



# CAMBRIDGE HOUSING PROFILE

2016

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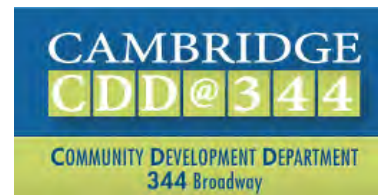
## ABOUT US

The Community Development Department (CDD) is the planning agency for the City of Cambridge, Massachusetts. Our mission is to foster and build a livable, sustainable and equitable City. We work to enhance the character and diversity of the city's neighborhoods and support sustainable economic growth that expands opportunities for residents, enables a high quality of life within the community, and contributes to a healthy environment.

CDD takes an interdisciplinary approach to manage and guide physical change in a manner consistent with the City's priorities, engaging and collaborating with community partners and other government agencies to make Cambridge a desirable place to live, work, learn, innovate, and play.

## SUGGESTED CITATION

*Cambridge Housing Profile*. City of Cambridge, Massachusetts. Community Development Department. 2016





# FOCUS & SUMMARY

## **About the Report**

Housing, its affordability, production, and preservation, are often at the center of public policy discussions in Cambridge. This is not unusual. The second decade of the twenty-first century finds many urban communities challenged by issues such as the availability of housing, alignment of the needs of the population with the type of stock constructed, and, especially, affordability for a variety of household types. These questions have long had resonance in the dense and desirable urban fabric of Cambridge.

The issue of affordability has been a particularly influential driver of City of Cambridge policy. To address this concern, the Housing Division of the Cambridge Community Development Department focuses resources on a wide range of programs designed to meet the needs of low, moderate, and middle-income residents. The City has a long history of investment in the creation and preservation of affordable housing of various scales, types and forms, from providing technical support to encourage owner occupancy of small scale structures and condominiums to assembling complex plans to ensure the long-term preservation of large affordable rental buildings.

Planning for current and future housing needs and guiding residential growth in Cambridge calls for a thorough understanding of existing conditions and market trends over time. This document aims to provide a basic grounding through a statistical snapshot of the housing stock, the marketplace for its rental or sale, and the level of affordability in different components of the market.

## **Focus & Summary**

The U. S. Census Bureau defines a housing unit as “separate living quarters ... in which the occupants live separately from any other individuals in the building and which have direct access from outside the building or through a common hall.”<sup>1</sup> This is the definition of housing employed in here.

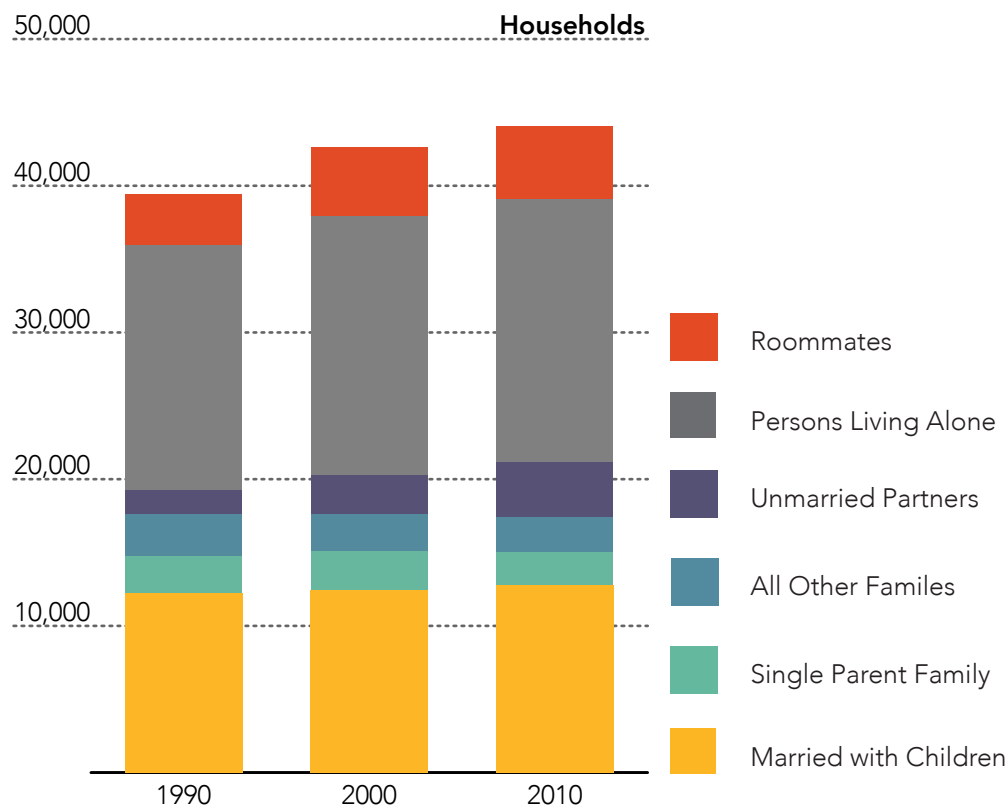
Housing units differ from group quarters living arrangements, those where the occupants reside in a location “owned or managed by an entity or organization providing housing and/or services for the residents.”<sup>2</sup> The most common form of group quarters in Cambridge is college dormitories. These and other forms of group quarters, such as nursing homes and group homes for residents with shared needs, are not addressed here.

A Cambridge housing unit can take a wide variety of forms, from an older single family structure to an apartment over a retail storefront in Central Square to a condominium in a triple-decker in North Cambridge or a residence in a new building in North Point. What these all have in common are a cost for occupancy. That cost might be constrained by affordability provisions pertaining to a property, third party financing by a bank or mortgage company, or the upper limit of what a prospective buyer or renter can or will pay in the ever-changing housing market.

In addition to physical and locational characteristics, housing cost depends in part on the nature of the relationship between the parties. Transactions most often occur on the “open” market, where the parties do not adjust prices to consider a pre-existing relationship. These are also known as “arms-length” transactions. A housing agreement where an existing relationship between the parties affects pricing is referred to as a “non-arms length transaction”. A third class of transactions, those involving affordable housing, are constrained by affordability and eligibility criteria limiting occupancy to households meeting specific requirements related to income and, in some cases, household characteristics.

This report largely concerns arm’s-length or open market transactions. However, a prime consideration throughout is the affordability of housing units, and, as such, we also include information about the affordable housing sector.

**FIGURE A:**  
**Household Trends:**  
**1990 - 2010**



**Sources, graph:** U. S. Census Bureau, 1990, 2000, and 2010 Decennial Census, U. S. Census Bureau.

**1** American Community Survey and Puerto Rico Community Survey 2015 Subject Definitions, downloaded from [https://www2.census.gov/programs-surveys/acs/tech\\_docs/subject\\_definitions/2015\\_ACSSubjectDefinitions.pdf](https://www2.census.gov/programs-surveys/acs/tech_docs/subject_definitions/2015_ACSSubjectDefinitions.pdf) on April 18, 2017.

**2** *Ibid.*

The report is broken into several parts.

- **Key Drivers** provides a brief overview of essential demographic and economic data points for understanding the character of the Cambridge housing market.
- **Stock** reviews information about the existing housing stock of Cambridge and the development of new housing.
- **Cost** examines the market for home sales and related aspects such as mortgages and foreclosures, as well as open market rents and rental cost drivers.
- **Affordability** examines the ability of households to afford different forms of housing in Cambridge and provides a brief overview of City of Cambridge affordable housing programs.

Since publication of the prior version of this report, Cambridge housing market has weathered the Great Recession and rebounded with the regional economy. Significant changes since publication of the 2010 report include:

- 4,600 housing starts from 2011 through 2016, including replacement units.
- A net increase of over 3,000 housing units from 2010 through June 30, 2016.
- A net increase of 700 condominium units from 2009 to 2015, a much smaller rate of growth than in the past.
- A net increase of 530 affordable housing units from 2011 to 2016.
- A 4% increase to 39% in the proportion of the housing stock located in properties of more than 50 units.
- The appearance of short term rental on-line platforms, such as Airbnb.
- Little change in the total number of arms length residential property sales over the same period, which ranged between 877 and 1,162 per year.
- A decline in mortgage originations from 3,700 in 2009 to 1,300 in 2015.
- Increases in median sales prices of arms length transactions from 2009 to 2015 of 84% for a single-family house, 77% for a two-family building, and 48% for a condominium, not accounting for inflation.
- A 36% increase in the rent of a single bedroom apartment and a 28% increase in the rent of a two-bedroom apartment from January 2010 to August 2016, not accounting for inflation.
- Decreasing level of affordability of arms-length open market rentals and sales.

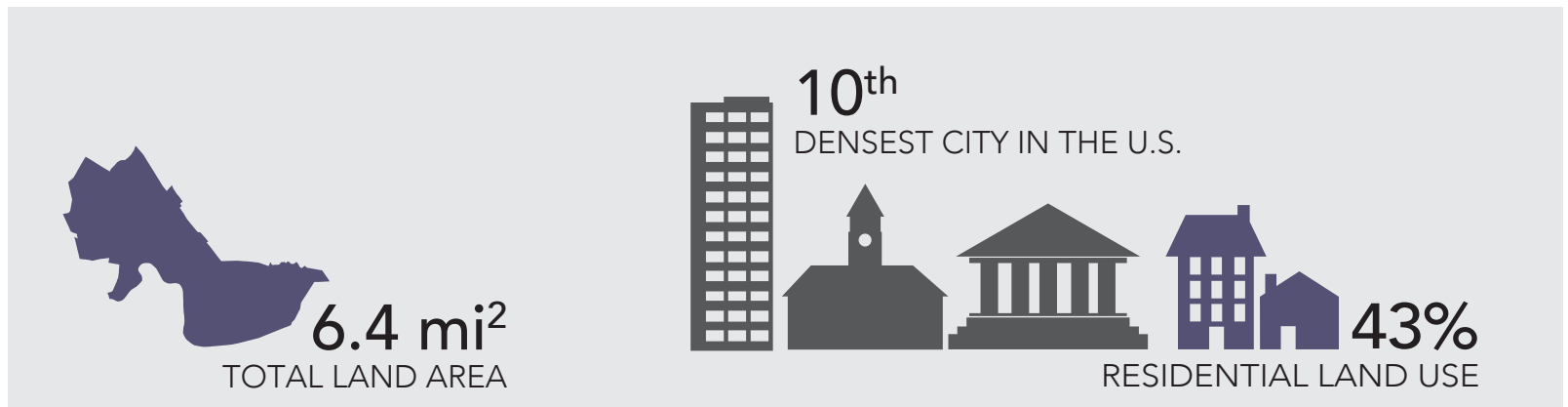
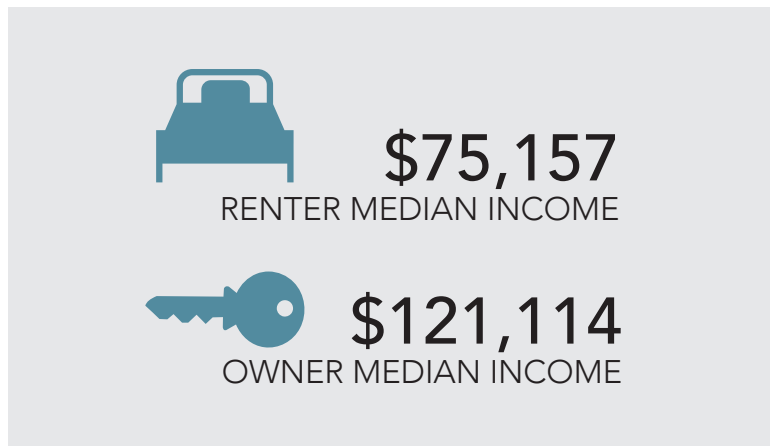
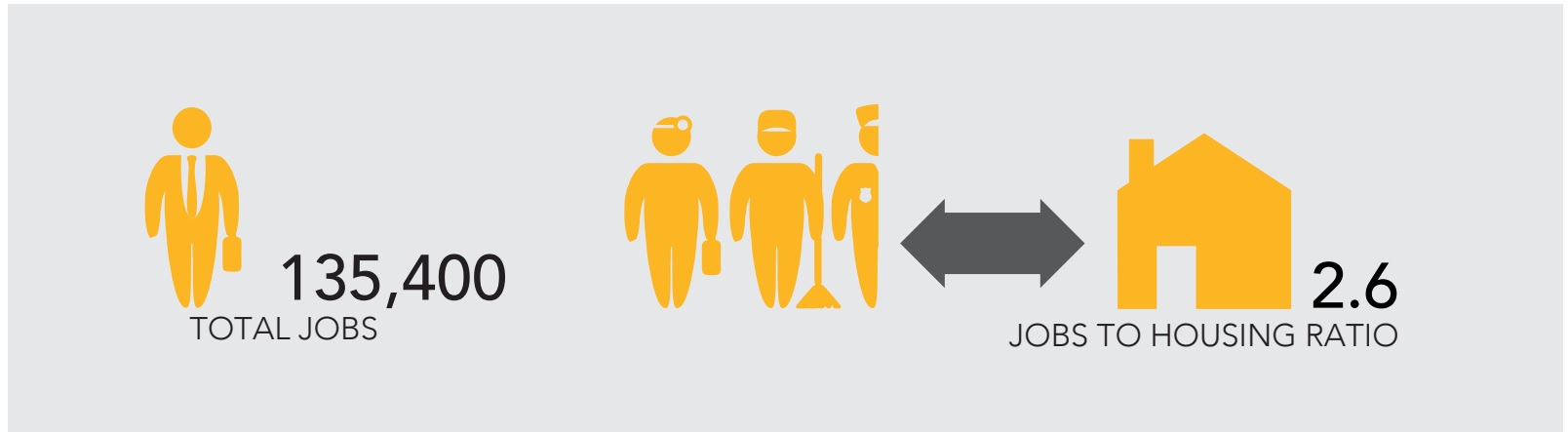
**FIGURE B:**  
Housing Stock Key Drivers



**Sources, from top left:** Total Residents, 2015 American Community Survey (ACS) 1-Year Estimates; Residential Units as of 6/30/2016, Cambridge Assessing Department 12/31/2015 extract, Cambridge Development Log 2016 Q2, and Cambridge Inspectional Services Department as analyzed by Cambridge Community Development Department; Post-Secondary Students and Summary Statistics, "Town Gown Report," 2016; Total Households and Median Household Size, 2015 ACS 1-Year Estimates.



