63	–6.0%	772	934	21.0%	$275,000	$220,000
Brookline	26,448	80	10	–87.5%	192	150	–21.9%	$1,120,000	$1,587,500
Burlington	9,668	226	91	–59.7%	215	182	–15.3%	$412,500	$451,000
Cambridge	47,291	535	297	–44.5%	100	96	–4.0%	$667,500	$1,225,000
Canton	8,762	209	120	–42.6%	215	196	–8.8%	$511,250	$479,000
Carlisle	1,758	9	5	–44.4%	67	72	7.5%	$876,563	$799,000
Carver	4,600	7	15	114.3%	140	136	–2.9%	$340,000	$291,750
Chelmsford	13,807	60	204	240.0%	341	324	–5.0%	$373,700	$373,000
Chelsea	12,621	686	53	–92.3%	40	40	0.0%	$323,250	$305,000
Cohasset	2,980	29	14	–51.7%	110	144	30.9%	$765,500	$743,500
Concord	6,947	54	27	–50.0%	190	156	–17.9%	$725,000	$883,500
Danvers	11,135	17	17	0.0%	279	232	–16.8%	$405,000	$405,000

Municipal Scorecard, continued

Municipality	Production and Sales (cont.)			Foreclosure Activity					
	Median Single Family Home Selling Price Through June 2017	Percent Change in Median Single Family Sales Price, 2005–June 2017	Percent Change in Median Single Family Sales Price, 2015–June 2017	Petitions to Foreclose, 2015	Petitions to Foreclose, 2017 (Estimate)	Foreclosure Deeds 2015	Foreclosure Deeds 2017 (Estimate)	Percent Change in Petitions to Foreclose, 2015–2017 (Estimate)	Percent Change in Foreclosure Deeds, 2015–2017 (Estimate)
Abington	$345,000	–1.4%	15.0%	38	40	13	28	5.3%	115.4%
Acton	$613,500	13.2%	15.6%	10	10	3	6	0.0%	100.0%
Amesbury	$330,000	–5.7%	3.1%	20	20	7	14	0.0%	100.0%
Andover	$642,000	9.0%	11.5%	8	20	7	8	150.0%	14.3%
Arlington	$720,000	43.7%	13.5%	3	2	0	0	–33.3%	0.0%
Ashby	$259,900	–5.5%	32.6%	8	14	3	4	75.0%	33.3%
Ashland	$420,000	0.9%	8.8%	11	22	7	4	100.0%	–42.9%
Avon	$326,000	1.9%	25.4%	12	6	3	6	–50.0%	100.0%
Ayer	$308,300	–8.0%	–2.1%	10	2	6	8	–80.0%	33.3%
Bedford	$675,000	29.8%	4.5%	3	6	1	2	100.0%	100.0%
Bellingham	$277,700	–13.2%	–0.8%	38	24	22	36	–36.8%	63.6%
Belmont	$1,001,613	39.1%	10.4%	0	6	0	0	600.0%	0.0%
Beverly	$448,000	15.9%	16.4%	30	32	13	10	6.7%	–23.1%
Billerica	$420,000	12.8%	17.3%	52	76	26	24	46.2%	–7.7%
Boston	$672,652	55.1%	13.7%	160	172	39	36	7.5%	–7.7%
Boxborough	$610,000	4.1%	8.0%	2	6	0	4	200.0%	400.0%
Boxford	$587,000	–9.7%	0.8%	7	8	1	4	14.3%	300.0%
Braintree	$433,500	12.6%	12.0%	26	40	5	6	53.8%	20.0%
Bridgewater	$360,000	–7.1%	8.4%	40	34	16	12	–15.0%	–25.0%
Brockton	$259,000	–5.8%	17.7%	280	318	94	124	13.6%	31.9%
Brookline	$1,810,000	61.6%	14.0%	3	2	0	2	–33.3%	200.0%
Burlington	$505,000	22.4%	12.0%	12	24	3	10	100.0%	233.3%
Cambridge	$1,237,500	85.4%	1.0%	3	4	1	0	33.3%	–100.0%
Canton	$532,500	4.2%	11.2%	9	30	3	4	233.3%	33.3%
Carlisle	$834,500	–4.8%	4.4%	5	8	0	0	60.0%	0.0%
Carver	$311,250	–8.5%	6.7%	43	32	15	40	–25.6%	166.7%
Chelmsford	$396,500	6.1%	6.3%	19	44	10	8	131.6%	–20.0%
Chelsea	$345,000	6.7%	13.1%	10	8	3	4	–20.0%	33.3%
Cohasset	$830,000	8.4%	11.6%	1	10	2	0	900.0%	–100.0%
Concord	$1,040,500	43.5%	17.8%	4	12	0	0	200.0%	0.0%
Danvers	$425,000	4.9%	4.9%	22	32	14	8	45.5%	–42.9%

