

Data Atlas

by Neighborhood

City of Springfield



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Funded by the city of Springfield using American Rescue Plan Act (ARPA) funds 2022

DATA ATLAS BY NEIGHBORHOOD

FOR THE CITY OF

SPRINGFIELD, MA

December 2022
Rev. June 2024

Prepared by:

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ABOUT THE REPORT

WELCOME to the second edition of the city of Springfield, MA Neighborhood Data Atlas!

We hope you will find this information useful in understanding your neighborhood.

The city of Springfield engaged their regional planning agency, the Pioneer Valley Planning Commission (PVPC) to produce this Data Atlas in order to provide community-based advocacy and service delivery organizations, residents, and city government with health, economic, and educational information on each of the city's 17 neighborhoods. Collectively, we seek to answer the question: how is Springfield doing?

As illustrated throughout the report, the city faces extreme challenges, with wide variations in measures of health and well-being between neighborhoods. In some neighborhoods, notable gains are evident. Yet other neighborhoods fall far below expectations for the city, region, and state, reminding us of and invigorating us in our efforts to improve health outcomes, economic security and quality of life. We provide this data atlas as a foundation for strategic decision-making by local organizations, city government and the public. Our hope is that the findings presented within these pages foster ongoing informed dialogue and action dedicated to shaping the city's future.

ABOUT THE INDICATORS

The task of selecting and examining factors that determine health, wellness, and quality of life can be approached with many methods. The indicators found in these pages were originally selected by the representatives of the organizations that form LiveWell Springfield because they most accurately reflect LiveWell's mission and programming and because they were readily available. During the selection process, past indicators used by the PVPC were reviewed, along with others that were relevant to the context of LiveWell Springfield's work. For this report, the indicators were categorized into the following sections:

Children & Youth: measures phenomenon and resources related to children, childcare, and births

Education: explores educational opportunities, phenomenon, and outcomes across different academic levels, from preschool to college

Health & Safety: illustrates issues of mental and physical well-being, as well as safety

Economic Security: presents basic economic and financial issues affecting Springfield residents

Housing: investigates the cost, availability, and stock of housing in Springfield

Environment: analyzes transportation options, recreational opportunities, and pollution reduction in the built environment

Indicators are presented in three formats. Visually, city data is compiled in charts and graphs along with figures for the Pioneer Valley region and state of Massachusetts, to allow for the comparative analysis of historical trends. Spatially, the neighborhood-level data is visualized on corresponding maps that depict the current variations among neighborhoods in order to highlight outliers, inequities, and the extent that phenomenon are geographically clustered. Narratively, the body of information is analyzed to uncover trends, outliers, disparities, and clustering. Additionally, a table with the neighborhood-level data is provided so readers can seamlessly incorporate it into their future work. Whenever possible, all three formats are presented for each indicator. However, in a few cases the data was not have been available at the neighborhood level. In these cases, narrative

descriptions and historical trend graphs are still provided to show the important comparisons between Springfield, the Pioneer Valley region, and the state.

ABOUT THE DATA

U.S. Census Bureau: The data utilized in this report was derived from a multitude of sources. Primarily and unless otherwise noted, data was obtained from the U.S. Census Bureau's 2020 American Community Survey 5-Year estimates.

Margin of Error: To acquire this, the U.S. Census randomly surveys a sample of the population for each geographic area. The results, as with any survey, possess a margin of error that can be found on the U.S. Census Bureau's website. Despite this imperfection, we believe this is the best available data at the time of the creation of this report.

5-Year –Estimates: Any neighborhood level data provided by the U.S. Census Bureau are 5-year estimates. What this means is that at a small geographic scale, it may take up to five years for enough respondents to participate to develop a valid and accurate estimate for that geographic area. Accordingly, these estimates are not averages for the five-year period. They are an estimate developed based on data that was collected over five years.

Other Data Sources: Other data sources, state and federal, are noted if used. Certain datasets are recent, yet others are from a year or two ago. As entities which provide the data do not maintain a uniform schedule for dissemination, the most recent release may be older than other datasets in the report. We have used the most recently released data in this report. Moreover, the scope of historical data is also different among these sources, resulting in a smaller time-series for certain datasets compared to others.

ABOUT NEIGHBORHOOD CALCULATIONS

Most of the data from the American Community Survey is available for individual census tracts. In densely populated urban areas, multiple census tracts often comprise one neighborhood. For this report, we examined a list of census tracts by neighborhood provided by the City of Springfield. In most cases, census tract boundaries are fairly close to neighborhood boundaries, but on occasion, census tracts do not follow the boundaries of a neighborhood, spilling into the adjacent neighborhood and resulting in a margin of error. Despite this imperfection, combining census tracts is the most accurate method available for deriving much of this neighborhood-level information. Illustrated in the following table and map are the Springfield neighborhoods and their corresponding census tracts.

When available, raw numbers were used and combined to determine neighborhood values. In other instances, data is only available as percentages of the tract population. Subsequently, each census tract was weighted according to the proportion of its population to the neighborhood's total population in order to accurately determine the neighborhood's rate. For example, unemployment rates are presented as a percentage for a neighborhood's multiple tracts. Combining these as is would inaccurately produce a rate that ignores the population differences of each tract. A weighted value, based on the populations, is used in calculations to derive the neighborhood rate.

In other cases, indicators are extracted as rates of a certain population. For example, the rate of premature mortality is calculated as a number per 1,000 people. In one neighborhood, there may be 20 cases, yet in another, 10 cases. Both, though, have a different number of residents. When reduced to a number per 1,000 people, it allows one to clearly compare indicators across spatial scales with varying populations.

NEIGHBORHOOD NAME	CENSUS TRACT NUMBER(S)
Indian Orchard	8001.01, 8001.02
East Springfield	8002.01, 8002.02
Liberty Heights	8003, 8004, 8005, 8009
Memorial Square	8006, 8008
Brightwood	8007
Metro Center	8011.01, 8011.02, 8012
McKnight	8013
Bay	8014.01
Pine Point	8014.02, 8015.01, 8015.02
Boston Road	8015.03
Sixteen Acres	8016.01, 8016.02, 8016.03, 8016.04, 8016.05
Upper Hill	8017
Old Hill	8018
Six Corners	8019.01, 8019.02
South End	8020
Forest Park	8021, 8022, 8023, 8026.01, 8026.02
East Forest Park	8024, 8025

TELL US WHAT YOU THINK

We encourage you to write or call us with comments, questions, suggestions, and responses. Reactions from the public inform our work and are fundamental in analyzing the social, economic, environmental, and health data that affect the city's residents.

AN INTRODUCTION TO SPRINGFIELD, MA

The City of Springfield is the largest city in the Pioneer Valley Region. It is the third largest community in the Commonwealth of Massachusetts. Together with the City of Holyoke and Chicopee and their neighboring communities, Springfield comprises the fourth largest metropolitan area in New England.

A largely developed and urbanized city comprising 33 square miles (approximately 21,147 acres), Springfield is located on the eastern bank of the Connecticut River in Western Massachusetts, just north of the Connecticut state line.

Settled in 1636, Springfield has several historic and distinct neighborhoods in addition to a newly revitalized Central Business District. These neighborhoods earned the city its nickname of the “City of Homes.” Springfield is also known as the “City of Firsts” paying homage to its history as the birthplace of the first gasoline-powered automobile and motorcycle, and the game of basketball.