**FIGURE B:**  
Housing Stock Key Drivers



Sources, from top left: Total workforce jobs, 2015 American Community Survey (ACS) 1-Year Estimates; Median Income by Tenure, 2015 ACS 1-Year Estimates; Population by Tenure by Year Householder Moved into Unit, 2015 ACS 1-Year Estimates; Total Land Area and Residential Use, 2016 Land Use and Roads GIS Layer; Population Density, 2010, U.S. Census Bureau.



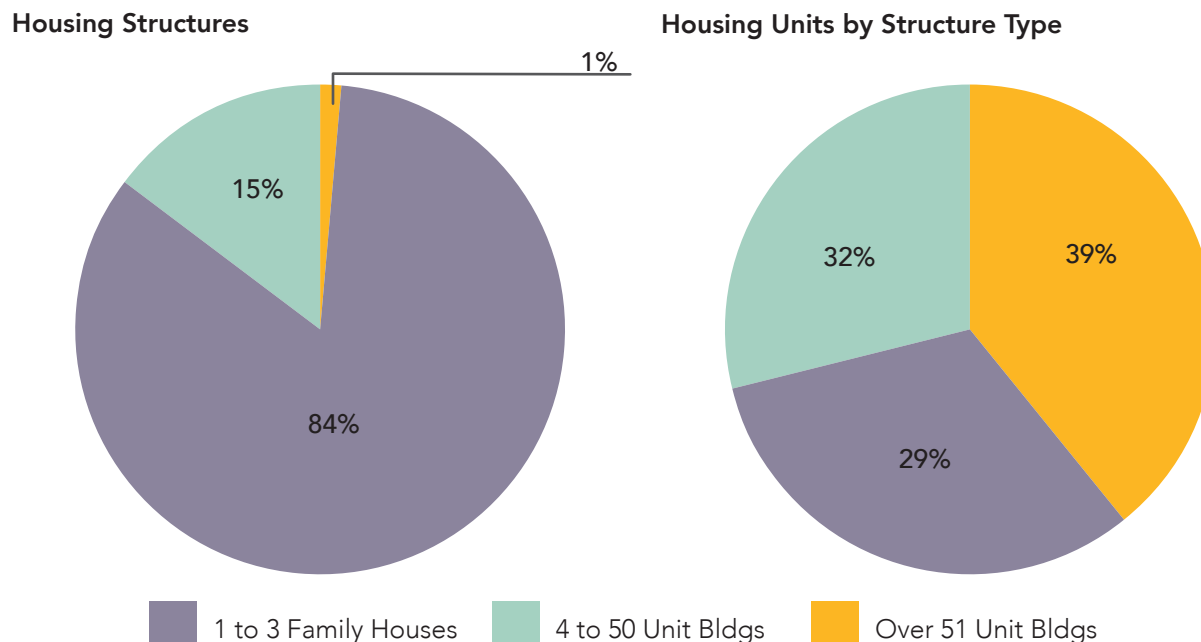
# STOCK



**TABLE 1.01:**  
Housing Stock  
Inventory: 2016

Type of Housing <sup>1</sup>	ALL UNITS		ALL PROPERTIES	
	Count	Percent of Total	Count	Percent of Total
Single Family	3,780	7.2%	3,780	34.0%
Two Family	6,976	13.2%	3,488	31.3%
Three Family	6,216	11.8%	2,072	18.6%
4 to 6 Units	5,019	9.5%	1,014	9.1%
7 to 25 Units	6,259	11.8%	513	4.6%
26 to 50 Units	3,995	7.6%	114	1.0%
51 to 100 Units	5,659	10.7%	83	0.7%
Over 100 Units	14,918	28.2%	69	0.6%
<b>Total Units</b>	<b>52,822</b>	<b>100%</b>	<b>11,133</b>	<b>100%</b>
<i>Mixed Use</i> <sup>2</sup>	6,219	11.8%	369	3.3%

**FIGURE 1.02:**  
Housing Units and  
Housing Stock by  
Structure Type: 2016



**Sources, all figures:** Housing Stock as of 6/30/2016, Cambridge Assessing Department, 12/31/2015; Cambridge Development Log 2016 Q2 and Cambridge Inspectional Services Department as analyzed by Cambridge Community Development Department.

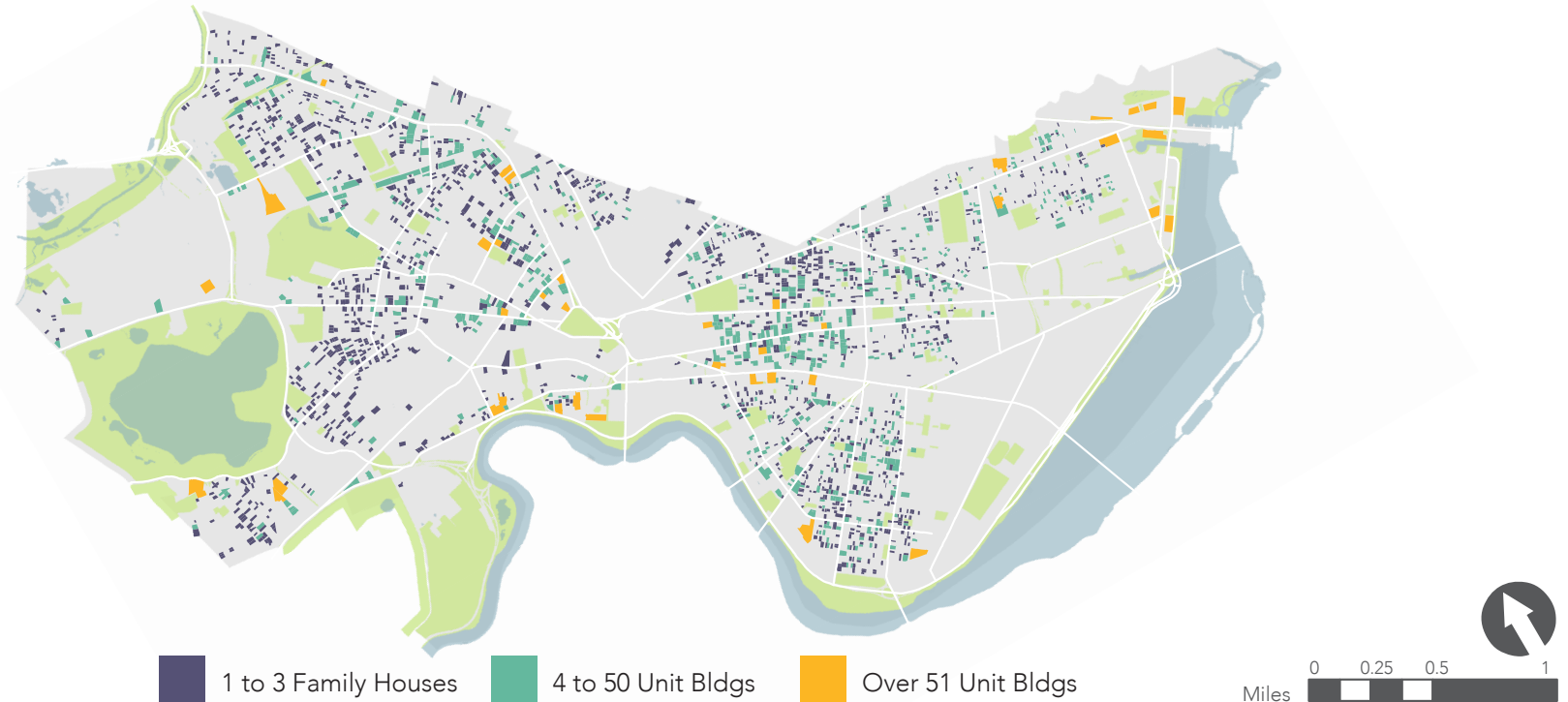
<sup>1</sup> Includes all market rate and affordable housing - including housing owned by non profit organizations - and all family style housing operated as graduate student dormitories by Harvard and MIT. Includes housing under active construction. Note that the method used to develop these figures differs from that used by the U.S. Census Bureau.

<sup>2</sup> Mixed use properties include those with both a residential and commercial use. Associated totals refer to housing units located in mixed used properties.

**TABLE 1.03:**  
Condominium  
Inventory: 2015

Type of Housing	CONDOMINIUM UNITS		CONDOMINIUM PROPERTIES	
	Count	Percent of Total	Count	Percent of Total
1 Unit <sup>1</sup>	14	0.1%	14	0.6%
2 Units	1,448	9.9%	724	33.4%
3 Units	2,295	15.7%	765	35.3%
4 to 6 Units	1,773	12.2%	359	16.6%
7 to 25 Units	2,802	19.2%	218	10.1%
26 to 50 Units	1,716	11.8%	48	2.2%
51 to 100 Units	1,792	12.3%	27	1.2%
Over 100 Units	2,733	18.8%	14	0.6%
<b>Total Units</b>	<b>14,573</b>	<b>100.0%</b>	<b>2,169</b>	<b>100.0%</b>
<i>Mixed Use</i> <sup>2</sup>	2,722	18.7%	65	3.0%

**MAP 1.04:**  
Condominium  
Locations: 2015



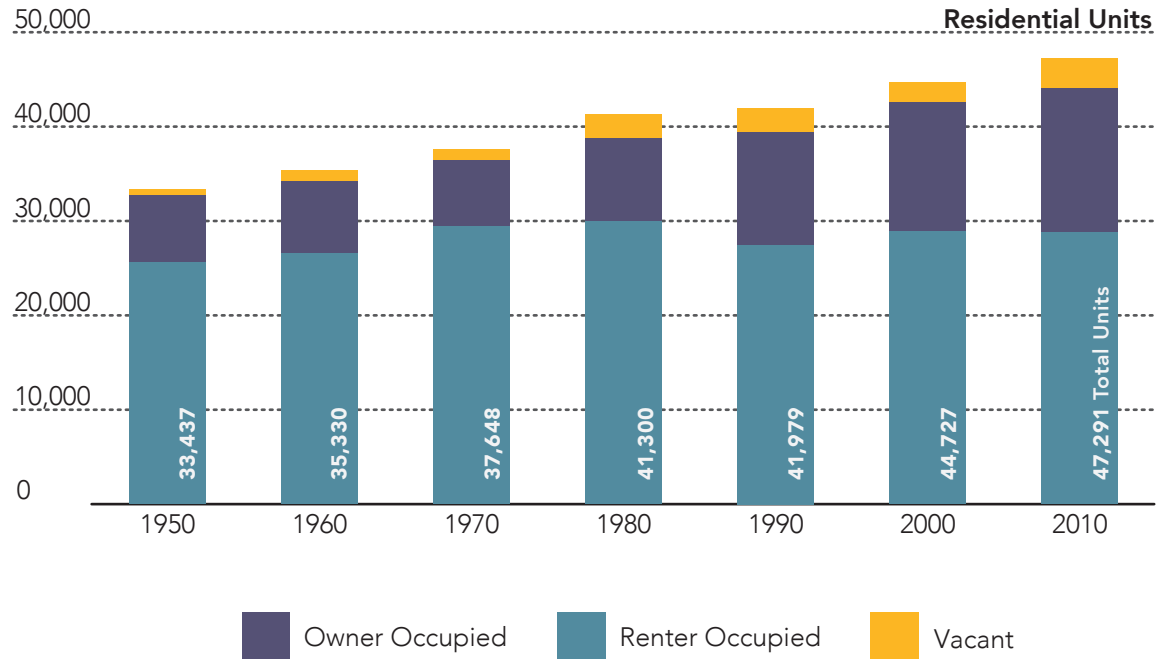
**Sources, table:** Condominium Inventory, Cambridge Assessing Department, 12/31/2015 as analyzed by Cambridge Community Development Department.

**Sources, map:** Parcels, Cambridge GIS, FY2016; Base-maps, Cambridge GIS, 2016.

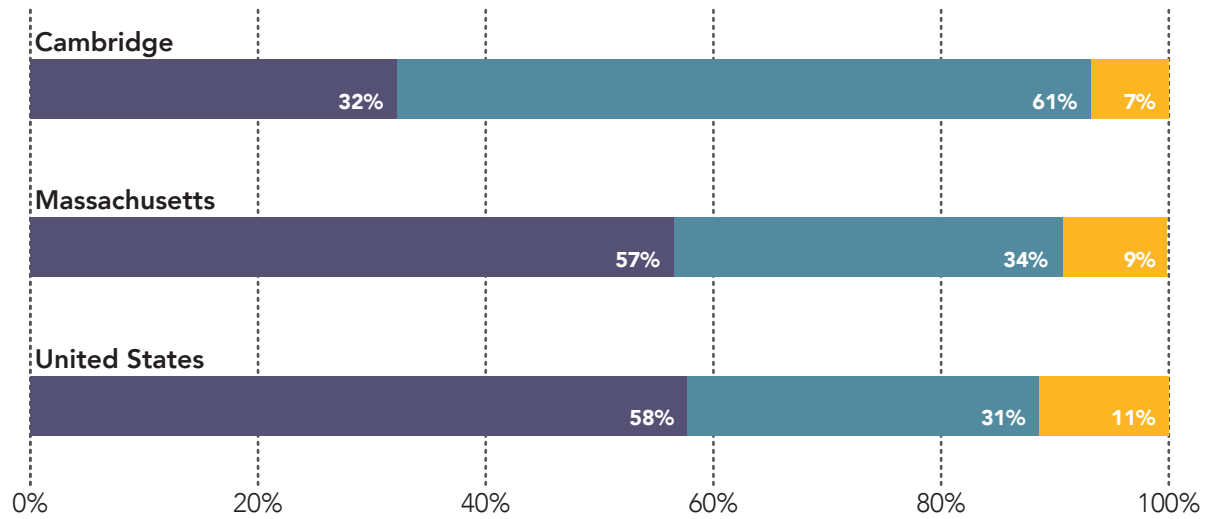
<sup>1</sup> Includes single residential units in mixed use properties.

<sup>2</sup> Mixed use properties include those with both a residential and commercial use. Associated totals refer to housing units located in mixed used properties.