Municipal Scorecard, continued

Municipality	Production and Sales								
	Total Housing Units (2010 Census)	Units Permitted in 2015	Units Permitted 2016 (Estimate)	% Change 2015 to 2016 (Estimate)	Number of Single Family Home Sales 2015	Number of Single Family Home Sales 2016 (Estimate)	Percent Change in Number of Single Family Sales, 2015–2016 (Estimate)	Median Single Family Home Selling Price 2005	Median Single Family Home Selling Price 2015
Dedham	10,191	14	19	35.7%	305	316	3.6%	$404,500	$405,000
Dover	1,969	16	21	31.3%	85	128	50.6%	$1,057,500	$976,000
Dracut	11,351	49	93	89.8%	277	240	–13.4%	$314,000	$286,500
Dunstable	1,098	13	12	–7.7%	38	28	–26.3%	$570,000	$474,000
Duxbury	5,875	175	60	–65.7%	206	218	5.8%	$615,500	$580,000
East Bridgewater	4,906	32	9	–71.9%	129	134	3.9%	$328,400	$289,000
Essex	1,600	17	12	–29.4%	41	44	7.3%	$485,000	$519,000
Everett	16,715	164	115	–29.9%	114	104	–8.8%	$350,000	$307,500
Foxborough	6,895	46	43	–6.5%	182	186	2.2%	$399,900	$380,000
Framingham	27,529	284	567	99.6%	657	600	–8.7%	$384,000	$358,000
Franklin	11,394	48	39	–18.8%	280	306	9.3%	$433,455	$398,450
Georgetown	3,044	14	15	7.1%	110	80	–27.3%	$450,000	$405,000
Gloucester	14,557	33	38	15.2%	213	206	–3.3%	$389,000	$370,000
Groton	3,989	19	19	0.0%	124	144	16.1%	$472,000	$431,500
Groveland	2,439	8	10	25.0%	80	52	–35.0%	$386,750	$354,500
Halifax	3,014	14	14	0.0%	90	76	–15.6%	$330,000	$258,500
Hamilton	2,880	5	7	40.0%	97	88	–9.3%	$525,000	$494,000
Hanover	4,852	10	27	170.0%	170	186	9.4%	$450,000	$450,000
Hanson	3,589	44	34	–22.7%	113	90	–20.4%	$362,450	$310,000
Haverhill	25,657	114	41	–64.0%	470	424	–9.8%	$320,000	$280,000
Hingham	8,953	23	31	34.8%	289	242	–16.3%	$665,000	$729,000
Holbrook	4,274	4	5	25.0%	131	154	17.6%	$324,450	$262,000
Holliston	5,087	39	58	48.7%	192	204	6.3%	$447,500	$429,000
Hopkinton	5,128	128	96	–25.0%	193	200	3.6%	$559,000	$577,200
Hudson	7,998	23	24	4.3%	190	178	–6.3%	$356,000	$326,000
Hull	5,762	9	12	33.3%	143	132	–7.7%	$379,000	$339,000
Ipswich	6,007	20	9	–55.0%	147	122	–17.0%	$517,500	$434,000
Kingston	5,010	59	62	5.1%	170	132	–22.4%	$383,900	$363,000
Lakeville	4,177	19	34	78.9%	136	144	5.9%	$359,500	$296,853

