



The Research Bureau

# Worcester by the Numbers: Housing and Land Use

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# Worcester by the Numbers: Housing and Land Use

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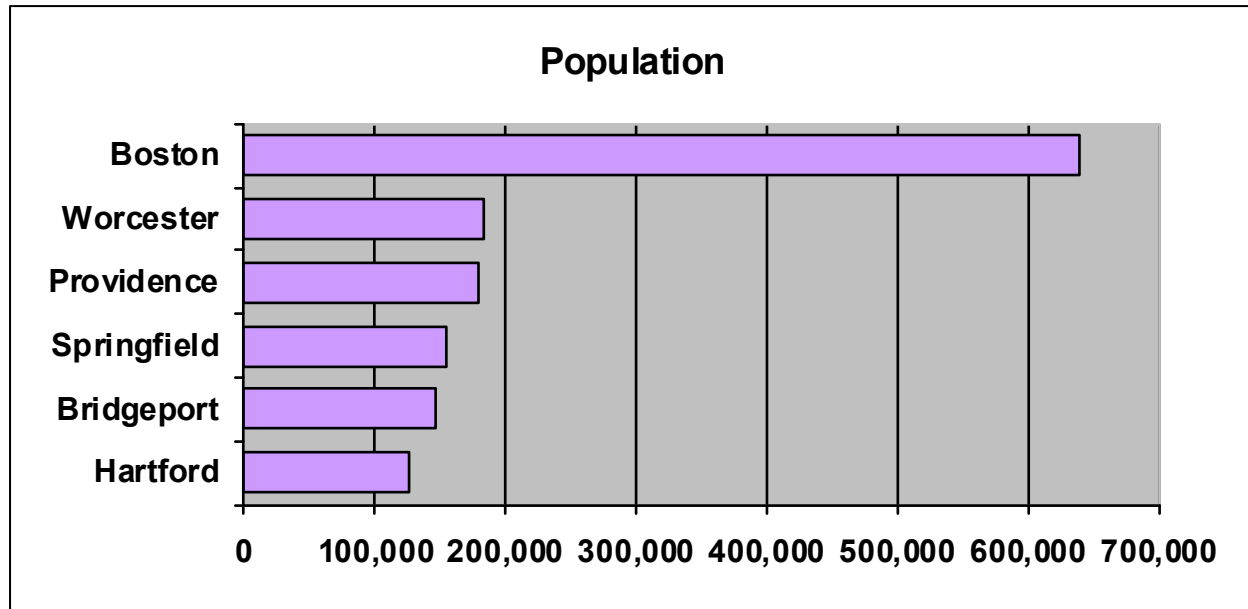
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# POPULATION CHARACTERISTICS

## Population

- Worcester is the second most populous city in New England.

City	Population (2012)
Boston	639,479
Worcester	182,669
Providence	178,432
Springfield	153,552
Bridgeport	146,425
New Haven	130,741
Hartford	124,893



Source: US Census Bureau, 2007 – 2011 American Community Survey 5-Year Estimates<sup>\*1</sup>

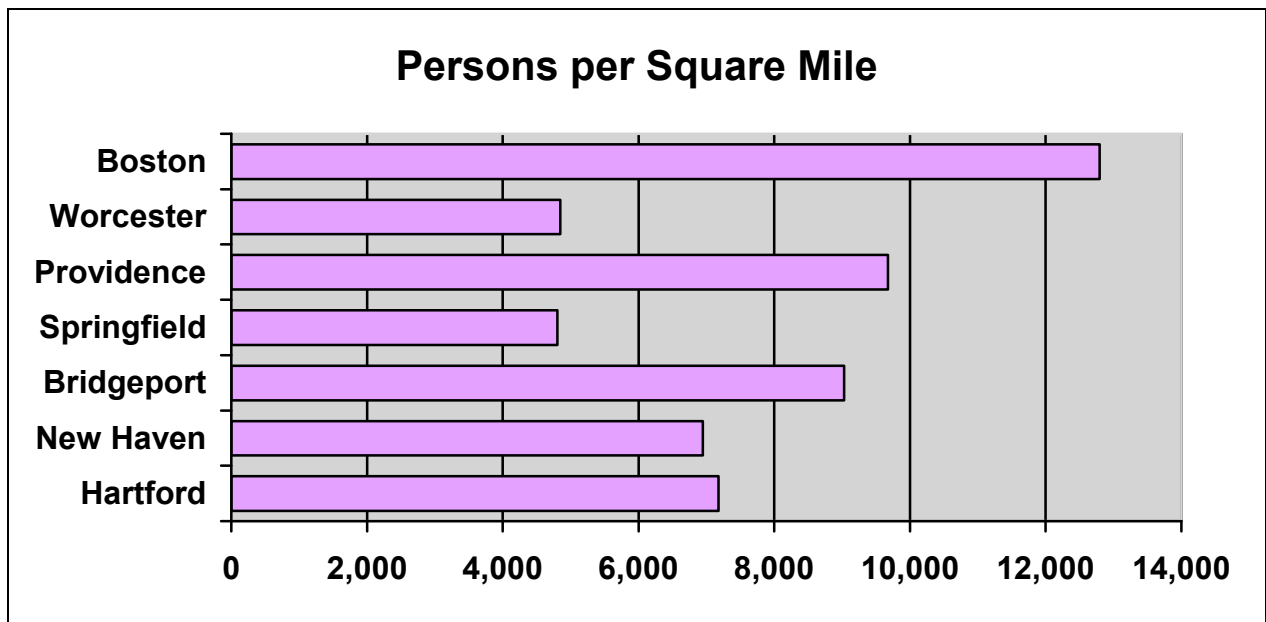
\* See p. 15 for definitions.

