PRICED OUT

Persistence of the Workforce Housing Gap in the Boston Metro Area

Urban Land Institute
Terwilliger Center for Workforce Housing

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ULI Foundation

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About the Urban Land Institute

The Urban Land Institute is a 501(c)(3) nonprofit research and education organization supported by its members. Founded in 1936, the Institute has more than 29,000 members worldwide representing the entire spectrum of land use and real estate development disciplines, working in private enterprise and public service. As the preeminent, multidisciplinary real estate forum, ULI facilitates the open exchange of ideas, information, and experience among local, national, and international industry leaders and policy makers dedicated to creating better places.

The mission of the Urban Land Institute is to provide leadership in the responsible use of land and in creating and sustaining thriving communities worldwide. Members regard ULI as a trusted idea place where leaders come to grow professionally and personally through sharing, mentoring, and problem solving. With pride, ULI members commit to the best in land use policy and practice.

About the ULI Foundation

The ULI Foundation is the philanthropic partner of the Urban Land Institute, providing an assured source of funding for ULI's core research, education, and public service activities. Through its various giving and support programs, the Foundation helps strengthen ULI's ability to provide leadership in the responsible use of land in order to enhance the total environment.

The ULI Foundation is proud to support the ULI Terwilliger Center for Workforce Housing in its mission to expand housing opportunities for working families.

About the ULI Terwilliger Center for Workforce Housing

The ULI Terwilliger Center for Workforce Housing was established by J. Ronald Terwilliger, chairman emeritus of Trammell Crow Residential, to expand housing opportunities for working families. The mission of the center is to serve as a catalyst in increasing the availability of workforce housing in high-cost communities by harnessing the power of the private sector.

The center supports the development of mixed-income communities close to employment centers and transportation hubs. Through a multifaceted approach, the center facilitates research, advocates for public policy change, publishes best practices, convenes housing experts, and works to eliminate regulatory barriers to the production of workforce housing.

About RCLCO (Robert Charles Lesser & Co.)

This report was prepared by RCLCO (Robert Charles Lesser & Co.) for the ULI Terwilliger Center for Workforce Housing. RCLCO is a full-service real estate advisory and land use economics firm with offices throughout the United States. Contributors to this report include Adam Ducker, Charles Hewlett, and Patrick Lynch.

REPORT DESIGN BY SW CREATIVES, LLC

Executive Summary

The housing market downturn did not solve the housing affordability crisis that has been building in the Boston region for the past 20 years.

Housing in the Boston metropolitan area[1] remains unaffordable to the vast majority of workforce households—those earning 60 to 100 percent of area median income (AMI)—despite the recent economic and housing market downturn.

There remains an extreme shortage—about 25,000 units—of both rental and owner-occupied housing accessible to the region's major employment cores within and around the Route 128 corridor.

While home prices and rents have declined during the downturn, the Boston area still ranks among the least affordable metropolitan areas in the United States—along with others such as New York City, Los Angeles, Washington, D.C., and San Francisco.

The high cost of housing is particularly challenging for workforce households seeking to own a home in the Boston area anywhere close to their place of work. In a pattern repeated in many U.S. metropolitan regions, much of the housing in the closer-in portion of the Boston area has become too expensive for workforce households while that on the periphery, far from most jobs, remains the only affordable option.

Some rental housing stock affordable to workforce households exists near major employment cores; however, the quality of this housing is inadequate. The amount of workforce rental housing in the Boston metropolitan area rated moderately or severely inadequate by the *American Housing Survey* is from two to four times higher than that for peer markets, and workforce rental housing is much more likely to be inadequate than are more expensive housing units.[2]

It is unlikely that the Boston area will build its way out of this housing affordability crisis. Workforce renter households, particularly those with three or more persons, are largely priced out of the market for new-construction rental apartments. The high cost of land, entitlement, and construction makes developing new rental housing for these households challenging, if not impossible, without creative public financing solutions and other subsidy mechanisms.

The shortage of high-quality housing affordable to workforce households, both for sale and for rent, will only be exacerbated. Between now and 2020, the Boston metropolitan area market will face an additional shortage of nearly 11,000 units, leaving many of the region's teachers, firefighters, nurses, and other workers vital to the area's economy priced out of the market.

1 See the map on page 27 for the exact definition of the Boston metropolitan area used for this report. The defined area is similar to the Boston-Cambridge-Quincy metropolitan statistical area plus Worcester County and all of Rhode Island except Newport County.

2 U.S. Department of Housing and Urban Development/U.S. Department of Commerce, *American Housing Survey for the United States: 2007*.

The high cost of land, entitlement, and construction makes developing new rental housing for these households challenging, if not impossible, without creative development and financing solutions.

Defining the Workforce

The U.S. Department of Housing and Urban Development (HUD) defines area median income (AMI) for each metropolitan area. This indicator often is used to determine relative housing affordability for different income ranges and household sizes.

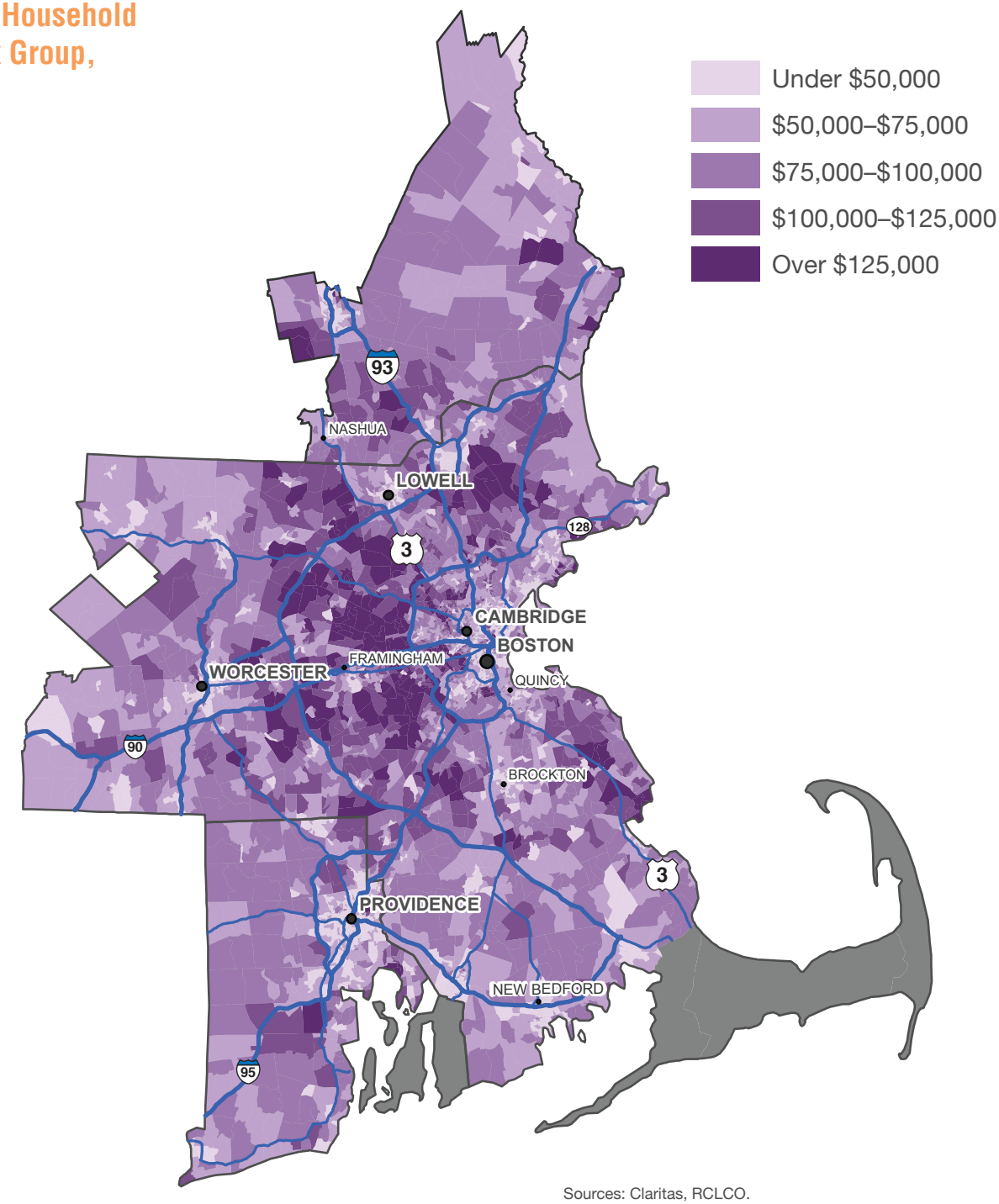
For purposes of this report, workforce households are defined as those with incomes between 60 and 100 percent of AMI, adjusted for household size.