**FIGURE 1.05:**  
Housing Stock and  
Tenure: 1950 - 2010








**FIGURE 1.06:**  
Housing Tenure  
for Cambridge,  
Massachusetts,  
and United States: 2010

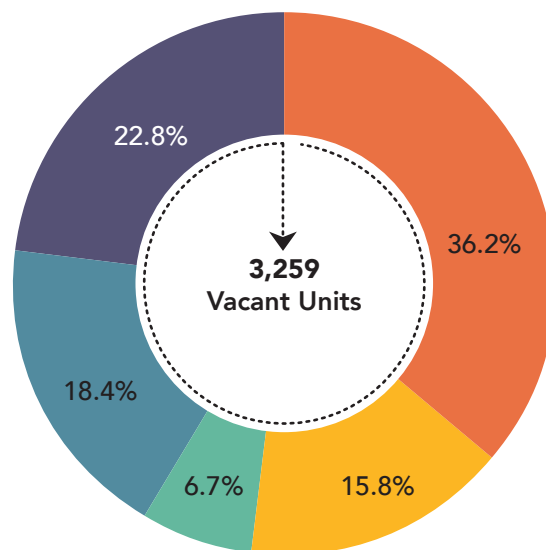


Sources, all figures: U. S. Census Bureau, 1950, 1960, 1970, 1980, 1990, 2000, and 2010 Decennial Census, U. S. Census Bureau.  
Cambridge Community Development Department

**TABLE 1.07:**  
Vacancy Status: 2010

VACANCY STATUS		UNIT COUNT	PERCENT OF ALL RESIDENTIAL UNITS
<b>On the Market</b>			<b>3.6%</b>
	For Rent	1,180	2.5%
	For Sale	516	1.1%
<b>Off the Market</b>			<b>3.3%</b>
	Rented or Sold, not Occupied	218	0.5%
	Seasonal or Other Occasional Use	601	1.3%
	Other Vacant	744	1.6%
<b>All Vacant</b>		<b>3,259</b>	<b>6.9%</b>

**FIGURE 1.08:**  
Vacancy Status: 2010



**Sources, all figures:** Cambridge 2010 Vacancy Status, 2010 Decennial Census DP-1 Census Summary File 1, U. S. Census Bureau.  
**Sources, text:** U. S. Census Bureau, American Housing Survey Definitions.  
 1 2015 Greater Boston Housing Report Card, The Boston Foundation.

## BEHIND THE VACANCY NUMBERS

The U.S. Census Bureau defines vacancy differently than a real estate broker might.

A housing unit is considered vacant by the U.S. Census if no one resides there at the time of the interview and occupants are not temporarily absent. Units under construction are classified as vacant housing once workers install all exterior windows and doors and lay final usable floors.

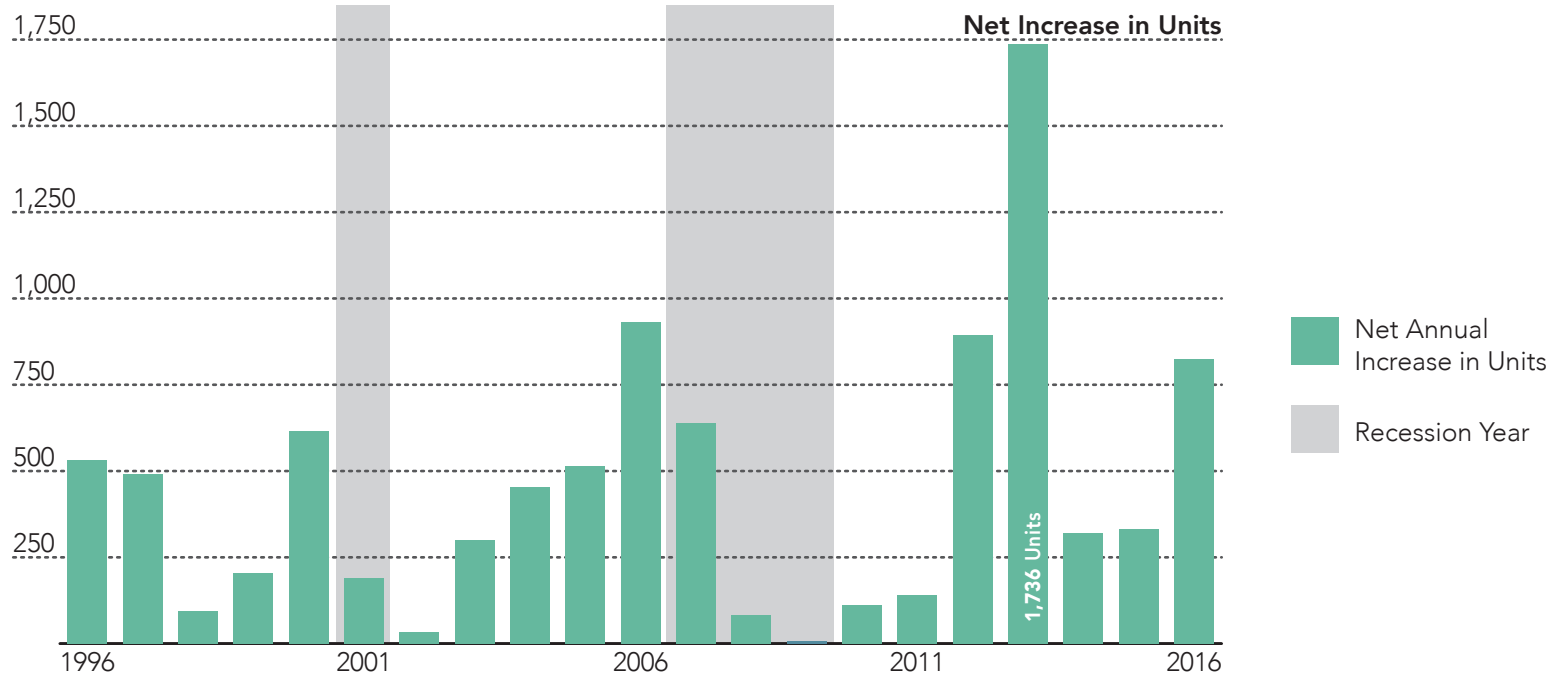
Units listed as vacant for sale or vacant for rent drive the housing market. Together, these percentages reflect the **“On the Market”** vacancy rate. Low rates might indicate a tight market struggling to keep up with demand for housing creation. Under these conditions, home prices and rents are susceptible to being bid up.

**“Off the Market”** vacancies include housing units rented or sold, but not yet occupied; seasonal units, like vacation homes; units occupied by persons who usually live elsewhere; and houses held vacant for legal, personal, storage, or repair reasons.

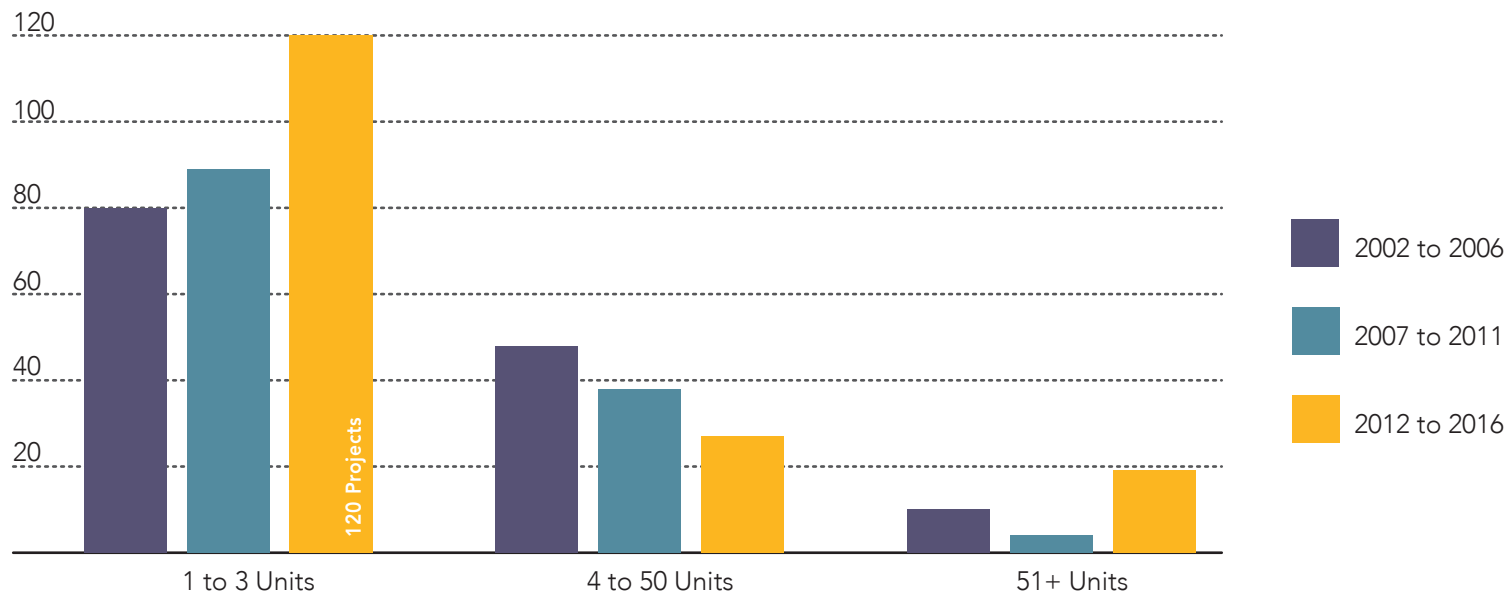
The category **“Other Vacant”** includes units under construction that meet the Census’s definition of completeness but are not yet **“on the market”** and any unit which is abandoned and to be demolished or condemned but for which a notice has not yet been posted.

The vacancy rate for Cambridge as defined by the Census Bureau is 6.9%, but the **“On the Market”** vacancy is 3.6% - about two thirds of the 5.5% that research has shown is needed to stabilize rents so they rise no faster than consumer price index.<sup>1</sup>

**FIGURE 1.09:**  
Housing Starts<sup>1</sup>:  
1995-2016

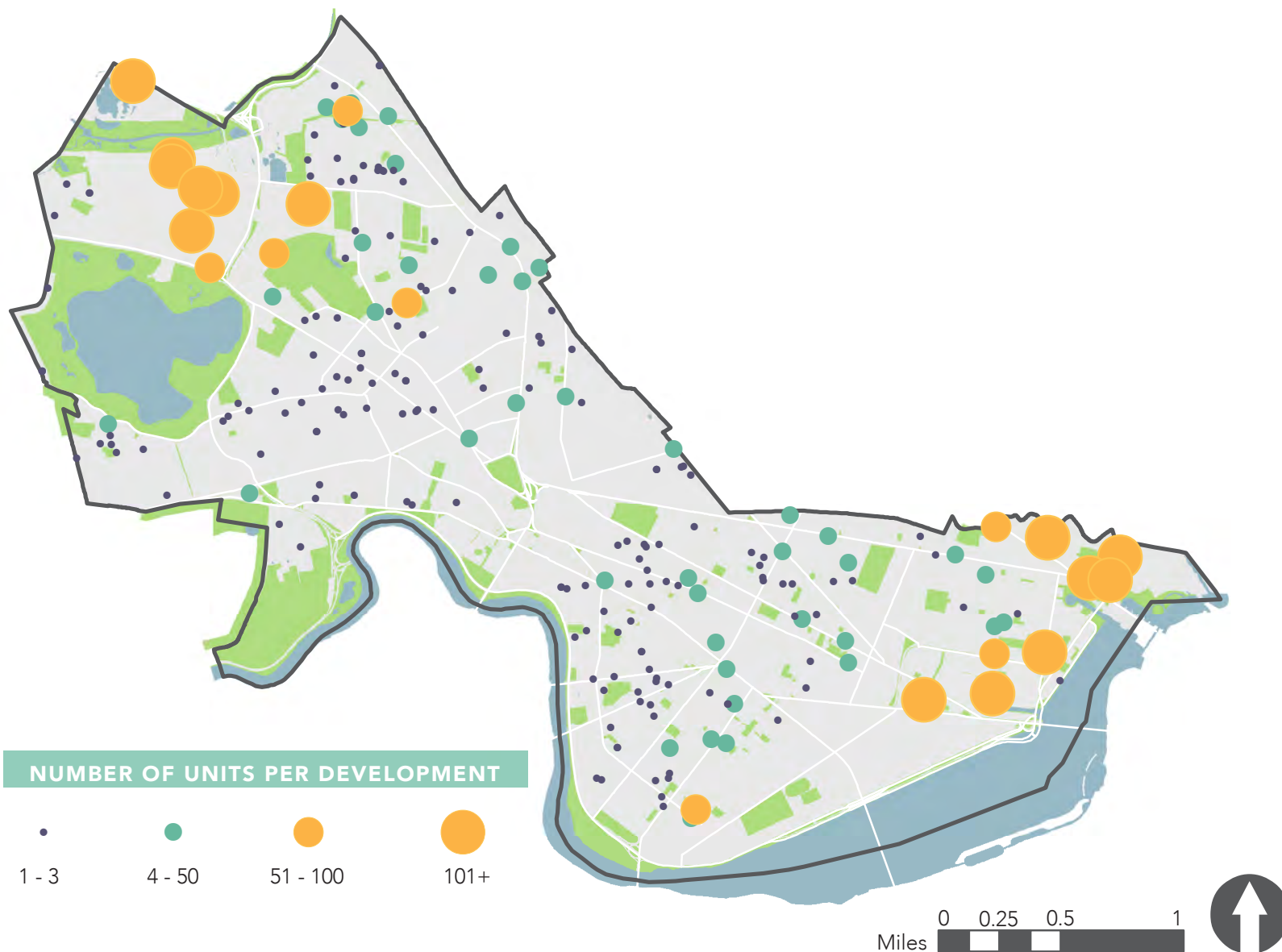


**FIGURE 1.10:**  
New Housing  
Construction by Project  
Size: 2002-2016



**Sources, all figures:** Cambridge Assessing Department, 2016; Cambridge Community Development Log, 2016; Cambridge Inspectional Services Department, 2016.  
<sup>1</sup> Units and property count includes only new buildings, not major rehabilitations. Data is subject to revision.