## Density

- Worcester is the second-largest city in square miles among the most populous cities in New England.
- With 4,844.5 people per square mile Worcester has the second lowest population density among the most populous cities in the region.

City	Population (2012)	Area in Square Miles (2010)	Persons per Square Mile
Boston	639,479	48.28	13,245.2
Worcester	182,669	37.37	4,844.5
Providence	178,432	18.40	9,697.4
Springfield	153,552	31.87	4,818.1
Bridgeport	146,425	15.97	9,168.8
New Haven	130,741	18.68	6,947.9
Hartford	124,893	17.38	7,186

Source: US Census Bureau, 2007 - 2011 American Community Survey 5-Year Estimates\*<sup>2</sup>



Source: US Census Bureau, 2007 - 2011 American Community Survey 5-Year Estimates

\* See p. 15 for definitions.

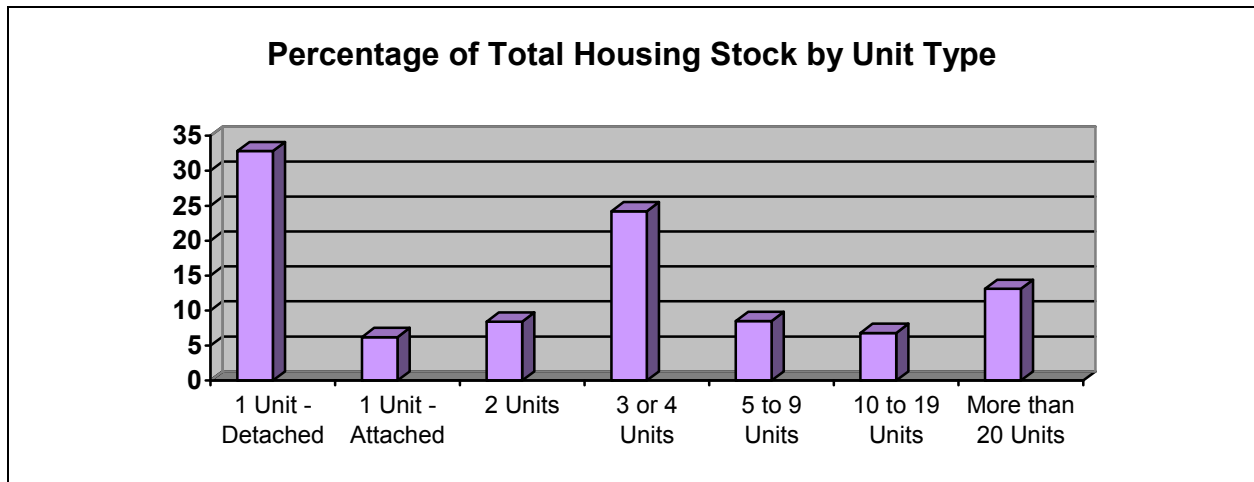
# HOUSING STOCK CHARACTERISTICS

## Housing Stock by Unit Types

- 24.2% of the housing units in Worcester are part of a three- or four-unit structure, a result of the prominence of the “triple-decker” style house in the City.

Units in Structure	Estimated Number of Units	Percentage
Total Housing Units	78,662	100%
1 Unit - detached	25,788	32.8%
1 Unit - attached*	4,839	6.2%
2 Units	6,631	8.4%
3 or 4 Units	19,046	24.2%
5 to 9 Units	6,651	8.5%
10 to 19 Units	5,321	6.8%
More than 20 Units	10,268	13.1%

Sources: US Census Bureau, 2007 - 2011 American Community Survey 5-Year Estimates; Michigan Metropolitan Information Center, The Center for Urban Studies Census Connection



Source: US Census Bureau, 2007 - 2011 American Community Survey 5-Year Estimates

\* See p. 15 for definitions.

## Occupancy

- Worcester’s home-ownership rate is 46.6%. This is lower than the national average of 66.1% but higher than the home-ownership rate of all but one of the region’s other most populous cities.

City	Housing Units Occupied by Owners (Percent of Total Units)	Percent of Housing Units Occupied by Renters (Percent of Total Units)
Boston	85,756 (34.6%)	161,865 (65.4%)
Worcester	32,743 (46.6%)	37,505 (53.4%)
Providence	22,657 (36.7%)	39,140 (63.3%)
Springfield	28,472 (50.7%)	27,739 (49.3%)
Bridgeport	22,733 (44.6%)	28,281 (55.4%)
New Haven	15,330 (31.1%)	33,917 (68.9%)
Hartford	11,533 (25%)	34,515 (75%)

Sources: US Census Bureau, Massachusetts 2010: Summary Population and Housing Statistics  
US Census Bureau, 2007 – 2011 American Community Survey 5-Year Estimates

- Almost 11% of Worcester’s housing units are vacant. This number is tied with Springfield for the second lowest among the cities surveyed. Boston has the lowest vacancy rate with 9% while Hartford has the highest with 15.7%.