Workforce Housing Income Ranges, Boston Metro Area

	60% of AMI	100% of AMI
One-Person Household	$37,884	$63,140
Two-Person Household	$43,296	$72,160
Three-Person Household	$48,708	$81,180
Four-Person Household	$54,120	$90,200
Five-Person Household	$58,450	$97,416

Sources: RCLCO, Claritas, U.S. Census 2008 Public Use Microdata Area (PUMA) data.

2009 Estimated Median Household Income by Census Block Group, Boston Metro Area



Sources: Claritas, RCLCO.

Workforce Household Profile

Assistant University Professor (Single-Income Household)

Vital Statistics:

- Household Type: Married Couple, Two Children
- 2009 Annual Household Income: $71,000
- Percent of AMI for Four-Person Household: 79%
- 2009 Affordable Home Price Range: $241,000–$270,000
- Required Downpayment: $24,000–$27,000

This university professor can afford to purchase a home priced between $241,000 and $270,000. Even though home prices in the Boston metropolitan area have declined 14 percent on average since the peak of the market in 2005, home values increased by more than 50 percent between 2000 and 2009, severely limiting this family's housing choice near his workplace.

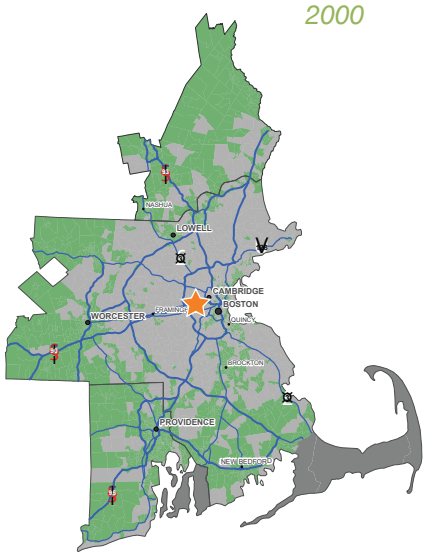
Locations with Affordable Median Home Values for Profiled Family

Affordable

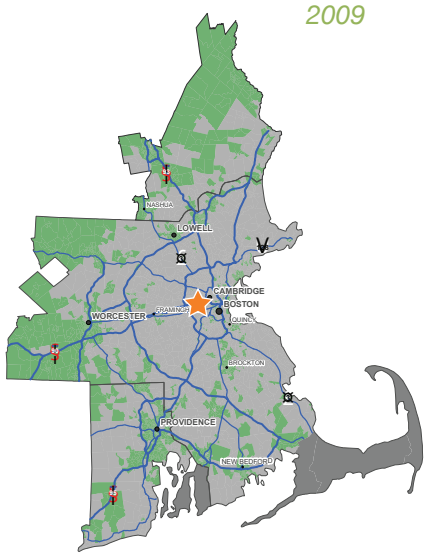
Priced Out

★ Place of Employment

2000



2009



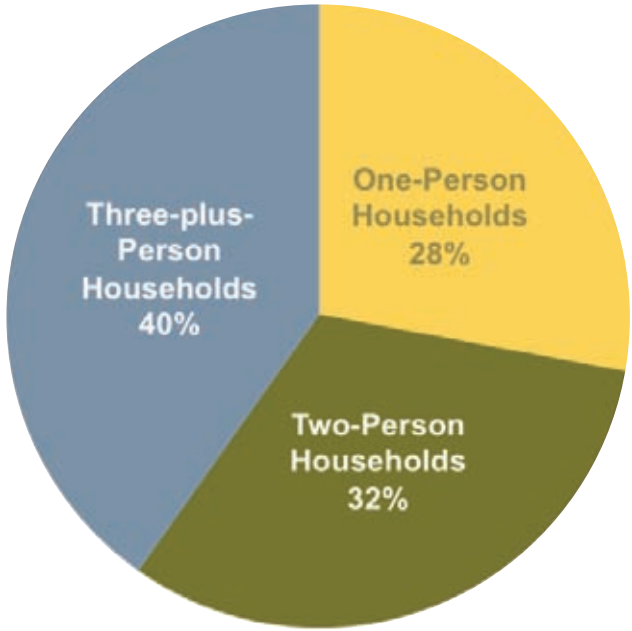
Sources: Claritas, RCLCO.

Metro Area Household Composition

A deeper analysis of the characteristics of workforce households in the Boston metropolitan area reveals more about this group's specific housing needs.

- About 23 percent of all Boston-area households fall within the defined range for workforce households—60 to 100 percent of AMI.
- Household sizes of three or more make up a significant portion of workforce households—40 percent.
- This second finding is significant because larger households require homes and/or apartments with more bedrooms, which typically are more expensive.

Workforce Household Composition, Boston Metro Area



Source: U.S. Census American Community Survey 2008 Public Use Microdata.

Household Distribution, Boston Metro Area

	Under 60% AMI	60%–80% AMI	80%–100% AMI	100%–120% AMI	Over 120% AMI	TOTAL
Estimated Number of Households	900,900	294,400	305,800	254,000	903,000	2,658,100
Distribution of Households	34%	11%	12%	10%	34%	100%

Source: U.S. Census American Community Survey 2008 Public Use Microdata.

23% **or over 600,000** of the households in the Boston metropolitan area are in the income range of 60 to 100 percent of AMI.