Municipal Scorecard, continued

Municipality	Production and Sales (cont.)			Foreclosure Activity					
	Median Single Family Home Selling Price Through June 2016	Percent Change in Median Single Family Sales Price, 2005–June 2016	Percent Change in Median Single Family Sales Price, 2015–June 2016	Petitions to Foreclose, 2015	Petitions to Foreclose, 2016 (Estimate)	Foreclosure Deeds 2015	Foreclosure Deeds 2016 (Estimate)	Percent Change in Petitions to Foreclose, 2015–2016 (Estimate)	Percent Change in Foreclosure Deeds, 2015–2016 (Estimate)
Dedham	$471,250	16.5%	16.4%	30	36	7	8	20.0%	14.3%
Dover	$1,114,875	5.4%	14.2%	1	6	1	4	500.0%	300.0%
Dracut	$327,450	4.3%	14.3%	55	44	14	22	–20.0%	57.1%
Dunstable	$407,500	–28.5%	–14.0%	2	2	3	0	0.0%	–100.0%
Duxbury	$665,000	8.0%	14.7%	15	12	7	6	–20.0%	–14.3%
East Bridgewater	$325,000	–1.0%	12.5%	29	30	11	16	3.4%	45.5%
Essex	$621,250	28.1%	19.7%	1	4	0	4	300.0%	400.0%
Everett	$410,000	17.1%	33.3%	17	18	11	2	5.9%	–81.8%
Foxborough	$410,000	2.5%	7.9%	20	18	11	6	–10.0%	–45.5%
Framingham	$415,000	8.1%	15.9%	45	58	18	24	28.9%	33.3%
Franklin	$430,000	–0.8%	7.9%	26	26	7	6	0.0%	–14.3%
Georgetown	$435,148	–3.3%	7.4%	17	6	6	4	–64.7%	–33.3%
Gloucester	$371,000	–4.6%	0.3%	21	28	7	14	33.3%	100.0%
Groton	$463,750	–1.7%	7.5%	13	12	3	4	–7.7%	33.3%
Groveland	$400,000	3.4%	12.8%	7	14	6	10	100.0%	66.7%
Halifax	$331,950	0.6%	28.4%	19	10	6	12	–47.4%	100.0%
Hamilton	$549,900	4.7%	11.3%	5	4	1	0	–20.0%	–100.0%
Hanover	$477,000	6.0%	6.0%	21	16	5	6	–23.8%	20.0%
Hanson	$297,500	–17.9%	–4.0%	20	28	16	4	40.0%	–75.0%
Haverhill	$303,500	–5.2%	8.4%	71	88	27	42	23.9%	55.6%
Hingham	$749,000	12.6%	2.7%	20	18	3	6	–10.0%	100.0%
Holbrook	$309,500	–4.6%	18.1%	24	46	17	22	91.7%	29.4%
Holliston	$426,500	–4.7%	–0.6%	15	16	4	10	6.7%	150.0%
Hopkinton	$594,500	6.4%	3.0%	12	24	4	2	100.0%	–50.0%
Hudson	$335,000	–5.9%	2.8%	23	12	7	10	–47.8%	42.9%
Hull	$420,000	10.8%	23.9%	24	26	9	10	8.3%	11.1%
Ipswich	$527,000	1.8%	21.4%	9	14	2	6	55.6%	200.0%
Kingston	$414,550	8.0%	14.2%	22	22	6	8	0.0%	33.3%
Lakeville	$336,500	–6.4%	13.4%	18	22	13	16	22.2%	23.1%

Municipal Scorecard, continued

Municipality	Production and Sales								
	Total Housing Units (2010 Census)	Units Permitted in 2015	Units Permitted 2016 (Estimate)	% Change 2015 to 2016 (Estimate)	Number of Single Family Home Sales 2015	Number of Single Family Home Sales 2016 (Estimate)	Percent Change in Number of Single Family Sales, 2015–2016 (Estimate)	Median Single Family Home Selling Price 2005	Median Single Family Home Selling Price 2015
Lawrence	27,137	25	22	–12.0%	223	194	–13.0%	$247,000	$210,000
Lexington	12,019	87	84	–3.4%	437	362	–17.2%	$705,000	$925,000
Lincoln	2,617	5	12	140.0%	57	38	–33.3%	$1,155,000	$945,000
Littleton	3,477	77	48	–37.7%	112	92	–17.9%	$452,500	$428,250
Lowell	41,431	43	24	–44.2%	490	608	24.1%	$274,900	$241,750
Lynn	35,776	28	31	10.7%	602	592	–1.7%	$290,000	$260,500
Lynnfield	4,354	36	19	–47.2%	163	146	–10.4%	$560,000	$575,000
Malden	25,161	10	3	–70.0%	258	222	–14.0%	$365,000	$359,700
Manchester-by-the-Sea	2,394	10	7	–30.0%	67	56	–16.4%	$725,000	$783,500
Marblehead	8,838	5	5	0.0%	285	220	–22.8%	$581,500	$590,000
Marion	2,445	8	21	162.5%	71	48	–32.4%	$445,000	$399,000
Marlborough	16,416	27	31	14.8%	259	310	19.7%	$359,950	$325,000
Marshfield	10,940	35	19	–45.7%	305	268	–12.1%	$432,000	$389,000
Mattapoisett	3,262	18	24	33.3%	72	60	–16.7%	$390,000	$370,000
Maynard	4,447	15	14	–6.7%	125	120	–4.0%	$357,450	$335,000
Medfield	4,237	74	31	–58.1%	180	162	–10.0%	$617,500	$662,750
Medford	24,046	12	14	16.7%	337	248	–26.4%	$399,900	$450,000
Medway	4,613	31	38	22.6%	152	158	3.9%	$436,570	$379,900
Melrose	11,751	40	5	–87.5%	270	206	–23.7%	$428,950	$500,000
Merrimac	2,555	26	9	–65.4%	84	68	–19.0%	$372,500	$334,839
Methuen	18,340	116	70	–39.7%	506	430	–15.0%	$328,000	$278,250
Middleborough	9,023	201	53	–73.6%	177	198	11.9%	$339,900	$297,000
Middleton	3,045	27	62	129.6%	73	96	31.5%	$582,500	$543,000
Millis	3,158	13	21	61.5%	88	108	22.7%	$386,500	$354,500
Milton	9,700	5	12	140.0%	305	290	–4.9%	$475,000	$565,000
Nahant	1,677	0	0	0.0%	44	30	–31.8%	$557,750	$522,500
Natick	14,121	30	60	100.0%	363	344	–5.2%	$459,450	$521,000
Needham	11,122	95	110	15.8%	412	408	–1.0%	$663,750	$840,000
Newbury	2,936	19	15	–21.1%	88	76	–13.6%	$452,500	$440,000
Newburyport	8,264	24	19	–20.8%	221	160	–27.6%	$456,175	$514,000