**MAP 1.11:**  
Residential  
Development by  
Number of Units:  
2010-2016

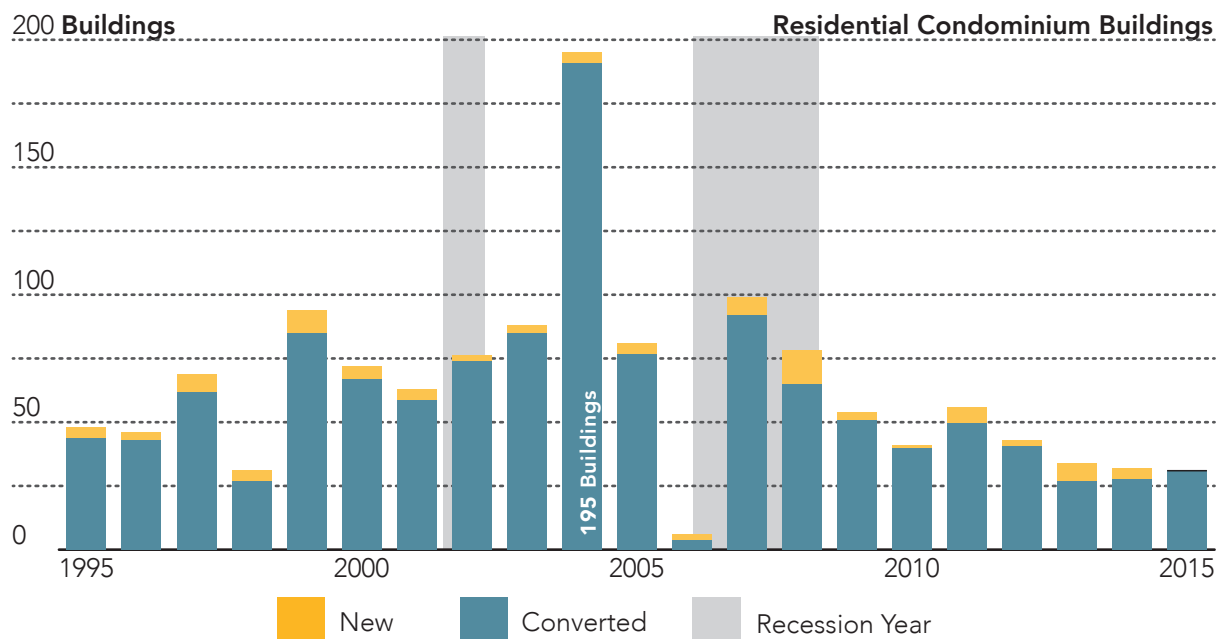


**Sources, data:** Cambridge Assessing Department, 2016; Cambridge Community Development Department, 2016; Cambridge Inspectional Services Department, 2016.

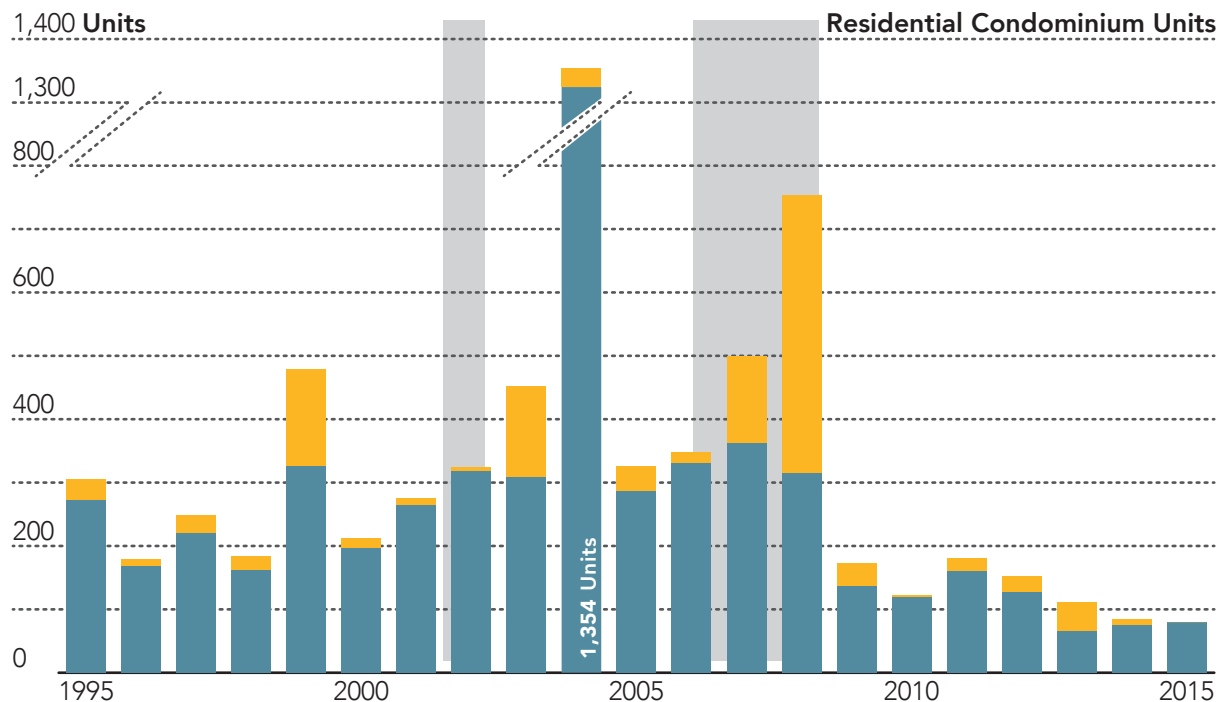
**Sources, map:** Basemaps, Cambridge GIS, 2016.



**FIGURE 1.12:**  
New and Converted  
Residential  
Condominium  
Buildings<sup>1</sup>:1996-2015



**FIGURE 1.13:**  
New and Converted  
Residential  
Condominium  
Units<sup>1</sup>:1996-2015



Sources, all figures: Condominium Inventory, Cambridge Assessing Department, 12/31/2015 as analyzed by Cambridge Community Development Department.

<sup>1</sup> From 2001 to 2015 status of "new" or "converted" based on year over year comparison of parcel use code, prior to 2001 based on comparison of year built and year first unit sold.



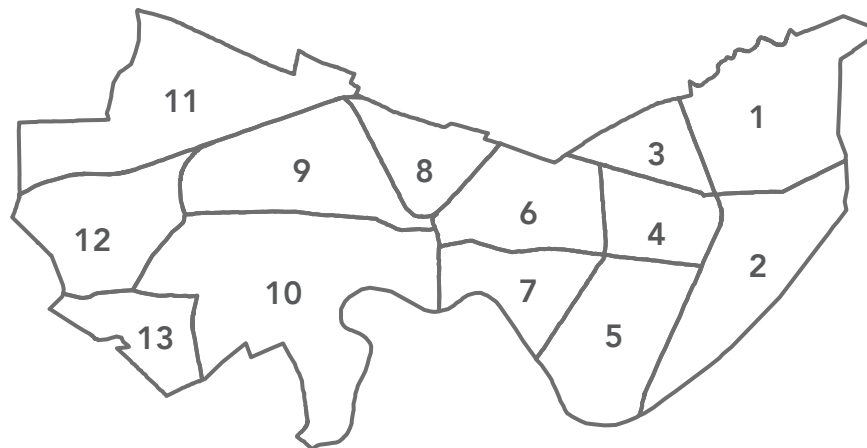
# COST



**TABLE 2.01:**  
Median Housing Sales  
Price and Rent by  
Neighborhood: 2015

# Neighborhood	1 TO 3 FAMILY HOMES		CONDOMINIUMS		RENTALS
	Sales	Median Price	Sales	Median Price	Median Monthly Rent
1 - East Cambridge	14	\$989,000	130	\$617,944	\$2,708
2 - Area 2/MIT	0	--	0	--	--
3 - Wellington-Harrington	16	\$887,000	18	\$572,500	\$2,824
4 - The Port	12	\$1,025,000	27	\$560,000	\$2,887
5 - Cambridgeport	26	\$1,100,000	94	\$622,000	\$2,977
6 - Mid-Cambridge	21	\$1,600,000	113	\$640,000	\$3,394
7 - Riverside	16	\$993,500	43	\$635,000	\$2,951
8 - Agassiz	6	\$1,756,500	24	\$678,000	\$4,710
9 - Neighborhood Nine	36	\$1,462,500	99	\$594,889	\$4,581
10 - West Cambridge	35	\$1,580,000	68	\$683,500	\$7,207
11 - North Cambridge	39	\$815,000	87	\$590,000	\$2,876
12 - Cambridge Highlands	2	\$636,250	17	\$465,000	--
13 - Strawberry Hill	4	\$1,059,500	9	\$405,000	--
<b>Citywide</b>	<b>227</b>	<b>\$1,150,000</b>	<b>729</b>	<b>\$612,000</b>	<b>\$3,145</b>

**MAP 2.02:**  
Neighborhood  
Boundaries

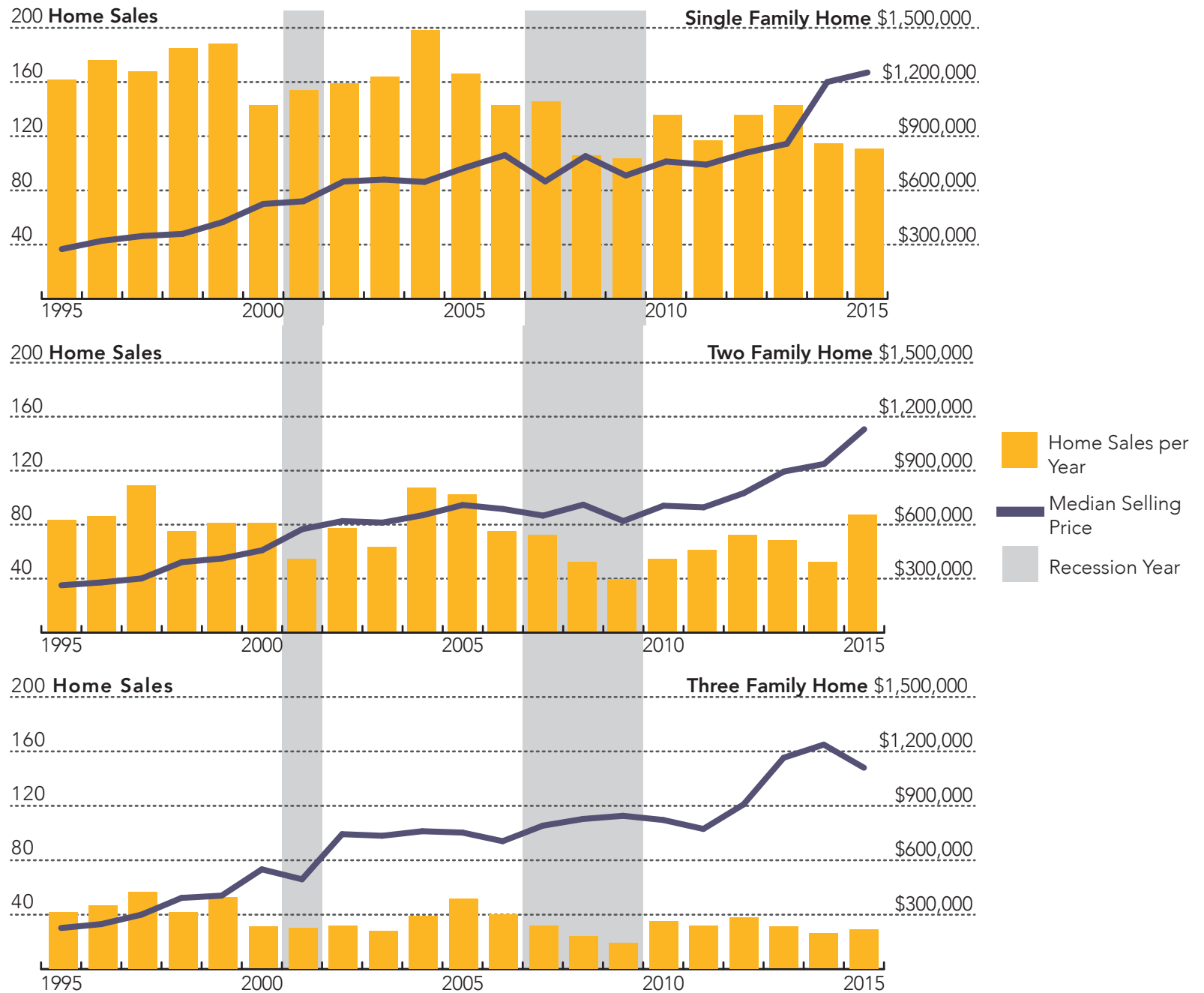


**Sources, table:** Sales information 2015, Cambridge Community Development Department analysis of “Banker and Tradesman” data; Rent for a Single Family Residence on 09/2015, Zillow.com, accessed on 2/1/2017.

**Sources, map:** Basemaps, Cambridge GIS, 2016.

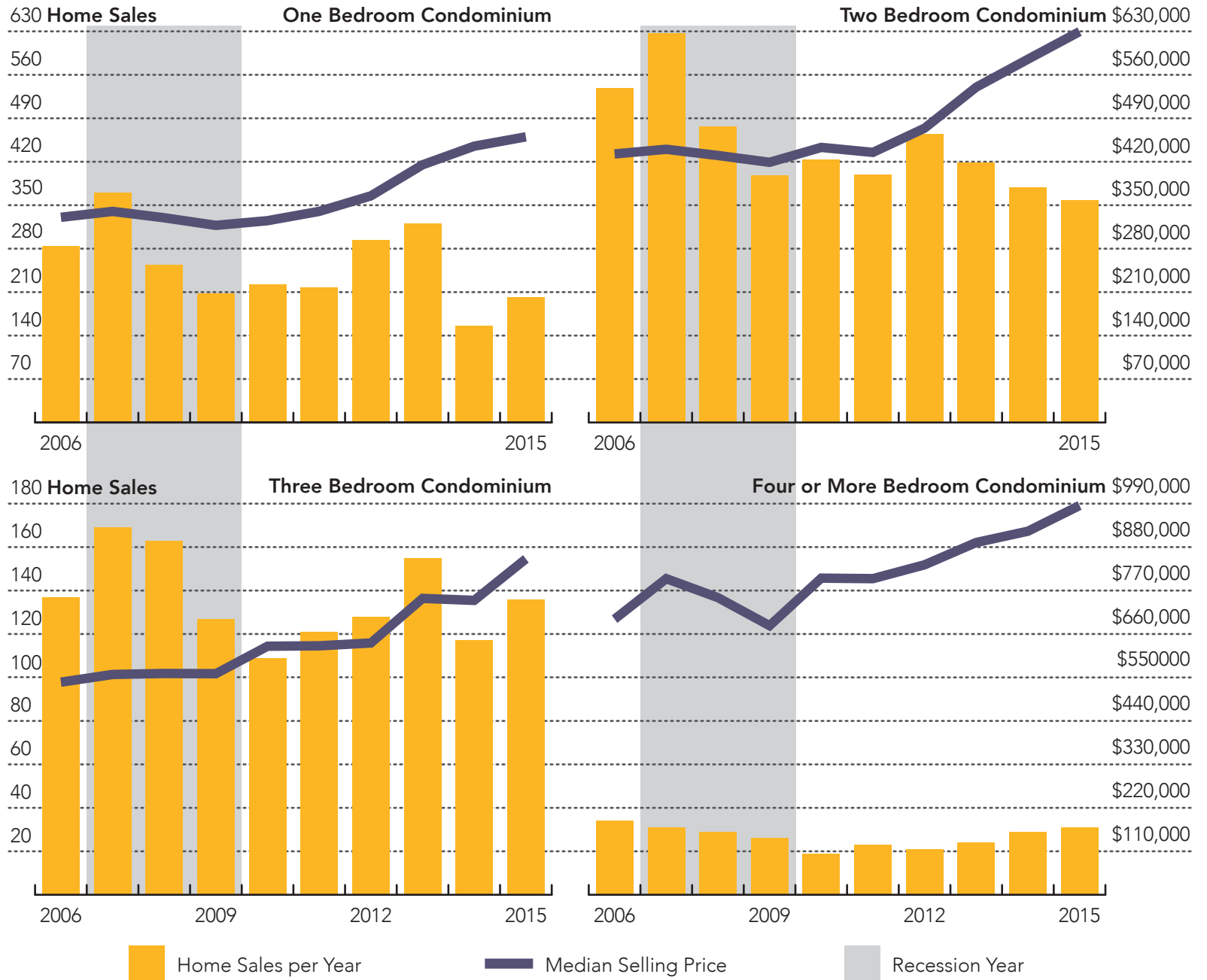
-- Indicates insufficient data.