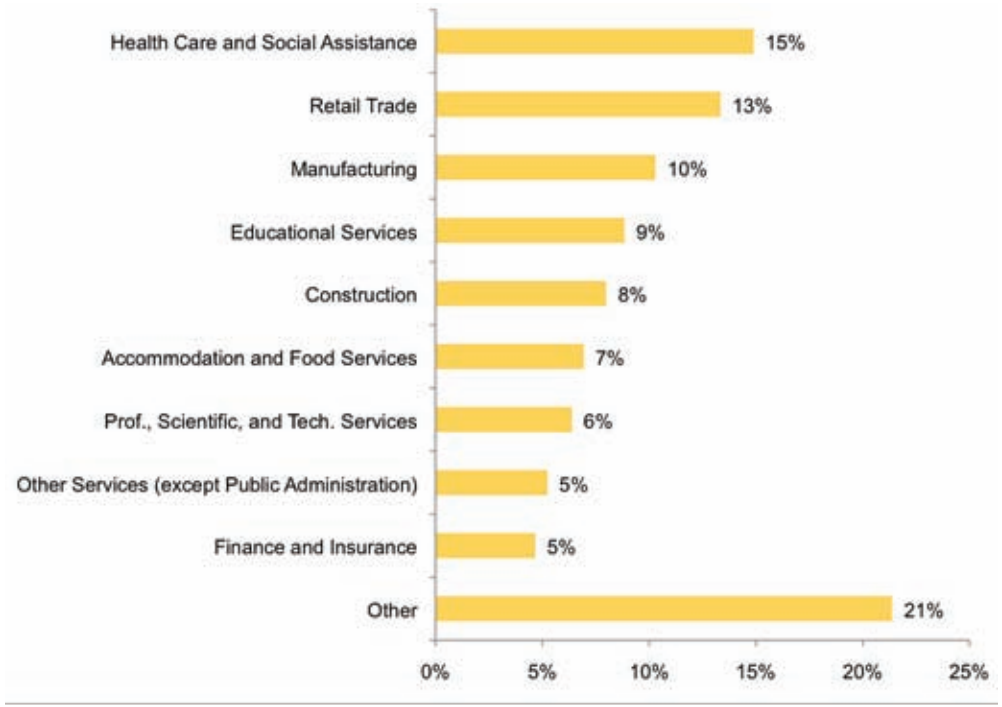
Workforce Laborers Are Important to the Economy

Nearly every profession includes employees who fall into the workforce housing income range. The top categories of regional employment in this income range, as shown in the chart to the right, include health care, retail trade, manufacturing, education, construction, hospitality, and professional, scientific, and technical services. Many of these professions are significant growth industries in the Boston area and reflect its overall distribution of employment by industry.

As these industries continue to be engines of growth in the future, their employees will need to be accommodated with appropriate workforce housing options.

The ability to house workers in key workforce housing employment sectors—teachers, health care workers, police officers, and firefighters, among others—is vital to the economic sustainability of the Boston metropolitan area.

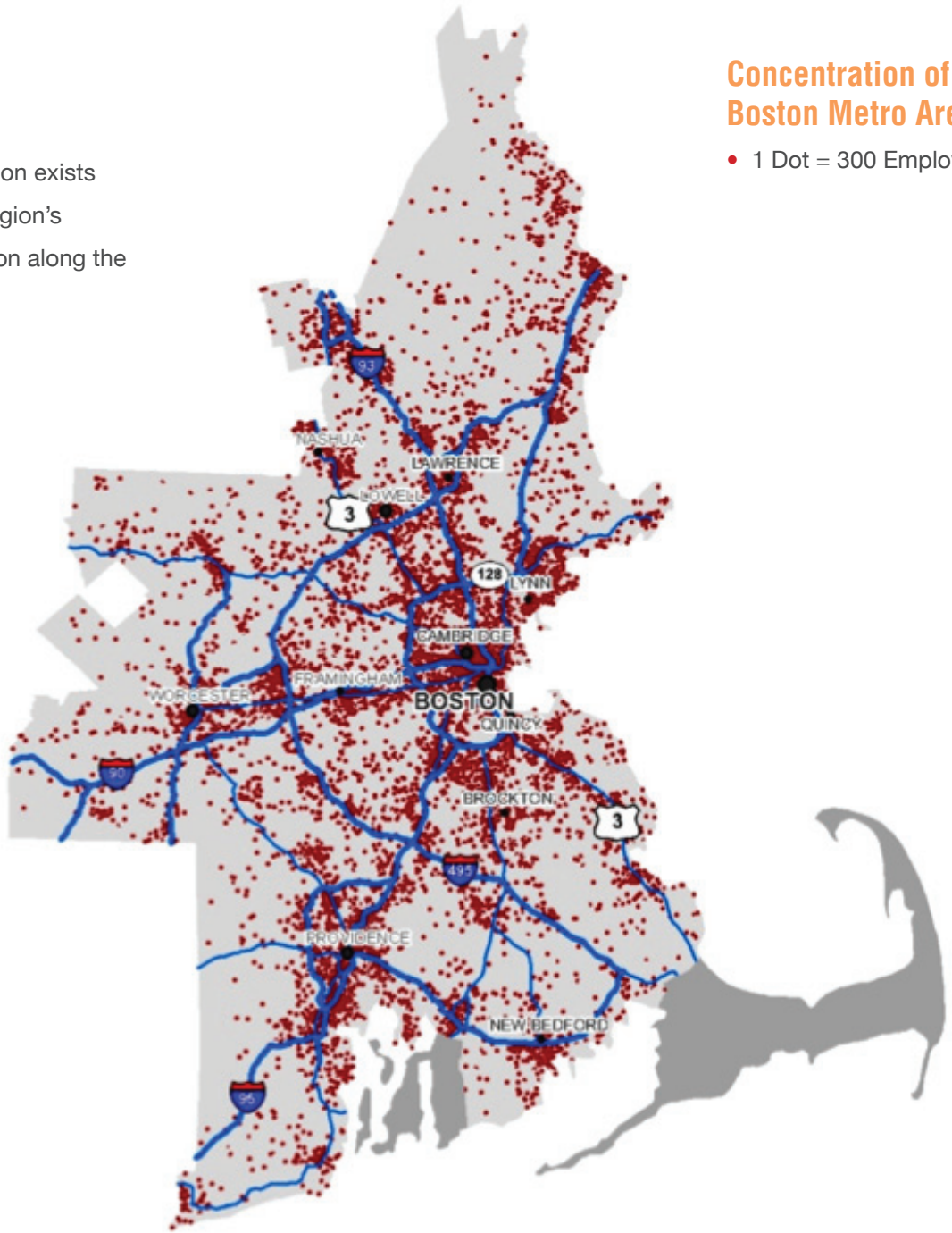
Distribution of Employment by Sector for Workforce Households



Source: U.S. Census 2008 Public Use Microdata Area (PUMA) data, RCLCO.

Employment Distribution

Though a major employment concentration exists in and around Route 128, much of the region's employment is scattered across the region along the interstate system.



Concentration of Employees in the Boston Metro Area

- 1 Dot = 300 Employees

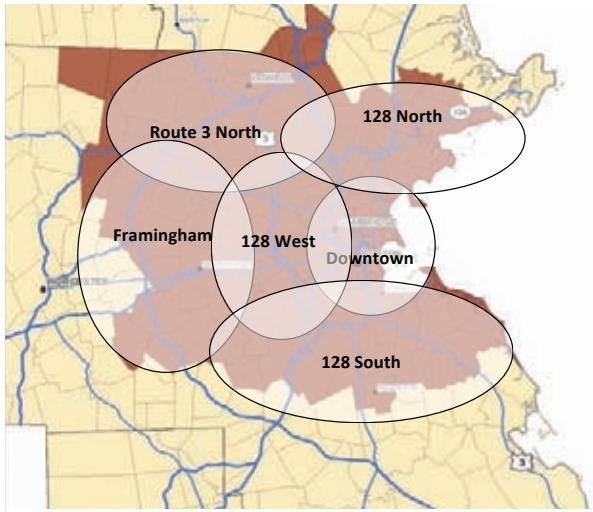
Sources: Claritas, RCLCO.

