

Report 18-04 March 2018

The Worcester Almanac 2018

Worcester Regional Research Bureau, Inc. 500 Salisbury Street, Worcester, MA 01609 508-799-7169 www.wrrb.org



A Note from The Research Bureau

The Worcester Regional Research Bureau is pleased to present the fourth annual *The Worcester Almanac*—our compendium of information of all things Greater Worcester. A small, not-for-profit organization, The Research Bureau's mission is to serve the public interest of Greater Worcester by conducting independent research and analysis of public policy issues to promote informed public debate and decision-making. We undertake *The Worcester Almanac* each year to provide government officials, residents, businesses, and institutions an easy-to-use source for current and trend data on a range of civic concerns.

We would like to thank all those who provide data for this project. If there is any fact or figure about Greater Worcester that you would like to see included in *The Worcester Almanac*, please contact us at wrrb@wrrb.org. To learn more about our activities or to read our reports, you can visit our website at www.wrrb.org, follow us on Twitter (@WRRBureau), or like us on Facebook (The Research Bureau).

If you believe in the importance of informed local governance and would like to sponsor our efforts, please send a contribution to:

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George's Coney Island: Courtesy of Amy Meredith.





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The Fletcher Foundation
George F. & Sybil H. Fuller Foundation
Greater Worcester Community Foundation

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TABLE OF CONTENTS

Government	5
Demographics & Economy	26
Health	48
Education	51
Public Safety	67
Transportation & Infrastructure	71
Arts, Culture, & Sports	76
Weather & Environment	80
Appendix: A Focus on Children	88



Government



City of Worcester Government

The City of Worcester, as established by the City Charter, is known as a modified Plan E form of government which is a Council-Manager form of government with a popularly elected Mayor. The Worcester Public Schools is a quasi-independent department of the City.

The City Council is the City's legislative body while the City Manager serves as chief executive officer. The City Council is composed of 11 members - six elected city-wide (or at-large) and five elected from districts. The Mayor is a member of the City Council who receives the most votes in the mayoral election and wins an at-large City Council seat. In addition to his or her role as City Council or, the Mayor serves as the ceremonial head of the government and chairs both the City Council and School Committee. The City Council hires the City Manager and can remove him or her by majority vote, and also hires the City Clerk and City Auditor. The City Manager hires all City employees (except the City Clerk, City Auditor, and employees of the Worcester Public Schools), oversees City operations, and presents the City Council with an annual budget that must be approved by June 30th of each year. The City Council has the authority to reduce the City Manager's proposed budget, but not increase it. The approved budget must be balanced.

The Worcester School Committee is the Worcester Public Schools' legislative body while the Superintendent of Schools serves as chief executive officer. The School Committee consists of the Mayor and six elected city-wide members. The School Committee sets district-wide school policies, votes on the district budget, and hires and removes the Superintendent.

City Council and School Committee elections are held in odd numbered years.



City of Worcester Population: 183,677

131st Largest City in the United States 2nd Largest City in New England

Source: U.S. Census Bureau, 2016 5-Year American Community Survey.



Mayor

Joseph M. Petty

City Council

Sean M. Rose, District 1
Candy F. Mero-Carlson, District 2
George J. Russell, District 3
Sarai Rivera, District 4
Matthew E. Wally, District 5
Morris A. Bergman, At-Large
Khrystian E. King, At-Large
Konstantina B. Lukes, At-Large
Gary Rosen, At-Large
Kathleen M. Toomey, At-Large

City Clerk

Susan M. Ledoux

City Auditor

Robert V. Stearns

City Manager

Edward M. Augustus, Jr.

City Manager's Cabinet

Kathleen G. Johnson, Assistant City Manager for Operations
Matilde Castiel, M.D., Commissioner of Health and Human Services
Richard Fiske, III, Emergency Communications & Emergency Management Director
John R. Kelly, Inspectional Services Commissioner
Michael J. Lavoie, Fire Chief
David M. Moore, City Solicitor
Paul J. Moosey, P.E., Public Works & Parks Commissioner
Steven M. Sargent, Police Chief
Michael E. Traynor, Chief Development Officer
Thomas F. Zidelis, Chief Financial Officer

School Committee

Dianna L. Biancheria Dante A. Comparetto John L. Foley Molly O. McCullough John F. Monfredo Brian A. O'Connell

Superintendent of Schools

Maureen F. Binienda



United States Senators

Elizabeth Warren Edward J. Markey

United States Representative

James P. McGovern

Governor

Charles D. Baker, Jr.

Lieutenant Governor

Karyn Polito

Governor's Council

Jennie L. Caissie

State Senators

Harriette L. Chandler—1st Worcester Michael O. Moore—2nd Worcester

State Representatives

John J. Mahoney—13th Worcester James J. O'Day—14th Worcester Mary S. Keefe—15th Worcester Daniel M. Donahue—16th Worcester Kate D. Campanale—17th Worcester

District Attorney

Joseph D. Early, Jr.

Clerk of Courts

Dennis P. McManus

Register of Deeds

Anthony J. Vigliotti

Register of Probate

Stephanie K. Fattman

County Sheriff

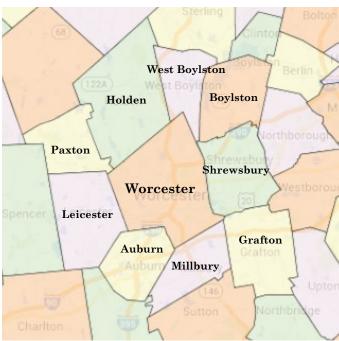
Lewis G. Evangelidis



Greater Worcester Executive/Administrative Leadership

Auburn—Julie A. Jacobson—Town Manager
Boylston—Martin McNamara—Town Administrator
Grafton—Timothy P. McInerney—Town Administrator
Holden—Peter M. Lukes—Town Manager
Leicester—David A. Genereux—Town Administrator
Millbury—David J. Marciello—Town Manager
Paxton—Carol L. Riches—Town Administrator
Shrewsbury—Kevin J. Mizikar—Town Manager
West Boylston—Anita Scheipers—Town Administrator

City of Worcester & Surrounding Communities



City of Worcester:

Area: 37.37 square miles (96.79 square kilometers) Population: 183,677 (2016)

Population Density: 4,915 persons per square mile

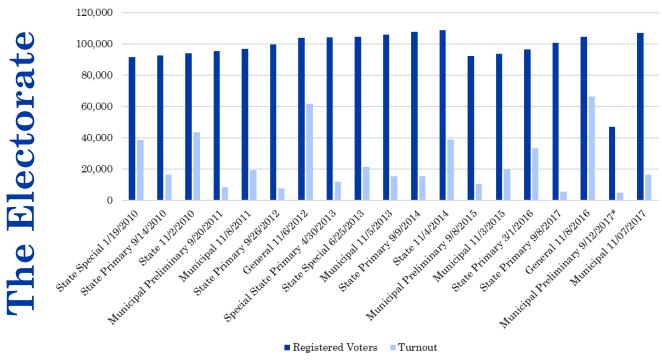
Worcester County:

Area: 1,579 square miles (4,090 square kilometers)

Population: 813,589 (2016)

Population Density: 512 persons per square mile 60 cities and towns (including Worcester)

Worcester: Registered Voters & Ballots Cast, 2010-2017



^{*}Number of registered voters in Districts 1 and 5 where preliminary race held. Source: City of Worcester Elections Division.

Voter turnout in the City of Worcester varies depending on the type of election. Municipal elections, which are held in odd numbered years, experience the lowest turnout. Only 15.2% of registered voters turned out in November 2017 to vote for the Mayor, City Council, and School Committee. State elections, which occur in even-numbered years, and especially elections including the election for President, experience the highest turnout. 63.4% of Worcester's electorate voted in the November 2016 general election.

Source: City of Worcester Elections Division.



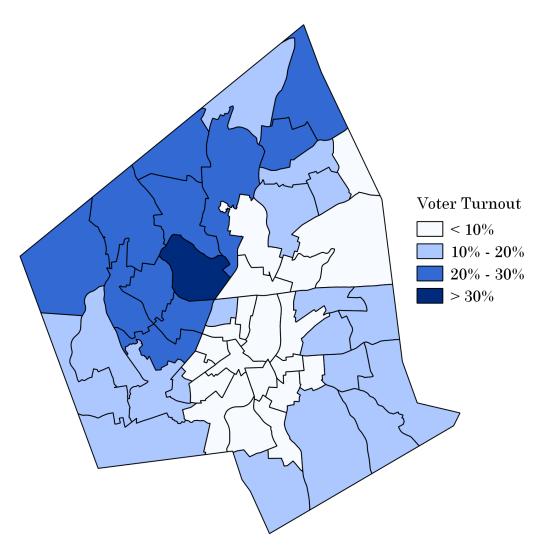
Worcester: Party Affiliation &	Registration, December 2017
Party Affiliation	Registered Voters
Unenrolled	51,956
Democrat	45,042
Republican	8,763
United Independent Party	1,146
Libertarian	298
Green Rainbow	181
Inter 3rd Party	56
Conservative Party	43
MA Independent Party	35
Green Party USA	26
American Independent	25
Pizza Party	21
Working Families	20
Socialist	18
We the People	13
Pirate	9
Latino Vote Party	7
America First Party	5
Reform	5
Constitution Party	4
Veteran Party America	4
Rainbow Coalition	3
Natural Law Party	2
Timesizing Not Downsizing	2
Prohibition	1
Twelve Visions Party	1
World Citizens Party	1

Source: City of Worcester Elections Division.

As of December 2017 there were 107,687 registered voters in the City of Worcester; 42.8% of voters were not enrolled in a political party, 41.8% of voters registered as Democrats, and 8.1% of voters registered as Republicans.



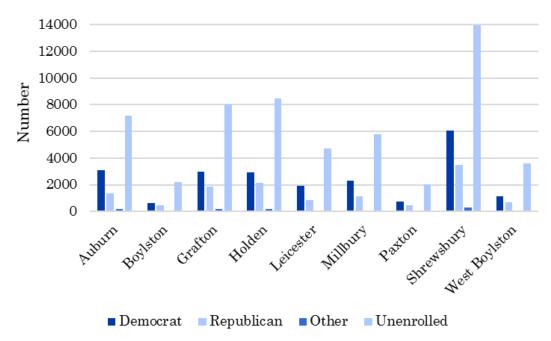
Worcester: Voter Turnout by Precinct, November 7, 2017 Election



The highest voter turnout in the 2017 municipal election was in Ward 1, Precinct 4, District 1.

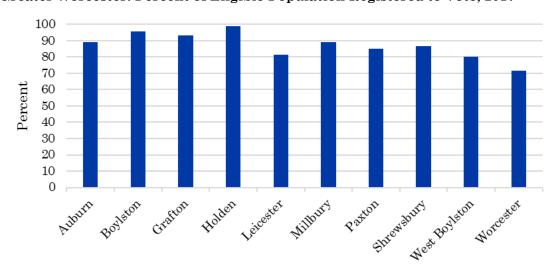


Greater Worcester: Party Affiliation & Registration, as of February, 2017



Source: Office of the Secretary of the Commonwealth of Massachusetts.

Greater Worcester: Percent of Eligible Population Registered to Vote, 2017



Sources: US Census Bureau, 2016 5-Year American Community Survey, Office of the Secretary of the Commonwealth of Massachusetts.



Tax Classification

The City of Worcester taxes property based on the following classifications: residential, commercial, industrial, personal. Property that is owned by non-profit institutions, as determined by Massachusetts General Law 156B, are exempt from paying property taxes as long as the property is fulfilling the non-profit mission of the organization.

Residential property is property used for human habitation and includes accessory land or buildings that are exclusively used by the residents of the property or their guests. **Commercial** property is used for business purposes including but not limited to commercial, retail, trade, service, recreational, agricultural, artistic, sporting, fraternal, governmental, educational, medical or religious purposes. **Industrial** property includes property used for manufacturing, milling, converting, producing, processing, extracting, or fabricating materials to create commercial products or materials. **Personal** property is trade stock, machinery used for business, and all furnishings and effects not kept at an individual's residence.

Worcester: Property Tax Rates, FY18*	
Туре	Fiscal Year 2018
Residential	\$18.91
Commercial/Industrial/Personal Property (CIP)	\$34.03

^{*} Rates are per \$1,000 of value. Source: City of Worcester.

Tax Shift

The City of Worcester has a dual tax rate, which assesses residential and commercial/industrial/personal (CIP) property at different rates. Under Massachusetts law, communities are limited in their ability to shift the tax burden among classes to ensure that the burden is not shifted solely onto non-voting taxpayers. A single tax rate is represented by a factor of "1."

Worcester: Tax Shift, FY18			
Lowest Residential Factor Allowed	Residential Factor Selected	Maximum CIP Shift Allowed	CIP Shift
.8085	.8222	1.5	1.4799

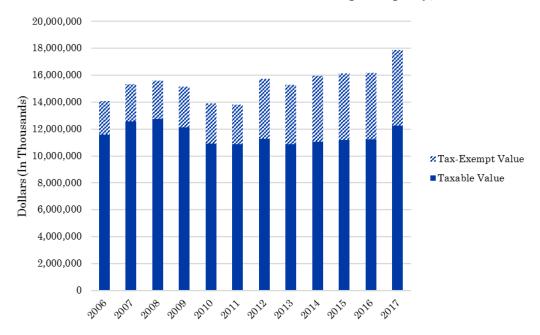
Source: City of Worcester Assessor's Office.

Worcester: Tax Value of Property, FY18		
Tax Status	Estimated Value	Percent of Total
Total Taxable and Tax-Exempt Property Value	\$18,455,180,395	100.00%
Taxable Property Values	\$12,764,649,014	69.1%
Tax-Exempt Property Values	\$5,691,420,681	30.8%
Class		
Residential	\$9,314,529,780	50.4%
Commercial/Industrial/Personal Property	\$3,450,119,234	18.6%

Source: City of Worcester Assessor's Office.

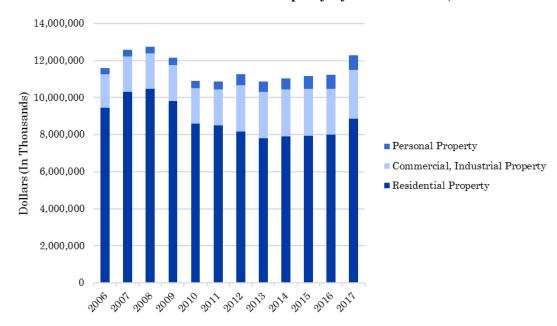


Worcester: Assessed Value of Taxable & Tax-Exempt Property, 2006-2017



Source: City of Worcester Comprehensive Annual Financial Report, 2017.

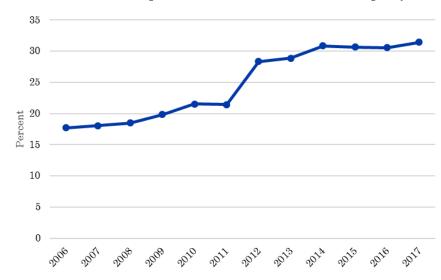
Worcester: Assessed Value of Taxable Property by Classification, 2006-2017



Source: City of Worcester Comprehensive Annual Financial Report, 2017.