**FIGURE 2.03:**  
Median Annual Sales  
Price for Single, Two,  
and Three Family  
Homes: 1995-2015



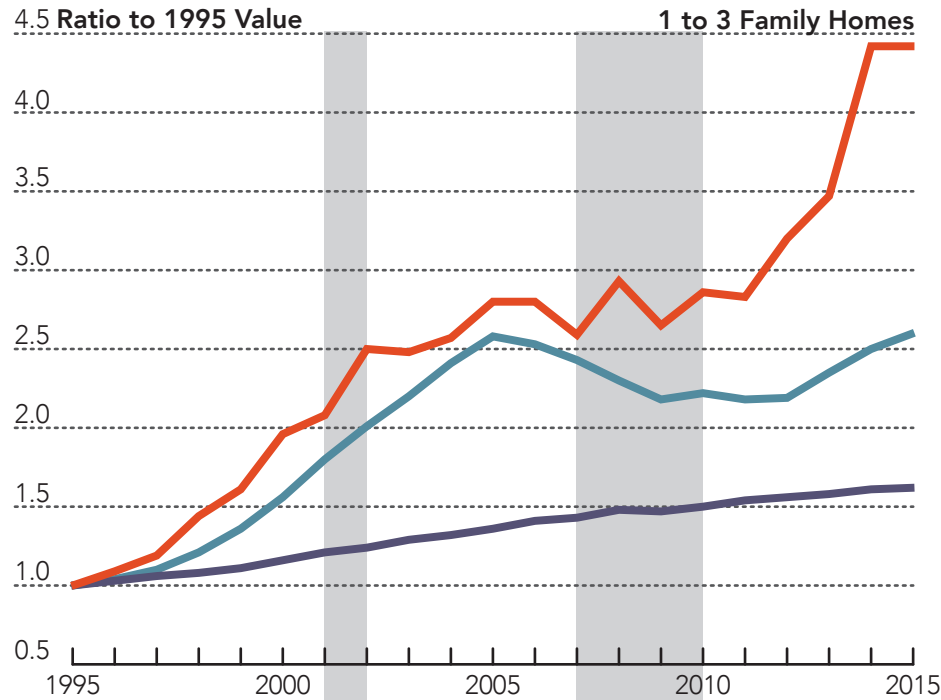
Sources, all figures: Sales information 1995 to 2005, Cambridge Assessing Department; Sales information 2005 to 2015, Cambridge Community Development Department analysis of "Banker and Tradesman" data.

**FIGURE 2.04:**  
**Median Annual**  
**Condominium Sales**  
**Price by Bedroom**  
**Count:**  
**2006-2015**

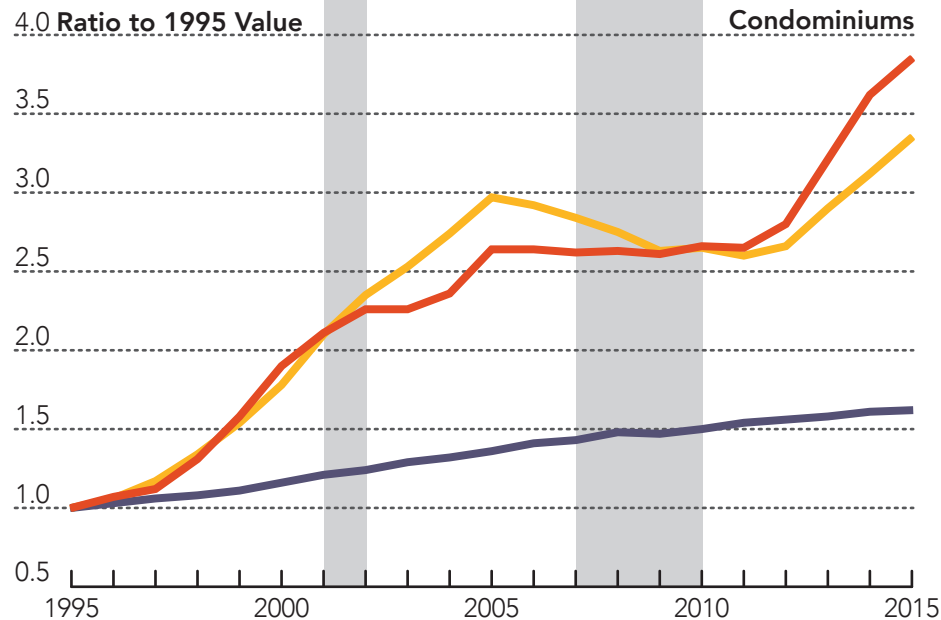


Sources, all figures: Sales information 2006 to 2015, Cambridge Community Development Department analysis of "Banker and Tradesman" data.  
 Cambridge Community Development Department

**FIGURE 2.05:**  
Single to Three Family Homes Median Sale Price and Regional Market Indices: 1995 - 2015



**FIGURE 2.06:**  
Condominium Median Sale Price and Regional Market Indices: 1995 - 2015



Sources, all figures: Sales information 1995 to 2005, Cambridge Assessing Department; Sales information 2006 to 2015, Cambridge Community Development Department analysis of "Banker and Tradesman" data; S&P/Case-Shiller Index, Federal Reserve Bank of St. Louis' Economic Research Division; Consumer Price Index - All Urban Consumers, U.S. Bureau of Labor Statistics.

THE CASE-SHILLER INDEX

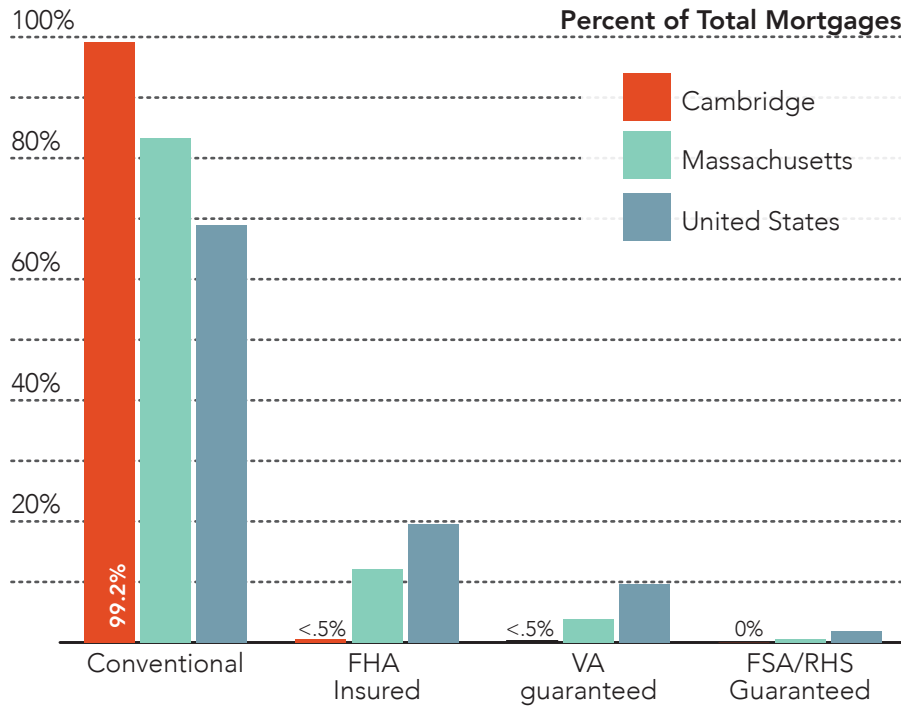
The graphs compare the annual Cambridge median sales prices of single to three-family detached homes and condominiums to the associated Case-Shiller Index. For ease of comparison, the graphs present values as a ratio to their starting value in 1995. Evaluating the Cambridge and index trends together can provide a regional and national context for the local residential housing market.

The **S&P/Case-Shiller Home Price Indices** comprise a group of measurements widely used to track the U.S. housing market. These indices are calculated by comparing purchase price and resale value from repeated sales of the same home. Indicators are available for the national housing market and twenty regions, including the Boston area. The economists Karl Case and Robert Shiller developed the original methodology, and the American financial services company Standard & Poor currently maintains and publishes monthly indices.

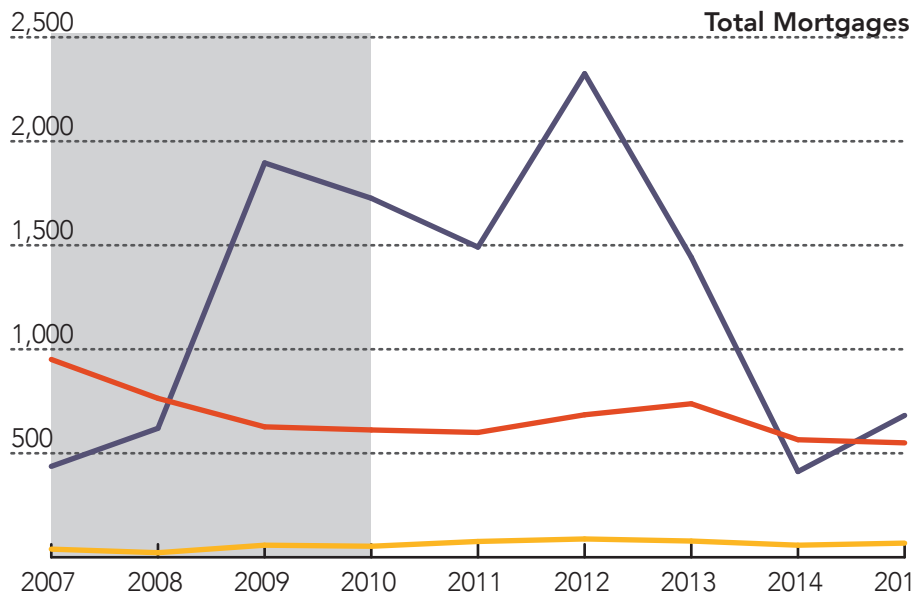
The **Greater Boston Consumer Price Index** uses the Boston-Brockton-Nashua Consumer Price Index (CPI) published by the U. S. Bureau of Labor Statistics. The CPI tracks the rate of change in the cost of a range of consumer goods and services.

- Cambridge Median Sale Price
- S&P/Case-Schiller Boston Home Index
- Greater Boston Consumer Price Index
- S&P/Case-Schiller Boston Condominium Index
- Recession Year

**FIGURE 2.07:**  
Mortgage Loans<sup>1</sup> by Type for Cambridge, Massachusetts, and United States: 2015



**FIGURE 2.08:**  
Mortgage<sup>1</sup> Volume by Loan Purpose: 2007-2015



Sources, all figures: Mortgage Loans 2007-2015, Consumer Financial Protection Bureau Home Mortgage Disclosure Act (HMDA) Records.

<sup>1</sup> Records include loans secured by a first lien for one-to-four family dwelling or manufactured housing where property was owner-occupied as a principal dwelling.

Sources, text: Different Types of Mortgage Loans in 2016, Explained, Home Buying Institute, <http://www.homebuyinginstitute.com/mortgagetypes.php>.

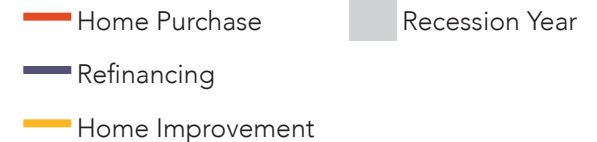
MORTGAGES

**Conventional Loans** are issued by private banks and other mortgage lenders. The federal government does not directly insure or guarantee these loans. Lenders may require private mortgage insurance if the down payment is 20% or less of the sale amount.