Supply Shortage near Employment Cores

This study examined the distribution of workforce households within a 20-minute no-traffic drive time, as an approximation for a 30- to 45-minute in-traffic commuting distance from major employment cores. Employment cores are shown on the map at right.

- The maps on page 13 illustrate the relative imbalance of workforce housing—both rental and ownership housing—near key employment cores in the Boston metropolitan area.
- Inner employment cores account for 57 percent of total employment in the Boston area, and over 60 percent of the typically higher-wage office-based employment.
- Of note: in the downtown Boston core, the affordability imbalance is significantly more pronounced for family workforce households (those with three to five persons).

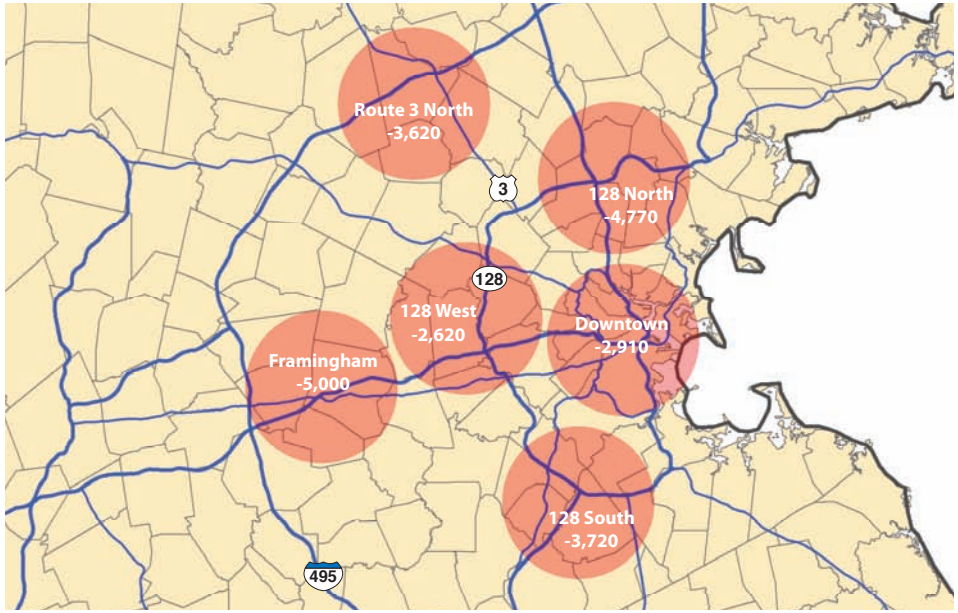
Boston Metropolitan Area Employment Cores—2010



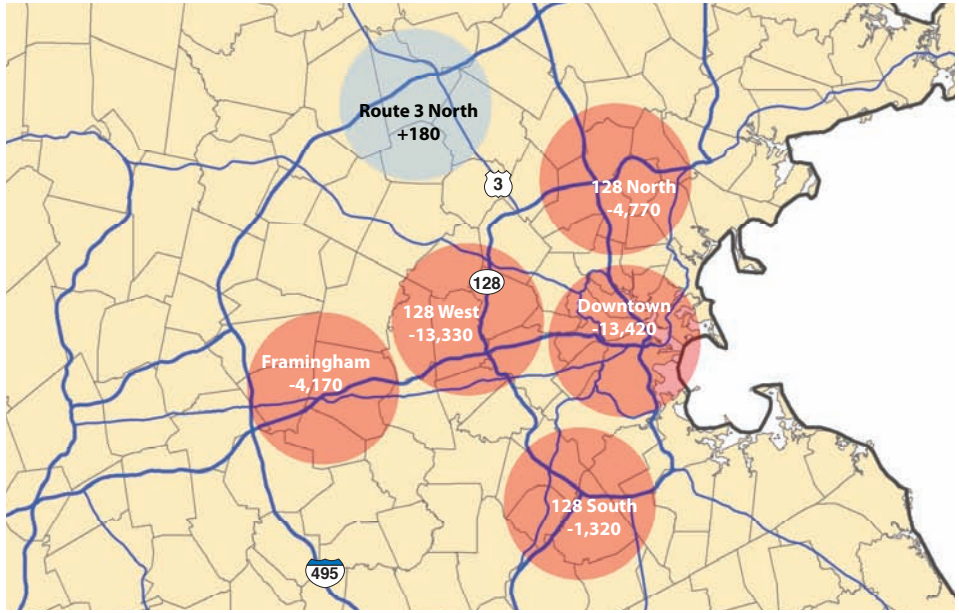
The majority of jobs are concentrated in just six major employment cores:

- Downtown Boston
- Route 128 North
- Route 128 West
- Framingham
- Route 128 South
- Route 3 North

Shortage of Workforce Household Supply near Employment Cores—One- and Two-Person Households



Shortage of Workforce Household Supply near Employment Cores—Three- to Five-Person Households



Regional Supply Conditions

The Boston metropolitan area exhibits a pattern similar to that found in Washington, D.C., and San Francisco in the geographic distribution of housing affordable to workforce households and in employment concentrations.

While pockets of affordability exist in all three metropolitan regions, particularly as the percentage of AMI increases, workforce households are largely forced to seek housing that is a great distance from employment concentrations.

Comparison of For-Sale Affordability—Peer Metro Areas

Affordable

Priced Out

Boston Metro Area

60% AMI

80% AMI

100% AMI

San Francisco Bay Area

Washington, D.C., Metro Area

Workforce Household Profile

Firefighter and Library Assistant (Dual-Income Household)

Vital Statistics:

- Household Type: Married Couple, Three Children
- 2009 Annual Household Income: $80,000
- Percent of AMI for Five-Person Household: 62%
- 2009 Affordable Home Price Range: $272,000–$304,000
- Required Downpayment: $27,200–$30,400

This two-income-family household can afford to purchase a home priced between $272,000 and $304,000. However, the housing value appreciation over the past decade, despite price declines experienced in the recent downturn, severely limits this household's choices in the metro area, and particularly within a reasonable commuting distance from their place of employment.

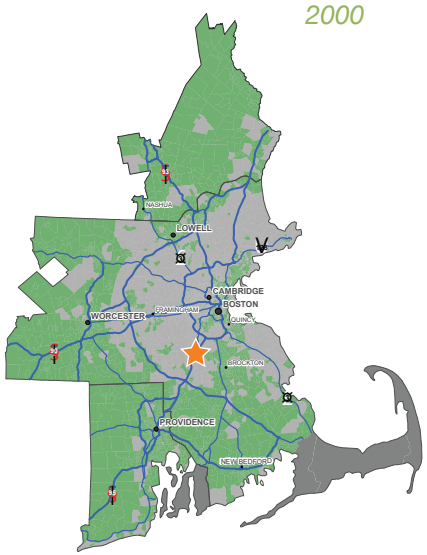
Locations with Affordable Median Home Values for Profiled Family

Affordable

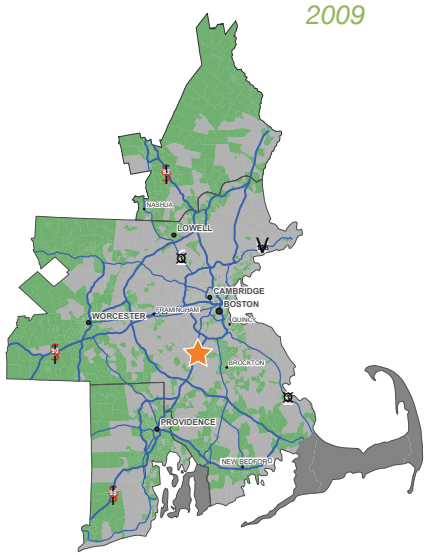
Priced Out

★ Place of Employment

2000



2009



Sources: Claritas, RCLCO.