Status	Estimate	Percentage
Total Housing Units	78,662	100%
Occupied	70,248	89.3%
Owner-Occupied	32,743	46.6%
Renter-Occupied	37,505	53.4%
Vacant	8,414	10.7%
Homeowner Vacancy Rate*	1,809	2.3%
Rental Vacancy Rate*	5,428	6.9%
Other Vacancy (Seasonal, Sold but Not Yet Occupied, etc.)	1,178	1.5%

Sources: US Census Bureau, Massachusetts 2010: Summary Population and Housing Statistics

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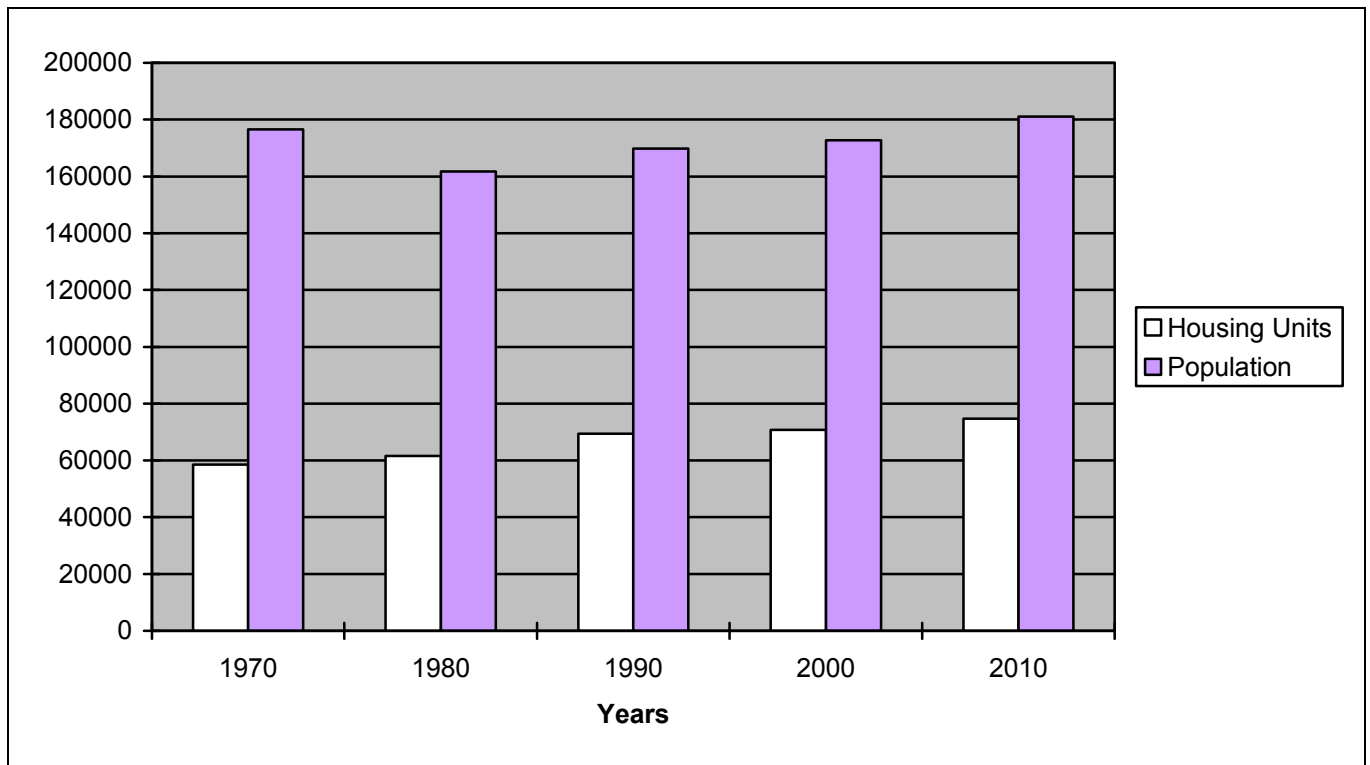
\* See p. 15 for definitions.

## Housing Stock Growth versus Population Growth

- Over the last forty years, while the population of Worcester has fluctuated, there has been consistent growth in the housing stock. Meanwhile, the number of persons per housing unit has declined by 19.6%. Nationally, the persons per housing unit rate has fallen 20.68% over the same period despite a population increase of over one hundred million citizens (from 203,302,031 to 308,745,538).

Year	Population	Housing Units	Persons per Housing Unit
1970	176,572	58,589	3.01
1980	161,799	61,645	2.62
1990	169,759	69,336	2.45
2000	172,648	70,723	2.44
2010	181,045	74,645	2.42

Source: US Census Bureau, Census of Population and Housing 1970 - 2010



Source: US Census Bureau, Census of Population and Housing 1970 - 2010

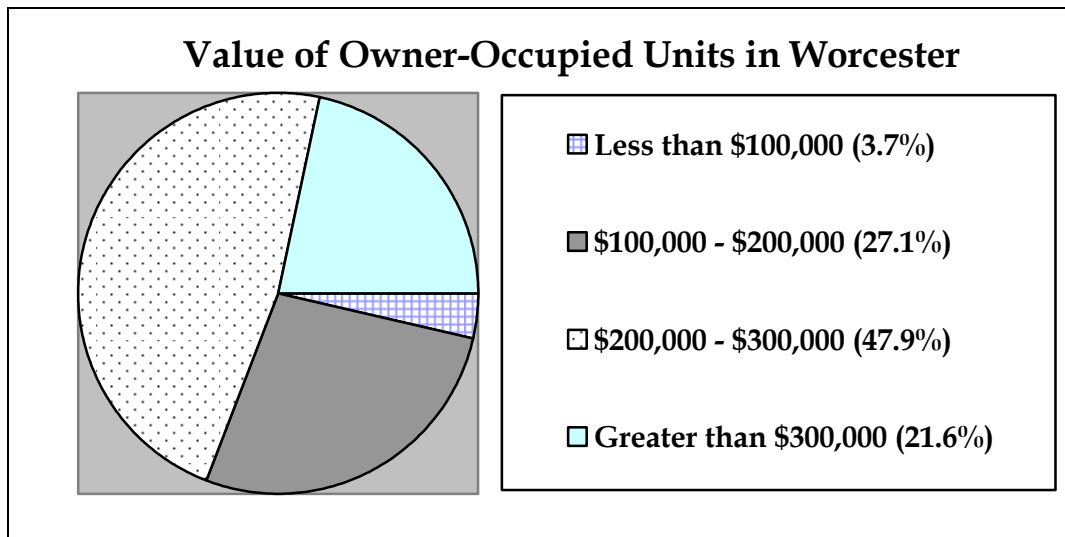
## ECONOMIC INDICATORS

### Value of Units

- 21.6% of owner-occupied housing units in Worcester are valued at more than \$300,000, compared to 60.9% in Massachusetts as a whole.