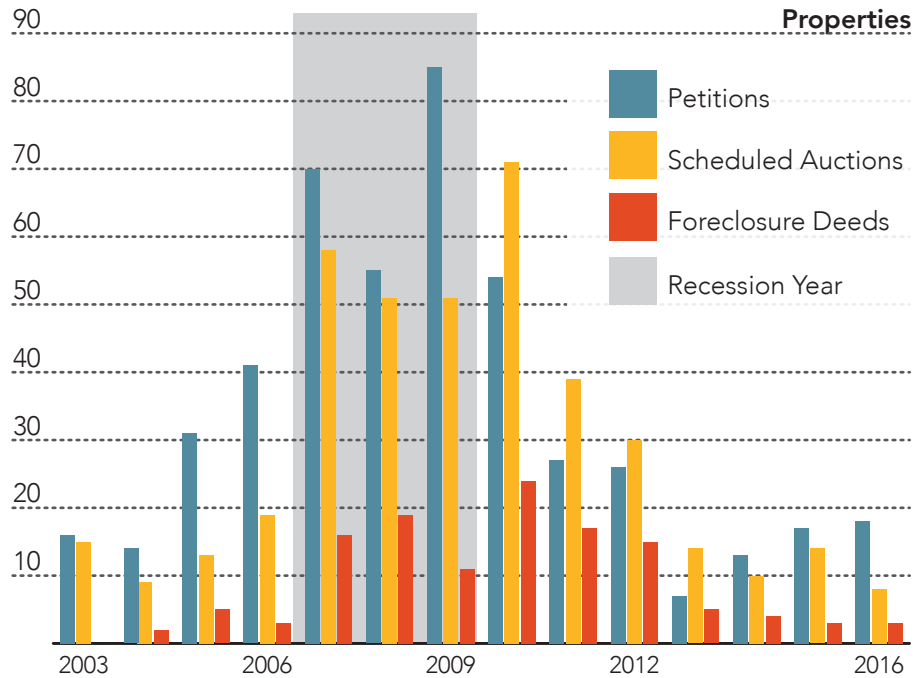
The Department of Housing and Urban Development (HUD) manages the **Federal Housing Administration (FHA)** loan program. The government insures participating lenders against losses that may result from borrower default. FHA loans require smaller down payments and have more flexible guidelines than conventional mortgages.

The **Department of Veterans Affairs (VA)** loan program services military service members, veterans, and their families. The VA reimburses the lender for any losses that may result from borrower default. Borrowers can receive up to 100% financing for the purchase of a home.

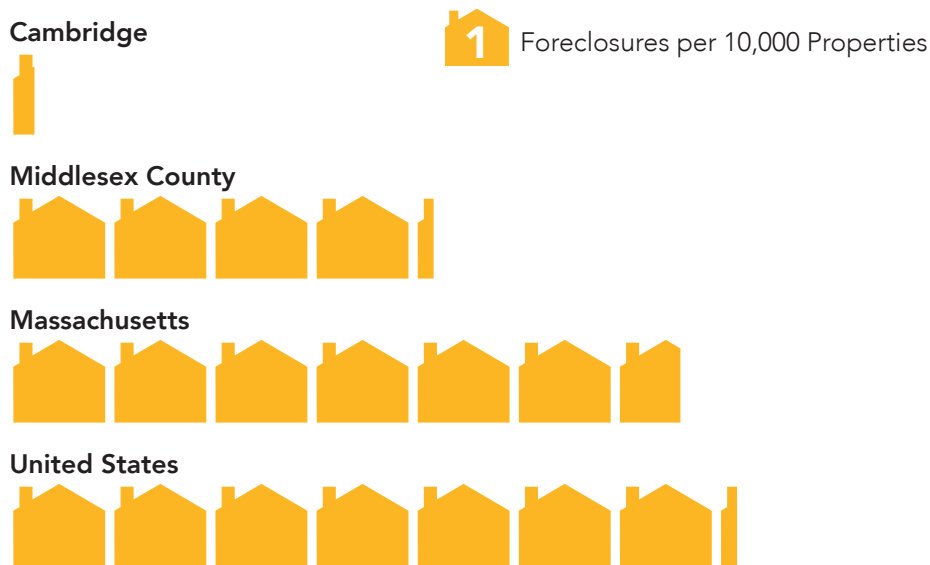
**Farm Service Agency (FSA) or Rural Housing Service (RHS)** guaranteed loans are offered through the Department of Agriculture (USDA). These loan programs target rural borrowers who fall within income guidelines. Cambridge does not meet the criteria for USDA guaranteed loans, but these mortgages play an important role in other regions.



**FIGURE 2.09:**  
Cambridge  
Foreclosures:  
2003-2016



**FIGURE 2.10:**  
Foreclosure Rates for  
Cambridge, Middlesex  
County, Massachusetts,  
and United States:  
August 2016



WHAT IS A FORECLOSURE?

Foreclosure is the process through which lenders recover the amount owed on a defaulted mortgage by selling or taking ownership of the property securing the loan. Foreclosure proceedings begin once the lender files a public notice of the borrower's defaulted loan with the court. This official notice of default, or **Petition**, provides information on the amount owed to the lender and the date by which the borrower must make payment. The Petition makes the borrower aware that there is a danger of losing all rights to the property.

After a lender files a Petition the borrower enters a grace period during which the opportunity exists to work out an arrangement for payment to the lender. If the default is not paid off by the end of grace period, the foreclosure proceeds to a **Scheduled Auction**.

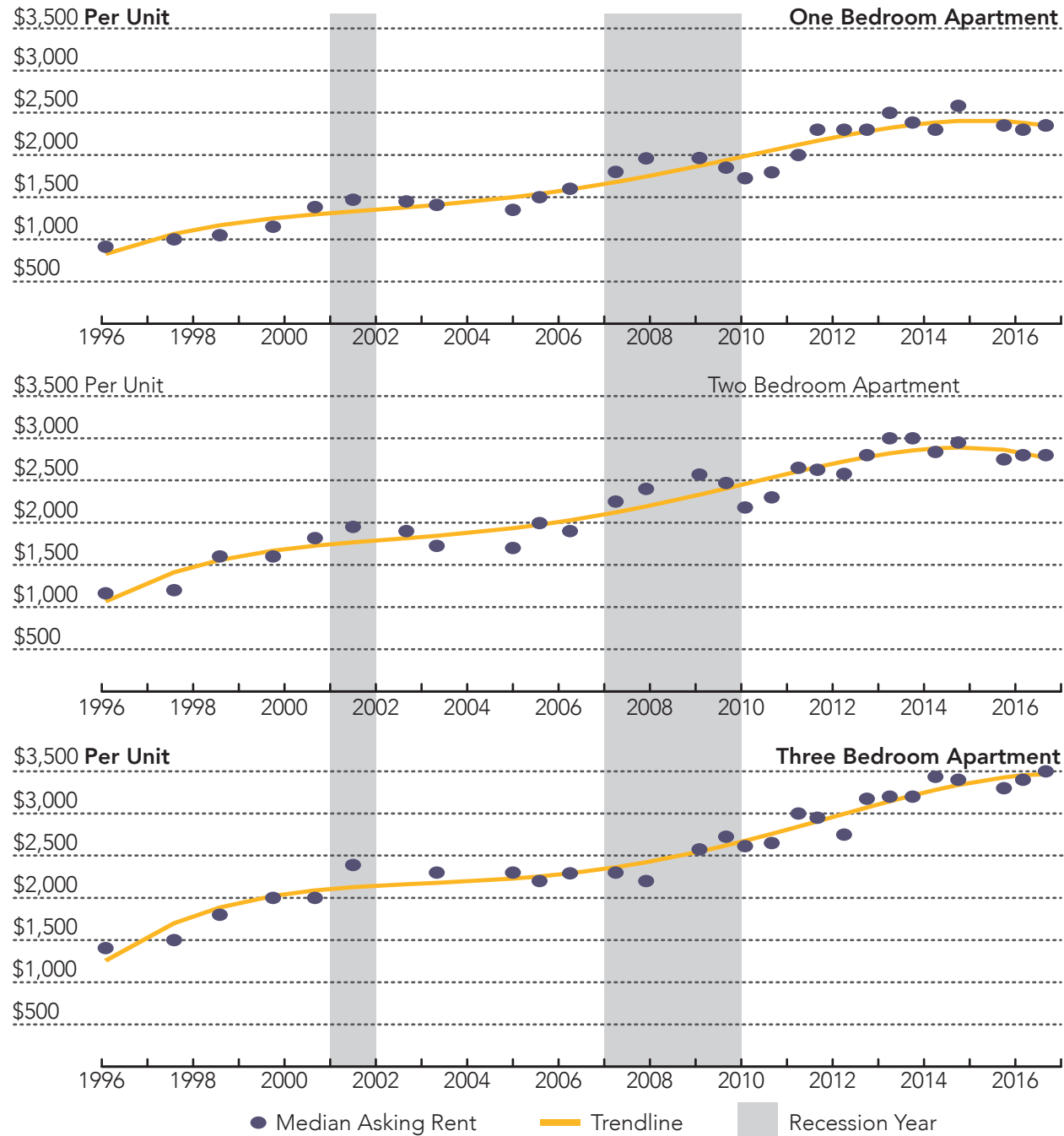
The borrower has up until the scheduled time of the Auction to pay off the full amount of the unpaid loan. Should this not occur, the auction proceeds and a **Foreclosure Deed** subsequently filed with the Registry of Deeds grants ownership of the property to the purchaser at the foreclosure sale.

Properties may exit and reenter the foreclosure process multiple times in a single year. Thus, in the first figure each property subject to a Petition or Auction is counted only once in each foreclosure category each year, even if the lender filed multiple Petitions or scheduled multiple Auctions during that year.

Sources, all figures: Petitions, Scheduled Actions, and Foreclosure Deeds 2003 to 2016, Cambridge Community Development Department analysis of "Banker and Tradesman" data; August 2016 Foreclosure Rates, Redwood RealtyTrac LLC.

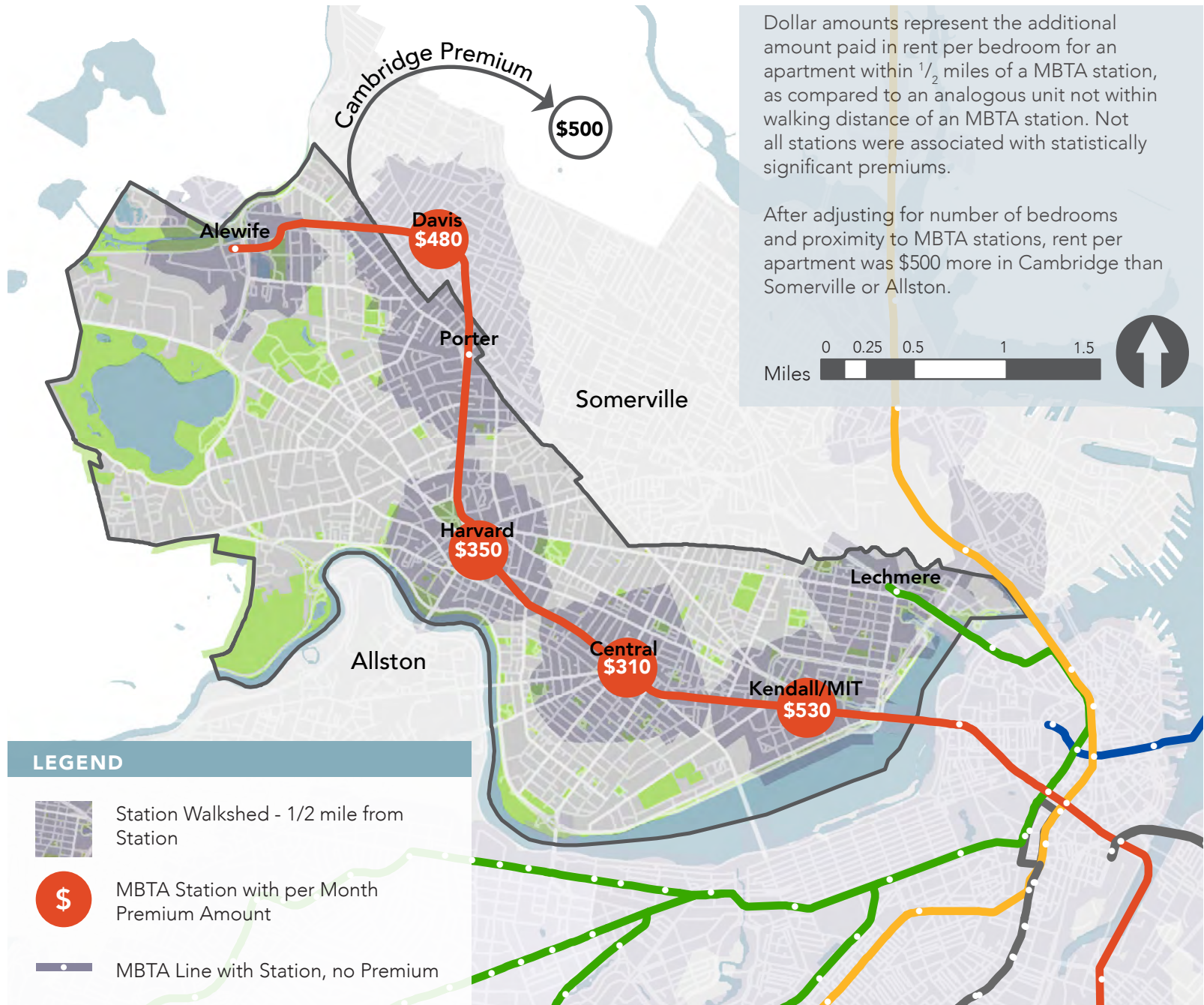


**FIGURE 2.11:**  
**Median Asking Rent by**  
**Apartment Size:**  
**1996 - 2016**



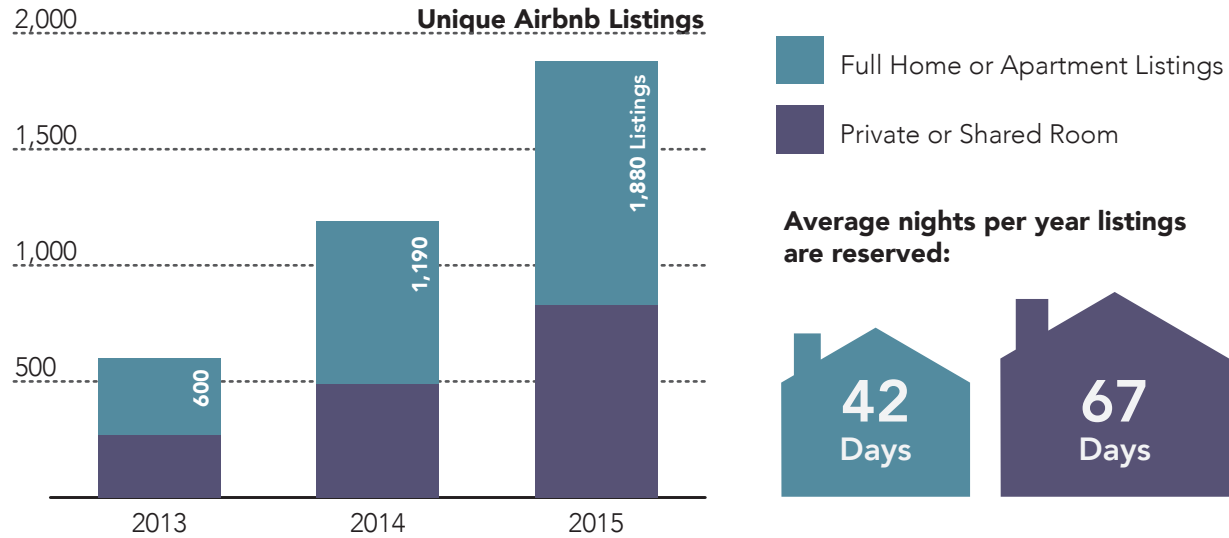
Sources, all figures: Cambridge Community Development Department staff survey of Realtors, 1996, 1997, 2000 and 2002; Cambridge Community Development Department survey of Boston Globe ads, 1998 and 1999; Harvard University Housing Office, 2000 and 2001; Boston.com, 2003-2008; Boston.com and CraigsList.com, 2009-2014; Zillow.com, 2015 and 2016.