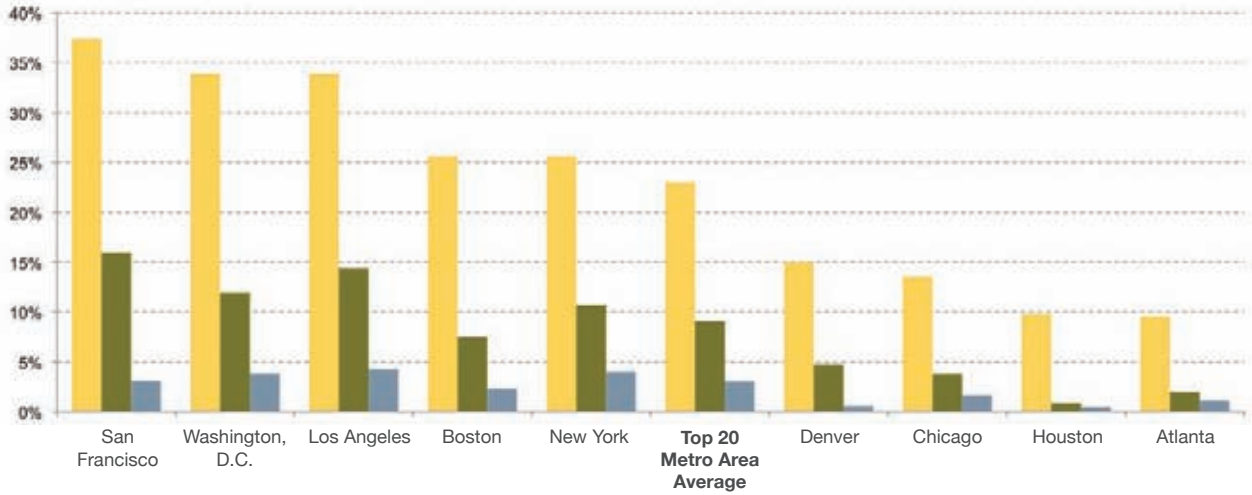
Workforce Rental Housing Is Expensive

The Boston metropolitan area is a relatively expensive rental apartment market for workforce households.

The Boston market has a much higher percentage of workforce households that pay 30 percent or more of their income on rent than many of its peer markets.

Boston ranks among the most expensive markets in the country, trailing just behind New York City, Los Angeles, Washington, D.C., and San Francisco.

Percentage of Renter Households Spending 30% or More of Household Income on Rent



Source: U.S. Census Bureau; American Community Survey 2008.

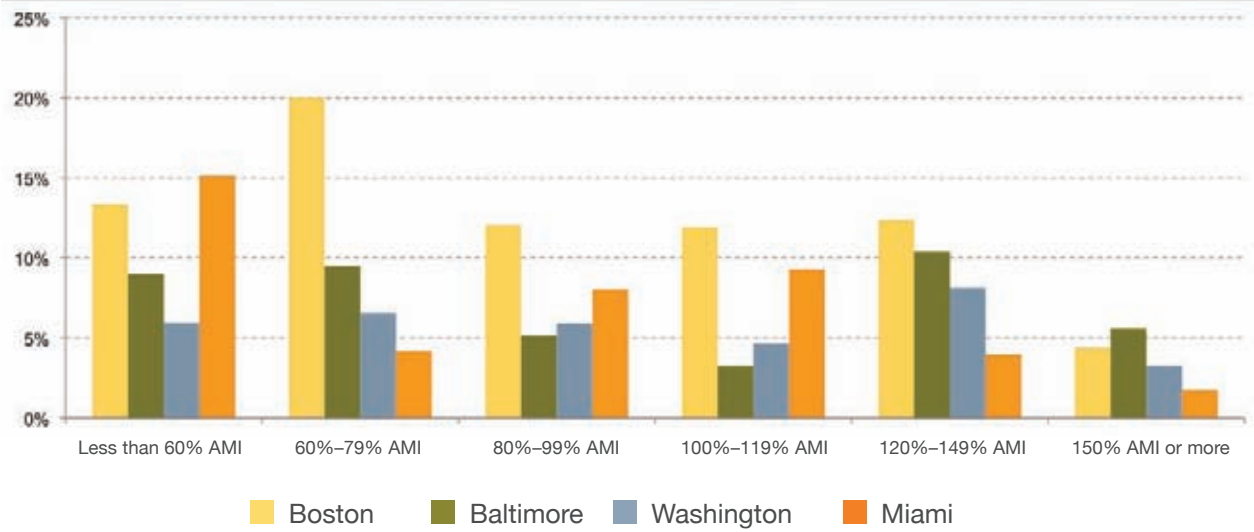
	$50,000–$75,000	~60–80% of AMI in Boston
	$75,000–$100,000	~80–100% of AMI in Boston
	$100,000+	~100%+ of AMI in Boston

Quality of Workforce Housing in Boston Is Far Worse Than That in Peer Markets

In addition to being expensive, a significant portion of rental housing units affordable to workforce households in the Boston metropolitan area is of relatively inadequate quality.

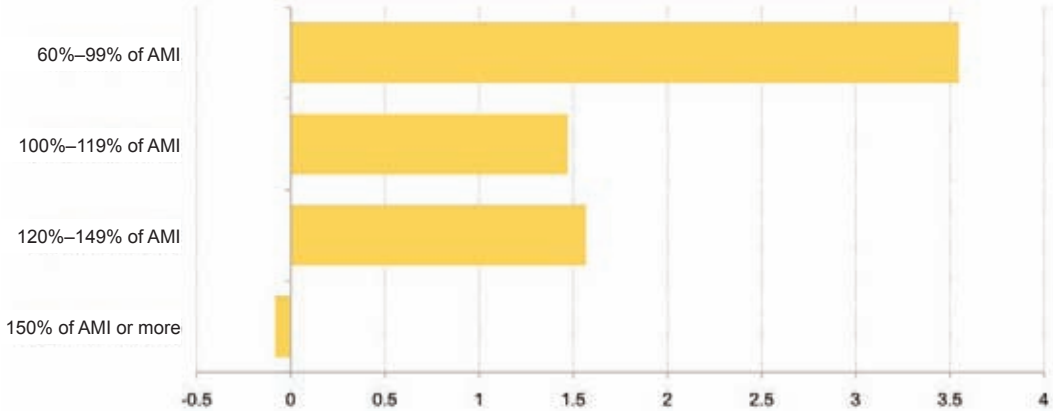
Nearly one in five rental housing units affordable to workforce households in the 60 to 80 percent of AMI range is rated moderately or severely inadequate. This is two to four times the rate for comparable units in Baltimore, Washington, and Miami. Within the Boston metropolitan area, workforce rental homes exhibit a rate of inadequacy over 3.5 times the average rate for all occupied housing units.