Springfield is home to eight of the region’s twenty largest employers, including Mass Mutual Life Insurance, Solutia (a Division of Monsanto Chemical Co.), and Smith & Wesson. Major cultural institutions include the Springfield Symphony, City Stage, Springfield Civic Center, and the Springfield Library and Museums Association – all of which are located in a historic downtown campus setting. Springfield is also home to four colleges and four hospitals.

Even with vibrant, historic neighborhoods, a newly reinvigorated downtown and an active cultural base, Springfield, like many urban areas in the Northeast, has seen a decrease in population in recent years. Since 1990, the City’s population declined by an estimated 2% to 153,677 residents in 2020.

CHILDREN AND YOUTH

The importance of children and youth to Springfield—to any city—cannot be overstated. Capturing the current state of the city’s children is an effective predictor of the health, vitality, and future direction of the city. Children’s health, family situations, and economic circumstances are valuable indicators for what is occurring presently and what they predict for the future. If children are not healthy today, the city’s life expectancy may not increase. Children who grow up in families with major stress factors or challenging economic situations are less likely to be socially and economically successful in adulthood. Moreover, they risk perpetuating the same obstacles they once faced in their families. For this cycle to cease and reveal a positive future for Springfield, indicators in the following areas have been crafted to allow for a comprehensive understanding of the current phenomenon affecting children: low birth weight babies, infant mortality, births to teenage mothers, and rates of child poverty.

A steep decline in teenage pregnancy and a more moderate decline in child poverty are encouraging and illustrate the progress accomplished by the city. However, sharp fluctuations and a recent increase in infant mortality, along with recent growth in low-birth-weight babies, depict unsteadily negative trends. Moreover, these overall trends for the city dilute the health and quality of life inequities that resonate through certain neighborhoods in the city.

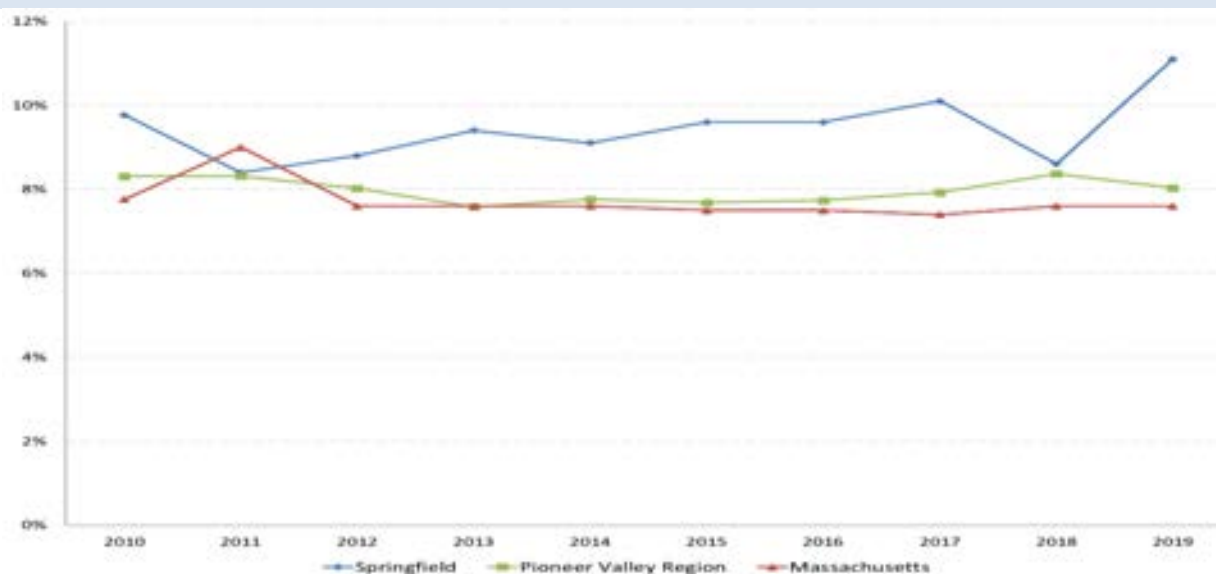
LOW BIRTH WEIGHT BABIES

Low birth weight is a complicated but significant public health indicator that often reflects a difficult pregnancy that ended prematurely. Causes include poor nutrition, substance abuse, or inadequate prenatal care. Low birth weight potentially leads to severe physical or mental health complications for a baby. Therefore, it reflects the present and future health of Springfield's population. However, an increase in the percentage of all births deemed "low birth weight" is not always negative, as an increase in low-birth-weight babies can mean that more premature babies are surviving than in the past. As the birth weight indicator does not account for premature babies that did not survive, one should also factor in the probability of survival experienced by these children. A newborn weighing less than 2,500 grams is considered to have "low birth weight." The percentage of all births that fall into this category is represented in this indicator. The percentage of babies with low birth weight is determined by dividing the number of low (including "very low") birth weight newborns by the total number of newborns. Data is based on the mother's residence.

As of 2019, 7.6% of all newborns in Massachusetts were considered low birth weight. Although this is down from previous years, the percentage has historically hovered around this level. Indeed, the percentage of low-birth-weight babies in Massachusetts rose in the first half of the 2010s before falling to the present level. In the Pioneer Valley, this rate is slightly higher, with 8.0% of babies born in 2019 reported having low birth weights. However, rates in Springfield were much worse, typically ranging from 1-3% higher than state rates for an entire decade and was 11.1% in 2019.¹

Specific neighborhoods in Springfield envelop an inordinate percentage of newborns below a healthy weight. While a few neighborhoods in Springfield, such as Metro Center, McKnight, and Pine Point, had relatively low rates of low-birth-weight newborns, most neighborhoods (12 out of 17) had rates over 10 percent. Bay (17%), Indian Orchard (18%), and South End (19%) experience a disconcertingly high number of low birthweight newborns who may face fragile health. It is important to note that around a third of census tracts that make up Springfield neighborhoods have not reported data on low birthweight babies because of small counts. Therefore, it is likely that rates in some Springfield neighborhoods have been undercounted.