Municipal Scorecard, continued

Municipality	Production and Sales (cont.)			Foreclosure Activity					
	Median Single Family Home Selling Price Through June 2016	Percent Change in Median Single Family Sales Price, 2005–June 2016	Percent Change in Median Single Family Sales Price, 2015–June 2016	Petitions to Foreclose, 2015	Petitions to Foreclose, 2016 (Estimate)	Foreclosure Deeds 2015	Foreclosure Deeds 2016 (Estimate)	Percent Change in Petitions to Foreclose, 2015–2016 (Estimate)	Percent Change in Foreclosure Deeds, 2015–2016 (Estimate)
Lawrence	$239,900	–2.9%	14.2%	54	44	18	22	–18.5%	22.2%
Lexington	$1,145,888	62.5%	23.9%	17	8	2	0	–52.9%	–100.0%
Lincoln	$1,105,000	–4.3%	16.9%	1	0	1	2	–100.0%	100.0%
Littleton	$446,500	–1.3%	4.3%	16	8	3	4	–50.0%	33.3%
Lowell	$265,000	–3.6%	9.6%	120	84	40	56	–30.0%	40.0%
Lynn	$312,250	7.7%	19.9%	126	146	44	62	15.9%	40.9%
Lynnfield	$640,000	14.3%	11.3%	10	24	4	12	140.0%	200.0%
Malden	$430,000	17.8%	19.5%	29	34	6	20	17.2%	233.3%
Manchester-by-the-Sea	$791,250	9.1%	1.0%	2	4	0	0	100.0%	0.0%
Marblehead	$615,000	5.8%	4.2%	12	12	0	6	0.0%	600.0%
Marion	$415,000	–6.7%	4.0%	6	20	2	0	233.3%	–100.0%
Marlborough	$339,000	–5.8%	4.3%	40	34	9	28	–15.0%	211.1%
Marshfield	$423,500	–2.0%	8.9%	44	42	12	18	–4.5%	50.0%
Mattapoisett	$417,200	7.0%	12.8%	8	14	1	0	75.0%	–100.0%
Maynard	$360,000	0.7%	7.5%	12	12	5	2	0.0%	–60.0%
Medfield	$640,000	3.6%	–3.4%	6	8	3	4	33.3%	33.3%
Medford	$564,500	41.2%	25.4%	22	24	6	2	9.1%	–66.7%
Medway	$399,900	–8.4%	5.3%	15	22	6	2	46.7%	–66.7%
Melrose	$620,000	44.5%	24.0%	10	14	1	4	40.0%	300.0%
Merrimac	$399,200	7.2%	19.2%	11	8	6	0	–27.3%	–100.0%
Methuen	$335,000	2.1%	20.4%	81	88	26	36	8.6%	38.5%
Middleborough	$308,000	–9.4%	3.7%	53	56	25	32	5.7%	28.0%
Middleton	$649,950	11.6%	19.7%	3	12	3	6	300.0%	100.0%
Millis	$399,500	3.4%	12.7%	11	16	6	4	45.5%	–33.3%
Milton	$630,000	32.6%	11.5%	25	38	4	4	52.0%	0.0%
Nahant	$550,000	–1.4%	5.3%	3	6	0	4	100.0%	400.0%
Natick	$552,000	20.1%	6.0%	13	30	9	2	130.8%	–77.8%
Needham	$984,000	48.2%	17.1%	9	18	3	0	100.0%	–100.0%
Newbury	$467,500	3.3%	6.3%	8	6	2	2	–25.0%	0.0%
Newburyport	$535,000	17.3%	4.1%	10	12	1	6	20.0%	500.0%