Percentage of Renter Households Whose Housing Unit Is Either Moderately or Severely Inadequate, by Income Bracket



Source: U.S. Department of Housing and Urban Development/U.S. Department of Commerce, *American Housing Survey for the United States: 2007.*

Index of Rental Housing Units Rated Inadequate Relative to the Average Rate of Inadequacy among All Occupied Housing Units in the Boston Metro Area



Source: U.S. Department of Housing and Urban Development/U.S. Department of Commerce, *American Housing Survey for the United States: 2007.*

New Rental Units Are Too Expensive

Additional high-quality rental housing could provide improved living opportunities for Boston-area workforce households and help fulfill the unmet demand. However, it generally is not financially feasible to deliver new rental product for those earning less than AMI, especially workforce families needing larger apartments.

Given the high cost of land, entitlement, and construction, most new rental apartment developments are built with a relatively high percentage of small one- and two-bedroom units in order to make economic sense. But to meet the needs of workforce families, rental apartment communities need to offer larger units with more bedrooms.

As a consequence, developing new rental products attainable for workforce households, particularly those with three or more persons, is challenging, if not impossible, without creative public financing solutions and other subsidy mechanisms that do not exist today.

New Apartment Construction Affordable to Workforce Households

High-Rise Rental Development			Supportable Rent per Square Foot for Workforce Households				
Persons per Household	Typical SF	Unit Type	60% AMI	70% AMI	80% AMI	90% AMI	100% AMI
1	450	Studio	PRICED OUT				$3.51
2	700	1B					
3	900	2B					
4	1,200	3B					
5	1,500	3B					
6	1,800	4B					

Mid-Rise Rental Development			Supportable Rent per Square Foot for Workforce Households				
Persons per Household	Typical SF	Unit Type	60% AMI	70% AMI	80% AMI	90% AMI	100% AMI
1	450	Studio	PRICED OUT		$2.81	$3.16	$3.51
2	700	1B					$2.58
3	900	2B					
4	1,200	3B					
5	1,500	3B					
6	1,800	4B					

Garden Rental Development			Supportable Rent per Square Foot for Workforce Households				
Persons per Household	Typical SF	Unit Type	60% AMI	70% AMI	80% AMI	90% AMI	100% AMI
1	450	Studio	PRICED OUT	$2.46	$2.81	$3.16	$3.51
2	700	1B				$2.32	$2.58
3	900	2B					$2.26
4	1,200	3B					
5	1,500	3B					
6	1,800	4B					

Workforce Household Profile

Civil Engineer
(Single-Income Household)

Vital Statistics:

- Household Type: Single Parent, Four Children
- 2009 Annual Household Income: $82,000
- Percent of AMI for Five-Person Household: 100%
- 2009 Affordable Home Price Range: $279,000–$312,000
- Required Downpayment: $27,900–$31,200

This single-parent household can afford to purchase a home priced between $279,000 and $312,000. However, many of the homes affordable within this price range within a reasonable commuting distance from her place of employment may not have sufficient bedrooms for a family this size.

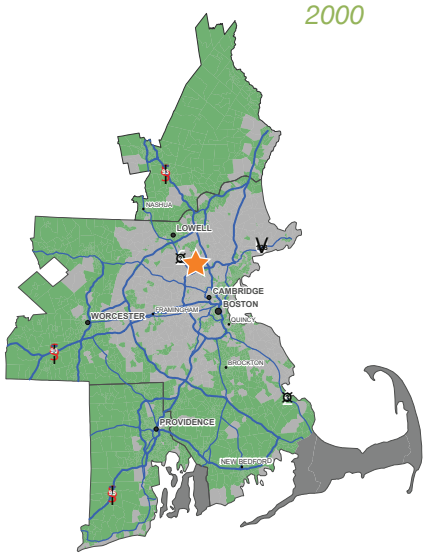
Locations with Affordable Median Home Values for Profiled Family

Affordable

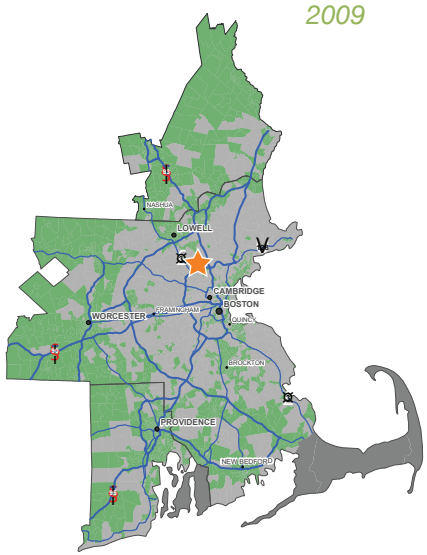
Priced Out

★ Place of Employment

2000



2009



Sources: Claritas, RCLCO.

Future Supply/Demand Trends Will Exacerbate the Shortage of Affordable Workforce Housing

Over the next ten years, the demand for housing driven by population growth and migration into the Boston metropolitan area will far outstrip the market's ability to provide an adequate supply.

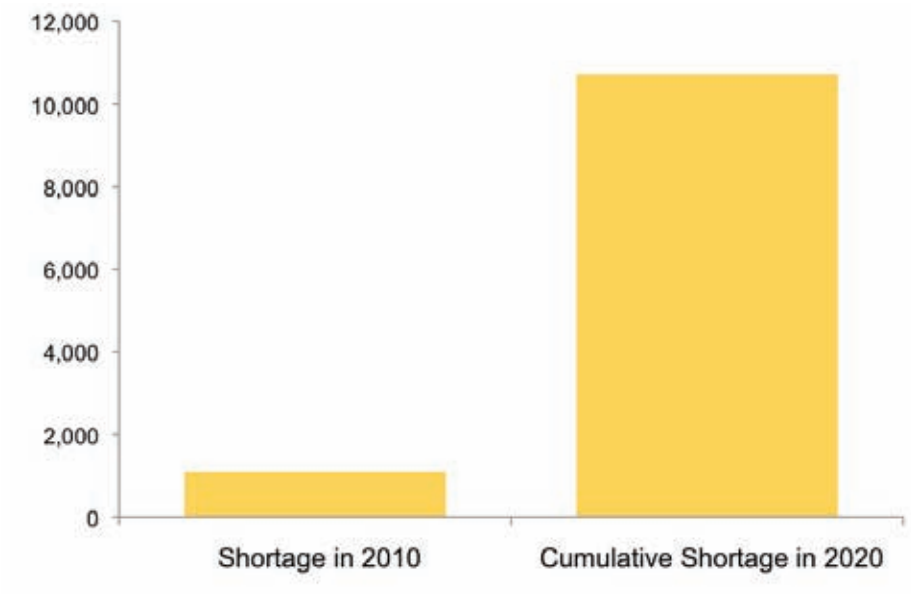
Between 2010 and 2020, total household growth in the Boston metropolitan area will exceed total new construction of housing by more than 36,000 units.