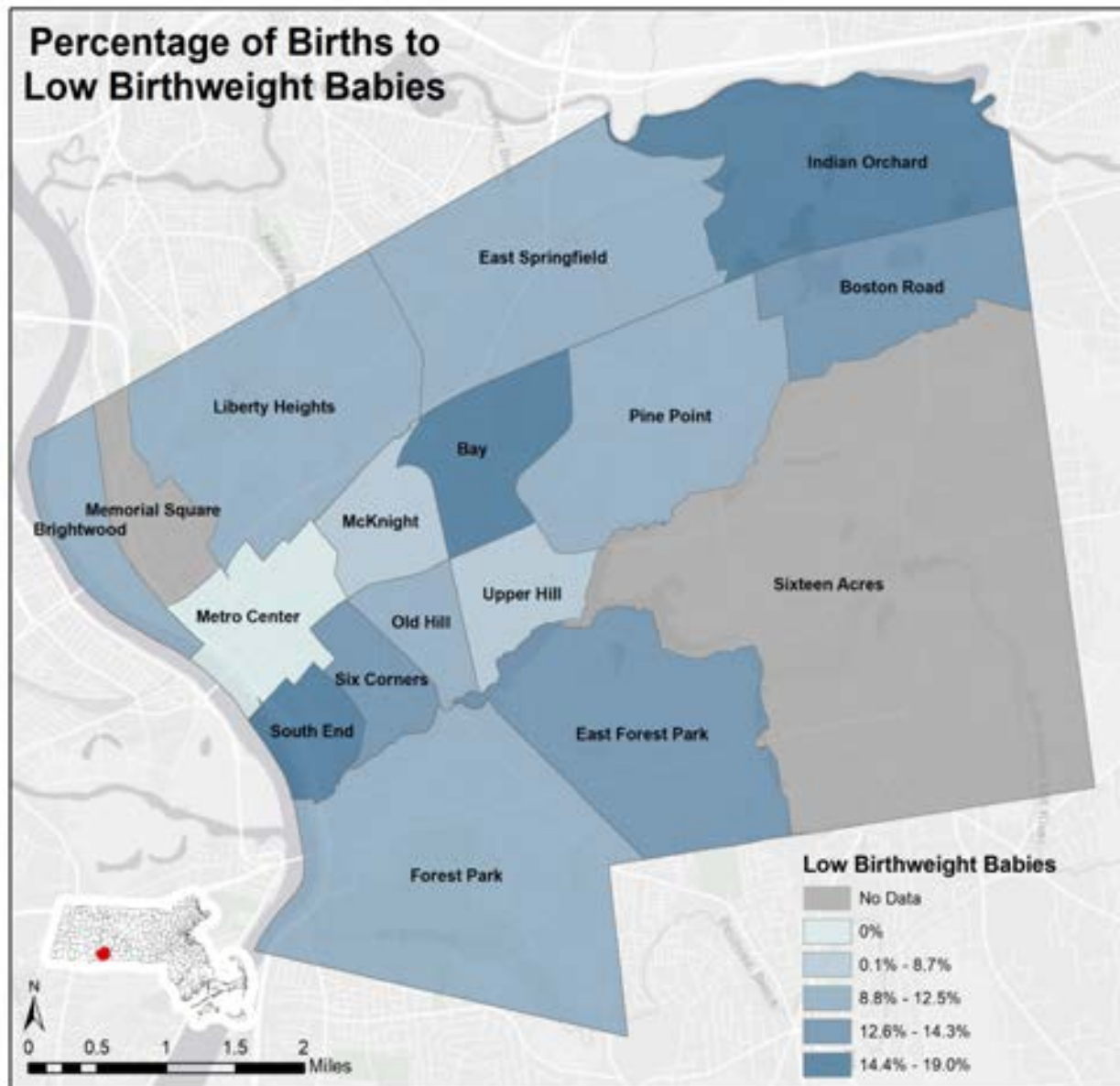
LONG TERM TRENDS: CITY, REGION, STATE



Source: MA Department of Public Health

¹ At the time of this writing, 2020 data are available but are preliminary and subject to change.

LOW BIRTH WEIGHT BABIES – NEIGHBORHOOD COMPARISONS



DATA BY NEIGHBORHOOD

NAME	2019	NAME	2019
Sixteen Acres / Memorial Square	no data	Pine Point	11.8%
Metro Center	0.0%	Liberty Heights / Old Hill	12.3%
McKnight	7.1%	East Springfield	12.5%
Massachusetts	7.9%	East Forest Park	13.0%
Upper Hill	8.7%	Six Corners	14.1%
Pioneer Valley Region	9.1%	Boston Road	14.3%
Springfield	10.3%	Bay	17.2%
Forest Park	11.1%	Indian Orchard	18.4%
Brightwood	11.3%	South End	19.0%

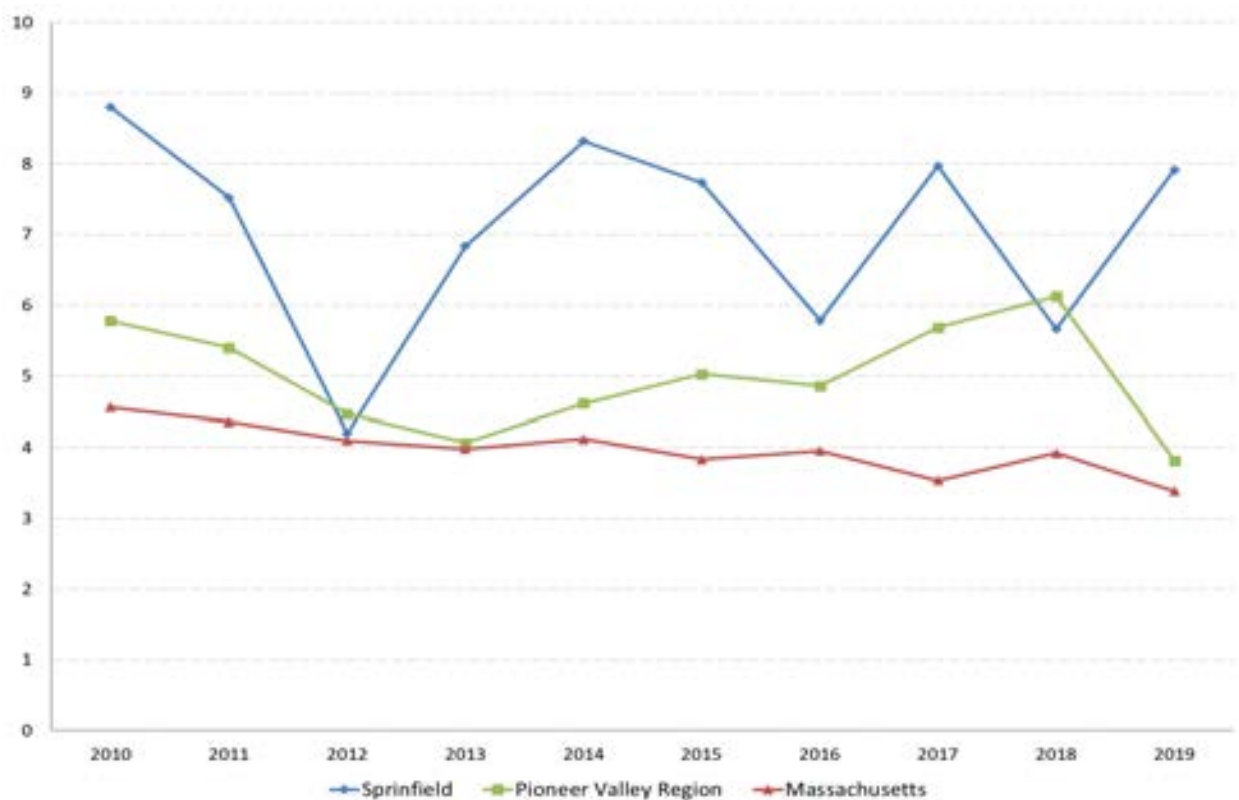
INFANT MORTALITY

Infant mortality measures the percentage of babies who do not survive past their first birthday. It is calculated as the total number of births divided by the total number of infant deaths. According to the CDC, “Mortality statistics are frequently used to [quantify] the extent of public health problems and to determine the relative importance of the various causes of death.”² This indicator measures infant mortality, or the number of infant deaths per 1000 births. Comprehensive health care, including prenatal care and nutrition, can combat infant mortality. Still, one must examine the specific causes to identify the most effective public health policy and resources.

In Massachusetts, infant mortality is relatively rare due to numerous healthcare institutions. In 2019, the state reported 3.4 deaths per 1,000 births. This number was slightly higher in the Pioneer Valley region, which had 3.8 deaths per 1,000 births. The Pioneer Valley experienced a disconcerting increase in infant mortality after 2013, though this trend had completely reversed in 2019. Springfield, though, reported a concerning 7.9 deaths per 1,000 births. The city’s infant mortality rate is highly cyclical, as shown in the graph below. There are some years of notable improvement, while others show a concerning increase. However, infant mortality has never gone past 10 deaths per 1,000 births in the past decade, which did occur in 2005 and 2008.