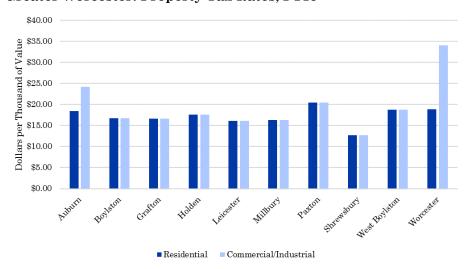


Worcester: Tax-Exempt Value as Percent of Total Property Values, 2006-2017



Source: City of Worcester Comprehensive Annual Financial Report, 2017.

Greater Worcester: Property Tax Rates, FY18



 $Source: Massachusetts\ Department\ of\ Revenue.$

In Greater Worcester, only the City of Worcester and the Town of Auburn tax commercial and industrial properties at a higher rate than residential properties. Auburn has voted to decrease the gap between the two rates over the last few years.



Worcester: Other Taxes, FY17*		
Meals		
	Tax Rate	Actual
General Fund		
(Funds Go To Taxing Authority)		
State	6.25%	\$21,702,287
Local	.75%	\$2,855,564
DCU Center Special Finance District		
(Funds Go To City)		
State	6.25%	\$733,697
Local	.75%	\$88,044
Room Occup	ancy	
	Tax Rate	Actual
General Fund (Funds Go To Taxing Authority)		
State	5.7%	\$1,075,154
Local	6.0%	\$1,131,741
DCU Center Special Finance District (Funds Go To City)		
State	5.7%	\$732,755
Local	6.0%	\$771,321
Motor Veh	icle	
Motor Vehicle Excise	\$25 per \$1000	\$16,281,000

Source: City of Worcester Administration & Finance.

*The DCU Center Special Finance District was created in 2006, when a home rule petition filed with the state legislature authorized the City of Worcester to create a specially-taxed area that would allow reinvestment in the former Worcester Centrum. The state tax rate remains in place at the DCU Center, nearby hotels and other neighboring buildings, but revenues collected are returned to the City and earmarked for DCU Center-related expenses.

Worcester: Principal Taxpayers, FY1	7*			
Taxpayer	Type of Business	Assessed Valuation	Fiscal 2016 Tax Bill	% of Total Tax Levy
Massachusetts Electric (National Grid)	Electric Utility	\$361,221	\$11,895	4.2
NSTAR Gas Co. (Eversource)	Gas Utility	\$168,048	\$5,534	2.0
VHS Acquisition Subsidiary - St. Vincent Hospital	Medical Care	\$158,245	\$5,211	1.8
New England Power Co.	Electric Utility	\$71,501	\$2,336	.8
V3B SA LLC - Lincoln Plaza	Shopping Plaza	\$64,281	\$2,117	.7
440 Lincoln St. Holding - Hanover/Allmerica	Insurance	\$58,708	\$1,933	.7
Verizon New England	Communications	\$46,176	\$1,520	.5
Saint-Gobain Abrasives Inc.	Abrasives Manufacturer	\$45,139	\$1,486	.5
HCRI Massachusetts Properties Trust	Real Estate	\$47,102	\$1,140	.4
Worcester Renaissance LLC (City Square)	Real Estate	\$34,524	\$1,137	.4

 $[*]Amounts\ expressed\ in\ thousands.$

Source: City of Worcester Comprehensive Annual Financial Report, June 30, 2017.



Unfunded Liabilities

Upon retirement, Massachusetts state and municipal employees are eligible for pension and other post-employment benefits (OPEB), such as health care. Each year, Massachusetts governmental entities must determine current costs (pension and benefits provided to existing retirees) and future costs (pension and benefits owed upon retirement to current employees, as determined by actuaries) to determine total liability.

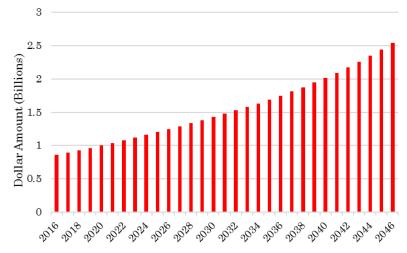
The City of Worcester, like most municipalities, has struggled with outstanding pension and OPEB liability. In 1992, the Commonwealth of Massachusetts offered grant funding to cities and towns that committed to a schedule to eliminate unfunded pension liability. The City of Worcester accepted the offer, committing itself to full pension funding by 2028. In light of the financial downturn, in 2010 the Commonwealth offered cities and towns a waiver on the original plans, which allowed Worcester to extend its schedule to June 30, 2032.

Worcester: Pension Liability, July 1, 2017	
Total Pension Liability	\$1,346,266
Funded Portion of Pension Liability	\$837,345
Funded Pension Obligation	62.2%

While pension liabilities must be forward-funded, Massachusetts does not mandate that municipalities address OPEB liabilities. Under the City's Seven-Point Plan, Worcester contributes 30% of "free cash"—the surplus remaining after the end of the fiscal year—to be deposited into the OPEB Trust. If "free cash" is not available, no funds are deposited. As a result, Worcester's outstanding liability increases annually and is projected to exceed \$2.5 billion within the next 30 years.

Worcester: Other Post-Employment Benefit Liability, July 1, 2017		
Total OPEB Liability	\$861,000,000	
Funded Portion of OPEB Liability	\$11,800,000	
Funded OPEB Obligation	1.3%	

Worcester: Other Post-Employment Benefits (OPEB) Projected Liability, 2016-2046



Source: City of Worcester.



Bond Rating

In order to borrow money, municipalities issue bonds that are purchased by investors for a guaranteed return over time. Bond ratings serve as third-party evaluations of a bond issuer's ability to repay the bond according to the terms. Three primary rating agencies—Fitch Ratings, Moody's Investors Service, and Standard & Poor's Rating Service—evaluate most municipal bonds. Bonds are given ratings ranging from a high of "AAA" or "Aaa" to a low of "C" or "D". Worcester's ratings indicate attractive, high grade bonds that are considered at low risk of default.

Worcester: Bond Ratings, 2017	
Rating Agency	Rating
Fitch Ratings	AA
Moody's Investors Service	Aa3
Standard & Poor's Rating Service	AA-

Source: City of Worcester Comprehensive Annual Financial Report, 2017.

Worcester: Public Debt, 2017	
Total Outstanding Long-Term Indebtedness as of 1/22/18	\$670,278,932
Self-Supporting Debt*	\$235,489,085
Bond Anticipation Notes as of 6/30/2016	\$103,730,533
Bonded Debt per Capita	\$3,344
Bonded Debt as a % of Assessed Valuation	5.03%
Bonded Debt as a % of Personal Income per Capita	13.62%

^{*}Self-Supporting Debt includes water, sewer, CitySquare, public garages, the DCU Special District, and other enterprise

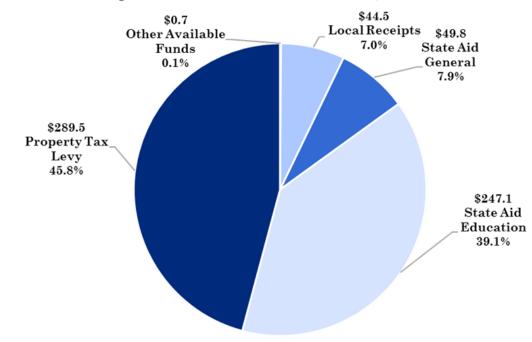
Source: City of Worcester.

Worcester: Fund Balance, FY17*	
Fund Balance—FY17	\$52,136,000
Change in Fund Balance—FY16 to FY17	\$8,588,000
Fund Balance as a % of FY18 Budget	6.5%

^{*}The City's fund balance is the difference between assets and liabilities in the general fund. Source: City of Worcester Comprehensive Annual Financial Report, 2017.



Worcester: Budgeted Revenues in Millions of Dollars, FY18

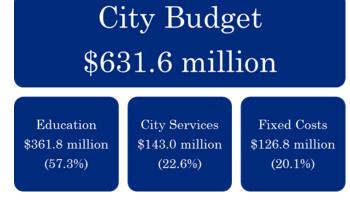


Source: City of Worcester.

The City of Worcester is heavily dependent on local property tax revenues and state aid for education. State education funding is established by the Commonwealth's Chapter 70 formula, which provides education subsidies to cities and towns using standardized criteria including the characteristics of local school-age populations and municipal finances. In 2015, the Commonwealth's Foundation Budget Review Commission called for changes to the formula, including updates for health insurance and special education costs.

The City's final FY18 budget was \$631.6 million. City leadership has discretion over only a small part of the City's expenditures. A significant portion, 77%, of the City's annual budget is fixed obligations to education, pensions, and debt service.

Worcester: Budgeted Expenditures, FY18

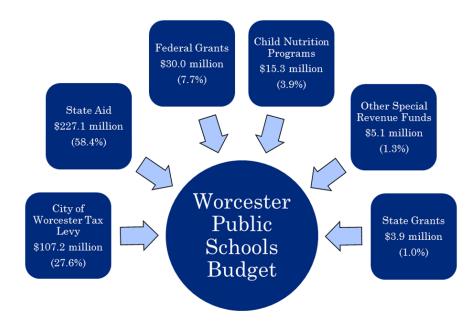


Source: City of Worcester.



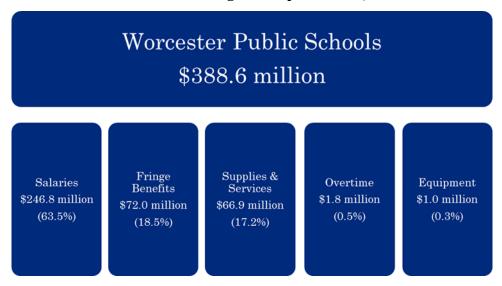
The Worcester Public Schools allocation within the City budget is augmented by available Federal, State, and other outside grants.

Worcester Public Schools: Budgeted Revenues, FY18



Sources: City of Worcester & Worcester Public Schools Fiscal 2017 Budgets.

Worcester Public Schools: Budgeted Expenditures, FY18



Sources: City of Worcester & Worcester Public Schools Fiscal 2017 Budgets.



Greater Worcester: FY18 Budgets						
	Total Budget (including schools)	Education Budget	Education % of Total Budget	Police Budget	Fire Budget	Police & Fire % of Total Budget
Auburn	\$60,886,922	\$23,481,302	38.5%	\$4,085,183	\$2,632,988	11%
Boylston	NA	NA	NA	NA	NA	NA
Grafton	\$59,089,221	\$33,261,500	56.2%	\$2,215,749	\$708,327	4.9%
Holden	\$45,785,878	\$27,965,053	61%	\$2,305,541	\$1,259,140	7.7%
Leicester*	\$29,702,072	\$17,375,000	58.4%	\$2,61	15,715	8.8%
Millbury*	\$40,533,000	\$22,100,000	54.5%	\$3,400,000		8.3%
Paxton	\$12,964,944	\$6,342,517	48.9%	\$1,088,492	\$316,901	10.8%
Shrewsbury	\$118,435,283	\$61,600,000	52%	\$4,915,463	\$3,441,616	7%
West Boylston	\$23,360,208	\$11,690,750	50%	\$1,543,128	\$702,429	9.6%
Worcester	\$631,600,000	\$388,600,000	61.5%	\$48,017,376	\$38,298,830	13.6%

The Town of Boylston did not provide updated FY18 budget numbers. *Presented as one item in budget. Sources: Individual Town Budgets.



Worcester: Budgeted Employee Counts, F	Y18
Positions	# of Budgeted Employees
Legislative Offices	1 0
City Council	11
Mayor's Office	2
City Clerk	10
Election Commission	9
City Auditor	8
Retirement	0
City Manager's Office	
City Manager's Office	10
Elder Affairs	8
Public Library	100
Dept. of Economic Development	
Economic Development	37
Workforce Investment Board	10
Workforce Central Career Center	35
Cable Services	4
License Commission	3
Health and Human Services	13
Public Health	26
Human Resources	17
Law Department	15
Police Department	527
Fire Department	438
Emergency Communications	67
Dept. of Inspectional Services	61
Worcester Public Schools	4,196
Public Works and Parks	
Golf	2
Public Works	197
Parks, Recreation, and Hope Cemetery	56
Enterprise: Sewer Division	69
Enterprise: Water Division	136
Administration & Finance	
Finance	41
Assessing	10
Technical Services	31
City Energy and Asset Management	14
TOTAL: CITY ONLY	1,967
TOTAL: CITY & WPS	6,163

Source: City of Worcester.

Each year, as part of the annual budget process, the City Council (and the School Committee in the case of the Worcester Public Schools) approves staff positions within City departments. Authorized positions are filled at the discretion of the City or WPS Administration and can be full-time or part-time. While positions are budgeted, it is possible that not all of these positions will be filled during the fiscal year or that some of these positions are filled with part-time employees.

Worcester Public Schools: Budgeted Employee Counts, FY18			
Positions	# of Budgeted Employees		
District Administrators	26		
School Administrators	81		
Teachers	2,213		
Instructional Assistants	589		
Teacher Substitutes	97		
Crossing Guards	106		
Educational Support	105		
Custodial Services	154		
Maintenance	33		
Full Year Clerical	62		
School Year Clerical	70		
School Nurses	59		
District Support	52		
Student Transportation	82		
Child Nutrition	321		
Head Start	146		
TOTAL WPS	4,196		



Worcester: Real Estate Investment, 2011-2017



Source: City of Worcester Executive Office of Economic Development.

Worcester: Trash and Recycling, 2017	
Trash Collected	21,770 tons
Recycling Collected	10,218.66 tons
Yard Waste	
Spring Collection	11,995 cubic yards
Fall Collection	53,895 cubic yards
Drop-off Locations	26,450 cubic yards
Scrap Metal (Includes curbside pick-up and drop-off)	129.15 tons
E - Waste (Majority of e-waste is television and computer monitors)	77.57 tons
# of Garbage Bags Sold	
Large	1.4 million
Small	1.65 million

Source: Worcester Department of Public Works and Parks.



Worcester: Public Library System, 2017		
# of Independent Branches	3	
# of School-Based Branches	4	
# of Mobile Libraries	2	
Print Holdings (including periodicals)	698,979	
Total Circulation	847,419	
Total Number of Visits	683,147	

Source: Worcester Public Library.

Worcester: Water and Sewer Rates, 2018					
	FY14	FY15	FY16	FY17	FY18
Water Rates	\$3.51	\$3.54	\$3.60	\$3.60	\$3.67
Sewer Rates	\$5.94	\$6.29	\$6.62	\$6.92	\$7.08

Source: City of Worcester Department of Public Works & Parks. *Rates are per 100 cubic feet of usage. Sewerage use is based on 80% of water usage.