**MAP 2.12:**  
**Rental Premiums**  
**Associated with Transit**  
**Station Proximity and**  
**Cambridge Location:**  
**November 2015**



**Sources, data:** Rental data, scraped and cleaned by Sharon Ron from Padmapper.com, collected on 11/05/2015 and 11/30/2015; Pedestrian Street Network, Cambridge Community Development Department, 2017; Additional basemaps, Cambridge GIS, 2017.  
**Sources, map:** Basemaps, Cambridge GIS, 2016.

**FIGURE 2.13:**  
Number of Unique  
Airbnb Listings by  
Type: 2013-2015

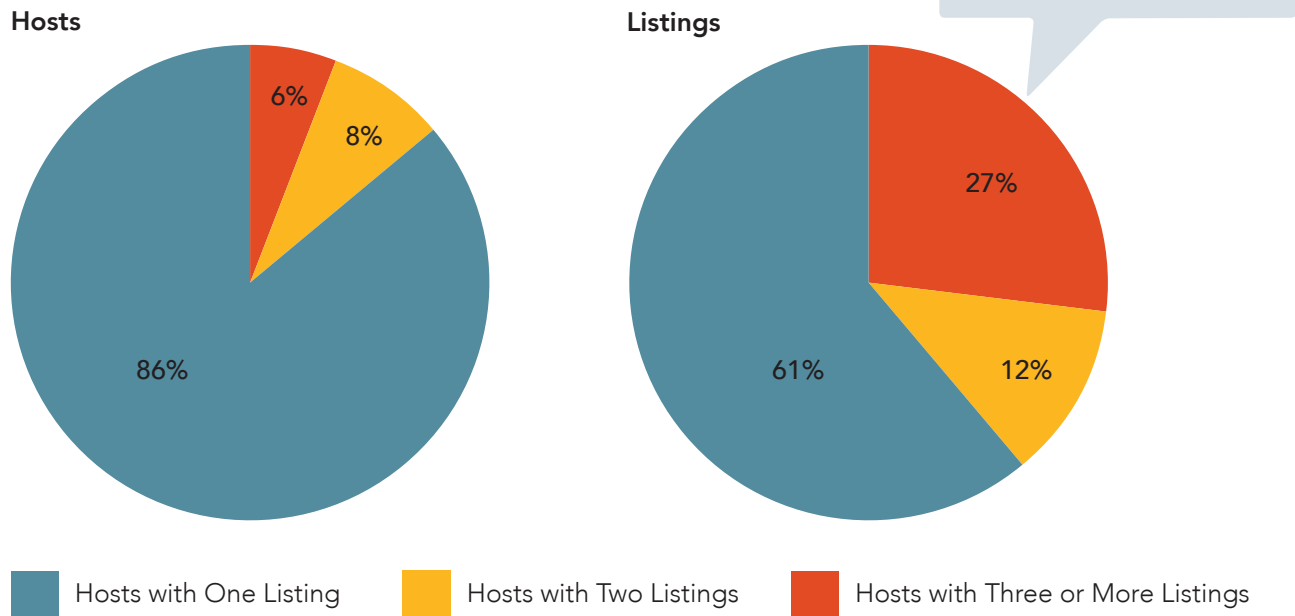


**FIGURE 2.14, far right:**  
Average Annual Airbnb  
Bookings: September  
2016

**Average nights per year listings  
are reserved:**



**FIGURE 2.15:**  
Airbnb Hosts and  
Listings by Host Size:<sup>1</sup>  
September 2016

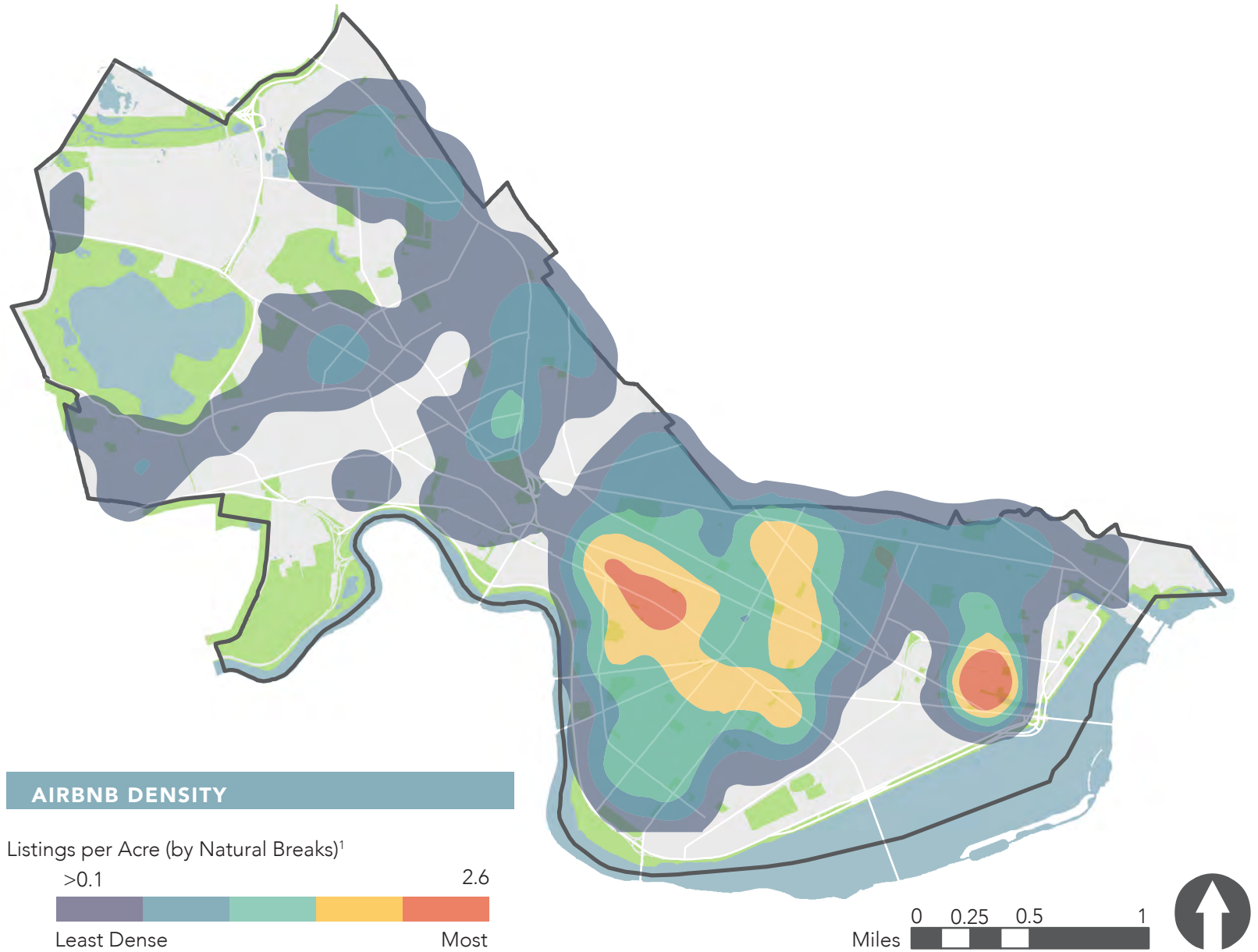


Sources, top figures: 'Request for Information: Airbnb Data in Cambridge', Prepared by Airbnb 9/15/2016.

Sources, bottom figure: Airbnb Data, Collected by Tom Slee (<http://tomslee.net/>) 9/30/2016.

<sup>1</sup> Not adjusted for instances where hosts may list under multiple names.

MAP 2.16:  
Airbnb Listings of  
any Type per Acre:  
September 2016



**Sources, data:** Airbnb Data, Collected by Tom Slee (<http://tomslee.net/>) 9/30/2016.

**Sources, map:** Basemaps, Cambridge GIS, 2016.

<sup>1</sup> Natural breaks classes are based on natural groupings inherent in the data. Class breaks are identified that best group similar values and that maximize the differences between classes.



# AFFORDABILITY





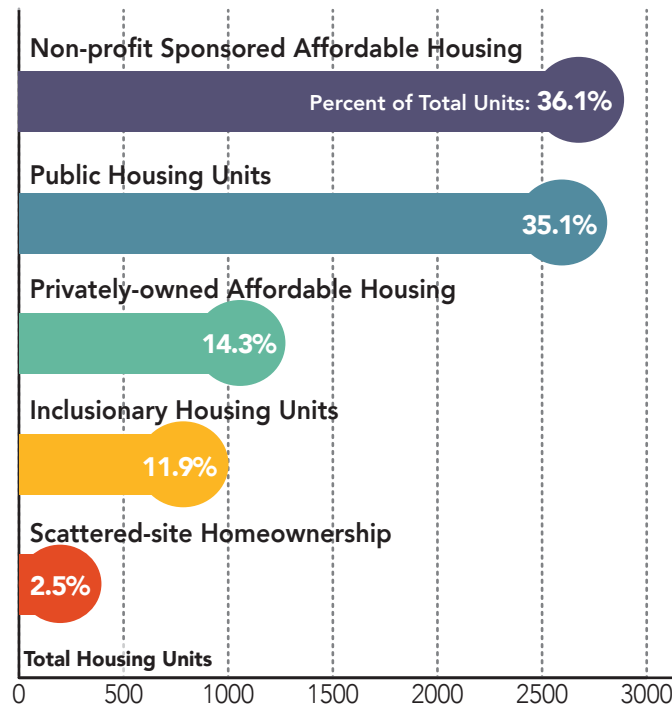
**TABLE 3.01:**  
Affordable Housing  
Inventory: 1997-2016

	YEAR							
	1997	2008	2011	2012	2013	2014	2015	2016
Affordable Housing Units	6,492	7,082	7,240	7,294	7,546	7,670	7,674	7,770
Total Housing Units <sup>1</sup>	42,073	45,544	47,400	47,500	48,400	50,100	51,904	52,822
Percent Affordable Units	15.4%	15.6%	15.3%	15.4%	15.6%	15.3%	14.8%	14.7%

**DEFINITION OF TERMS**

Affordable Housing is housing with a legal restriction limiting the occupancy or ownership to households earning at or below a specified income level.

**FIGURE 3.02:**  
Affordable Housing by  
Type: 2016



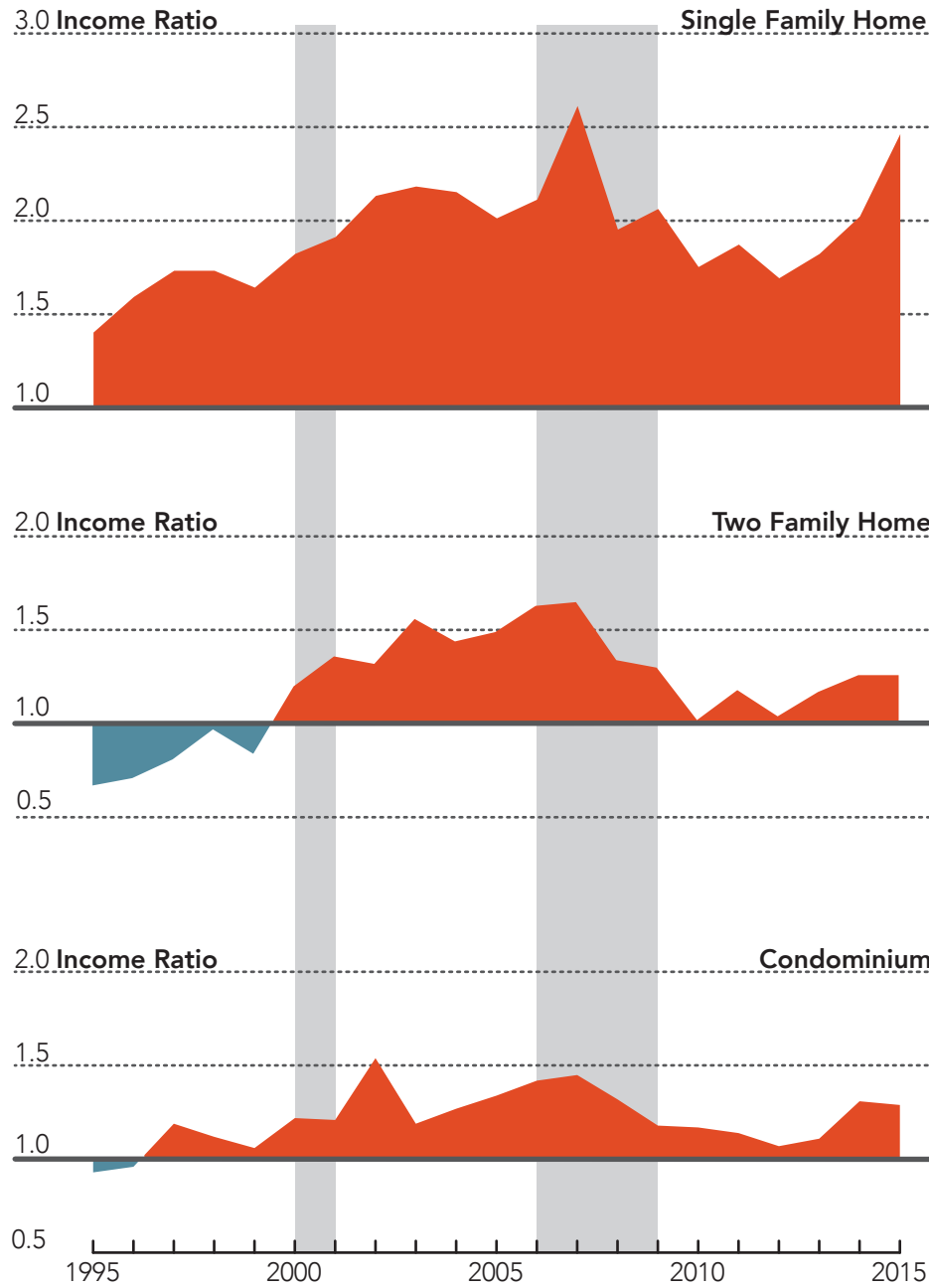
<b>Non-Profit Sponsored Affordable Housing</b>	Housing sponsored and/or owned by non-profit developers.
<b>Public Housing</b>	State- and federally-subsidized public housing (including RAD conversion) properties controlled and managed by the Cambridge Housing Authority.
<b>Privately-Owned Affordable Housing</b>	Privately-owned and/or sponsored affordable housing properties, including limited equity cooperative and excluding Inclusionary Housing.
<b>Inclusionary Housing</b>	Privately-owned affordable housing created under the Inclusionary Housing provisions of the Cambridge Zoning Ordinance and similar zoning-based provisions; includes buildings under construction.
<b>Scattered-Site Homeownership</b>	Affordable homes purchased by first-time home buyers, excluding those created through Inclusionary Housing and other developers.