Data by neighborhood for infant mortality is currently not available.

LONG TERM TRENDS: CITY, REGION, STATE



Source: MA Department of Public Health

² Center for Disease Control (CDC) and Prevention

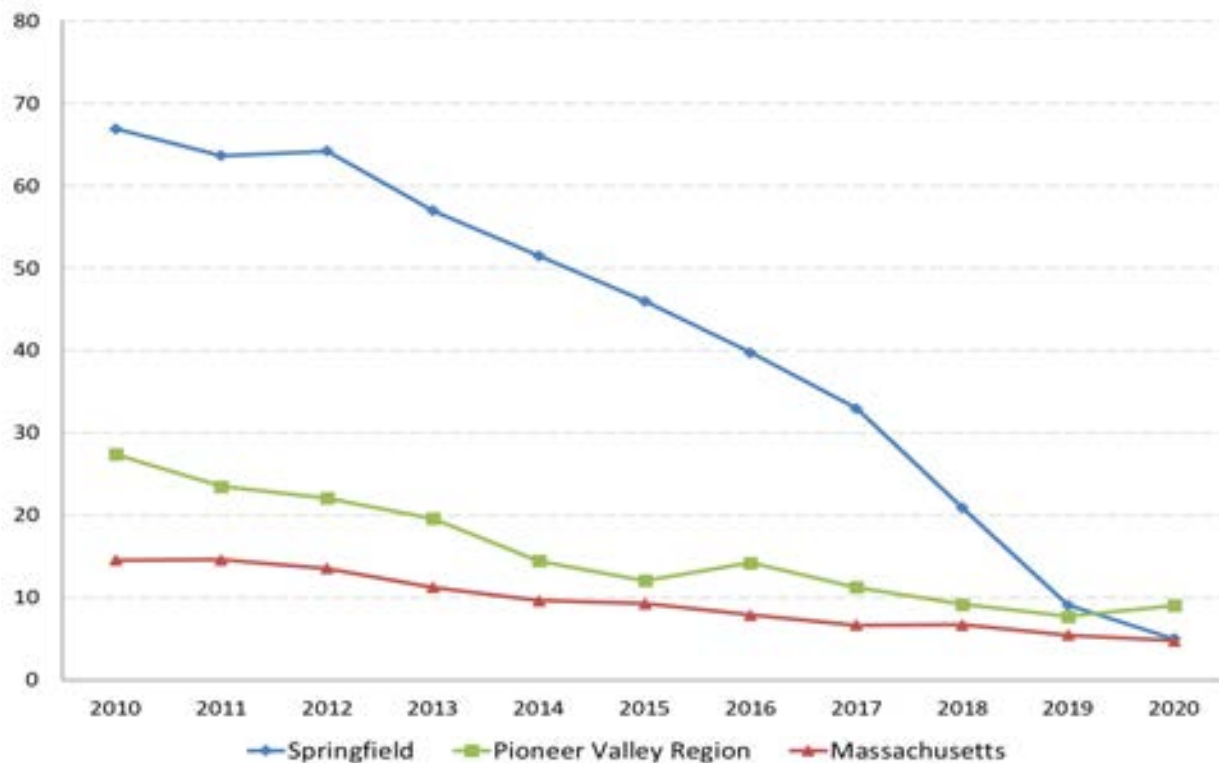
TEENAGE MOTHERS

Though there are undoubtedly exceptions, teenage mothers are more likely to face socioeconomic hardship. Often, this leads to a decreased likelihood that they complete a college degree than non-teenage mothers, subsequently leading them to face poverty. Statistically, children of teenage mothers are more likely to grow up in impoverished conditions, a dire challenge to them completing high school or college. For this indicator, teenage mothers are defined as a birth to a mother under 18 years old. This indicator is calculated as the number of births to young mothers per 1,000 female teenagers.

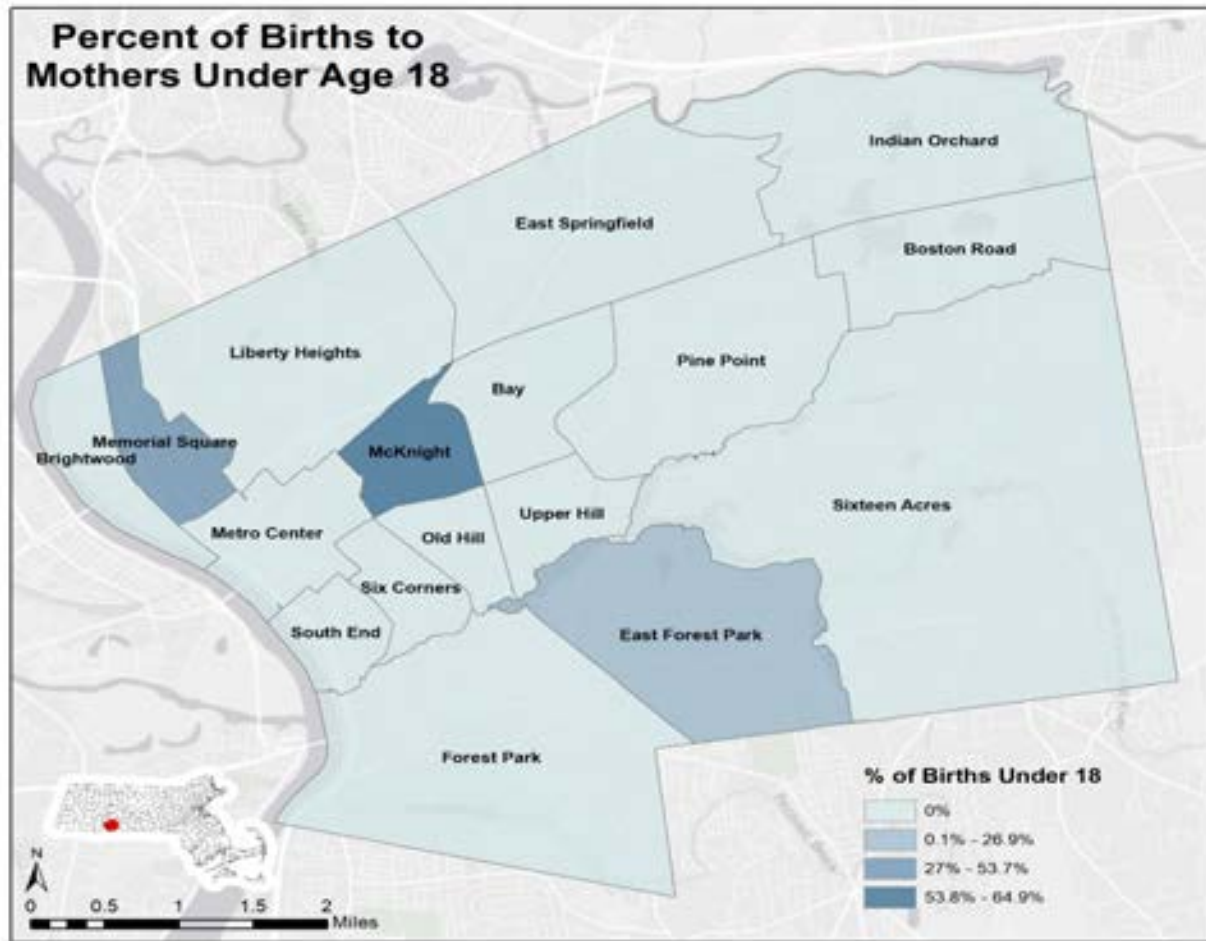
In 2020, 4.8 per 1,000 teenage women in Massachusetts were pregnant. Regionally, the Pioneer Valley reported that for every 1000 women under 18, nine became mothers that year. In significant contrast to past trends, Springfield had an even lower rate than the region, reporting just under five mothers per 1,000 female teenagers in 2020. This represents an extremely sharp decline in the past eight years. Though the city experienced a slight increase between 2010 and 2012 when rates were above 60 mothers per 1,000 teenagers, the consistent decline since then has been encouraging.