Worcester: Parks and Recreation, 2017		
Parks	60	
Dog Parks	2	
Playgrounds	34	
Fields for Sports	124	
Swimming Beach, Pool, Spray Parks	7	
Total Park Acreage	1,316.05	
% of Total Acreage in City	6.3%	
State Parks	1	
State Pools and Beaches	3	

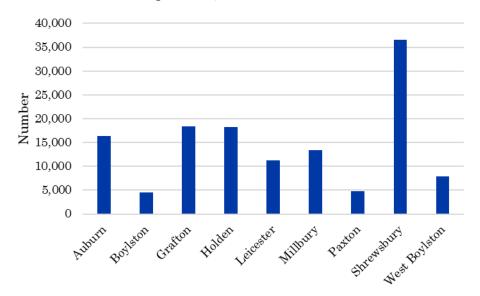
 $Sources: City \ of \ Worcester \ Department \ of \ Public \ Works \ \& \ Parks; \\ Commonwealth \ of \ Massachusetts.$



Demographics & Economy

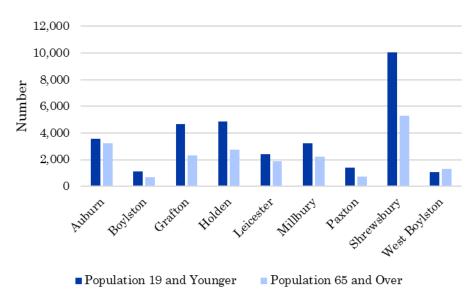


Greater Worcester: Population, 2016



Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

Greater Worcester: Population 19 Years of Age or Under and Population 65 Years of Age or Over, 2016



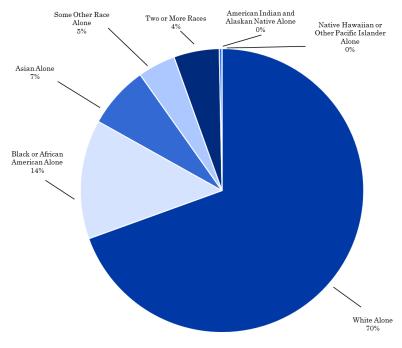
Source: U.S. Census Bureau, 2016 5-Year American Community Survey.



Population

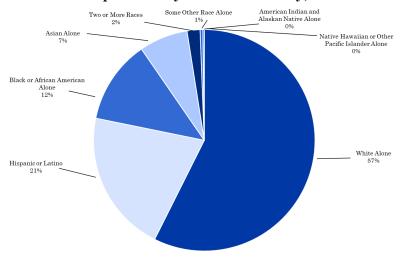
Worcester Almanac: Demographics & Economy

Worcester: Population by Race, 2016



Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

Worcester: Population by Race & Ethnicity, 2016



Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

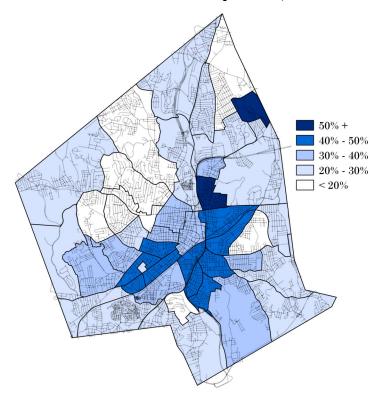
The U.S. Census Bureau tallies five categories of race: "American Indian or Alaska Native," "Asian," "Black or African American," "Native Hawaiian or Other Pacific Islander," and "White." Hispanic origin is defined as ethnicity, rather than race, and persons defined as Hispanic or Latino can be of any race.

"Worcester Population by Race, 2016" illustrates Worcester's racial composition according to the Census Bureau's five racial categories. People of Hispanic origin fall into any one of the five categories.

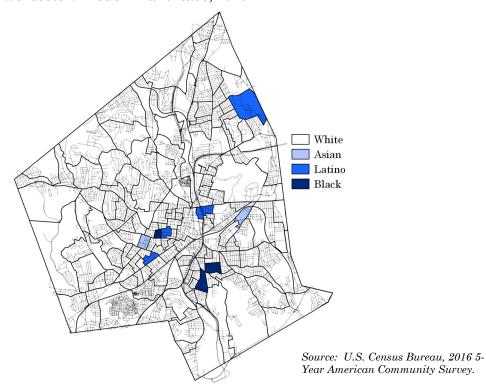
"Worcester Population by Race & Ethnicity, 2016" illustrates Worcester's population by both race and ethnicity. It indicates that people who identify as Hispanic or Latino make up approximately 21% of Worcester's population, however it does not account for their racial composition and therefore may undercount certain racial categories.



Worcester: Percent Non-White Population, 2016



Worcester: Predominant Race, 2016



Population

Worcester Almanac: Demographics & Economy

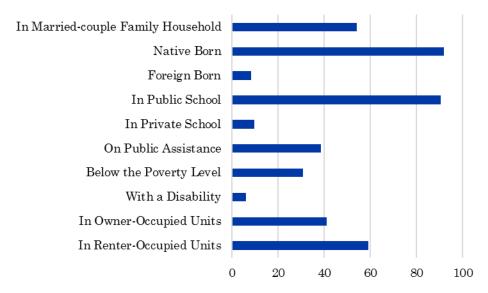
Worcester: Population by Age, 2016

35,000 30,000 25,000 Number 20,000 15,000 10,000 5,000 o 19 Years Jun and a De to 3d years old North years view and and 5 to 9 years old 0 15 to 19 years old Ab to fat years old w o grand Ja years old

Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

According to the U.S. Census Bureau, the median age of Worcester residents is 34 years old. The median age of Massachusetts is 39.1 and the median age of the United States is 37.2.

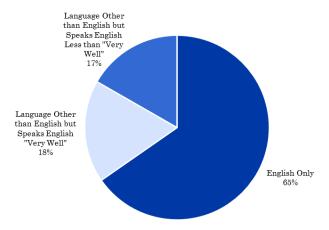
Worcester: Percent Under 18 Years of Age by Characteristics, 2016



Source: U.S. Census Bureau, 2016 5-Year American Community Survey.



Worcester: Language Spoken At Home, 2016*



In 2016, 65% of the Worcester population spoke only English. Of the other languages spoken by Worcester residents, 16% spoke Spanish, and 18.7% spoke some other language. According to the Worcester Public Schools, more than 90 languages are spoken by children in the school system.

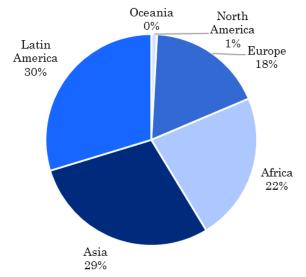
*For population 5 years and older.

Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

Worcester: Foreign Born Residents, 2016				
Total Foreign Born	Foreign Born Naturalized Citizen	Foreign Born Not US Citizen		
39,240	18,417	20,823		

Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

Worcester: Region of Origin of Foreign Born Residents, 2016



Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

Approximately one in five residents of Worcester was born outside the United States, with nearly 30% of those residents originating in Latin America followed closely by Asia.



Worcester: Number of Residents From the Top 10 Countries of Origin, 2011 and 2016				
	2011		2016	
Vietnam	3,506	Ghana	4,019	
Brazil	3,461	Dominican Republic	3,497	
Ghana	3,358	Vietnam	3,491	
Dominican Republic	2,705	Albania	2,504	
Albania	2,115	Brazil	1,955	
El Salvador	1,724	India	1,336	
China, excluding Taiwan	1,341	China, excluding Taiwan	1,298	
Poland	1,137	Kenya	1,265	
Kenya	905	El Salvador	1,156	
India	694	Iraq	1,008	
Total	20,946	Total	21,529	

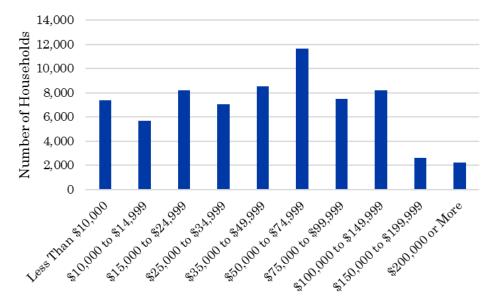
Sources: U.S. Census Bureau, 2016 5-Year American Community Survey.



Worcester: Households, 2016			
Total # of Households	69,204		
Family Households	55%		
Non-Family Households	45%		
Households with Children under 18	25%		
Average Family size	3.26		
Average Household Size	2.48		
Owner-occupied	2.67		
Housing Renter-occupied	2.33		
Median Household Income	\$45,599		

Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

Worcester: Household Income, 2016



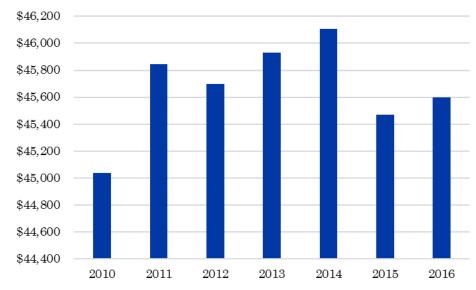
Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

"Median Household Income" is the income that has an equal number of households above and below that income level. According to the U.S. Census Bureau, the median household income in Worcester is \$45,599, the median household income of Massachusetts is \$70,954, and the median household income of the United States is \$55,322. According to the U.S. Department of Housing and Urban Development, the Worcester Area Median Family Income (which includes Worcester and surrounding towns) is \$83,168.



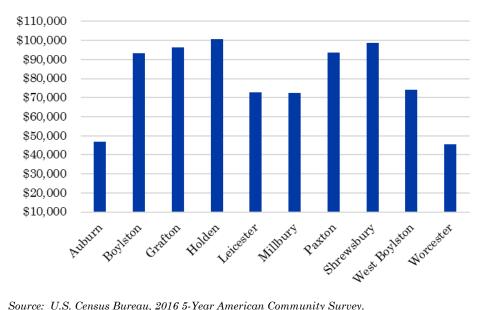
Worcester: Median Household Income, 2016

Income



Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

Greater Worcester: Median Household Income, 2016



Source: U.S. Census Bureau, 2016 5-Year American Community Survey.



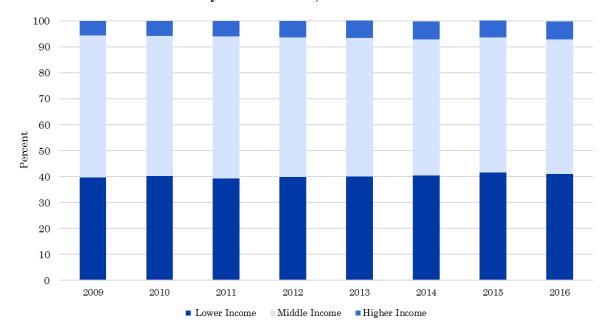
Worcester's Middle Income*

The Pew Research Center defines middle income, or middle class, as households between 67% to 200% of the state median income. In Massachusetts, with a median household income of \$70,954, a middle class household income would range from \$45,937 to \$141,126. The Census Bureau does not divide income groups into lower, middle, and upper income categories and its household income categories do not allow for exact determinations. However, the chart below uses the closest categories to approximate The Pew Research Center's definition of middle income for Worcester. In 2016, approximately 51.9% of Worcester households were in the middle income range, 40.9% of Worcester households were in the lower income range, and 7% of Worcester households were in the upper income range.

 Income Ranges

 Lower Income: \$0—\$34,999
 Middle Income: \$35,000—\$149,999
 Higher Income: \$150,000+

Worcester: % of Households by Income Level, 2009 - 2016



Sources: U.S. Census Bureau, 2016 5-Year American Community Surveys.

*According to Pew Research Center:

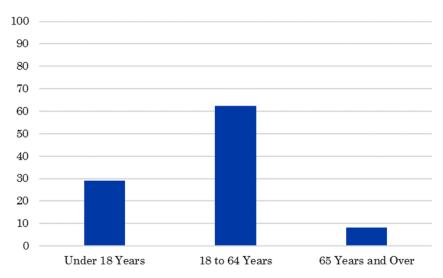
"Middle income or middle class? The terms "middle income" and "middle class" are often used interchangeably. This is especially true among economists who typically define the middle class in terms of income or consumption. But being middle class can connote more than income, be it a college education, white-collar work, economic security, owning a home, or having certain social and political values. Class could also be a state of mind, that is, it could be a matter of self-identification (Pew Research Center, 2008, 2012). The interplay among these many factors is examined in studies by Hout (2007) and Savage et al. (2013), among others."

Source: Pew Research Center, Social and Demographic Trends, http://www.pewsocialtrends.org/2015/12/09/the-american-middle-class-is-losing-ground/, Accessed March 2016.



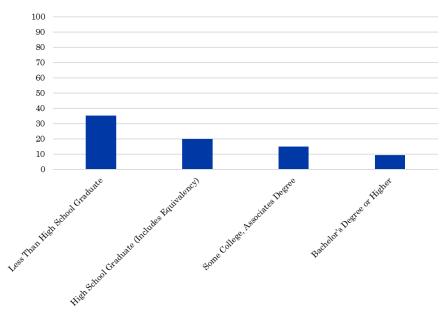
According to the U.S. Census Bureau, 22.1% of Worcester's population is below the poverty level, while 11.3% of the Massachusetts population and 15.1% of the United States population is below the poverty level. The weighted average poverty threshold for a family of four in 2018 is \$25,100. Poverty is defined using pre-tax income.

Worcester: Poverty by Age for Population Below Poverty Level, 2016



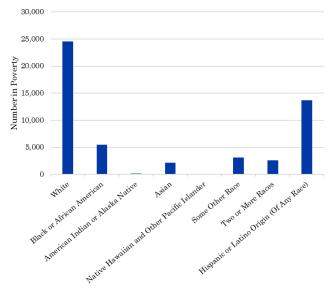
Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

Worcester: Percent in Poverty by Educational Attainment, 2016*



*Chart includes population 25 years and over only. Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

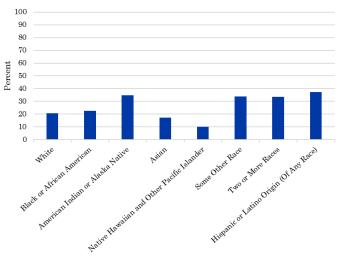
Worcester: Number in Poverty by Race, 2016



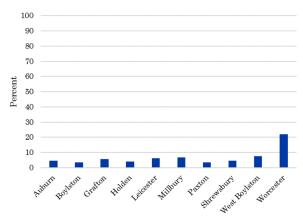
Poverty

While the highest number Worcester residents in poverty are White, people of Hispanic or Latino origin are more likely to live in poverty than all other racial and ethnic categories.