Municipal Scorecard, continued

Municipality	Production and Sales								
	Total Housing Units (2010 Census)	Units Permitted in 2015	Units Permitted 2016 (Estimate)	% Change 2015 to 2016 (Estimate)	Number of Single Family Home Sales 2015	Number of Single Family Home Sales 2016 (Estimate)	Percent Change in Number of Single Family Sales, 2015–2016 (Estimate)	Median Single Family Home Selling Price 2005	Median Single Family Home Selling Price 2015
Newton	32,648	27	26	–3.7%	670	562	–16.1%	$760,000	$1,028,000
Norfolk	3,121	57	57	0.0%	139	140	0.7%	$505,000	$480,000
North Andover	10,964	243	101	–58.4%	292	270	–7.5%	$581,250	$499,000
North Reading	5,633	20	15	–25.0%	174	186	6.9%	$480,000	$472,700
Norwell	3,675	23	15	–34.8%	156	144	–7.7%	$548,000	$548,511
Norwood	12,479	56	46	–17.9%	227	202	–11.0%	$404,000	$411,000
Peabody	22,220	24	33	37.5%	413	406	–1.7%	$385,000	$365,000
Pembroke	6,552	21	19	–9.5%	207	238	15.0%	$350,050	$330,000
Pepperell	4,348	15	22	46.7%	107	114	6.5%	$365,000	$310,000
Plainville	3,482	58	33	–43.1%	85	94	10.6%	$379,000	$332,000
Plymouth	24,800	241	458	90.0%	713	784	10.0%	$350,000	$319,000
Plympton	1,043	4	5	25.0%	43	44	2.3%	$400,000	$380,000
Quincy	42,838	208	123	–40.9%	592	500	–15.5%	$375,000	$390,000
Randolph	12,008	12	173	1341.7%	304	312	2.6%	$350,000	$284,900
Reading	9,617	102	36	–64.7%	261	244	–6.5%	$438,000	$512,000
Revere	22,100	53	45	–15.1%	199	202	1.5%	$340,000	$320,000
Rochester	1,885	12	21	75.0%	67	68	1.5%	$422,500	$331,500
Rockland	7,051	11	3	–72.7%	163	168	3.1%	$320,000	$270,000
Rockport	4,223	11	9	–18.2%	76	58	–23.7%	$445,000	$475,000
Rowley	2,253	3	9	200.0%	61	50	–18.0%	$466,250	$449,900
Salem	19,130	11	7	–36.4%	222	188	–15.3%	$353,500	$341,500
Salisbury	4,550	34	21	–38.2%	74	70	–5.4%	$335,000	$307,500
Saugus	10,775	11	17	54.5%	301	264	–12.3%	$375,000	$335,000
Scituate	8,035	48	53	10.4%	303	320	5.6%	$525,000	$490,000
Sharon	6,456	10	391	3810.0%	203	226	11.3%	$455,000	$506,000
Sherborn	1,495	3	15	400.0%	67	56	–16.4%	$750,000	$743,452
Shirley	2,427	13	12	–7.7%	59	54	–8.5%	$340,000	$310,000
Somerville	33,720	0	295		105	82	–21.9%	$428,500	$625,000
Stoneham	9,458	10	108	980.0%	197	166	–15.7%	$420,000	$450,000
Stoughton	10,787	21	192	814.3%	262	286	9.2%	$353,750	$310,000