When examined at the neighborhood level, survey responses have estimated zero births to teenage mothers in 13 neighborhoods. It is likely that the high margin of error at the neighborhood level has undercounted births to teenage mothers in these neighborhoods. Those where teenage mothers were estimated include East Forest Park (26.9), Memorial Square (53.7), and McKnight (64.9), which grapple with high rates of teen pregnancy. Figures for these neighborhoods also illustrate the persistence of socioeconomic challenges that mothers face there.

LONG TERM TRENDS: CITY, REGION, STATE



Source: American Community Survey



DATA BY NEIGHBORHOOD

NAME	2020	NAME	2020
<i>Massachusetts</i>	<i>4.75%</i>	<i>East Forest Park</i>	<i>26.94%</i>
<i>Springfield</i>	<i>4.99%</i>	<i>Memorial Square</i>	<i>53.66%</i>
<i>Pioneer Valley</i>	<i>9.02%</i>	<i>McKnight</i>	<i>64.86%</i>
		<i>Other neighborhoods³</i>	<i>> 0.1%</i>

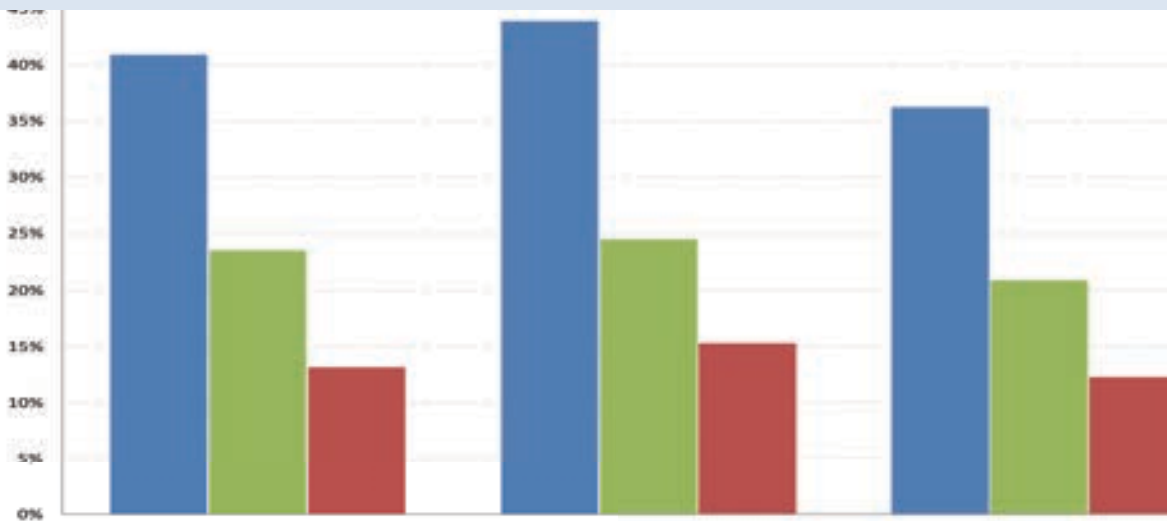
³ Likely an undercount due to use of survey data with large margins of error.

CHILD POVERTY

Children living in poverty are more likely to experience worse health outcomes, achieve lower educational attainment, and experience more mental health issues than the rest of the population. It is often harder for parents to provide consistent meals or afford additional educational resources. These factors make it difficult for children living in poverty to achieve higher economic status once they become working adults. The U.S. Census Bureau published updated poverty thresholds for different size households every year to adjust for inflation. The percentage of children living in poverty calculates all children under 18 years of age living in a household with related or unrelated house members with household income below these thresholds. For a household with four people including two children, the federal poverty threshold was \$22,113 in 2010, \$24,036 in 2015, and \$26,246 in 2020. Although not used for data collection, it is worth noting that the Census Bureau published Supplemental Poverty Measures by metropolitan area in 2020. For Springfield, the local poverty measure for a two adult two child family is \$29,524 for families with a mortgage, \$24,943 for families without a mortgage, and \$29,709 for renters.

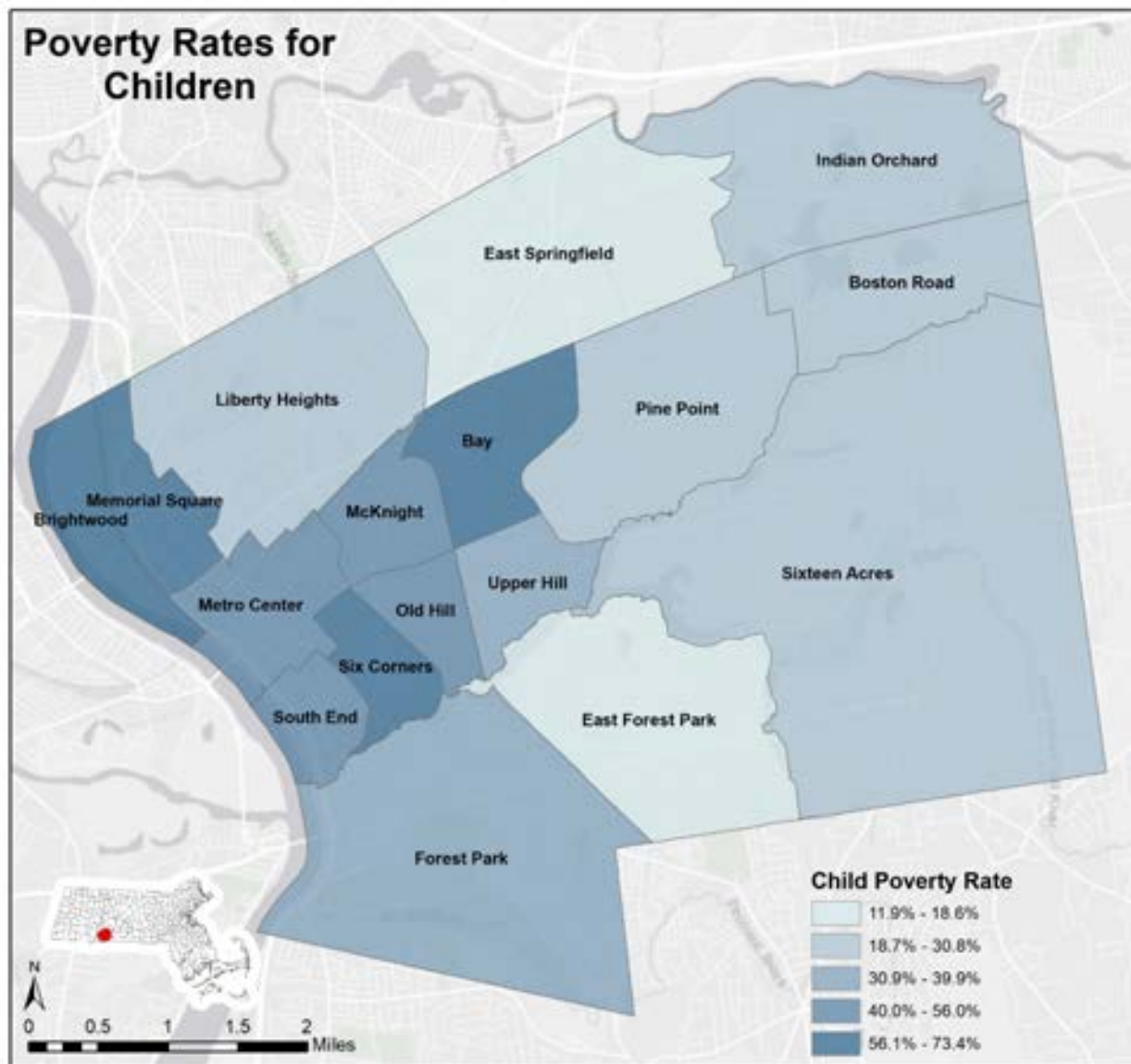
Child poverty rates are considerably higher in Springfield than the rest of the state. Poverty among children increased from 41% in 2010 to 44% in 2015, before falling to 36% in 2020. These rates are almost double that of the Pioneer Valley Region. The rest of the state has substantially lower levels of child poverty, at about 12% in 2020.