Worcester: Percent in Poverty, 2016

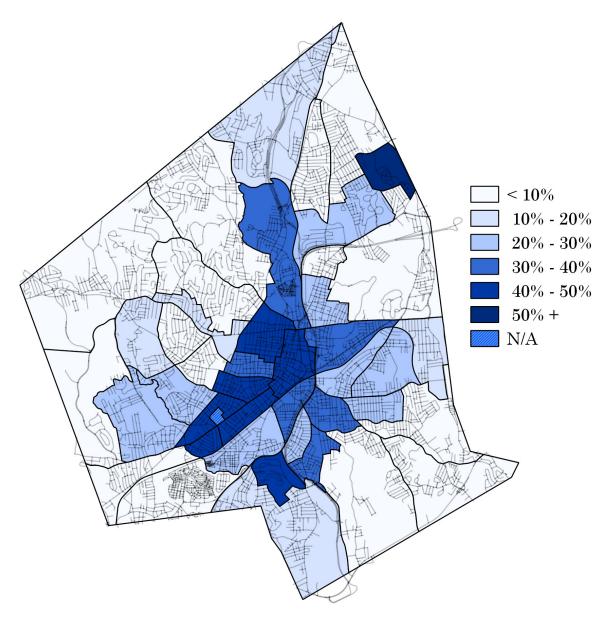


Greater Worcester: Percent in Poverty, 2016



Source for all charts on this page: U.S. Census Bureau, 2016 5-Year American Community Survey.

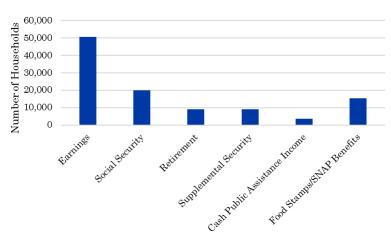
Worcester: Percent of Residents Below Poverty Level, 2016



Source: U.S. Census Bureau, 2016 5-Year American Community Survey.



Worcester: Sources of Household Income, 2016



Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

In 2016, the large majority of Worcester's 69,204 households derived income through earnings. Other income sources included Social Security and Food Stamps/SNAP (Supplemental Nutrition Assistance Program) Benefits. The mean earnings for Worcester households was \$63,669.

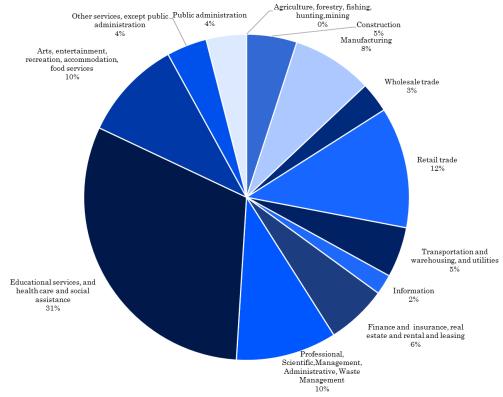
Worcester Economic Index, 2017		
Month	Worcester Economic Index	
January	112.3	
February	112.3	
March	112.3	
April	112.4	
May	112.6	
June	112.8	
July	113.0	
August	113.2	
September	113.3	
October	113.2	
November	113.3	
December	113.4	

Source: Thomas White, Assumption College.

The quarterly Worcester Economic Indicators Report, developed by Thomas White, Professor in the Economics and Global Studies department at Assumption College, measures the health of the City of Worcester's economy using three variables: nonfarm payroll data, total household employment, and the unemployment rate. The base year is January 2001 (January 2001 = 100).



Worcester: Employment by Industry, 2016



Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

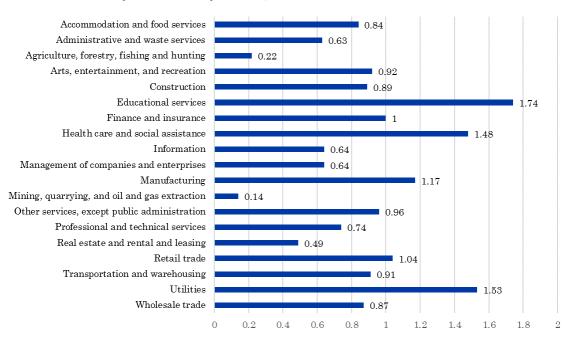
Worcester: Employment & Wages by Industry, 2016			
Industry	Employees	Median Earnings	
Public Administration	3,556	\$51,737	
Finance and Insurance, and Real Estate and Rental and Leasing	5,547	\$50,147	
Information	1,742	\$66,333	
Professional, Scientific, Management, Administrative Waste Management	9,206	\$47,248	
Manufacturing	7,029	\$39,122	
Construction	4,294	\$46,479	
Wholesale Trade	2,666	\$46,364	
Educational Services, Health Care, Social Assistance	28,073	\$32,160	
Transportation, Warehousing, Utilities	4,148	\$29,136	
Agriculture, Forestry, Fishing, Hunting, Mining	136	\$6,402	
Retail Trade	11,191	\$21,364	
Other Services, except Public Administration	3,702	\$33,859	
Arts, Entertainment, Recreation, Accommodation Services	9,392	\$19,883	

Source: U.S. Census Bureau, 2016 5-Year American Community Survey.



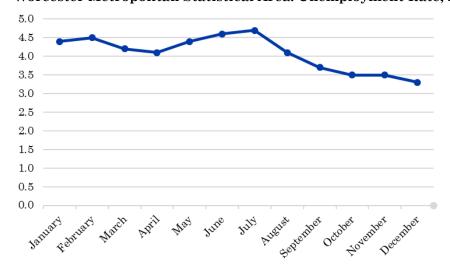
The location quotient (LQ) shows the distribution of employees in a particular industry and geographic region compared to the distribution of employees in that same industry in the entire United States. The national average of employees for each industry is represented by the number "1". If Worcester County has more employment in a certain industry than the national average, the County number is greater than one. For example, the County's LQ of 1.73 in Educational Services means that Worcester County has 1.73 times the per capita number of employees in that field compared with the national average.

Worcester County: Location Quotient, 2016



Source: Bureau of Labor Statistics.

Worcester Metropolitan Statistical Area: Unemployment Rate, 2017*



A metropolitan statistical area includes a central urban area a n d suburban surrounding and rural areas that are connected economically. The Census Bureau defines the Worcester Metropolitan Statistical Worcester Area asCounty, Massachusetts and Windham County, Connecticut.

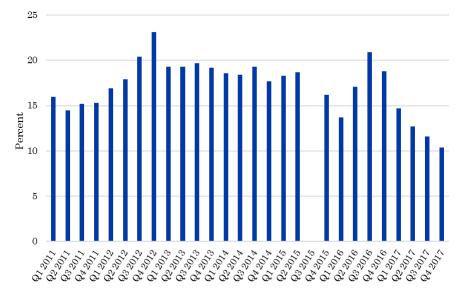
^{*}December numbers are preliminary. Source: Bureau of Labor Statistics.



Worcester: Office and R&D Space, 2017*				
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Square Feet (SF) Supply	2,891,924	2,891,924	2,891,924	2,891,924
Direct SF Available	378,351	348,377	305,702	278,342
Sublease SF Available	17,600	17,600	30,835	23,235
Vacancy Rate %	14.7%	12.7%	11.6%	10.4%

^{*}Based on a survey of select properties. Source: Colliers International.

Worcester: Quarterly Office & R&D Vacancy Rate, 2011-2017*



Colliers International completes a survey of office vacancies for Greater Boston that includes select buildings in Worcester. Colliers did not complete a market survey in 3rd Quarter 2015.

^{*}Based on a survey of select properties. Source: Colliers International.

Worcester: Hotels, 2017*		
	Rooms	
Beechwood Hotel	73	
Courtyard Worcester	134	
Hampton Inn & Suites	100	
Hilton Garden Inn Worcester	199	
Holiday Inn Express	96	
Worcester Downtown	96	
Homewood Suites by Hilton	118	
Quality Inn & Suites Worcester	49	
Residence Inn Worcester	129	
Suburban Extended Stay Worcester	65	
Total Hotel Rooms	963	

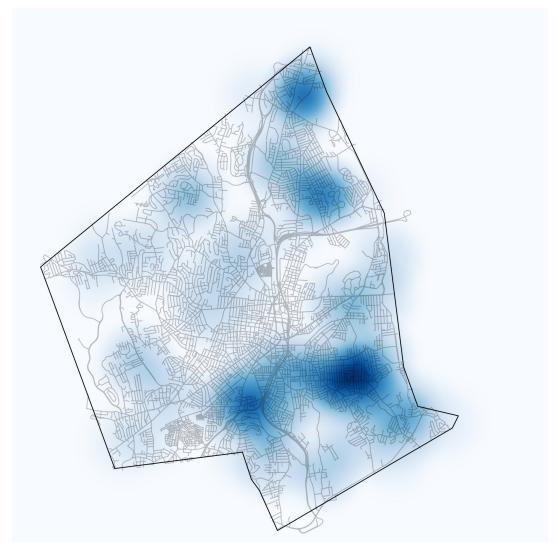
^{*}AC Marriott at CitySquare is currently under construction, 168 rooms, with a planned opening date of March 2018. Source: Discover Central Massachusetts.

Worcester: Hotel Market, 2017		
Occupancy	76.4%	
Supply	333,677 Room Nights	
Demand	254,832 Room Nights	
Average Daily Rate (ADR)	\$139.82	
Revenue per Available Room	\$106.78	

Source: Discover Central Massachusetts.



Worcester: Building Permit Concentration, 2017



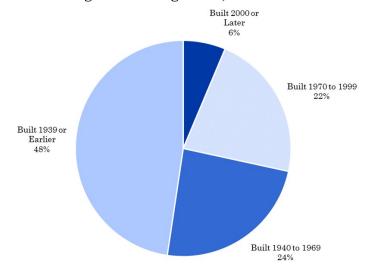
Source: City of Worcester and MassGIS.



Worcester: Housing Units, 2016		
Total Housing Units	76,173	
Occupied Housing Units	69,204	
Vacant Housing Units	6,969	
Housing Units in Multi-Unit Structures	47,036	

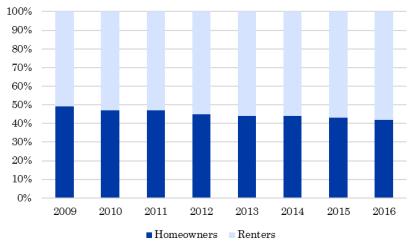
Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

Worcester: Age of Housing Stock, 2016



Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

Worcester: Owner-Occupied, and Renter-Occupied as a Percent of Total Households, 2009-2016

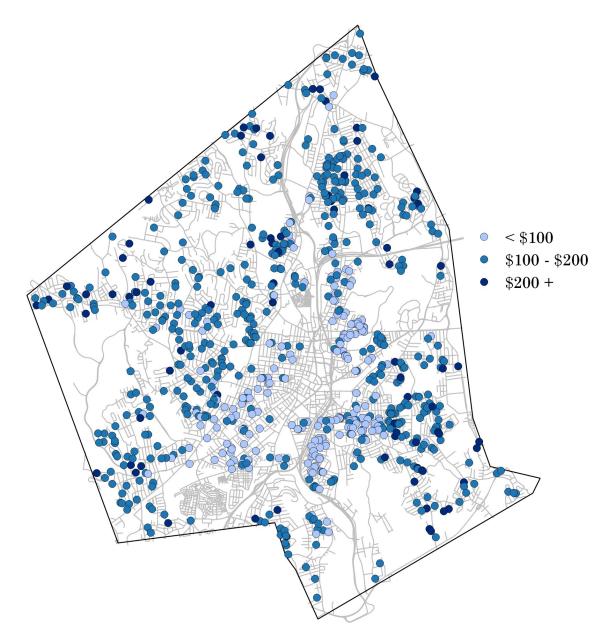


Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

In 2016 there were 68,204 households in Worcester. 29,320 (42%) of those households were owner-occupied and 39,884 (58%) were renter-occupied.



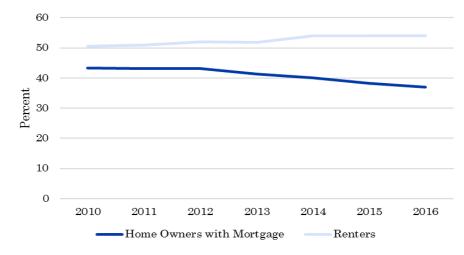
Worcester: Residential Home Sales and Price per Square Foot, 2017



Source: Worcester District Registry of Deeds data.

Worcester: % of Households Spending 30% or More of Income on Housing, 2010-2016

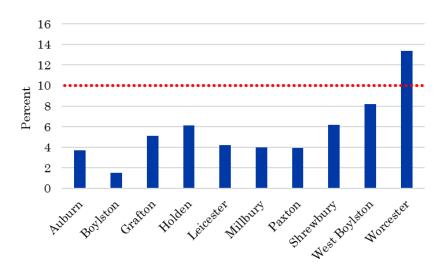
Housing



Source: U.S. Census Bureau, 2010-2016 5-Year American Community Survey.

Massachusetts General Laws Chapter 40B was adopted in 1969 as part of the Massachusetts Comprehensive Permit Act to encourage and facilitate the building of affordable, long-term housing for lowincome individuals families across the Commonwealth and ensure that low-income residents can remain in their localities if housing costs increase. The law calls every Massachusetts community to ensure that 10% of all housing units meet certain affordability requirements.

Greater Worcester: Chapter 40B Subsidized Housing Inventory, 2017*



*As of September 2017. Red line indicates 10% threshold called for under Chapter 40B. Source: Massachusetts Department of Housing & Community Development.



Point-in-Time Count

The Point-in-Time (PIT) Count counts the number of sheltered and unsheltered homeless persons on a single night during the last week in January. The U.S. Department of Housing and Urban Development (HUD) requires that communities receiving federal funds from the McKinney-Vento Homeless Assistance Grants program conduct the PIT annually.

Annual Worcester County Point-in-Time Count, January 25, 2017				
	Shel	Unsheltered	Total	
	Emergency Shelter	Transitional Housing		
# under age 18	300	110	3	413
# ages 18 - 24	58	42	6	106
# ages 24+	282	210	87	579
Total Homeless	640	362	96	1098

Source: Central Massachusetts Housing Alliance.

Worcester: Veterans, 2016		
Number	8,452	
Veterans as % of Population 18 and Older	5.8%	
% of Veterans—Male	94%	
% of Veterans—Female	6%	
% of Veterans—Disabled	30.2%	
% of Veterans—Below the Poverty Line	12%	
Period of Service		
Gulf War (September 2001 or later)	1,015	
Gulf War (August 1990 to August 2001)	1,319	
Vietnam War	2,397	
Korean War	945	
World War II	901	

Source: U.S. Census Bureau, 2016 5-Year American Community Survey.



Health



Worcester Almanac: Health

Worcester: Vital Statistics, 2017		
Births*	6,003	
Deaths	3,191	
Marriages	1,285	

All births in Worcester, regardless of Mother's residency. Source: City of Worcester Clerk's Office.

Number of Resident Births.	Worcester 2015*
Number of Births	2,403
Low Birth Weight**	232
Pre-term	255

^{*}Births to mothers who report Worcester as their place of residence.