City	Less than \$100,000	\$100,000 to \$200,000	\$200,000 to \$300,000	Greater than \$300,000
Boston	1,694 (1.9%)	4,855 (5.7%)	17,378 (20.3%)	61,829 (72.1)
Worcester	1,216 (3.7%)	8,870 (27.1%)	15,583 (47.6%)	7,071 (21.6%)
Providence	1,466 (6.5%)	7,037 (31.1%)	7,518 (33.2%)	6,636 (29.4%)
Springfield	3,143 (11.1%)	19,908 (69.9%)	4,153 (14.6)	1,268 (4.5%)
Bridgeport	2,459 (10.8%)	6,750 (29.7)	7,556 (33.2%)	5968 (26.2%)
New Haven	970 (6.4%)	5,150 (33.6%)	5,039 (32.9%)	4,171 (27.3%)
Hartford	1,212 (10.5%)	5,441 (42.2%)	3,038 (26.3%)	1,842 (16%)
Massachusetts	49,369 (3%)	189,878 (11.9%)	389,385 (24.3%)	975,841 (60.9%)

Source: US Census Bureau, 2007 – 2011 American Community Survey 5-Year Estimates



Source: US Census Bureau, 2007 – 2011 American Community Survey 5-Year Estimates

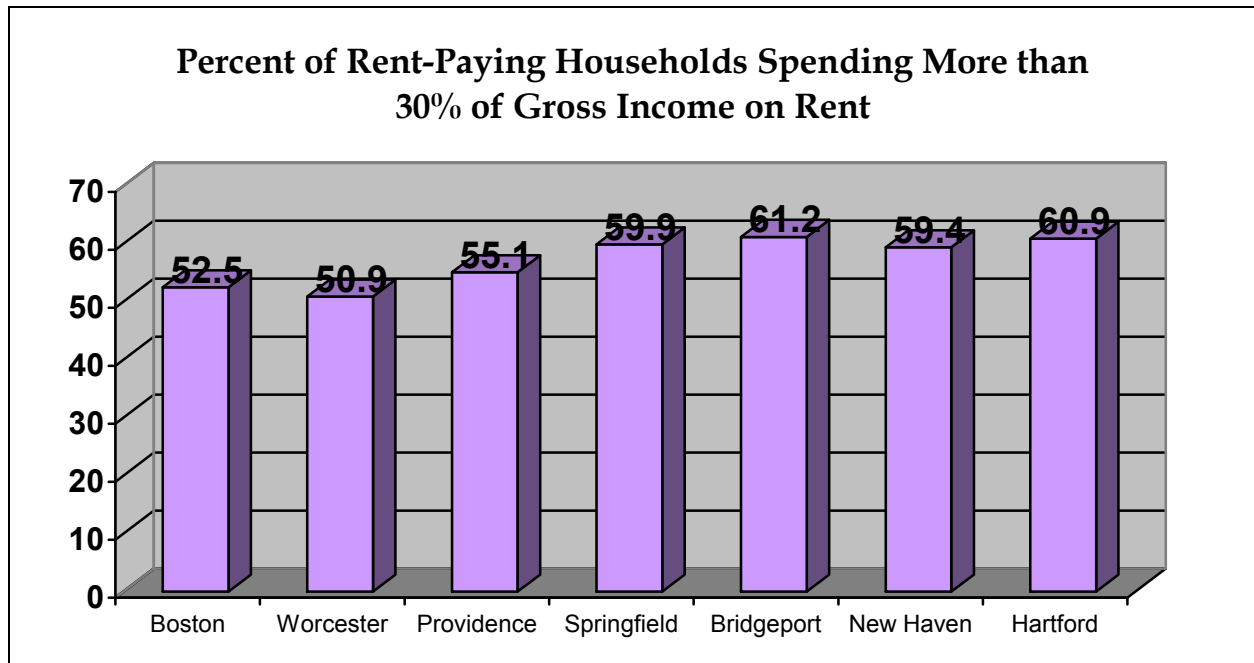


## Renter Affordability

- According to the United States Department of Housing and Urban Development (HUD) a household should pay no more than 30 percent of its gross annual income on housing.<sup>3</sup> In Worcester, about 51% of households are paying more than 30% of income on rent. This is the lowest percentage of the seven cities surveyed.