Within Springfield, there is a large variation of child poverty rates with some neighborhoods having extreme levels. The neighborhoods with the highest levels of child poverty include Bay (73%), Memorial Square (71%), Brightwood (65%) and Six Corners (65%). Neighborhoods with relatively low levels of child poverty include East Springfield (12%), East Forest Park (19%), and Indian Orchard (22%). The map below displays a sharp contrast in child poverty rates between inner-city neighborhoods and the outer suburbs of the City.



Source: U.S. Census Bureau





DATA BY NEIGHBORHOOD

NAME	2010	NAME	2010
<i>East Springfield</i>	11.9%	<i>Springfield</i>	36.2%
<i>Massachusetts</i>	12.2%	<i>Upper Hill</i>	39.9%
<i>East Forest Park</i>	18.6%	<i>Metro Center</i>	47.5%
<i>Pioneer Valley</i>	20.8%	<i>McKnight</i>	48.3%
<i>Indian Orchard</i>	21.6%	<i>Old Hill</i>	45.5%
<i>Liberty Heights</i>	25.3%	<i>South End</i>	56.0%
<i>Sixteen Acres</i>	25.4%	<i>Six Corners</i>	64.9%
<i>Boston Road</i>	27.3%	<i>Brightwood</i>	65.3%
<i>Pine Point</i>	30.8%	<i>Memorial Square</i>	71.2%
<i>Forest Park</i>	36.0%	<i>Bay</i>	73.4%

EDUCATION

Education is increasingly important to the present and future of all demographics in Springfield. Ensuring that educational opportunities are provided from an early age and extend into adulthood, from “cradle to career,” along with maintaining the highest quality for all education, are essential for sustainable economic and social progress. Accordingly, this section exposes the city’s current state regarding early education enrollment, educational attainment, high school graduation rates, and ninth-grade retention rates. Moreover, we have used scores from the Massachusetts Comprehensive Assessment System (MCAS), one of the most common metrics to quantitatively measure educational achievement from elementary school to the tenth grade. Third-grade scores are used to estimate reading proficiency, eighth-grade scores to estimate math proficiency, and comprehensive tenth-grade scores to estimate overall achievement in both subjects. Finally, student mobility, or the measure of how many students enter and leave a school district within a given year, indicates the degree of stability our classrooms provide for education, as well as possible challenges that student population may face in the future.

Springfield, like the rest of Massachusetts, Springfield has had trouble adjusting to the new MCAS scoring system. Across the state and across all grades, performance has been much worse since the change. Graduation levels, on the other hand, have improved markedly. Ninth-grade retention, which fell in recent years, increased in 2022. The biggest improvement was seen in the number of students enrolled in early education, or preschool, which has increased considerably since 2016. Since 2019 there have been proportionately more children in early education in Springfield than in the rest of the state.

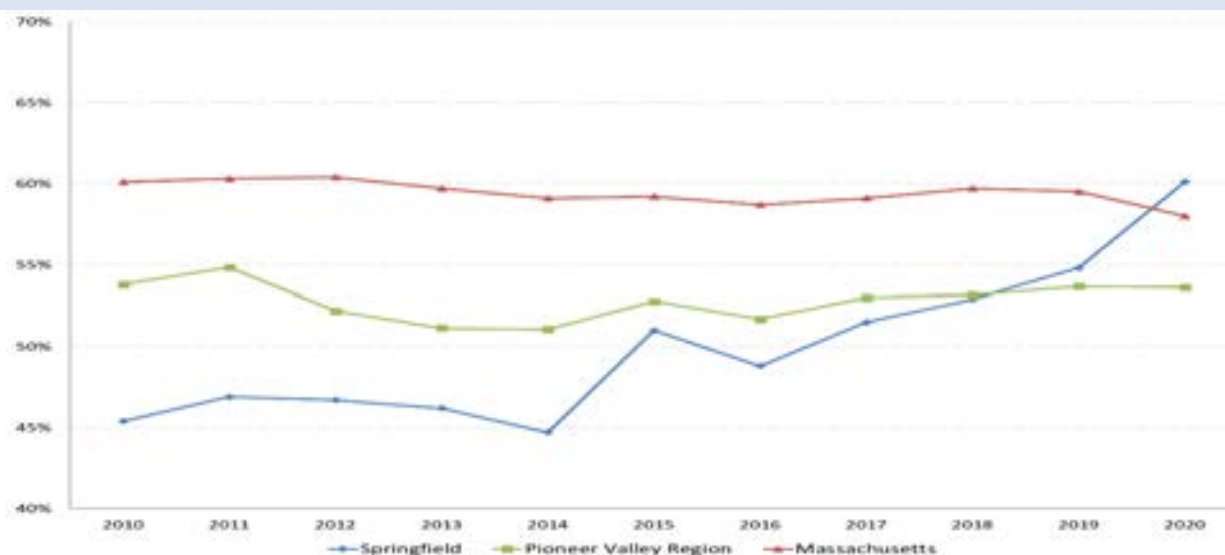
EARLY EDUCATION ENROLLMENT

Early childhood education provides an important opportunity for positive development for young children. Extensive research has now shown that a high-quality early childhood education program has significant long-term effects on a person's life outcomes. From a child's achievement in K-12 school to the probability that they will be involved in the juvenile justice system, quality preschool education is fundamental to their long-term prosperity. Moreover, early childhood education introduces students to positive development patterns in all domains: social, emotional, cognitive, and physical. Assessing the percentage of young children enrolled in early education programs is key to evaluating the supply, demand, and accessibility of early education and care services, as well as highlighting visible gaps in these services. The percentage of all children between the ages of three and four enrolled in any formal early education program (public, private, family childcare, center-based preschool) is examined in this indicator.

Statewide, the percentage of young children enrolled in preschool remained steady at around 60%, though there has been a gradual decline of a few percentage points in recent years. Regionally, the trend in the Pioneer Valley has been lower than that of the state, declining from 54% in 2010 to 51% in 2014 before returning to around 54% in 2020. Enrollment in Springfield has shown noticeable improvement and has lately overtaken rates in the region and state, increasing from 45% in 2010 to 60% in 2020.