Municipal Scorecard, continued

Municipality	Production and Sales (cont.)			Foreclosure Activity					
	Median Single Family Home Selling Price Through June 2016	Percent Change in Median Single Family Sales Price, 2005–June 2016	Percent Change in Median Single Family Sales Price, 2015–June 2016	Petitions to Foreclose, 2015	Petitions to Foreclose, 2016 (Estimate)	Foreclosure Deeds 2015	Foreclosure Deeds 2016 (Estimate)	Percent Change in Petitions to Foreclose, 2015–2016 (Estimate)	Percent Change in Foreclosure Deeds, 2015–2016 (Estimate)
North Andover	$490,000	–15.7%	–1.8%	20	30	8	10	50.0%	25.0%
North Reading	$480,000	0.0%	1.5%	20	12	3	10	–40.0%	233.3%
Norwell	$610,000	11.3%	11.2%	12	14	6	2	16.7%	0.0%
Norwood	$410,000	1.5%	–0.2%	21	42	2	10	100.0%	400.0%
Peabody	$380,000	–1.3%	4.1%	53	80	19	14	50.9%	–26.3%
Pembroke	$340,000	–2.9%	3.0%	47	36	14	18	–23.4%	28.6%
Pepperell	$331,250	–9.2%	6.9%	16	20	5	8	25.0%	60.0%
Plainville	$376,000	–0.8%	13.3%	12	12	3	4	0.0%	33.3%
Plymouth	$316,000	–9.7%	–0.9%	161	176	52	70	9.3%	34.6%
Plympton	$316,000	–21.0%	–16.8%	8	8	3	4	0.0%	33.3%
Quincy	$406,000	8.3%	4.1%	64	66	13	10	3.1%	–23.1%
Randolph	$292,500	–16.4%	2.7%	73	114	26	28	56.2%	7.7%
Reading	$519,000	18.5%	1.4%	14	14	3	14	0.0%	366.7%
Revere	$350,000	2.9%	9.4%	31	60	10	16	93.5%	60.0%
Rockland	$271,276	–15.2%	0.5%	30	34	16	18	13.3%	12.5%
Rockport	$440,000	–1.1%	–7.4%	8	6	2	2	–25.0%	0.0%
Rowley	$392,500	–15.8%	–12.8%	5	4	0	2	–20.0%	200.0%
Salem	$345,000	–2.4%	1.0%	29	32	9	22	10.3%	144.4%
Salisbury	$299,450	–10.6%	–2.6%	13	12	8	6	–7.7%	–25.0%
Saugus	$367,900	–1.9%	9.8%	35	52	6	14	48.6%	133.3%
Scituate	$496,000	–5.5%	1.2%	24	20	8	10	–16.7%	25.0%
Sharon	$525,000	15.4%	3.8%	8	18	3	8	125.0%	166.7%
Sherborn	$714,000	–4.8%	–4.0%	4	4	2	2	0.0%	0.0%
Shirley	$293,000	–13.8%	–5.5%	10	10	5	4	0.0%	–20.0%
Somerville	$635,000	48.2%	1.6%	6	8	1	0	33.3%	–100.0%
Stoneham	$465,125	10.7%	3.4%	15	10	4	2	–33.3%	–50.0%
Stoughton	$327,000	–7.6%	5.5%	43	58	13	18	34.9%	38.5%
Stow	$443,000	–10.3%	–3.8%	4	4	1	0	0.0%	0.0%
Sudbury	$694,700	–5.7%	2.9%	8	18	4	2	125.0%	–50.0%
Stoughton	$359,000	1.5%	15.8%	43	44	13	22	2.3%	69.2%

Municipal Scorecard, continued

Municipality	Production and Sales								
	Total Housing Units (2010 Census)	Units Permitted in 2015	Units Permitted 2016 (Estimate)	% Change 2015 to 2016 (Estimate)	Number of Single Family Home Sales 2015	Number of Single Family Home Sales 2016 (Estimate)	Percent Change in Number of Single Family Sales, 2015–2016 (Estimate)	Median Single Family Home Selling Price 2005	Median Single Family Home Selling Price 2015
Stow	2,526	6	38	533.3%	70	74	5.7%	$493,750	$460,500
Sudbury	5,951	28	12	–57.1%	261	238	–8.8%	$737,000	$675,000
Swampscott	5,888	139	43	–69.1%	195	126	–35.4%	$516,150	$450,000
Tewksbury	10,848	76	57	–25.0%	294	240	–18.4%	$380,000	$365,000
Topsfield	2,175	3	3	0.0%	85	74	–12.9%	$531,240	$507,000
Townsend	3,385	20	22	10.0%	128	138	7.8%	$288,950	$252,150
Tyngsborough	4,206	37	12	–67.6%	119	114	–4.2%	$384,950	$360,000
Wakefield	10,500	12	26	116.7%	242	216	–10.7%	$430,000	$455,500
Walpole	9,040	31	7	–77.4%	252	272	7.9%	$462,500	$465,000
Waltham	24,926	43	45	4.7%	390	304	–22.1%	$437,000	$469,500
Wareham	12,256	26	34	30.8%	387	364	–5.9%	$270,000	$215,000
Watertown	15,584	389	53	–86.4%	102	80	–21.6%	$465,000	$559,500
Wayland	5,021	78	39	–50.0%	195	146	–25.1%	$600,000	$689,250
Wellesley	9,189	95	72	–24.2%	396	424	7.1%	$971,250	$1,177,250
Wenham	1,430	8	2	–75.0%	61	48	–21.3%	$521,950	$519,000
West Bridgewater	2,669	15	24	60.0%	80	86	7.5%	$350,000	$297,250
West Newbury	1,580	23	15	–34.8%	58	48	–17.2%	$480,000	$528,500
Westford	7,876	45	10	–77.8%	240	242	0.8%	$515,000	$482,500
Weston	4,008	25	12	–52.0%	151	172	13.9%	$1,200,000	$1,350,000
Westwood	5,431	23	17	–26.1%	193	214	10.9%	$608,000	$655,000
Weymouth	23,480	102	586	474.5%	579	510	–11.9%	$345,000	$330,000
Whitman	5,522	23	26	13.0%	122	148	21.3%	$315,450	$274,500
Wilmington	7,808	46	48	4.3%	245	198	–19.2%	$385,000	$410,000
Winchester	7,986	39	51	30.8%	269	244	–9.3%	$735,500	$918,000
Winthrop	8,320	82	75	–8.5%	101	98	–3.0%	$380,000	$382,000
Woburn	16,309	43	21	–51.2%	353	276	–21.8%	$390,000	$405,000
Wrentham	3,869	48	50	4.2%	149	118	–20.8%	$406,000	$430,000