City	Median Household Income	Median Gross Rent	Percent Spending more than 30% on Rent
Boston	51,739	1,238	52.1
Worcester	45,846	886	50.9
Providence	38,922	913	55.1
Springfield	35,603	756	59.9
Bridgeport	40,947	1,032	61.2
New Haven	39,094	1,055	59.4
Hartford	29,107	837	60.9

Source: US Census Bureau, 2007 - 2011 American Community Survey 5-Year Estimates



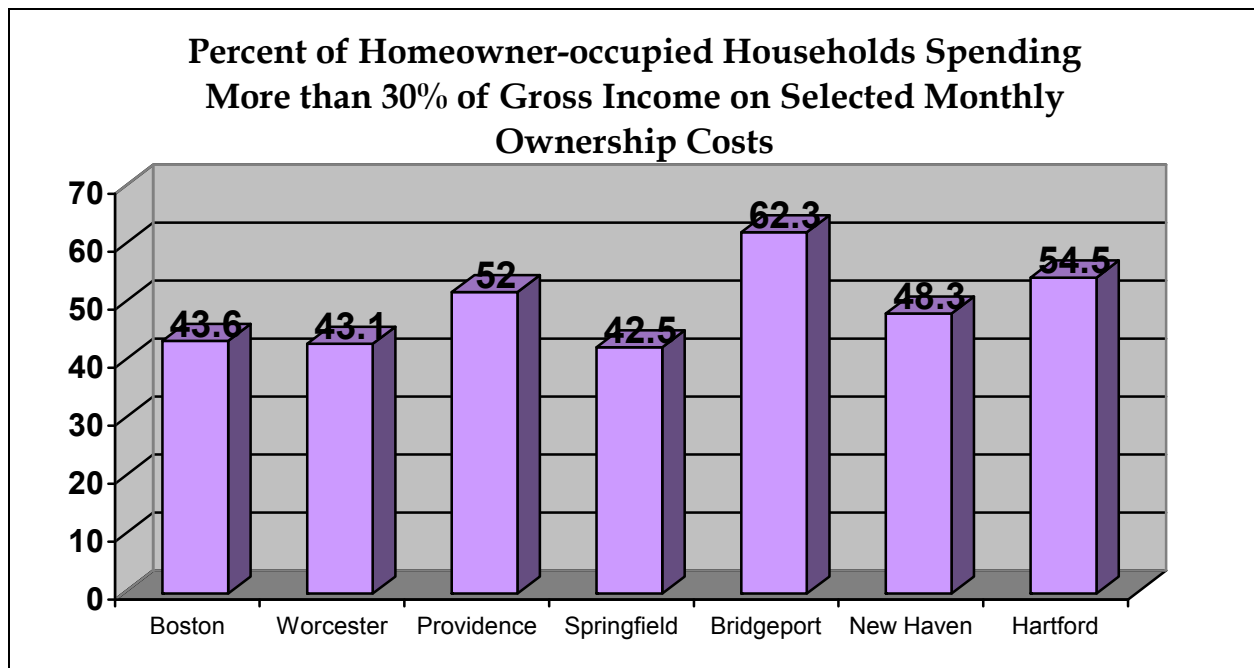
Source: US Census Bureau, 2007 - 2011 American Community Survey 5-Year Estimates

## Homeowner Affordability

- In Worcester, 43.1% of owner-occupied households spent more than 30% on selected monthly ownership costs.\* This percentage was the second lowest among the seven cities surveyed, indicating homeownership in Worcester is more affordable than elsewhere.

City	Percent of Housing Units with a Mortgage	Median Selected Monthly Ownership Costs (SMOC)	Percent Spending more than 30% on SMOC
Boston	76.1%	2,343	43.6%
Worcester	73%	1,793	43.1%
Providence	75.3%	1,854	52%
Springfield	71.8%	1,417	42.5%
Bridgeport	70.3%	2,053	62.3%
New Haven	74.4%	1,963	48.3%
Hartford	77%	1,745	54.5%

Source: US Census Bureau, 2007 - 2011 American Community Survey 5-Year Estimates

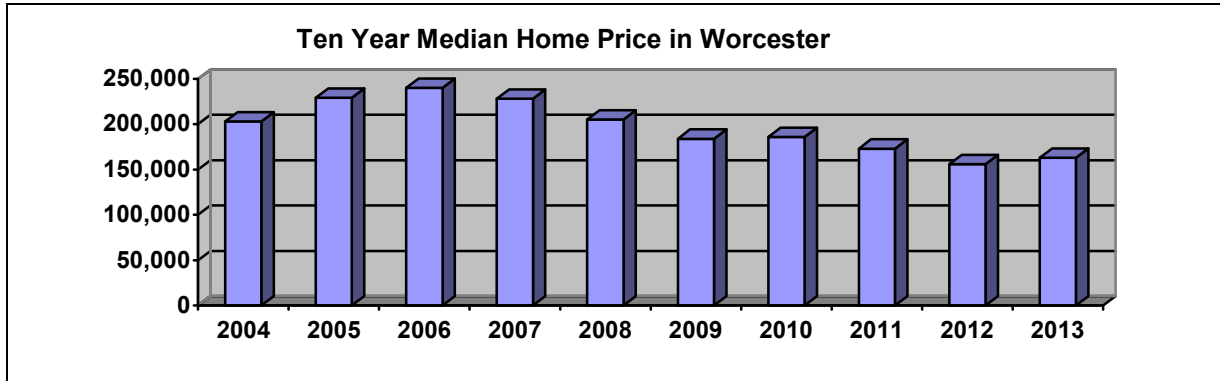


Source: US Census Bureau, 2007 - 2011 American Community Survey 5-Year Estimates

\* See p. 15 for definitions.