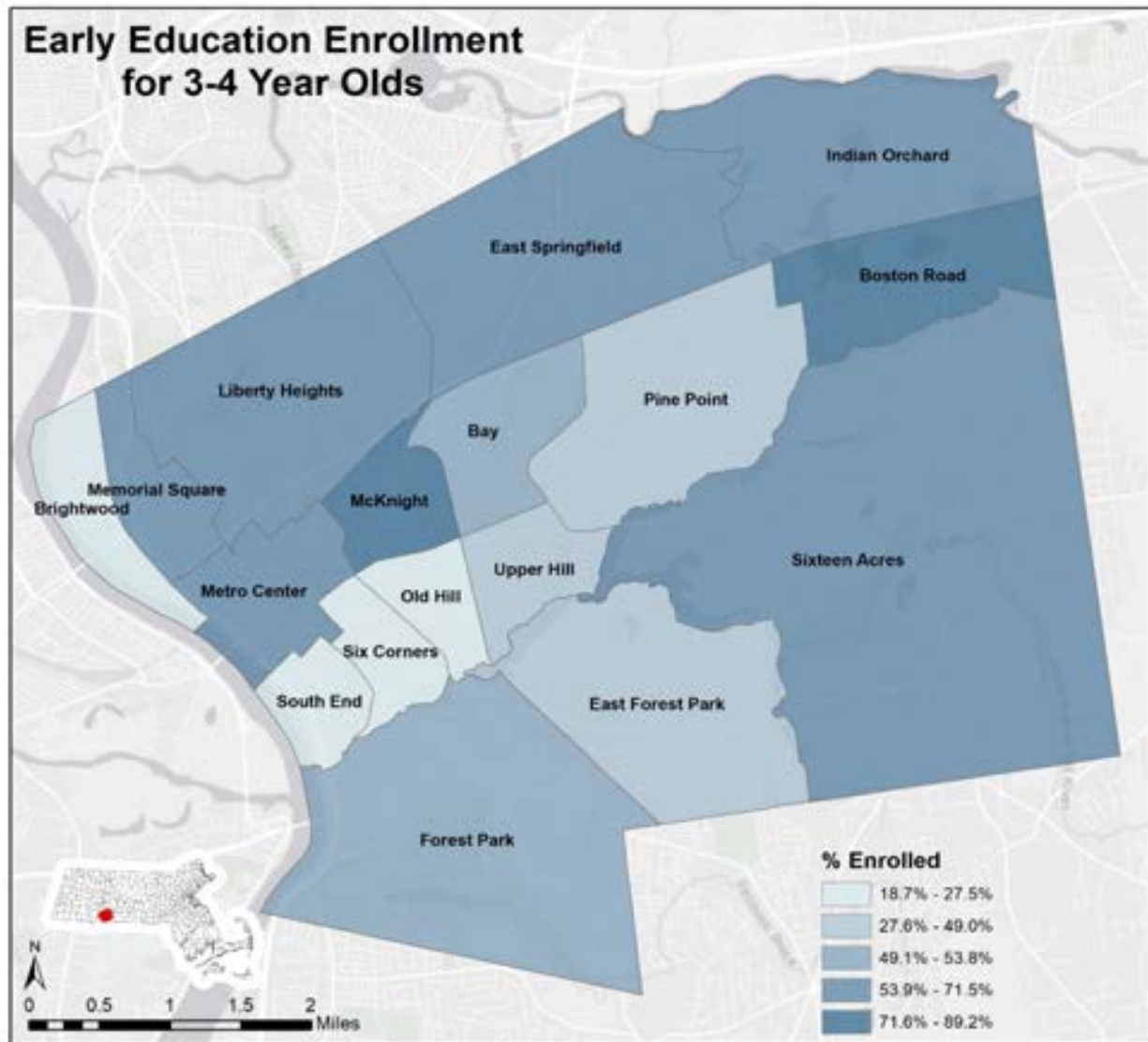
In Springfield, the number of children enrolled in these programs varies widely by neighborhood. As of 2020, Boston Road (87.3%), McKnight (89.2%), Liberty Heights (71.5%), and Indian Orchard (70.5%) enrolled the highest percentages of children in early education programs. Other neighborhoods, such as Brightwood (22.2%), South End (23.3%), Old Hill (27.5%), and Six Corners (18.7%), fall far below the city's average, with less than a third enrolled in early education. Some of these latter neighborhoods used to have some of the highest enrollment rates in 2012 but have now fallen to the lowest.⁴ The low figures in these neighborhoods, which maintain moderate income levels, present a predicament. It is possible that income levels exceed the federal poverty threshold, \$26,246 for a family of four¹, therefore limiting eligibility for programs such as Head Start. While these moderate-income levels may disqualify children from Head Start programs, it may not be adequate to pay for access to other private pay programs.

LONG TERM TRENDS: CITY, REGION¹, STATE



Source: U.S. Census Bureau. Note: Regional data was calculated by weighting county data by the total # of 3- and 4-year-old children.

⁴ Historic neighborhood data shows extreme variability; therefore, it is possible that there is a wide error margin with these indicators.



DATA BY NEIGHBORHOOD

NAME	2020	NAME	2020
<i>Six Corners</i>	18.7%	Massachusetts	58.0%
<i>Brightwood</i>	22.2%	Springfield	60.1%
<i>South End</i>	23.3%	<i>Metro Center</i>	64.0%
<i>Old Hill</i>	27.5%	<i>Memorial Square</i>	65.4%
<i>Pine Point</i>	47.2%	<i>Sixteen Acres</i>	67.1%
<i>East Forest Park</i>	47.6%	<i>East Springfield</i>	67.7%
<i>Upper Hill</i>	49.0%	<i>Indian Orchard</i>	70.5%
<i>Forest Park</i>	51.1%	<i>Liberty Heights</i>	71.5%
Pioneer Valley	53.6%	<i>Boston Road</i>	87.3%
<i>Bay</i>	53.8%	<i>McKnight</i>	89.2%

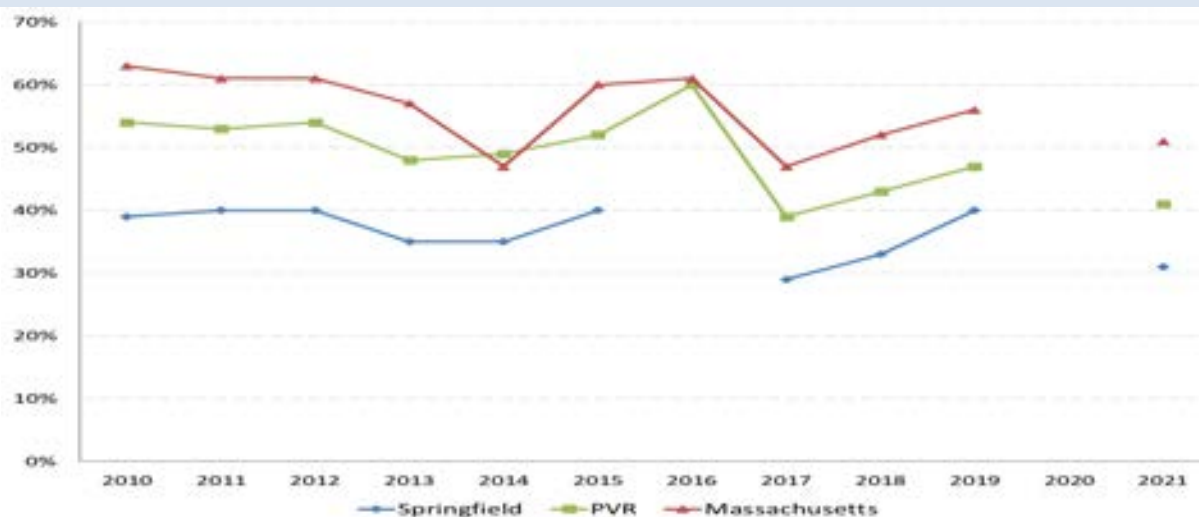
READING PROFICIENCY (THIRD GRADE MCAS)