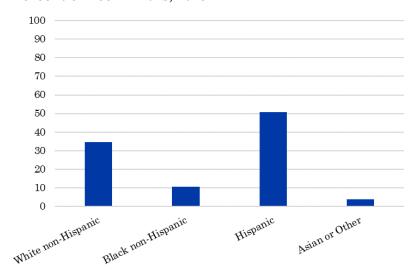
Source: Massachusetts Department of Public Health.

Resident Teen Births, Worcester 2015*		
	2005	2015
Number of Teen Births	262	130
Teen Birth Rate**	37.2	16.8

^{*}Births to mothers who report Worcester as their place of residence.

Source: Massachusetts Department of Public Health.

Worcester: Mother's Race and Hispanic Ethnicity as Percent of Teen Births, 2015



 $Source: Massachusetts\ Department\ of\ Public\ Health.$

^{**}Babies weighing less than 5 pounds, 3 ounces.

^{**}Birth rates represent the number of births per 1,000 females ages 15-19.



Worcester Almanac: Health

Worcester: Age-Adjusted Rates for Select Causes of Death, 2014		
Mortality (All Cause)	860.1	
Cancer	204.7	
Heart Disease	165.3	
Chronic Lower Respiratory	42.9	
Stroke	34.4	
Diabetes	28.9	
Pneumonia/Influenza	26.8	
Opioid-Related Fatal Overdose	24.8	
Suicide	6.5	
Motor Vehicle	3.9	
Homicide	3.1	

Source: Massachusetts Department of Public Health.

Worcester: Uninsured, 2016*				
	Worcester		Massachusetts	
	Number	Percent	Number	Percent
Uninsured	7,324	4%	214,158	3.20%

 $[*]Non-institutionalized\ population.$

Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

Worcester: Number of Beds—Licensed or Certified Health Care Facilities, December 2017		
Acute Hospitals	1,017	
Non-Acute Hospitals	390	
Renal Dialysis	47	
Nursing Homes	2,315	
Rest Homes	360	

 $Source: Massachusetts\ Department\ of\ Public\ Health.$

Worcester: National Institutes of Health Funding, FY17				
Biomedical Research Models, Inc.	2 Awards	\$527,844		
Clark University	1 Award	\$450,900		
Microbiotix, Inc.	9 Awards	\$4,175,484		
Nirogyone Therapeutics, LLC	1 Award	\$300,000		
Signablok, Inc.	1 Award	\$224,672		
University of Massachusetts Medical School	332 Awards	\$154,428,281		
Worcester Polytechnic Institute	13 Awards	\$4,107,606		
Zata Pharmaceuticals, Inc.	1 Award	\$587,932		
Total	360 Awards	\$164,502,719		

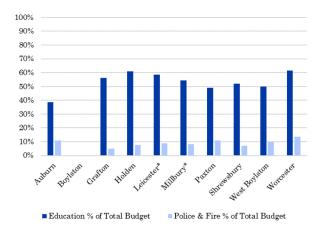
Source: National Institutes of Health.



Education

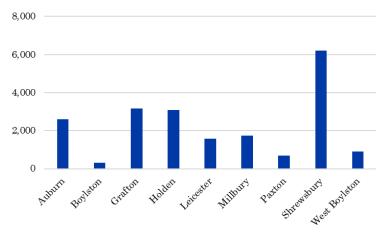


Greater Worcester: Education as Percent of FY17 Municipal Budget



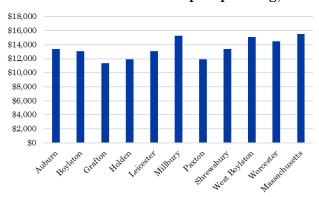
Sources: Individual Town Budgets.

Greater Worcester: Number of Students, 2017



Sources: Massachusetts Department of Elementary & Secondary Education, and the Wachusett Regional School District.

Greater Worcester: Per Pupil Spending, 2016



Source: Massachusetts Department of Elementary & Secondary Education.

The town of Boylston oversees a K-5 elementary school and is part of the Berlin-Boylston Regional School District for Grades 6-12.

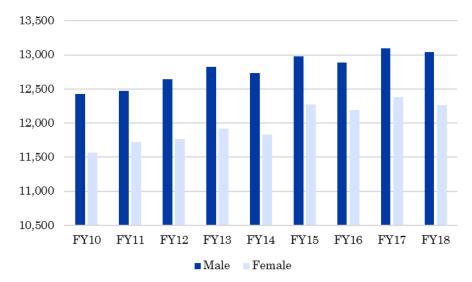
The towns of Holden and Paxton are part of the Wachusett Regional School District, the largest regional district in the Commonwealth. Per-pupil spending reflects district wide spending.



Worcester Public Schools: FY18		
	# of Schools	# of Students
Elementary Schools	33	14,547
Middle Schools 6-8	2	1,686
Middle Schools 7-8	2	1,601
Grade 7-12 Schools	2	791
High Schools	5	6,681
Head Start Program	1	
Total	45	2536

Source: Worcester Public Schools & Massachusetts Department of Elementary & Secondary Education.

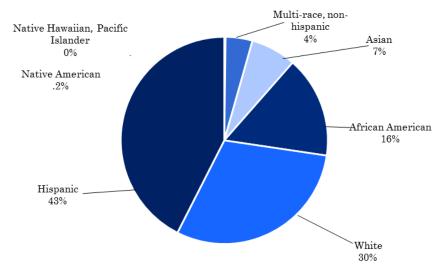
Worcester Public Schools: Enrollment by Gender, FY10-FY18



 $Source: Massachusetts\ Department\ of\ Elementary\ \&\ Secondary\ Education.$



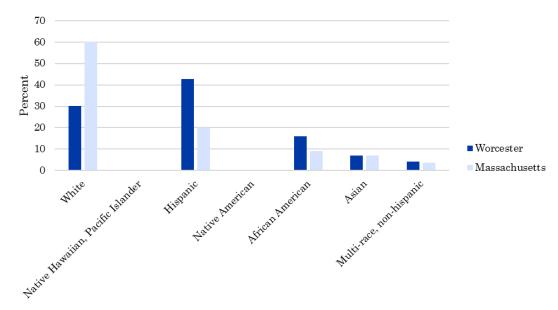
Worcester Public Schools: Enrollment by Race/Ethnicity, 2017-2018



The U.S. Census Bureau tallies five categories of race: "American Indian or Alaska Native," "Asian," "Black African or American," "Native Hawaiian or Other Pacific Islander," and "White." Hispanic origin is defined as ethnicity, rather than race, and persons defined as Hispanic or Latino can be of any race.

Source: Massachusetts Department of Elementary & Secondary Education.

Worcester Public Schools: Enrollment by Race/Ethnicity Compared to State, 2017-2018



Source: Massachusetts Department of Elementary & Secondary Education.

Enrollment



Worcester Almanac: Education

Worcester Public Schools: Enrollment FY17

Elementary & Middle Schools	# of Students
Belmont Street Community	581
Burncoat Middle School	623
Burncoat Street	293
Canterbury	376
Chandler Elementary Community	500
Chandler Magnet	434
City View	474
Clark Street Community	203
Columbus Park	507
Elm Park Community	477
Flagg Street	409
Forest Grove Middle	978
Francis J. McGrath Elementary	237
Gates Lane	569
Goddard School/Science Technical	465
Grafton Street	387
Head Start	529
Heard Street	296
Jacob Hiatt Magnet	403
Lake View	285
Lincoln Street	270
May Street	339
Midland Street	230
Nelson Place	522
Norrback Avenue	564
Quinsigamond	745
Rice Square	427
Roosevelt	673
Sullivan Middle	865
Tatnuck	392
Thorndyke Road	381
Union Hill	454
Vernon Hill	536
Wawecus Road	152
West Tatnuck	370
Woodland Academy	606
Worcester Arts Magnet School	404
Worcester East Middle	821

High Schools	# of Students
Burncoat Senior High	1,034
Claremont Academy	552
Doherty Memorial High	1,559
North High	1,292
South High Community	1,407
University Park Campus School	239
Worcester Technical High	1,389
Total Number of Students in WPS	25,306

 $Source: Massachusetts\ Department\ of\ Elementary\ \&\ Secondary\ Education.$



Worcester: Private Schools, 2018		
Alhuda Academy (Pre-K-8)		
Bancroft School (Pre-K-12)		
Holy Name Junior/Senior High School (7-12)		
Nativity School of Worcester (5-8)		
Notre Dame Academy (7-12)		
Our Lady of the Angels School (Pre-K-8)		
Saint Mary's Schools of Worcester (Pre-K-12)		
Saint Peter Central Catholic School (Pre-K-8)		
Saint Peter Marian Junior-Senior High School (7-12)		
Saint Stephen School (Pre-K-8)		
Venerini Academy Elementary School (Pre-K-8)		
Worcester Academy (6-12+)		
Worcester Seventh Day Adventist School (1-8)		

Worcester: Charter Schools, 2018

Abby Kelley Foster Charter Public School (K-12)

Seven Hills Charter Public School (K-8)

Worcester: Independent Public Schools, 2018

Massachusetts Academy of Math and Science (11-12)

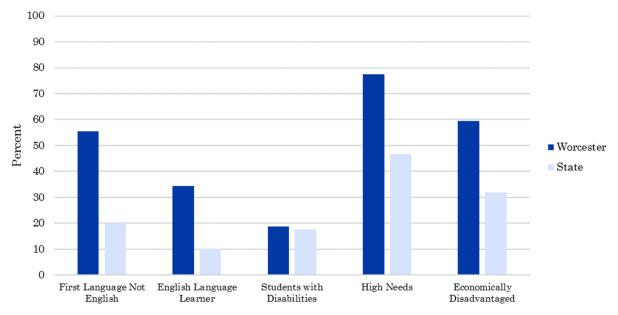
 $Sources: Massachusetts\ Department\ of\ Elementary\ \&\ Secondary\ Education\ and\ Worcester\ Regional\ Research\ Bureau.$



Worcester Public Schools: Indicators, 2016-2017		
	Worcester	Massachusetts
Grade 9-12 Drop Out Rate	2.2%	1.8%
Retention Rate	2.0%	1.3%
Attendance Rate	94.1%	94.6%
Average Number of Days Absent	9.8	9.3
Percent of Students with Unexcused Absences Greater than 9 Days	33.8%	15.8%

 $Source: Massachusetts\ Department\ of\ Elementary\ \&\ Secondary\ Education.$

Worcester Public Schools: Selected Populations, 2017

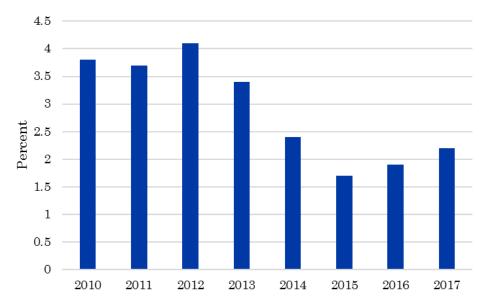


Source: Massachusetts Department of Elementary & Secondary Education.

The "First Language Not English" category includes individuals who learned English after learning another language and does not address the individual's proficiency with English itself. "English Language Learner" identifies individuals who struggle to complete normal classwork in English.

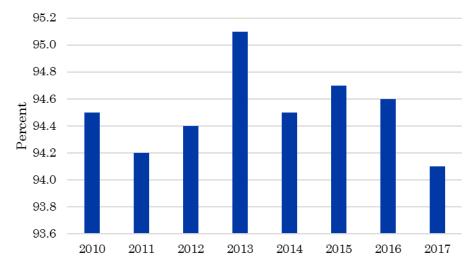


Worcester Public Schools: Grades 9-12 Drop-Out Rates, 2010-2017



Source: Massachusetts Department of Elementary & Secondary Education.

Worcester Public Schools: Attendance Rates, 2010-2017



Source: Massachusetts Department of Elementary & Secondary Education.



Worcester Public Schools: 4-Year Graduation Rates, Class of 2017*				
	% Graduated**	% Still in School	% H.S. Equiv.	% Dropped Out
All Students	83.3	8.0	0.9	6.6
Male	80.8	9.2	0.9	8.0
Female	86.1	6.7	1.0	5.0
ELL	75.6	11.3	0.9	9.9
Students with Disabilities	63.7	21.0	1.4	11.9
Low income	81.0	9.1	1.0	7.6
High needs	81.2	9.0	0.9	7.6
African American/Black	87.7	7.5	1.0	3.6
Asian	95.3	3.4	0.7	0.7
Hispanic/Latino	76.6	10.7	0.6	9.9
American Indian or Alaska Native	-	-	-	-
White	86.9	5.8	1.1	5.6
Native Hawaiian or Pacific Islander	-	-	-	-
Multi-race, Non-Hispanic/Latino	80.0	8.6	5.7	5.7

 $[*]Graduation\ rates\ are\ not\ publicly\ reported\ for\ cohort\ counts\ fewer\ than\ 6.$

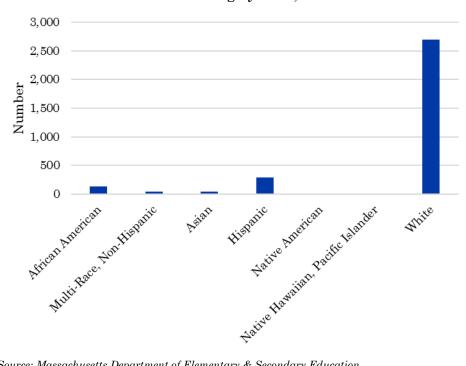
^{**}Indicates the percentage of students who graduate with a regular high school diploma within 4 years. Source: Massachusetts Department of Elementary & Secondary Education.



Worcester Public Schools: Teacher Data, 2016-2017			
	Worcester	State	
Total Number of Teachers	1,793	72,090	
Student-Teacher Ratio	14.2 to 1	13.2 to 1	
% of Teachers Licensed in Teaching Assignment	97.6	97.4	
% of Core Academic Classes Taught by Highly Qualified Teachers*	97.9	96.3	

^{*}Highly Qualified Teachers have a bachelor's degree, a valid and active Massachusetts Teacher License, and demonstrate core competency in the courses they teach.

Worcester Public Schools: Staffing by Race, 2016-2017



Source: Massachusetts Department of Elementary & Secondary Education.

Worcester Public Schools: Staffing by Gender, 2016-2017			
	Worcester Massachusetts		
Males	662	26,246	
Females	2,553	104,075	

 $Source: Massachusetts\ Department\ of\ Elementary\ \&\ Secondary\ Education.$

 $Source: Massachusetts\ Department\ of\ Elementary\ \&\ Secondary\ Education.$



In 2017, the Massachusetts Department of Elementary and Secondary Education began administering the Next-Generation Massachusetts Comprehensive Assessment System (MCAS) tests. The charts below explain the levels of achievement and compare Worcester student results with those of the rest of the Commonwealth. However, students in grades 5, 8, and 10 took the previous version of the science, technology, and engineering tests (using the previous achievement levels of advanced, proficient, needs improvement, and warning/failing) and grade 10 also took the older version of the MCAS test for English and Math.