This shortage of new housing units very likely will lead to increasing home prices and rents, exacerbating the imbalance between the availability of affordable workforce housing and the proximity of jobs.

Because only a small proportion of new construction contributes housing affordable to workforce households, the demand for workforce housing is projected to exceed new supply by more than 10,000 units over this same ten-year period.

The actual shortage of housing affordable to workforce households is likely to be much greater because those earning less than 60 percent of AMI will compete for many of the same homes.

Projected Supply Deficit 2010–2020



The demand for workforce housing is projected to exceed new supply by more than 10,000 units between 2010 and 2020.

Sources: SOCDS, RCLCO.

Conclusions

Nearly a quarter of households in the Boston metropolitan area have incomes between 60 and 100 percent of AMI, yet housing remains unaffordable to the vast majority of these workforce households.

Despite the recent economic and housing market downturn, most of these households are either priced out of the for-sale housing market located within a reasonable commuting distance from their place of employment, or forced to choose to compromise on the quality of rental housing closer to where the majority of jobs are located in the region.

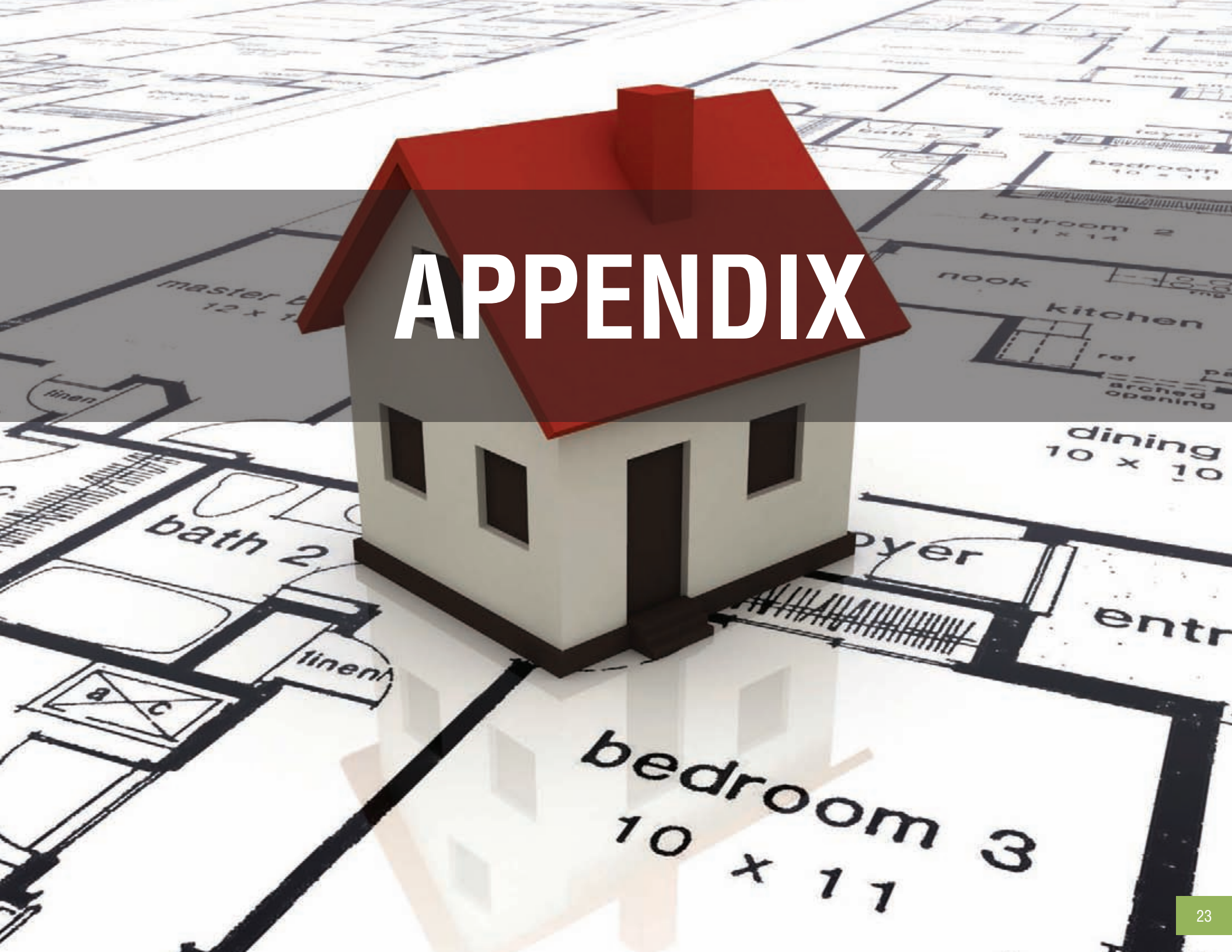
There is a shortage of workforce housing near key urban and suburban employment cores totaling approximately 25,000 units, and this shortage will increase over the next ten years by nearly 11,000 units because the growth in workforce households is expected to far outstrip the region's ability to keep pace with construction of housing affordable to workforce households.

Boston ranks among the least affordable metro areas in the United States—not far behind notoriously expensive places such as New York City, Los Angeles, Washington, D.C., and San Francisco. And while there is some rental housing located reasonably near major employment cores that is affordable to workforce households, the quality of this housing is disproportionately inadequate.

The ability of the market to build its way out of this housing affordability crisis is extremely limited. Workforce renter households, particularly those with three or more persons, are priced out of the market for new-construction rental apartments, and the high cost of land, entitlement, and construction in the region means that most new housing production (both for sale and rental) will have to be positioned with prices well beyond the financial wherewithal of the vast majority of workforce households—unless some type of significant subsidy is provided.

Boston ranks among the least affordable metro areas in the United States—not far behind notoriously expensive places such as New York City, Los Angeles, Washington, D.C., and San Francisco.

APPENDIX

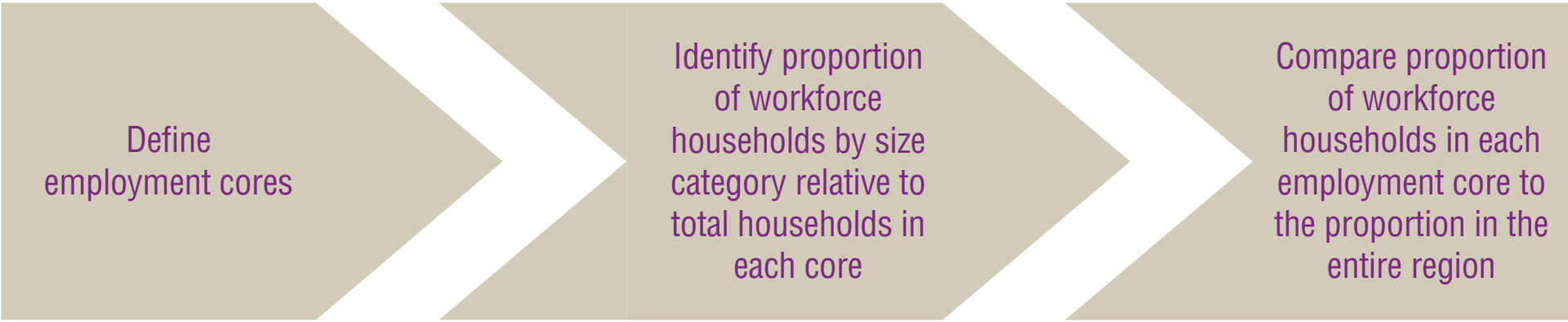

bedroom 2
11 x 14
nook
kitchen
ref
arched opening
dining
10 x 10
bath 2
linen
bedroom 3
10 x 11

Methodology

Household Profile Methodology

The range of maximum affordable home prices was estimated by multiplying annual gross income by 3.4 to 3.8. The multipliers are based on a calculation of affordable home price under the following assumptions—5.5 percent interest rate, 30-year term mortgage, 10 percent downpayment, private mortgage insurance (PMI) of 0.5 percent, property taxes equivalent to 1 percent of home value, and homeowner insurance fees equivalent to 4 percent of the mortgage payment. The total monthly payment of principal, interest, taxes, and insurance was assumed to equal 27.5 to 30 percent of monthly gross income. In 2000, the maximum affordable home price was estimated to be equivalent to 3.1 times the annual income, due to higher prevailing interest rates that year.