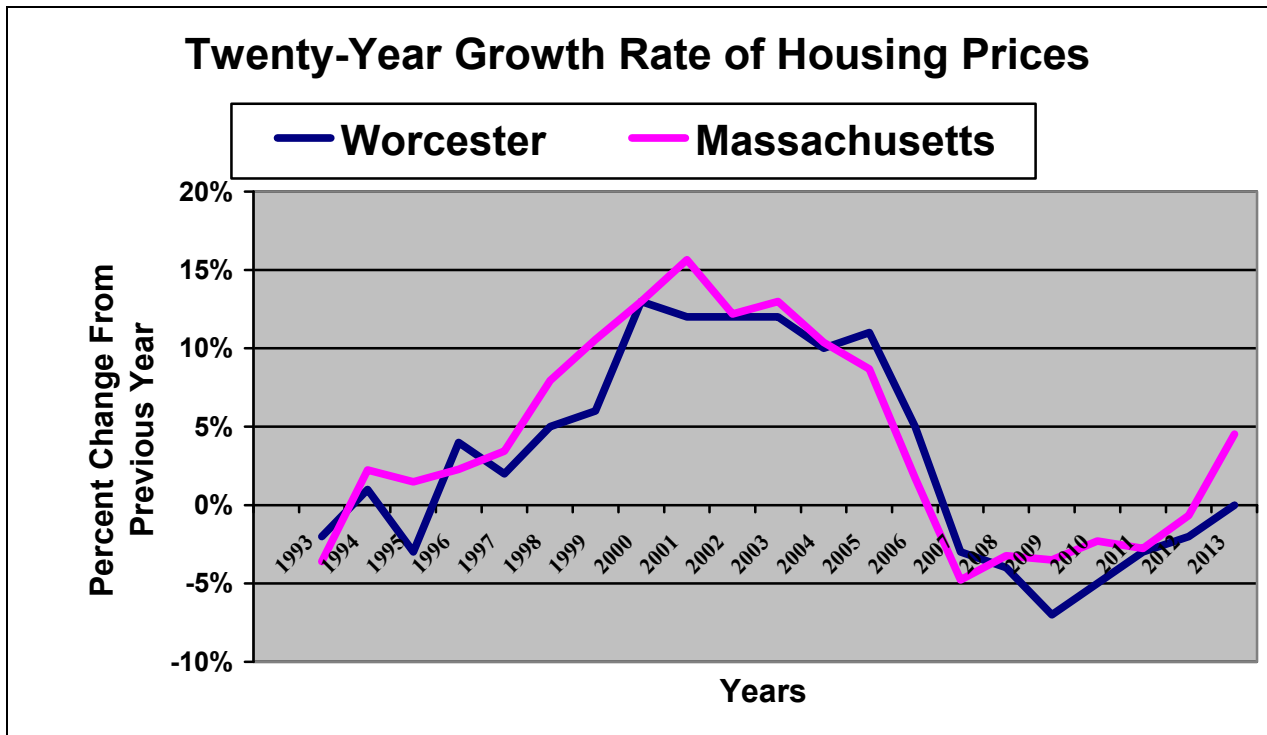
## Housing Price Trends

- The City reached an all-time high median house price of approximately \$240,000 in 2006. At the end of 2012, the median house price had fallen to approximately \$162,000.<sup>4</sup>



Source: Zillow: Worcester Home Prices and Housing Values

- According to the Federal Housing Finance Agency's Housing Price Index (HPI)<sup>3</sup>, housing prices in Worcester rose between 1996 and 2007. After stagnating in 2006, between 2007 and 2013 housing prices declined.



Source: Federal Housing Finance Agency: House Price Index<sup>5</sup>

## LAND USAGE

- 88.46% of the parcels of land in Worcester are used for residential purposes. Those parcels utilize 46.37% of the City's total land.<sup>6</sup>

### By Parcel Distribution

Property Type	Estimated Parcels of Land	Percent of Total
Total Parcels of Land	45,085	100
Commercial	2,232	4.95
Industrial	593	1.31
Residential	39,884	88.46
Vacant	1,760	3.9
Tax Exempt	516	1.1

Source: Massachusetts Department of Revenue, Division of Local Services

### By Acre Distribution

Property Type	Total Acreage	Percent of Total
Total Acreage	20,796.6	100
Commonwealth Property (Agricultural, Forest, Recreational)	469.56	2.26
Commercial	1,896.61	9.12
Industrial	1,240.25	5.96
Mixed Use	218.43	1.05
Residential	9,643.98	46.37
Tax-Exempt	7,327.77	35.24