**Sources, table:** Affordable housing inventory 1997, derived from Stockard & Engler & Brigham, LLC, "Cambridge Inclusionary Housing Study," 02/1998; Affordable housing inventory 2008-2016 and total unit count 2016, City of Cambridge analysis, 6/30/2016; Total unit count 1997-2015, reported by David Paul Rosen & Associates for "Cambridge Inclusionary Housing Study," 03/27/2016.

**Sources, graph:** 2016 City of Cambridge Affordable Housing unit count, City of Cambridge Community Development Department city analysis, 6/30/2016.

<sup>1</sup> The "Cambridge Inclusionary Housing Study" used different methods for evaluating total size of housing stock prior to 2016, thus the figures are not strictly comparable to those stated in other tables.

**FIGURE 3.03:**  
Income Required to Purchase Median Priced Residential Property:<sup>1</sup> 1995-2015



HOW TO READ THESE GRAPHS

These graphs illustrate the ratio of the income necessary to purchase a median priced residential property to the median income of the area as determined by HUD.

A ratio of 1.0 indicates that the median income to purchase is equal to the area median income (AMI) for the area. For example, if the median income to purchase is \$75,000, a ratio of 1.0 means that the AMI is \$75,000.

A ratio above 1.0 means that the income necessary for purchase exceeds the AMI. Conversely, a ratio below 1.0 indicates that the AMI exceeds the minimum income required to purchase a median priced unit.

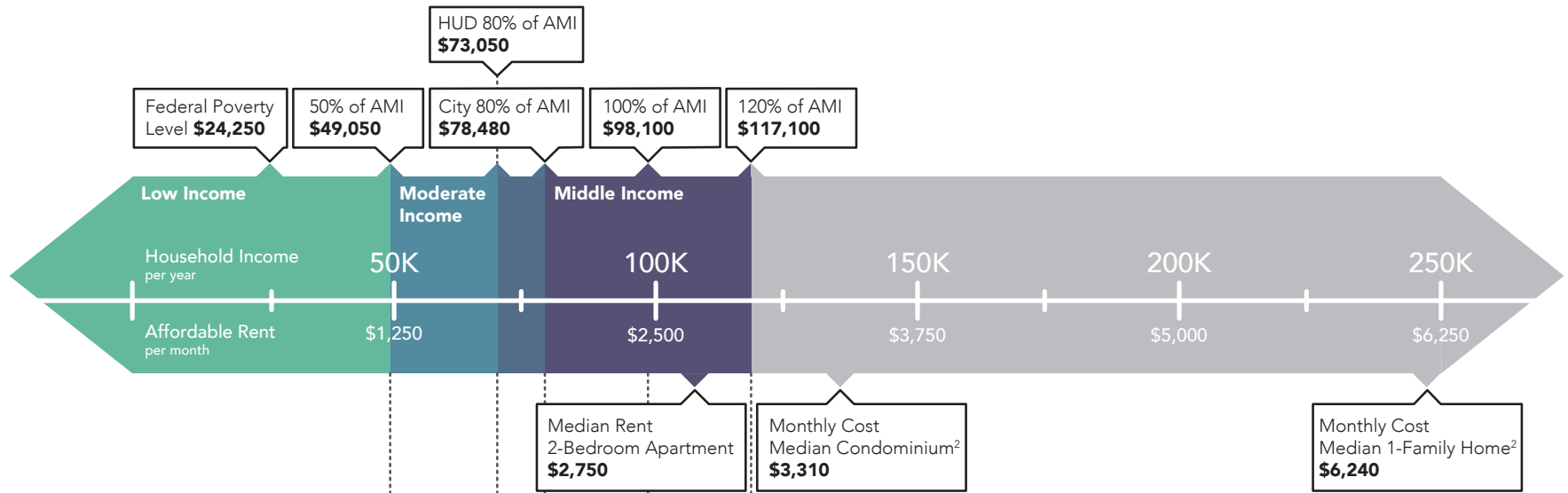
Affordable price calculations assume 24% of income for mortgage financing with a 30 year term and a 10% down payment. The interest rate, private insurance, and real estate taxes are calculated annually at the then-current rate. Condominiums also include a condominium fee. For two family homes, 75% of the average annual rent from the second unit is applied towards the mortgage.

- HUD Median Income
- Ratio Below Median
- Ratio Above Median
- Recession Year

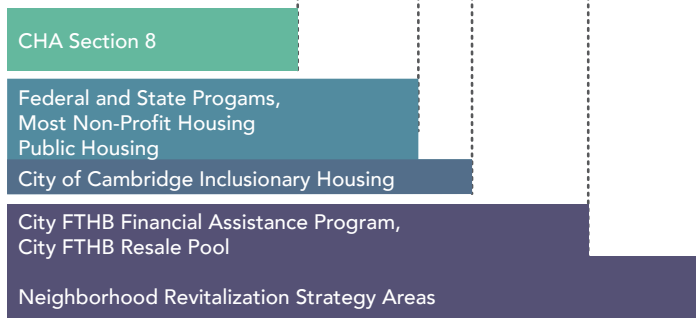
**Sources, all figures:** HUD Boston-Cambridge-Quincy MA FY15 Income Limits data set, HUD USER Portal; 1995 to 1999 Income Required to Purchase estimation, Cambridge Community Development Department; 2000 to 2015 Income Required calculation, Annual Cambridge Community Development Department Market & Affordability Analysis of Banker & Tradesman data.

<sup>1</sup> HUD's methodology changes occasionally, affecting the comparability of figures from different periods. The AMI for a 4-person family was used for all calculations.

**FIGURE 3.04:**  
Affordable Housing  
and Area Median  
Income Limits (AMI)<sup>1</sup>:  
2016



**FIGURE 3.05:**  
Program Eligibility by  
Percent of AMI: 2016



**Sources, all figures:** 05/2016 Market & Affordability Analysis based on 09/2015 Median Rent, Zillow.com from 09/2016 download and 2016 Median Housing Costs, Cambridge Community Development Department analysis of Banker & Tradesman data; HUD Boston-Cambridge-Quincy MA FY16 Income Limits data set, HUD USER Portal, FY16; City 80% of AMI, Cambridge Affordable Housing Trust, FY16.  
<sup>1</sup> All median income limits assume four person household.  
<sup>2</sup> Income required estimation assumes 24% of income for mortgage, 10% down-payment, 30 year financing, 4% interest rate, private insurance, condominium fee and real estate taxes at then current residential rate.





# ADDRESSING NEED

The Housing Division of the Cambridge Community Development Department offers access to affordable rental and homeownership units created through City programs and works to retain the City's affordable housing stock. This effort takes several forms:

- Working with affordable housing providers and the Cambridge Housing Authority to acquire, build and preserve affordable housing;
- Administering the City's Inclusionary Housing program, managing over 800 completed units, and working with private developers and owners to offer access to affordable units created by the Inclusionary Housing Ordinance;
- Offering First Time Homebuyer Classes, pre-purchase counseling, and financial assistance for new homebuyers;
- Managing the City's stock of more than 500 affordable homeownership units; and
- Working with non-profit community development organizations to offer low-interest loans to assist owners in making necessary home repairs and improvements.

There are several channels through which you can learn more about affordable housing in Cambridge:

- Search the housing section of the City's web site at: <http://www.cambridgema.gov/housing>. Information can be found here about the various programs and services for renters and homeowners in need of affordable housing, program guidelines, application forms, Frequently Asked Questions and more.
- Attend one of the information sessions about the City's rental and homeownership programs. Information about these programs is also provided through the Housing Division website.
- If you have additional questions email [housing@cambridgema.gov](mailto:housing@cambridgema.gov) and send your questions to the Housing Division or call the Housing Division at 617/349-4622.



# APPENDIX





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# ABOUT THE DATA

Several of the data sets that serve as the basis for topics reviewed in the report will be added to the City of Cambridge Open Data portal (<https://data.cambridgema.gov/>). Information about specific data sources follows.

**AirBnB Data (corporate):** AirBnB short term rental information regarding change in unique listings over time and nights rented per year was provided to the City of Cambridge by AirBnB.

**AirBnB Data (tomslee.net):** AirBnB short term rental information regarding hosts with multiple units and unit locations was obtained using data collected through tomslee.net on September 30, 2016. Metadata and data downloads are available through the website:

<http://tomslee.net/airbnb-data-collection-get-the-data>

**American Community Survey (ACS):** The ACS is an ongoing survey conducted by the U. S. Census Bureau, which provides a wide variety of socioeconomic information about the population. City of Cambridge tables are available for one and five year periods. The information cited in this report all comes from 2015 one-year tables. More information about the ACS program, data downloads and metadata is available from the Census Bureau:

<https://www.census.gov/programs-surveys/acs/>

**Banker & Tradesman (B&T):** B&T is weekly journal covering the development and financial services industries in Massachusetts. Reporting includes weekly tables listing housing sales. This data is purchased on an ongoing basis by the City of Cambridge and analyzed to evaluate the arms-length transaction real estate market:

<http://www.bankerandtradesman.com/>

**Cambridge Assessing Database:** The Assessing Department maintains the City's property database, which includes data about the number of units and condominium status of a parcel. Data reports are available through the Cambridge Open Data website:

<https://data.cambridgema.gov/browse?category=Assessing>

**Cambridge Development Log:** The Development Log is a quarterly publication of the Community Development Department providing information about any project with 50,000 or more square feet, eight or more residential units, or of special interest to the City:

<http://www.cambridgema.gov/DevLog>

**Cambridge Geographic Information System (GIS):** The Cambridge GIS provides spatial data on a wide variety of topics. Data drawn from the GIS was used to construct the maps found throughout the report. Data downloads and metadata are available through the Cambridge GIS website:

<https://www.cambridgema.gov/GIS>

**Cambridge Inclusionary Housing Study:** This 2016 study evaluates the impact of new market-rate residential development on housing affordability and socio-economic diversity and includes tables on variety of topics, including growth overtime of the affordable housing stock:

<https://www.cambridgema.gov/CDD/Projects/Housing/inclusionaryhousingstudy>

**Cambridge Town Gown Reports:** Major post-secondary educational institutions in Cambridge provide a Town Gown Report annually to the Community Development Department. These reports summarize information about students, employment, and facilities as well as long term plans:

<https://www.cambridgema.gov/towngown>

**Consumer Price Index (CPI):** The CPI tracks the change in cost of consumer goods and services and is published monthly by the U. S. Bureau of Labor Statistics:

<https://www.bls.gov/cpi/>

**Home Mortgage Disclosure Act (HMDA):** HMDA requires certain financial institutions to report home loan data to determine whether the institutions are serving the housing needs of their communities. Data is available through the U. S. Consumer Financial Protection Bureau:

<https://www.consumerfinance.gov/data-research/hmda/>

**HUD Income Limits:** Each year the U. S. Department of Housing and Urban Development (HUD) publishes income limits for participation in federal-funded affordable housing programs. To develop income limits HUD first calculates the median income for a family of four in each metropolitan region. These figures, referred to as Area Median Income, provide a generally accepted basis for judging the affordability of market-rate housing:

<https://www.huduser.gov/portal/datasets/il.html>

**Padmapper.com:** Padmapper is a company that provides information about apartments available for rent along with specific location information that can be used in a spatial analysis of the distribution of rents:

<https://www.padmapper.com/sitemap>

**Redwood RealtyTrac:** This firm reports foreclosure rates throughout the United States based on total properties in any state of the foreclosure process

<http://www.realtytrac.com/statsandtrends>

**S&P/Case-Shiller Home Price Index:** The S&P/Case-Shiller Indices comprise a group of measurements widely used to track the U.S. housing market. These indices are calculated by comparing purchase price and resale value from repeated sales of the same home:

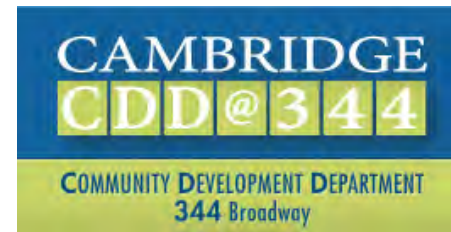
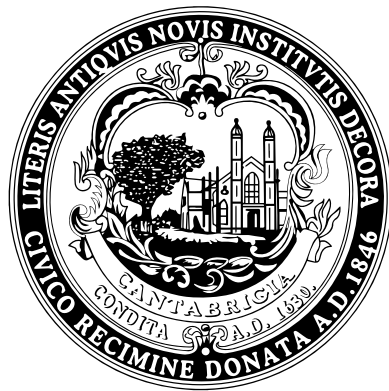
<http://us.spindices.com/index-family/real-estate/sp-corelogic-case-shiller>

**United States Decennial Census:** The Decennial Census, conducted by the U. S. Census Bureau every ten years as required by the U. S. constitution, collects basic demographic and housing tenure data from all members of the population:

<https://www.census.gov/2010census/>

**Zillow.com:** Zillow is an internet-based real estate firm that collects and distributes consumer level data about various aspects of the for-sale and for-rent real estate markets. The company makes freely available a variety of statistical measures of real estate markets:

<https://www.zillow.com/cambridge-ma/home-values/>



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