Sources: Data on the number of sales and median sales prices, along with data on foreclosure petitions, auctions, and deeds, were provided by the Warren Group. Foreclosure data represent the number of foreclosures on single-family, 2-family, 3-family, 4 or more family, and condominium properties.

Municipal Scorecard, continued

Municipality	Production and Sales (cont.)			Foreclosure Activity					
	Median Single Family Home Selling Price Through June 2016	Percent Change in Median Single Family Sales Price, 2005–June 2016	Percent Change in Median Single Family Sales Price, 2015–June 2016	Petitions to Foreclose, 2015	Petitions to Foreclose, 2016 (Estimate)	Foreclosure Deeds 2015	Foreclosure Deeds 2016 (Estimate)	Percent Change in Petitions to Foreclose, 2015–2016 (Estimate)	Percent Change in Foreclosure Deeds, 2015–2016 (Estimate)
Stow	$465,000	–5.8%	1.0%	4	12	1	0	200.0%	–100.0%
Sudbury	$722,000	–2.0%	7.0%	8	16	4	6	100.0%	50.0%
Swampscott	$507,000	–1.8%	12.7%	10	10	2	4	0.0%	100.0%
Tewksbury	$397,950	4.7%	9.0%	39	48	11	10	23.1%	–9.1%
Topsfield	$570,000	7.3%	12.4%	5	10	3	4	100.0%	33.3%
Townsend	$274,900	–4.9%	9.0%	21	18	9	10	–14.3%	11.1%
Tyngsborough	$380,000	–1.3%	5.6%	8	24	6	10	200.0%	66.7%
Wakefield	$498,500	15.9%	9.4%	16	28	3	4	75.0%	33.3%
Walpole	$479,000	3.6%	3.0%	22	20	10	14	–9.1%	40.0%
Waltham	$552,500	26.4%	17.7%	24	28	4	8	16.7%	100.0%
Wareham	$235,000	–13.0%	9.3%	90	64	48	46	–28.9%	–4.2%
Watertown	$635,000	36.6%	13.5%	6	4	2	0	–33.3%	–100.0%
Wayland	$700,000	16.7%	1.6%	10	6	6	2	–40.0%	–66.7%
Wellesley	$1,300,000	33.8%	10.4%	9	2	1	6	–77.8%	500.0%
Wenham	$523,500	0.3%	0.9%	2	2	1	0	0.0%	–100.0%
West Bridgewater	$324,000	–7.4%	9.0%	8	12	3	6	50.0%	100.0%
West Newbury	$523,500	9.1%	–0.9%	3	2	2	2	–33.3%	0.0%
Westford	$525,000	1.9%	8.8%	14	8	5	4	–42.9%	–20.0%
Weston	$1,336,250	11.4%	–1.0%	4	4	0	4	0.0%	400.0%
Westwood	$722,000	18.8%	10.2%	9	2	1	4	–77.8%	300.0%
Weymouth	$379,000	9.9%	14.8%	81	124	39	28	53.1%	–28.2%
Whitman	$315,000	–0.1%	14.8%	29	26	10	16	–10.3%	60.0%
Wilmington	$445,000	15.6%	8.5%	31	36	13	8	16.1%	–38.5%
Winchester	$1,078,750	46.7%	17.5%	8	12	0	0	50.0%	0.0%
Winthrop	$432,500	13.8%	13.2%	12	14	2	2	16.7%	0.0%
Woburn	$454,500	16.5%	12.2%	23	38	7	4	65.2%	–42.9%
Wrentham	$423,500	4.3%	–1.5%	16	18	5	4	12.5%	–20.0%