Source: City of Worcester Assessor's Office

# PROPERTY TAXES

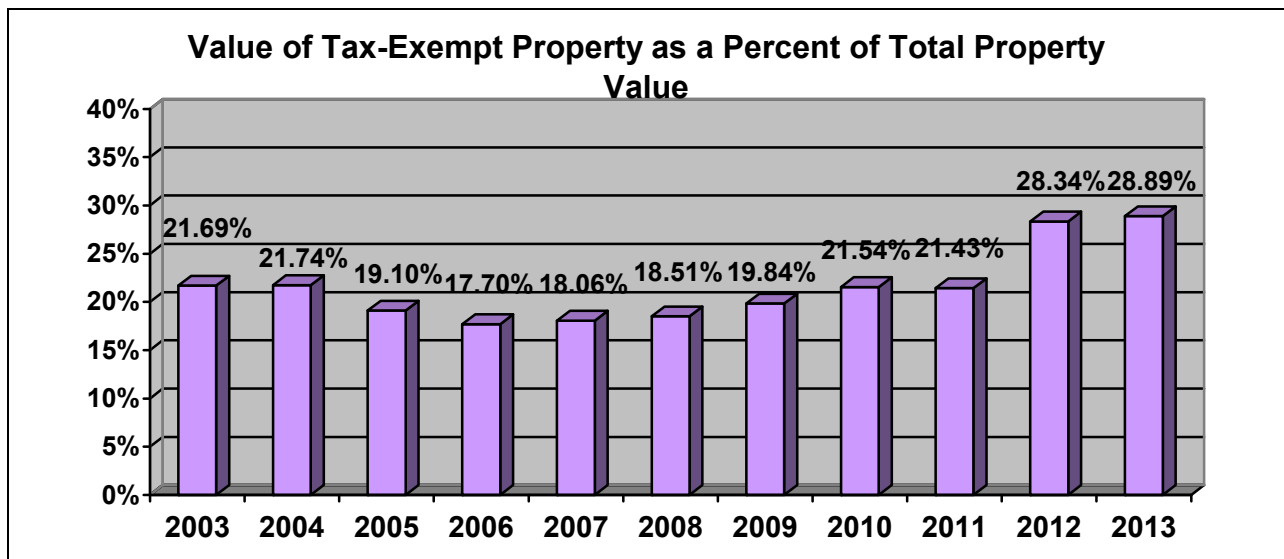
## Tax Value of Property in Worcester

- At its peak in 2008, Worcester’s taxable property was worth \$12.7 billion.
- In 2013, Worcester’s total taxable property is worth almost \$10.9 billion.

Tax Status	Estimated Value (2013)	Percent of Total
Total Taxable and Tax-Exempt Property Value	\$15,298,487,297	100
Taxable Property Value	\$10,878,856,279	71.11
Tax-Exempt Property Values	\$4,419,631,018	28.89

Source: Massachusetts Department of Revenue, Division of Local Services

- Over the past ten years, the value of tax-exempt property has grown as a percentage of total Worcester property value. The substantial increase between 2011 and 2012 is the result of the revaluation of all property; all tax-exempt properties are currently being reviewed. At present, there is \$4.4 billion worth of land in Worcester from which the municipal government receives no property taxes.



Source: Massachusetts Department of Revenue, Division of Local Services

## Tax-Exempt Property

- The City of Worcester, the U.S. government, and the Commonwealth of Massachusetts together own almost 52% of all tax-exempt land in Worcester. Part of the City’s tax-exempt property is 1,215 acres of parkland, constituting 53 parks.<sup>7</sup>

Property Type	Acres	Percent of Total Tax-Exempt Land
Total Tax-Exempt Land	7,327.77	100
Property of the City of Worcester	3,141.72	42.87
Property of the Commonwealth (Reimbursable)*	251.91	3.44
Property of the Commonwealth (Non-Reimbursable)*	400.56	5.47
Charitable	839.39	11.45
Authorities	674.88	9.21
Other Municipalities	18.04	.25
Property of U.S. Government	14.45	.2
Private Education	699.78	9.55
Religious	724.52	9.89
Other (121A, County, Regional)	562.51	7.68

Source: City of Worcester Assessor’s Office

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\* See p. 15 for definitions.

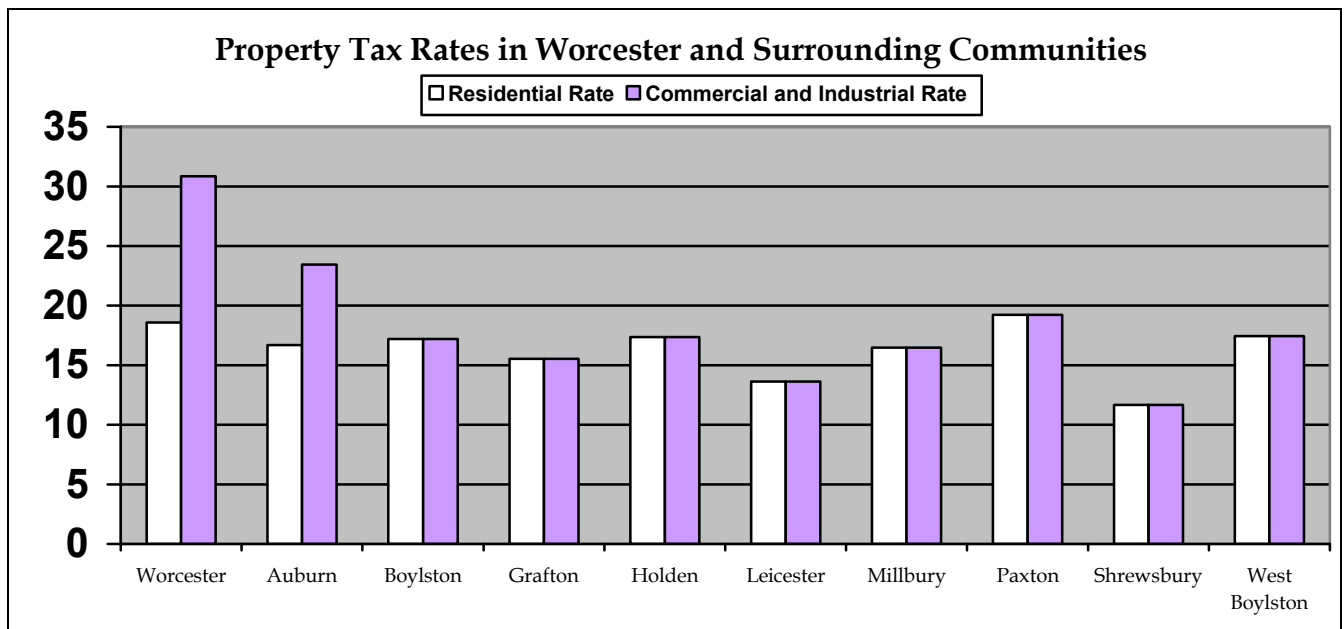
## Worcester Compared to Surrounding Communities

- The commercial and industrial tax rate of Worcester is higher than that of each of the adjacent communities. Worcester has the second-highest residential tax rate compared to the surrounding towns.