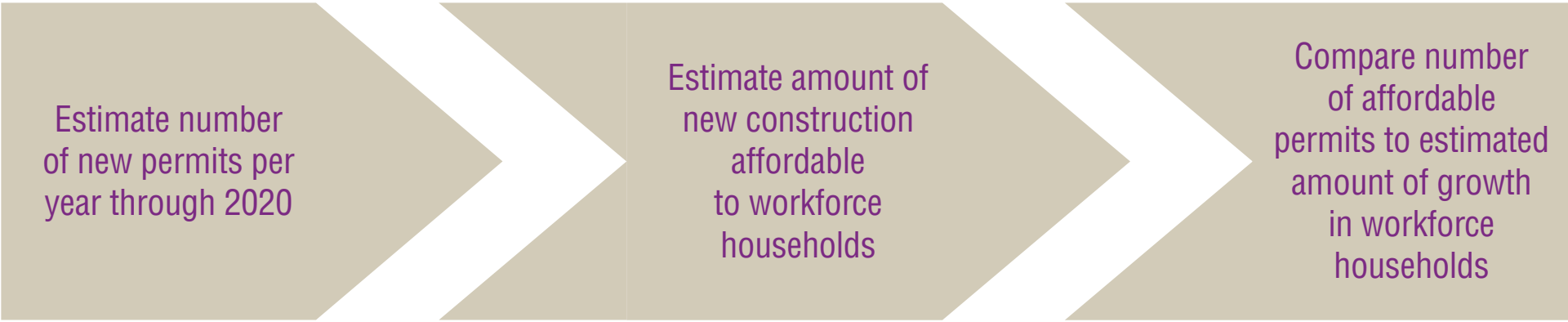
RCLCO relied on Claritas estimates of median home values by block group to determine which block groups were affordable. Claritas incorporates multiple data sources into its estimates of home value, including 2000 U.S. Census Bureau values, 2008 American Community Survey values, price indexes of the Federal Housing Finance Agency and the National Association of Realtors, as well as data related to home values from third-party data sources, such as Equifax and Acxiom.



Employment Core Methodology

Employment cores were defined by a selection of Public Use Microdata Areas (PUMAs) from the 2008 American Community Survey. PUMAs were selected to approximate a 30- to 45-minute commute time from major employment centers—identified through a review of Claritas estimates of at-place employment in 2009 and using local knowledge.

RCLCO relied on Public Use Microdata of the 2008 American Community Survey to determine the proportion of workforce households in each employment core. Workforce households were defined as those earning 60 to 100 percent of the 2009 area median income for their respective household size. Incomes were adjusted for inflation to 2009 levels. Where the proportion of workforce households in an employment core fell below the proportion for the region as a whole, it was deemed to have a shortage of such households.



Future Supply Methodology

Overall permit and household growth forecasts were based on Moody's Economy.com projections for the Boston-Cambridge-Quincy and Providence–New Bedford metropolitan statistical areas. To account for the loss/replacement of obsolete housing units, the number of new permits was reduced by about 0.23 percent of total housing units each year. This estimate was arrived at by comparing the number of units built before 1980, according to the 2000 U.S. census, to the number given in the 2006–2008 American Community Survey. Further, it was assumed that the percentage loss due to obsolescence would increase slightly each year as more units became older. The permit growth forecast minus the projected obsolescence yielded the estimate of net new permits.

RCLCO estimated the number of net new permits for housing affordable to workforce households based on the values and rents of homes built in 2008, according to American Community Survey Public Use Microdata.

RCLCO relied on Moody's Economy.com projections to determine total future household growth and assumed that workforce households would make up 23 percent of future growth in the region—the proportion of workforce households in the region today.

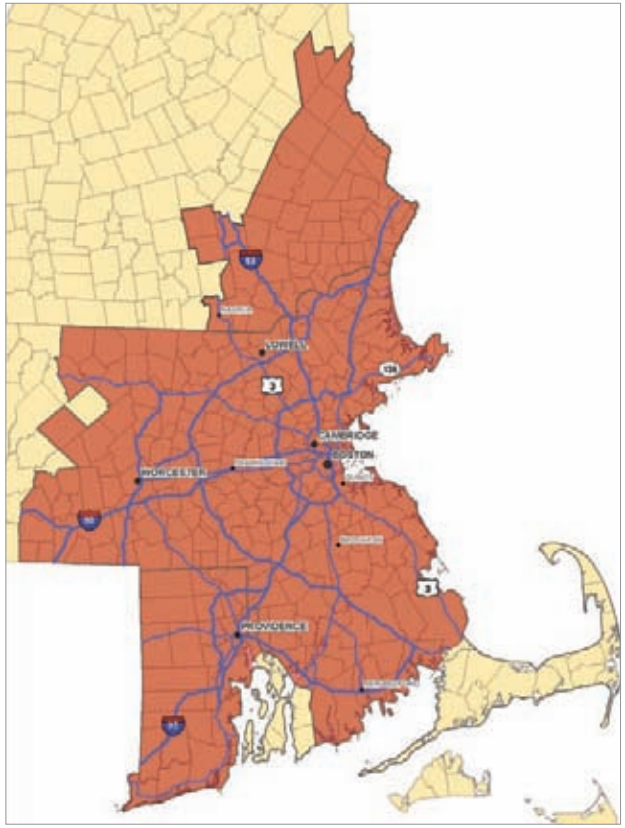
Employment Core Methodology

RCLCO used the *American Housing Survey for the United States: 2007* to estimate the amount of inadequate housing units occupied by renters in the Boston metropolitan area. The *American Housing Survey* defines units as moderately inadequate or severely inadequate, depending on how many conditions apply to the apartment, such as a lack of plumbing or electricity, faulty or nonexistent heating equipment, exposed wiring, water leaks, peeling paint, rats, etc.

New Rental Affordability Methodology

Affordable rents were assumed to be equivalent to 30 percent of annual gross monthly income for the given household. RCLCO constructed a simple pro forma based on cost estimate surveys for the Boston region and industry experience to test the feasibility of these rents. If the rents generated less than a 20 percent internal rate of return, the rents were deemed unfeasible. This estimate of feasibility should only be understood as a general estimate. Actual feasibility would depend heavily on land costs, financing structure, exact location, and many other elements specific to the project.

Map of Study Area



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