General Achievement Level Definitions - Next-Generation Tests (Starting 2017)		
Achievement Level	Scaled Score	Definition
Exceeding Expectations	530-560	A student who performed at this level exceeded grade-level expectations by demonstrating mastery of the subject matter.
Meeting Expectations	500-529	A student who performed at this level met grade-level expectations and is academically on track to succeed in the current grade in this subject.
Partially Meeting Expectations	470-499	A student who performed at this level partially met grade-level expectations in this subject. The school, in consultation with the student's parent/guardian, should consider whether the student needs additional academic assistance to succeed in this subject.
Not Meeting Expectations	440-469	A student who performed at this level did not meet grade-level expectations in this subject. The school, in consultation with the student's parent/guardian, should determine the coordinated academic assistance and/or additional instruction the student needs to succeed in this subject.

Source: Massachusetts Department of Elementary and Secondary Education.

Worcester Public Schools: Ne	xt-Genei	ation I	MCAS Te	est Res	sults by I	Percent,	Spring	2017
Grade and Subject	Excee Expects		Meet Expecta	_	Partially Expect	Meeting ations	Not M Expect	U
	WPS	MA	WPS	MA	WPS	MA	WPS	MA
Grade 03 - Reading	4	8	26	39	48	42	22	10
Grade 03 - Mathematics	3	7	26	42	46	38	25	13
Grade 04 - Eng. Language Arts	4	7	29	41	47	42	19	10
Grade 04 - Mathematics	3	6	30	43	44	39	24	13
Grade 05 - Eng. Language Arts	4	6	31	43	45	42	19	10
Grade 05 - Mathematics	3	7	23	39	52	44	22	10
Grade 06 - Eng. Language Arts	4	7	32	43	48	39	15	10
Grade 06 - Mathematics	3	7	30	42	47	39	20	11
Grade 07 - Eng. Language Arts	3	6	28	44	48	39	21	11
Grade 07 - Mathematics	2	9	22	38	52	42	25	12
Grade 08 - Eng. Language Arts	5	8	28	41	45	39	23	11
Grade 08 - Mathematics	4	9	21	39	52	42	22	11

Source: Massachusetts Department of Elementary and Secondary Education.



General Achievement Level Definitions - Legacy MCAS Tests

ADVANCED Students at this level demonstrate a comprehensive and in-depth understanding of rigorous subject matter, and provide sophisticated solutions to complex problems.

PROFICIENT Students at this level demonstrate a solid understanding of challenging subject matter and solve a wide variety of problems.

NEEDS IMPROVEMENT Students at this level demonstrate a partial understanding of subject matter and solve some simple problems.

WARNING (Grades 3-8)/FAILING (High School) Students at this level demonstrate a minimal understanding of subject matter and do not solve simple problems.

Source: Massachusetts Department of Elementary & Secondary Education.

Worcester Public Schools: Legacy MCAS Test Results by Percent, Spring 2017								
Grade and Subject	Adva	nced	Profi	cient	Nee Improv		Warning	/Failing
	WPS	MA	WPS	MA	WPS	MA	WPS	MA
Grade 5 Science & Tech/Eng.	11	17	21	29	43	39	25	15
Grade 8 Science & Tech/Eng.	1	3	23	37	40	40	36	20
Grade 10 - Eng. Language Arts	31	47	49	44	14	6	6	3
Grade 10 - Mathematics	34	53	23	26	22	14	20	8
Grade 10 Science & Tech/Eng.	17	32	41	42	31	21	11	5

Source: Massachusetts Department of Elementary & Secondary Education.

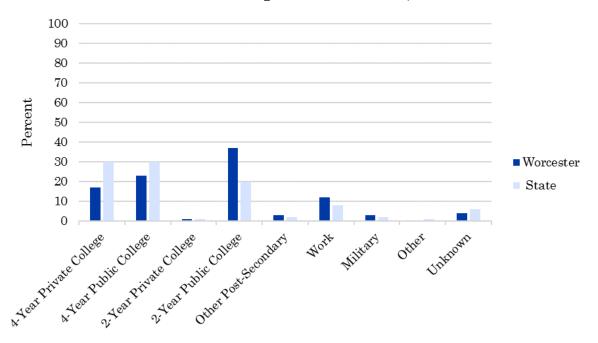


Worcester Public Schools: SAT Performance Report, 2015-2016					
	Number Test Takers	Average Reading Score	Average Math Score		
All Students	2,153	477	480		
Limited English Proficiency	262	388	399		
Economic Disadvantage	1,116	452	454		
Special Education	213	390	394		
High Needs	1,301	447	450		
Female	1,161	479	473		
Male	992	474	489		
American Indian or Alaska Native*	1	-	-		
Asian	256	498	532		
Black or African American	426	451	446		
Hispanic	716	453	451		
Multi-race, Non-Hispanic	48	479	460		
White	706	508	512		

 $[*]Results\ not\ reported\ for\ populations\ less\ than\ 10.$

Source: Massachusetts Department of Elementary & Secondary Education.

Worcester Public Schools: Plans of High School Graduates, 2015-2016



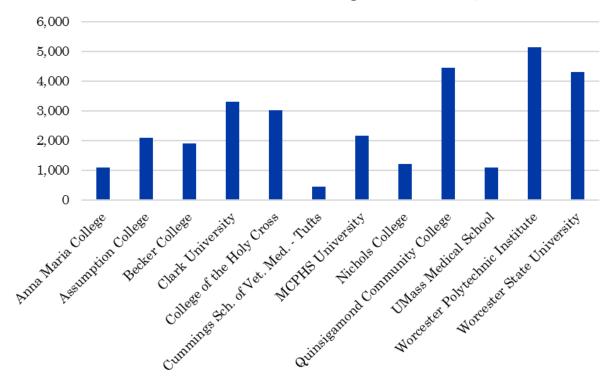
Source: Massachusetts Department of Elementary & Secondary Education.



Greater Worcester: Colleges & Universities, 2017
Anna Maria College (Paxton)
Assumption College (Worcester)
Becker College (Worcester & Leicester)
Clark University (Worcester)
College of the Holy Cross (Worcester)
MCPHS University (Worcester & Boston)
Nichols College (Dudley)
Quinsigamond Community College (Worcester)
Tufts Cummings School of Veterinary Medicine (Grafton)
University of Massachusetts Medical School (Worcester)
Worcester Polytechnic Institute (Worcester)
Worcester State University (Worcester)

Source: Worcester Regional Research Bureau, Inc.

Greater Worcester: Full-Time Enrollment at Colleges & Universities, 2017



 ${\bf Source: } \textit{Worcester Business Journal}.$

As of September 2017, Greater Worcester colleges and universities enrolled 30,216 full-time students.



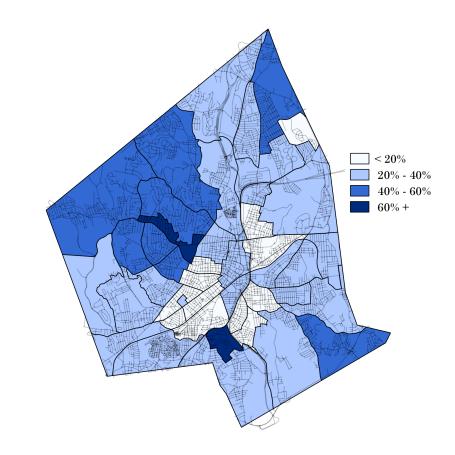
Worcester: Educational Attainment, 2016				
Population 25 Years and Over	118,829	100%		
Less than 9th Grade	7,811	6.5%		
9th to 12th Grade, No Diploma	10,673	8.9%		
High School Graduate, Includes Equivalency	35,977	30.2%		
Some College, No Degree	19,778	16.6%		
Associate's Degree	9,274	7.8%		
Bachelor's Degree	21,921	18.4%		
Graduate or Professional Degree	13,395	11.2%		

Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

Greater Worcester: % Population 25 and Over with Bachelor's Degree or Higher, 2016			
Auburn	37.6%		
Boylston	53.5%		
Grafton	50.4%		
Holden	52.8%		
Leicester	27.1%		
Millbury	34.8%		
Paxton	52.5%		
Shrewsbury	56.1%		
West Boylston	30%		
Worcester	29.7%		

Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

Worcester: Residents with Bachelor's Degrees by Percent, 2016



Source: U.S. Census Bureau, 2016 5-Year American Community Survey



Public Safety



Worcester Almanac: Public Safety

Worcester: Crime Statistics, 2017	
Incidents	139,779
Disorderly Conduct	19,841
Traffic Accidents	9,356
Arrests	6,084
Noise Disturbances	4,596
Vandalism	1,556
Breaking & Entering	977
Larceny from Motor Vehicle	880
Motor Vehicle Theft	440
Aggravated Non-Domestic Assault	389
Robberies	349
Aggravated Domestic Assault	259
Stabbings/Slashings	101
Shooting Victims	25
Shootings	24
Murder	5

Source: Worcester Police Department.

Worcester: Fire Department Activity, 2017				
Fire Calls	1,274			
Building Fires	112			
Emergency Medical Calls	24,117			
False Alarms	3,148			
Number of Companies	21			
Engines	13			
Ladders	7			
Rescue	1			

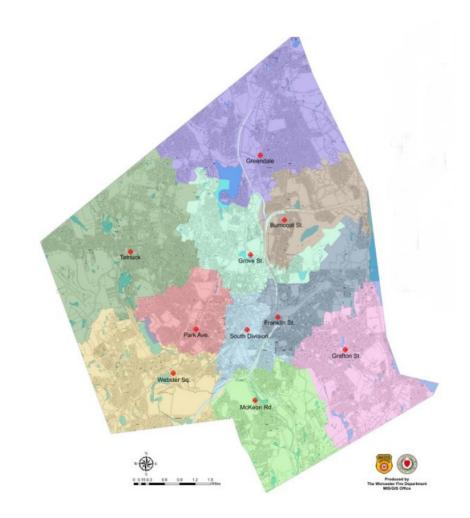
 $Source:\ Worcester\ Fire\ Department.$



Worcester Almanac: Public Safety

Worcester: Fire Stations, 2018	
Station	Address
Grove Street - Headquarters	141 Grove Street
Southeast Station	745 Grafton Street
South Division	180 Southbridge Street
Burncoat Street	19 Burncoat Street
Park Avenue	424 Park Avenue
Tatnuck Square	1067 Pleasant Street
Webster Square	40 Webster Street
Greendale	438 Boylston Street
Franklin Street	266 Franklin Street
McKeon Road	80 McKeon Road

Source: Worcester Fire Department.





Worcester Almanac: Public Safety

Worcester: Staffing for Police & Fire, FY18 Budget				
FIRE	Number			
Fire Chief	1			
Deputy Fire Chief	2			
District Fire Chief	12			
Captain	24			
Lieutenant	70			
Firefighter	296			
Recruits	20			
Other	12			
Total	438			
POLICE	Number			
Chief of Police	1			
Deputy Police Chief	4			
Police Captain	8			
Police Lieutenant	25			
Police Sergeant	52			
Police Officers	384			
Recruits	10*			
Other	53			
Total	527			

^{*}Class to start May 2018. Source: City of Worcester.

Worcester: Municipal Licenses, January 2018			
Second-Hand Motor Vehicle Licenses	238		
Second-Hand Article Licenses & Pawn Brokers	74		
Common Victualer Background Checks	48		
Hawkers and Peddlers Licenses	30		
Solicit and Canvas	24		
Fortune Tellers Licenses	1		
Ice Cream Vendor Permits	17		

Source: Worcester Police Department.

Worcester: Firearm Licenses, January 2018			
Firearm Identification Cards (FIDs) 446			
Licenses to Carry (LTCs)	6,332		

 $Source: Worcester\ Police\ Department.$

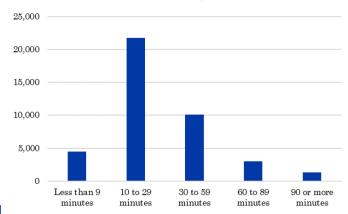


Transportation & Infrastructure



Worcester Almanac: Transportation

Worcester: Commute Times, 2016



Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

Worcester: Work Commute Patterns (Workers 16 Years and Older), 2016										
	Number Worcester Residents	Per Cent Worcester Residents	Number MA Residents	Per Cent MA Residents						
Car, Truck, or Van—Drove Alone	60,043	72.4%	2,418,342	71.1%						
Car, Truck, or Van—Carpooled	9,528	11.5%	255,853	7.5%						
Public Transportation (Excluding Taxicab)	2,879	3.5%	338,273	9.9%						
Walked	5,284	6.4%	165,309	4.9%						
Other Means (Taxicab, motorcycle, bicycle, or other means)	1,779	2.1%	63,623	1.9%						
Worked at Home	3,461	4.2%	158,396	4.7%						
Total	82,974	100%*	3,399,796	100%						

^{*}As a result of rounding, adds to 100.1%. Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

Greater Worcester: Registered Motor Vehicles, 2015											
	Auto- mobiles	Trailers	Light Trucks	Heavy Trucks	Motor- cycles	Other	Luxury Vehicles	Total Vehicles	Average Age of Vehicle*		
Auburn	7,184	1,047	5,160	717	335	2,045	875	16,488	9		
Boylston	2,157	316	1,604	195	129	494	469	4,895	8.7		
Grafton	7,898	816	5,481	302	426	1,487	1,386	16,410	9.1		
Holden	7,856	826	5,456	318	374	1,754	1,261	16,584	8.9		
Leicester	4,346	696	3,520	234	328	1,114	477	10,238	10		
Millbury	5,743	872	4,339	462	429	1,300	796	13,145	9.6		
Paxton	1,810	248	1,464	97	109	491	379	4,219	9.7		
Shrewsbury	15,619	1,363	10,292	904	553	2,920	3,194	31,651	8.5		
West Boylston	3,155	423	2,323	241	182	693	487	7,017	9.3		
Worcester	58,987	2,883	33,625	1,905	1,791	11,878	8,369	111,069	9.8		

^{*}Age of cars in years. Source: Massachusetts Department of Revenue.



Worcester Almanac: Transportation

Worcester: Street Infrastructure, 2017		
Streets (Miles)		
Public Streets (Miles)	436	
Private Streets (Miles)	80	
Sidewalks (Miles)		
Asphalt (Miles)	306	
Concrete (Miles)	182	
Street Lights	13,666	
Gas Street Lights	28	
Traffic Signals (City-owned)	180	
Parking Meters—On-Street	1,200	
Electric Car Charging Stations	8	

Source: City of Worcester Department of Public Works & Parks.

Worcester: Water and Sewer Infrastructure, 2017		
Miles of Water Main Pipe	592	
Fire Hydrants		
Public	5,365	
Private	495	
Total Miles of Sewer Pipes		
Sanitary Sewers	398	
Surface Sewers	371	
Combined Sewers	61	
Number of Manholes	28,289	
Number of Catch Basins	15,184	

Source: City of Worcester Department of Public Works & Parks.