Community	Residential Tax Rate 2013	Commercial/Industrial Tax Rate 2013
Auburn	16.7	23.43
Boylston	17.2	17.2
Grafton	15.55	15.55
Holden	17.37	17.37
Leicester	13.62	13.62
Millbury	16.48	16.48
Paxton	19.22	19.22
Shrewsbury	11.67	11.67
West Boylston	17.45	17.45
<b>Worcester</b>	<b>18.58</b>	<b>30.85</b>

Source: Massachusetts Department of Revenue, Division of Local Services<sup>8</sup>

- Worcester and Auburn are the only two of the surveyed areas with dual tax rates.



## Definitions of Terms Used in This Report

1. US CENSUS: The U.S. Census counts every resident in the United States. It is mandated by Article I, Section 2 of the Constitution and takes place every 10 years. The data collected by the decennial census determine the number of seats each state has in the U.S. House of Representatives and is also used to distribute federal funds to states and local communities. For the 2010 Census, approximately 74 percent of households returned their census forms by mail; the remaining households were counted by census workers walking neighborhoods throughout the United States.
2. AMERICAN COMMUNITY SURVEY (ACS): The ACS is an ongoing survey that provides data every year -- giving communities current information to plan investments and services. Information from the survey generates data that helps determine how more than \$400 billion in federal and state funds are distributed each year. Since ACS uses relies on sampling, there is a significant margin of error for each data point. However, five-year data aggregates of the data collected have a smaller margin of error than shorter-term reports.
3. HOUSING PRICE INDEX (HPI): The HPI is a broad measure of the movement of single-family house prices. It also provides housing economists with an analytical tool that is useful for estimating changes in the rates of mortgage defaults, prepayments and housing affordability in specific geographic areas. The HPI is designed to capture changes in the value of single-family houses in the U.S. as a whole, in various regions and, in smaller areas. The HPI is published by the Federal Housing Finance Agency (FHFA) using data provided by Fannie Mae and Freddie Mac. (From: Federal Housing Finance Agency (FHFA), About HPI, Frequently Asked Questions)
4. HOUSING TERMS:
  - a. One Unit – Attached: This is a 1-unit structure that has one or more walls extending from ground to roof separating it from adjoining structures. (From: Michigan Metropolitan Information Center, The Center for Urban Studies; Census Connection)
  - b. Homeowner Vacancy Rate: The proportion of the homeowner inventory which is vacant and for sale. The rate is found by dividing vacant year-round for-sale units by the sum of owner occupied units, sold vacant units awaiting occupancy, and vacant year round for sale units. This value is then multiplied by one hundred. (From: US Census Bureau, Housing Vacancies and Home Ownership, Definitions and Explanations)
  - c. Rental Vacancy Rate: the proportion of the rental inventory which is vacant and for rent. The rate is found by dividing vacant year-round units for rent by the sum of renter occupied units, vacant year-round units rented by awaiting occupancy, and vacant year-round units for rent. This value is then multiplied by one hundred. (From: US Census Bureau, Housing Vacancies and Home Ownership, Definitions and Explanations)



5. Selected Monthly Ownership Costs: Selected monthly owner costs are calculated from the sum of payment for mortgages, real estate taxes, various insurances, utilities, fuels, mobile home costs, and condominium fees.
6. REIMBURSABLE PROPERTY OF THE COMMONWEALTH: Properties owned by the Commonwealth under the control of certain divisions, e.g., universities and conservation and correctional facilities, are reimbursable to host communities for the tax value of the land. The Commonwealth of Massachusetts **does not** reimburse local communities for the tax value of buildings situated on Commonwealth-owned land. There are also properties under the control of certain agencies, such as buildings belonging to the Department of Transportation, which are reimbursable for neither the value of the land nor the buildings.

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## Endnotes

<sup>1</sup> United States Census Bureau, State and County Quickfacts, Worcester (city), Massachusetts, <http://quickfacts.census.gov/qfd/states/25/2582000.html>

<sup>2</sup> United States Census Bureau, State and County Quickfacts, Worcester (city), Massachusetts, <http://quickfacts.census.gov/qfd/states/25/2582000.html>

<sup>3</sup> U.S. Department of Housing and Urban Development, Affordable Housing, <http://www.hud.gov/offices/cpd/affordablehousing/>

<sup>4</sup> Zillow, Worcester Home Prices and Home Values, [http://www.zillow.com/local-info/MA-Worcester-home-value/r\\_14724/#metric=mt%3D34%26dt%3D1%26tp%3D6%26rt%3D8%26r%3D14724%26el%3D0](http://www.zillow.com/local-info/MA-Worcester-home-value/r_14724/#metric=mt%3D34%26dt%3D1%26tp%3D6%26rt%3D8%26r%3D14724%26el%3D0)

<sup>5</sup> Federal Housing Finance Agency, Four Quarter Percent Change in Worcester, MA Housing Prices, <http://www.fhfa.gov/Default.aspx?Page=216&Type=compare&Area1=49340&Area2=&Area3=>

<sup>6</sup> See Also: City of Worcester, Housing Study, <http://www.worcesterma.gov/uploads/77/01/77019005cf2dfadaf4735f4d4c629bda/housing-strategy-study.pdf>

<sup>7</sup> City of Worcester, Arts, Culture & Entertainment: Parks, <http://www.worcestermass.org/arts-culture-entertainment/parks>

<sup>8</sup> Massachusetts Department of Revenue, Data Bank Reports, <http://www.mass.gov/dor/local-officials/municipal-data-and-financial-management/data-bank-reports/>

*Mission Statement:*

*The Research Bureau serves the public interest of the Greater Worcester region by conducting independent, non-partisan research and analysis of public policy issues to promote informed public debate and decision-making.*



## The Research Bureau

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