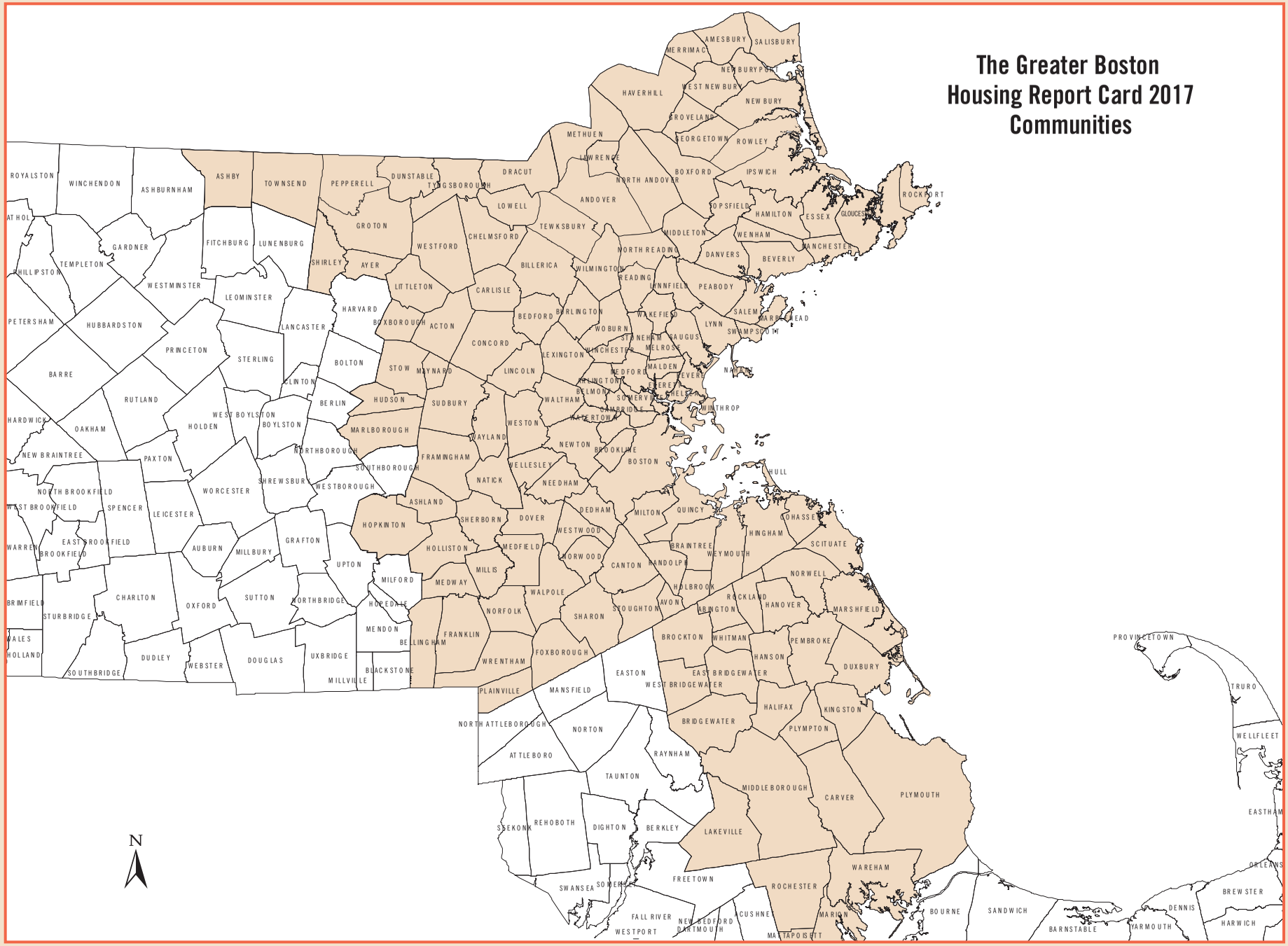
Data on building permits are taken from the U.S. Census Building Permit Survey.

2017 estimates for home sales were calculated based on number of sales through the end of the second quarter of 2017 multiplied by 2.

2017 esitmates for permit data were calculated based on the sum of all permits in a given town through June multiplied by 2.

NOTES:

The Greater Boston Housing Report Card 2017 Communities



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