Worcester Municipal Parking Garages Capacity, 2017		
Pearl Elm	819	
Federal Plaza	511	
Major Taylor Boulevard	983	
Union Station	500	
Worcester Common	500	
Surface lots (13 lots)	980*	

^{*}Approximate

Sources: Worcester Comprehensive Annual Financial Report, June, 20, 2016; Worcester Regional Research Bureau, "Parking in Worcester: Left by the Curb," June 2016.



Worcester Almanac: Transportation

Worcester Regional Transit Authority, 2017		
Service Area		
Square Miles	866	
Population	479,329	
Key Data		
Annual Passenger Miles	14,684,014	
Annual Unlinked Trips*	3,790,922	
Average Weekday Unlinked Trips*	13,392	
Average Saturday Unlinked Trips*	5,465	
Average Sunday Unlinked Trips*	2,173	
Annual Vehicle Revenue Miles	3,251,719	
Annual Vehicle Revenue Hours	256,046	
Vehicles Operated in Maximum Service	93	
Vehicles Available for Maximum Service	110	
Number of Electric Buses	6	
Number of Clean Diesel Buses	29	
Number of Hybrid Diesel-Electric Buses	17	

The Worcester Regional Transit Authority established in September 1974 to contract for the operation of mass transportation facilities and services in the Worcester region. It is the second largest regional transit authority in Massachusetts, serving communities. While the WRTA owns the facilities and rolling stock, the organization contracts with Central Mass Transit Management, Inc., and Paratransit Brokerage Services, Transit Management Inc. for the provision of services.

 $Source: Central\ Massachusetts\ Regional\ Planning\ Commission.$

MBTA Commuter Rail, December 2017 *	
Inbound Trains (Weekday)	20
Outbound Trains (Weekday)	20
Inbound Trains (Weekend & Holiday)	9
Outbound Trains (Weekend & Holiday)	9
Typical Weekday Inbound Boardings: Union Station	1,500

^{*}The number of trains is 2017. Ridership numbers are for 2016—the MBTA does not have updated numbers for 2017.

 $Source:\ Massachusetts\ Bay\ Transportation\ Authority.$

Worcester Regional Airport/ORH, 2017	
Aircraft Operations	
Transient General Aviation	16,015
Local General Aviation	8,343
Air Taxi	1,408
Commercial	1.403
Military	798
Daily Commercial Departures	
Jet Blue	Orlando & Fort Lauderdale, FL.
	New York flights starting 5/3/18
Aircraft Based at Field	
Single Engine Planes	57
Multi-Engine Planes	3

Source: Worcester Regional Airport, Massachusetts Port Authority.

^{*}Passengers are counted each time they board a vehicle no matter how many vehicles used to arrive at destination.



Worcester Almanac: Transportation

Worcester: Taxi and Livery Service, January 2017		
Taxi Medallions	110	
Taxi Drivers	308	
Registered Livery Vehicles	203	
Livery Drivers	226	

 $Source:\ Worcester\ Police\ Department.$

Worcester: Most Recent Traffic Counts for Each Location*		
Location	Average Annual Daily Traffic Count	
I-290 above Washington Square (2016)	138,265	
I-290 above College Square (2016)	93,856	
I-190 at I290 Southbound (2016)	28,135	
I-90 & I-290 Interchange (All Directions) (2016)	138,028	
Belmont Street at Lake Avenue (2017)	37,622	
Belmont Street at Lincoln Square (2016)	26,269	
I-290 Exit 13 (Kelley Square) (All Ramps) (2016)	30,974	
I-90 & Rt. 146 Interchange (All Directions) (2016)	26,292	
Park Avenue at Chandler Street (2016)	20,297	
Pleasant Street at South Flagg Street (2016)	16,553	
Grafton Street at Sunderland Road (2016)	15,632	
Plantation Street at Boylston Street (2017)	16,355	
Salisbury Street at Park Avenue (2016)	14,939	
West Boylston Street at West Mountain Street (2016)	12,151	
Mill Street at Chandler Street (2016)	10,368	
Green Street at Winter Street (2016)	9,156	
Airport Drive at Mill Street (2016)	6,045	
Pleasant Street at Park Ave. (2016)	11,060	
Pleasant St. & Highland Ave. at Newton Square (2016)	37,763	

^{*}Numbers for traffic is for both directions.

Source: Massachusetts Department of Transportation.



Arts, Culture, & Sports

s, Culture, & Sports



Worcester Almanac: Arts, Culture, & Sports

Worcester Cultural Coalition—In 2017, the Worcester Cultural Coalition consisted of the City of Worcester and 61 cultural organizations in Greater Worcester.

- 4th Wall Stage Company
- All Saints Choirs
- American Antiquarian Society
- Art in the Park, Worcester
- Arts on the Green
- Arts Transcending Borders
- ArtsWorcester
- Assumption College-HumanArts
- Audio Journal
- Calliope Productions
- Canal District Alliance, Inc.
- Clark Arts
- Creative Hub
- Crocodile River Music
- EcoTarium
- The Hanover Theatre for the Performing Arts
- International Center of Worcester
- Joy of Music Program
- Mass Audubon Broad Meadow Brook
- Master Singers of Worcester
- Mechanics Hall
- Museum of Russian Icons
- Music at Trinity Lutheran Church
- Music Worcester
- Old Sturbridge Village
- Pakachoag Music School
- Preservation Worcester
- Regional Environmental Council
- Salisbury Singers Inc
- Seven Hills Symphony
- Southeast Asian Coalition
- The Sprinkler Factory
- stART on the Street

Source: Worcester Cultural Coalition.

- St. Spyridon Grecian Festival
- St. Mary's Assumption Albanian Orthodox Church
- Tower Hill Botanic Garden
- VallevCAST
- Veterans Inc.
- VSA Massachusetts
- WCCA TV 194
- WCUW
- WICN Public Radio
- Worcester Art Museum
- Worcester Arts Council
- Worcester Caribbean American Carnival Association
- Worcester Center for Crafts
- Worcester Chamber Music Society
- Worcester Chapter American Guild of Organists
- Worcester Children's Chorus
- Worcester County Light Opera Club
- Worcester County Poetry Association
- Worcester Historical Museum
- Worcester Inter-Tribal Indian Center
- Worcester Jewish Community Center
- Worcester Polytechnic Institute Humanities and Arts
- Worcester Public Library
- Worcester Shakespeare Company
- Worcester State University
- Worcester Shubertiad
- Worcester Women's History Project
- Worcester Youth Orchestra



Worcester Almanac: Arts, Culture, & Sports

Worcester: Bravehearts Baseball, 2017			
Wins	Losses	Percentage	Awards
25	29	0.462	2017 Futures League Organization of the Year 2017 Relief Pitcher of the Year, Cody Larson

Attendance

The team finished 8th in total attendance and 7th in average attendance among 153 teams, with 65,957 fans coming out to Hanover Insurance Park at Fitton Field.

Source: Worcester Bravehearts.

Greater Worcester: College, High School, and League Athletic Achievements, 2017

Assumption College Football advanced to the Elite 8 Division 2 NCAA Tournament

Holy Cross Baseball won the Patriot League Title

Nichols Men's Basketball qualified for the NCAA Tournament winning the first tournament game in school history

Wachusett Regional High School Girl's Soccer won the Division 1 State Title

St. John's High School Football won the Division 3 State Title

Auburn High School Baseball won the Division 3 State Title

Grafton High School Softball won the Division 2 State Title

St. John's High School Baseball won the Super 8 Title, the first win by a Central Massachusetts high school

In the Clark University High School Basketball Tournament, one of the longest running high school tournaments in the country, **Maynard High School** won the Small School Championship and **Bartlett High School** won the Large School Championship.

Holden Little League Baseball (11&12 year olds) won the State Championship

Shrewsbury Legion Baseball won the State title, the Northeast Title, and qualified for the Legion World Series

Source: Charter TV 3.

Greater Worcester: Other Notable Sport Achievements and Milestones, 2017

Worcester Railers opened their first season in the ECHL at the DCU Center on October 14 by defeating the Manchester Monarchs, 4-3.

College of the Holy Cross completed a \$95 million dollar renovation of the Hart Center that includes a 64,000 square foot indoor practice facility and an auxiliary gym for basketball and volleyball.

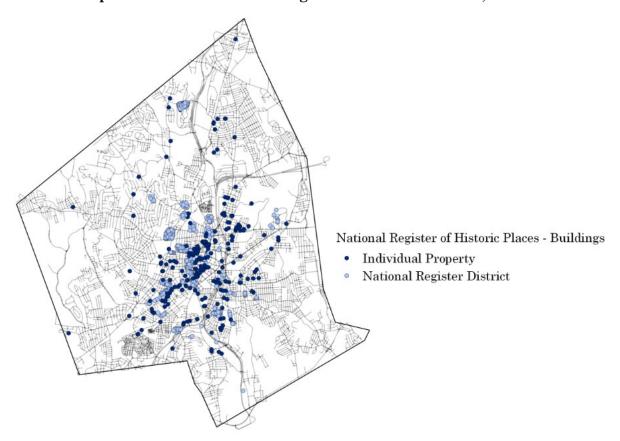
Source: Charter TV 3.



Worcester Almanac: Arts, Culture, & Sports

The National Historic Preservation Act of 1966 established the National Park Service's National Register of Historic Places, a list of the nation's historic sites to facilitate public and private efforts to identify, evaluate, and protect historic and archeological buildings and properties. According to the National Park Service, listing on the National Register of Historic Places imposes no restrictions on what a non-federal owner may do with the property up to and including destruction, unless the property is involved in a project that receives Federal assistance through funding or licensing/permitting.

Worcester: Properties on the National Register of Historic Places, 2017



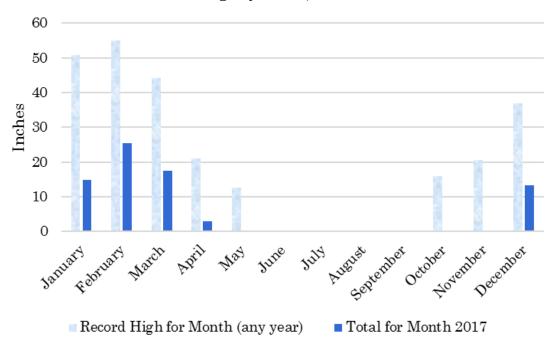
Source: Massachusetts Cultural Resource Information System.



Weather, Geography & Environment

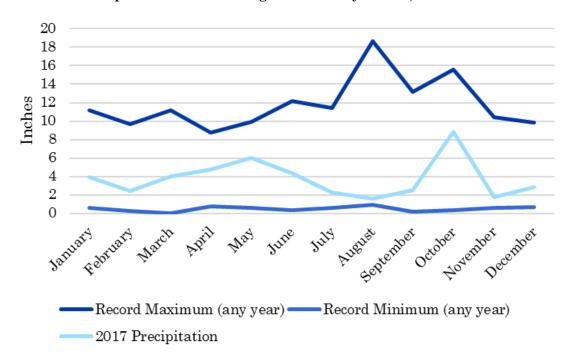


Worcester: Snowfall & Record High by Month, 2017



 $Source: National\ Oceanic\ \&\ Atmospheric\ Administration.$

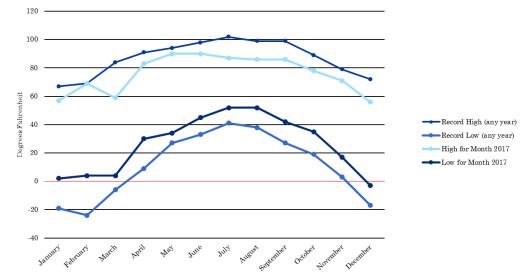
Worcester: Precipitation & Record High and Low by Month, 2017



 $Source: National\ Oceanic\ \&\ Atmospheric\ Administration.$

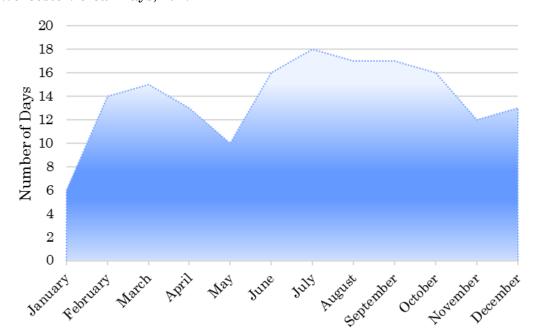


Worcester: Average High and Low Temperatures Compared to Record, 2017



 $Source: National\ Oceanic\ \&\ Atmospheric\ Administration.$

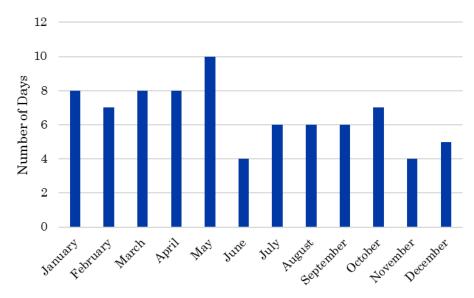
Worcester: Clear Days, 2017



Source: National Oceanic & Atmospheric Administration.



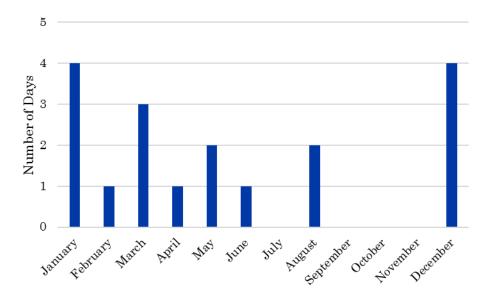
Worcester: Fog, Visibility Less than Quarter Mile, 2017



Source: National Oceanic & Atmospheric Administration.

Fog is a dense cloud layer at or near the earth's surface that restricts visibility, adversely affecting travel. Haze is a reflection of sunlight off fine solid or liquid particles that are dispersed in the air. Haze is a type of air pollution and can adversely affect people's health, triggering asthma and allergies.

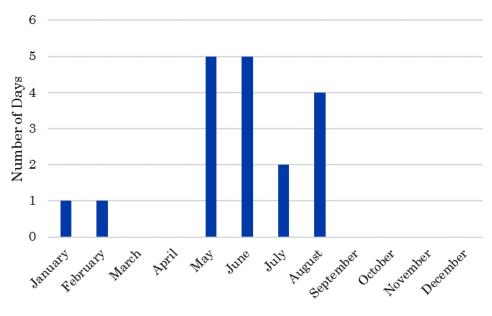
Worcester: Haze, 2017



Source: National Oceanic & Atmospheric Administration.

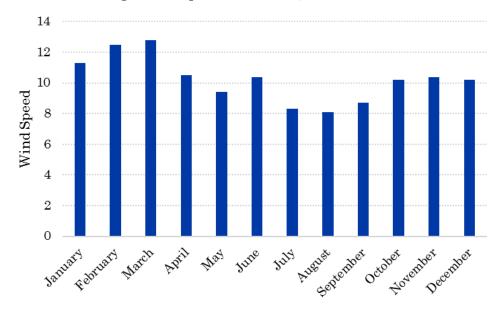
Worcester: Number of Days with Thunderstorms, 2017

Weather



 $Source: National\ Oceanic\ \&\ Atmospheric\ Administration.$

Worcester: Average Wind Speed Per Month, 2017



 $Source: National\ Oceanic\ \&\ Atmospheric\ Administration.$



Worcester is located at the headwaters of the Blackstone River and is part of the Blackstone River Watershed—640 square miles of drainage and 1300 acres of lakes, ponds and reservoirs. The watershed extends into Rhode Island and includes the City of Providence.

Worcester: Lakes, Rivers, Ponds, Brooks, and Waterfalls
Lakes
Indian Lake
Quinsigamond Lake
Rivers
Blackstone River
McKeon River
Middle River
Ponds
Bell Pond
Burncoat Pond
Cider Mill Pond
City Farm Pond
Coes Pond
Cook Pond
Curtis Pond
Elm Park Pond
Flint Pond
Green Hill Pond
Leesville Pond
Patch Pond
Poor Farm Pond
Salisbury Pond
Smith Pond
Williams Mill Pond
Streams and Brooks
Beaver Brook
Broad Meadow Brook
Coal Mine Brook
Kettle Brook
Tatnuck Brook
Weasel Brook
Waterfalls
The Cascade

Source: City of Worcester Open Space and Recreation Plan, 2013.

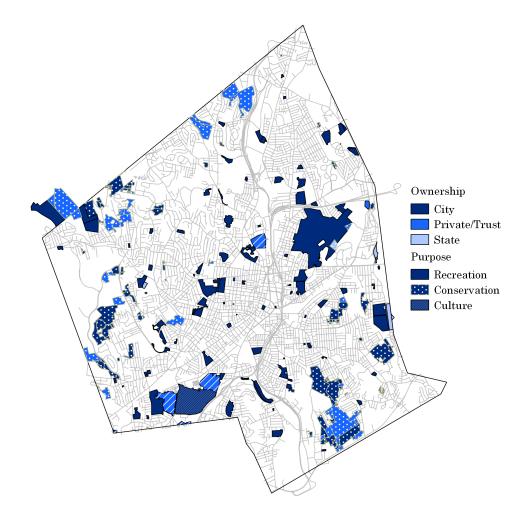


Worcester's Hills
Airport Hill
Bancroft Hill (Bell Hill)
Grafton Hill
Green Hill
Pakachoag Hill
Vernon Hill
Indian Hill
Newton Hill
Poet's Hill
Wigwam Hill
Union Hill
Prospect Hill

Worcester is famous for its hills, and by popular myth, the city is said to have seven hills like Ancient Rome. In reality, Worcester has 12 named hills.

Source: City of Worcester Open Space and Recreation Plan, 2013

Worcester: Open Space by Ownership and Purpose



Source: MassGIS.

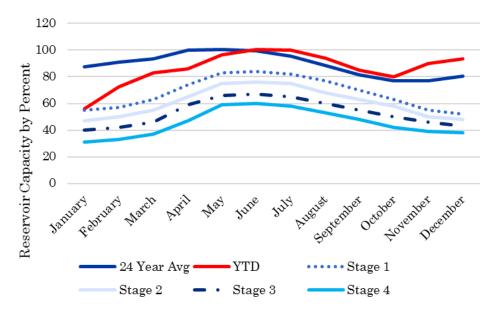


Worcester: Reservoirs—Acres and Capacity
Lynde Brook – 132 acres; 342.75 feet; 717,422,000 gallons
Kettle Brook, No. $1 - 11.50$ acres; 364.35 feet; $19,307,000$ gallons
Kettle Brook, No. $2 - 30.76$ acres; 507.5 feet; 127,310,000 gallons
Kettle Brook, No. 3 – 37.41 acres; 559 feet; 152,306,000 gallons
Kettle Brook, No. 4 – 118.61 acres; 604.73 feet; 513,746,000 gallons
Holden, No. $1 - 130$ acres; 269.85 feet; 729,319,000 gallons
Holden, No. $2 - 52.63$ acres; 237.80 feet; 257,398,000 gallons
Kendall – 175 acres; 333 feet; 792,163,000 gallons
Pine Hill – 345 acres; 429 feet; 2,970,967,000 gallons

Source: City of Worcester.

According to the City's Department of Public Works & Parks, which manages Worcester's water and sewer operations, water consumption for 2017 was 7,615,086 million gallons.

Worcester: Drought Stages, 2017



 $Source: {\it City of Worcester.}, {\it Department of Public Works and Parks}.$

Total rainfall for Worcester in 2017 was 45.48 inches, 5.31 inches less than the average annual rainfall of 50.79 inches. In the months of June and July, the reservoirs were slightly above capacity. In December, the reservoirs were at 93.3% capacity.

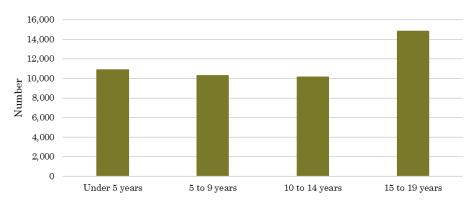


Appendix

A Focus on Children

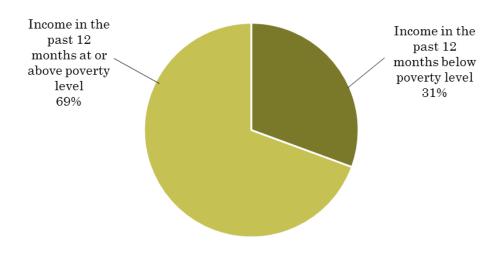
A Focus on Children is a new addition to *The Worcester Almanac*, derived from conversations with youth-serving organizations as well as the Greater Worcester Community Foundation. The goal of this section is to highlight those factors affecting young people, so that policymakers and practitioners can address the challenges impacting our future civic leaders. This section will grow and change over time as new issues and opportunities are identified and new connections are made between data and public policy.

Worcester: Children by Age, 2016



Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

Worcester: Child Poverty Status, 2016

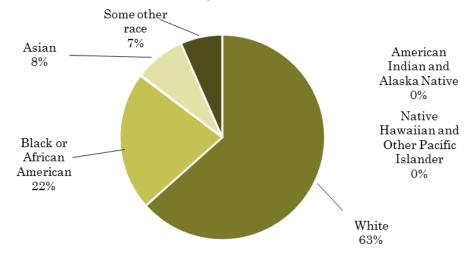


Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

Annual Worcester County Point-in-Time Count, January 25, 2017						
	Sheltered		Unsheltered	Total		
	Emergency Shelter	Transitional Housing				
Number Homeless Under Age 18	300	110	3	413		

Source: Central Massachusetts Housing Alliance.

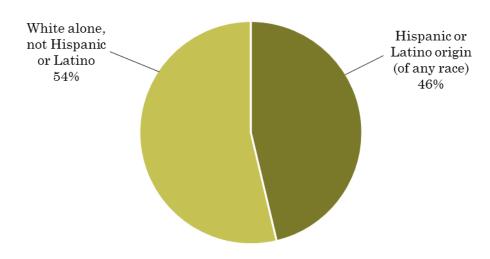
Worcester: Children Under 18 by Race, 2016



Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

The U.S. Census Bureau tallies five categories of race: "American Indian or Alaska Native," "Asian," "Black or African American," "Native Hawaiian or Other Pacific Islander," and "White." Hispanic origin is defined as ethnicity, rather than race, and persons defined as Hispanic or Latino can be of any race.

Worcester: Hispanic or Latino Origin for Children Under 18, 2016



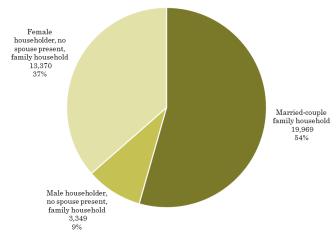
Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

Resident Teen Births, Worcester 2015*				
	2005	2015		
Number of Teen Births	262	130		
Teen Birth Rate**	37.2	16.8		

^{*}Birth rates represent the number of births per 1,000 females ages 15-19.

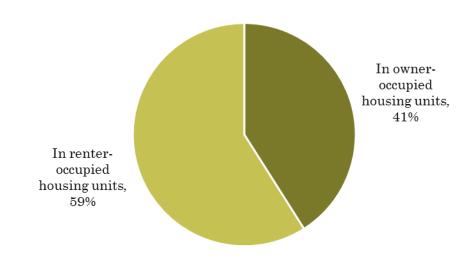
 $Source: Greater\ Worcester\ Community\ Health\ Assessment,\\ 2015,\ Massachusetts\ Department\ of\ Public\ Health.$

Worcester: Children Under 18, Family Situation, 2016



Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

Worcester: Children under 18 Years of Age—Housing, 2016

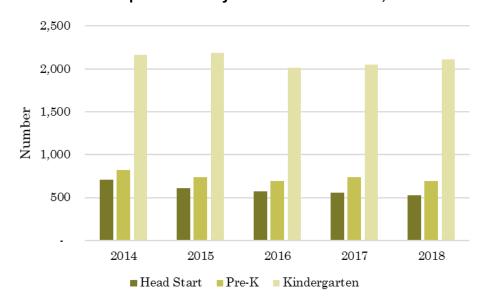


Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

Worcester: School Enrollment, 2016				
Children 3 to 17 years in households	30,633			
Enrolled in school	27,787			
Not enrolled in school	2,846			
Public School	90.0%			
Private School	10%			

Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

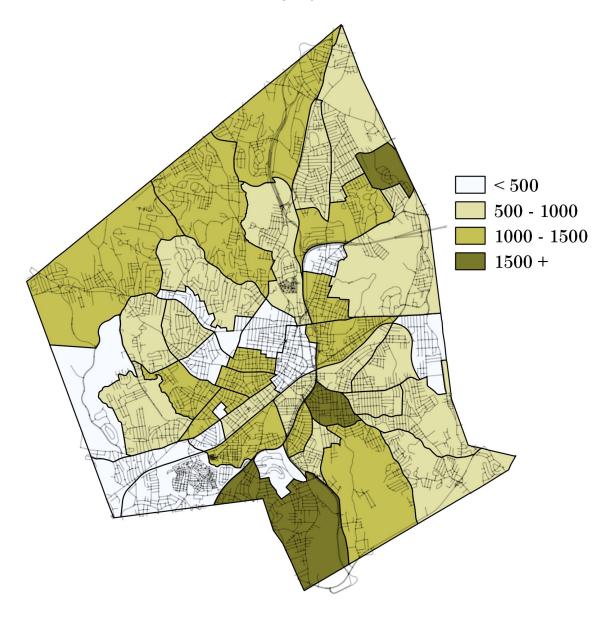
Worcester: Participation in Early Childhood Education, 2014-2018



Source: Massachusetts Department of Elementary and Secondary Education.

Under the Head Start Act, children from birth to age five from families with incomes below the poverty line are eligible for Head Start and Early Head Start services. Children from homeless families, and families receiving public assistance such as Temporary Assistance for Needy Families (TANF) or Supplemental Security Income (SSI) are also eligible.

Worcester: Children under 18 Years of Age by Census Tract



Source: U.S. Census Bureau, 2016 5-Year American Community Survey.

Mobility refers to students transferring in or out of public schools during the school year for reasons other than grade promotion. A large number of students moving in and out of a school can be very disruptive to the fulfillment of academic goals for the individual student and for all students as teachers work to make sure everyone is in the same place in the curriculum. To measure mobility, the Massachusetts Department of Elementary and Secondary Education uses these three measurements:

- Intake (Transfer-in) Rate: Number of students who enroll in district after start of school year
- Churn Rate: Number of students transferring in or out during school year
- Stability Rate: Number of students who stay in the district throughout the school year.

Worcester: Mobility Rates, 2017					
	Churn/Intake Enroll	Percent Churn	Percent Intake	Stability Enroll	Percent Stability
All Students	27,583	17.8	9.8	25,778	90.4
Economically Disadvantaged	17,578	20.5	11.2	16,323	88.9
High Needs	21,869	20.3	11.4	20,226	89.2
LEP English language learner	10,055	25.0	15.4	9,019	87.3
Students with disabilities	5,211	20.3	11.0	4,862	88.9
Mobility By Race					
African American/Black	4,354	20.3	12.5	3,976	89.9
American Indian or Alaskan Native	44	13.6	6.8	43	90.7
Asian	2,030	14.1	7.9	1,930	91.5
Hispanic or Latino	11,599	20.4	11.2	10,761	89.0
Multi-race, non-Hispanic or Latino	1,129	15.4	7.3	1,080	90.9
Native Hawaiian or Pacific Islander	-	-	-	-	-
White	8,425	14.2	7.4	7,986	92.3

^{*}Data for populations less 6 than not reported.

Source: Massachusetts Department of Elementary and Secondary Education.

Worcester: Student Discipline Report, 2016-17					
All Offenses	Students	Students Disciplined	Percent In- School Sus- pension	Percent Out -of-School Suspension	Percent Emergency Removal
All Students	27,485	2,306	2.4	4.6	4.2
ELL	10,019	862	2.2	4.8	4.6
Economically disadvantaged	17,527	1,863	2.9	5.9	5.7
Students w/disabilities	5,207	878	4.7	10.3	9
High needs	21,789	2,103	2.7	5.3	5
Female	13,278	730	1.8	3	2.7
Male	14,206	1,576	3.1	6	5.7
Amer. Ind. or Alaska Nat.	44	8	9.1	6.8	13.6
Asian	2,023	30	0.3	0.9	0.7
Afr. Amer./Black	4,343	370	2.6	4.4	4.3
Hispanic/Latino	11,559	1,330	3.2	6.3	5.8
Multi-race, Non-Hispanic/Latino	1,129	112	2.8	6.4	5.5
Nat. Hawaiian or Pacific Islander*	2	-	-	-	
White	8,385	456	1.7	2.9	2.7

^{*}Data for populations less 6 than not reported.

Source: Massachusetts Department of Elementary and Secondary Education.

Explanation of Terms

In-school suspension: a disciplinary action which removes a student from participation in school activities for 1 day or more. Students suspended remain in school but are removed from academic classes and placed in a separate environment during their suspension.

Out-of-school suspension: a disciplinary action which removes a student from participation in all school activities, including after school activities, for at least one day, not to exceed 90 days in a school year. Students are not allowed on school grounds during their suspensions.

Emergency Removal: removing a student from school temporarily when a student is charged with a disciplinary offense and in the principal's judgement, the continued presence of the student poses a danger to persons or property, and substantially disrupts the order of the school, and, in the principal's judgment, there is no alternative available to alleviate the danger or disruption. An emergency removal shall not exceed two day past the student's removal from school. 2016-1017 school year is not yet available for the public.

Expulsion: a disciplinary action imposed by school officials to permanently remove a student from participation in all school activities. Student is ineligible to return to school. Data for expulsions for the 2016-2017 school year are not yet available to the public.



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