The scores from the standardized MCAS test are used to “identify the strengths and weaknesses in curriculum and instruction⁵” at the local level. This state oversight seeks to hold schools and school districts accountable concerning “established standards for performance for districts that improve or fail to improve student academic performance.”¹ Educational development standards indicate that students should be able to read proficiently by the end of third grade, maintain a wide vocabulary, write logically, speak coherently, and understand different types of texts. In fourth grade and beyond, these skills are necessary for academic progression. The percentage of third-grade children who received a score of “proficient” or higher on the MCAS English language arts test (or “meeting expectations” or “exceeding expectations” for the new MCAS) test partly reflects the level of academic readiness. The early literacy skills required to achieve this milestone are often obtained in a formal early childhood education experience.

Around 2016, the state started moving to a new generation of MCAS tests (NextGen). Springfield began this transition in 2016 and, as a result, did not administer the MCAS for 3rd graders that year. The MCAS was canceled in 2020 because of the COVID-19 Pandemic. Results in Springfield have consistently been lower than in the region and state-wide. The city reported an average of between 35% and 40% receiving a proficient or higher score between 2010 and 2015 compared to between 50% and 55% for the region and around 60% for the state. 2014 was an outlier year for Massachusetts; test scores surprisingly dropped to below 50% before recovering the following year. The latest version of the MCAS appears to be rougher on students because of the lower test scores experienced across the state. There has been a steady improvement in test scores since 2017 across the state, although the COVID-19 pandemic reversed some of that.

When examined closely, certain schools’ proficiency rates cause grave concern. Brightwood (14%), Lincoln (17%), Edward P Boland and Elias Brookins (both 19%) schools have reported meager proficiency rates, all producing less than one in every five children scoring proficient. These schools and numerous others serve an extensive population of students from families where English is a second language. Other underlying causes, such as socioeconomic instability and low attendance rates, leave students academically precarious. No school in Springfield reported having more than 70% of their students scoring proficient or better in 2021. Again, this result is not surprising given the difficulties students and teachers faced during the pandemic.

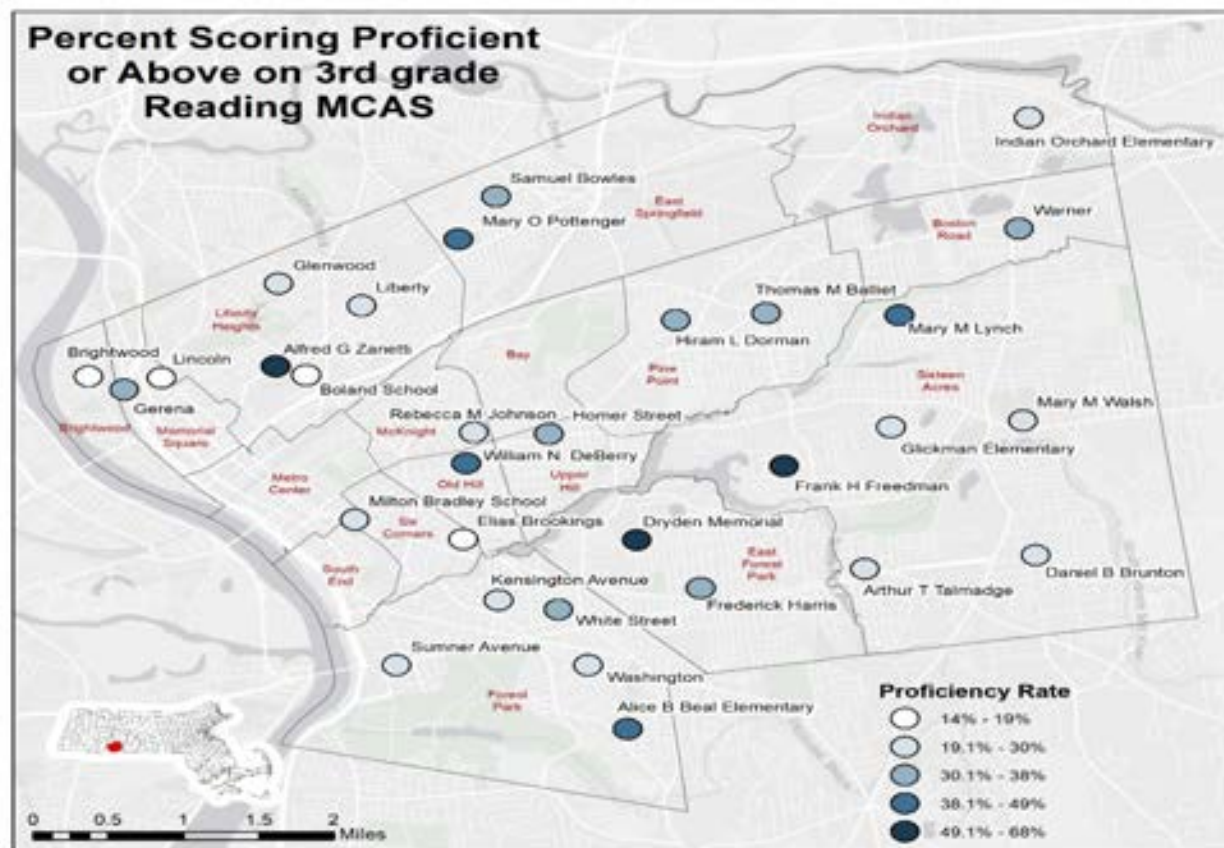
LONG TERM TRENDS: CITY, REGION, STATE



Source: MA Department of Elementary and Secondary Education

⁵ Massachusetts Department of Elementary and Secondary Education

3RD GRADE MCAS READING – NEIGHBORHOOD COMPARISONS - 2021



DATA BY SCHOOL⁶

NAME	2021	NAME	2021
Brightwood	14%	Samuel Bows	31%
Lincoln	17%	Thomas M Balliet	31%
Edward P Boland	19%	Gerena	33%
Elias Brookings	19%	Homer Street	33%
Arthur T Talmadge	24%	White Street	36%
Liberty	24%	Frederick Harris	38%
Glenwood	25%	Hiram L Dorman	38%
Kensington Avenue	25%	Pioneer Valley	41%
Indian Orchard	26%	William N. DeBerry	41%
Washington	26%	Alice B Beal	45%
Glickman	27%	Mary M Lunch	45%
Summer Avenue	27%	Mary O Pottenger	49%
Daniel B. Brunton	28%	Massachusetts	51%
Milton Bradley	28%	Mary A Dryden	53%
Rebecca M Johnson	28%	Frank H Freedman	54%
Mary M Walsh	30%	Alfred G Zanetti	68%
Springfield	31%		

⁶ Springfield Public Day School did not administer the MCAS in 2021.

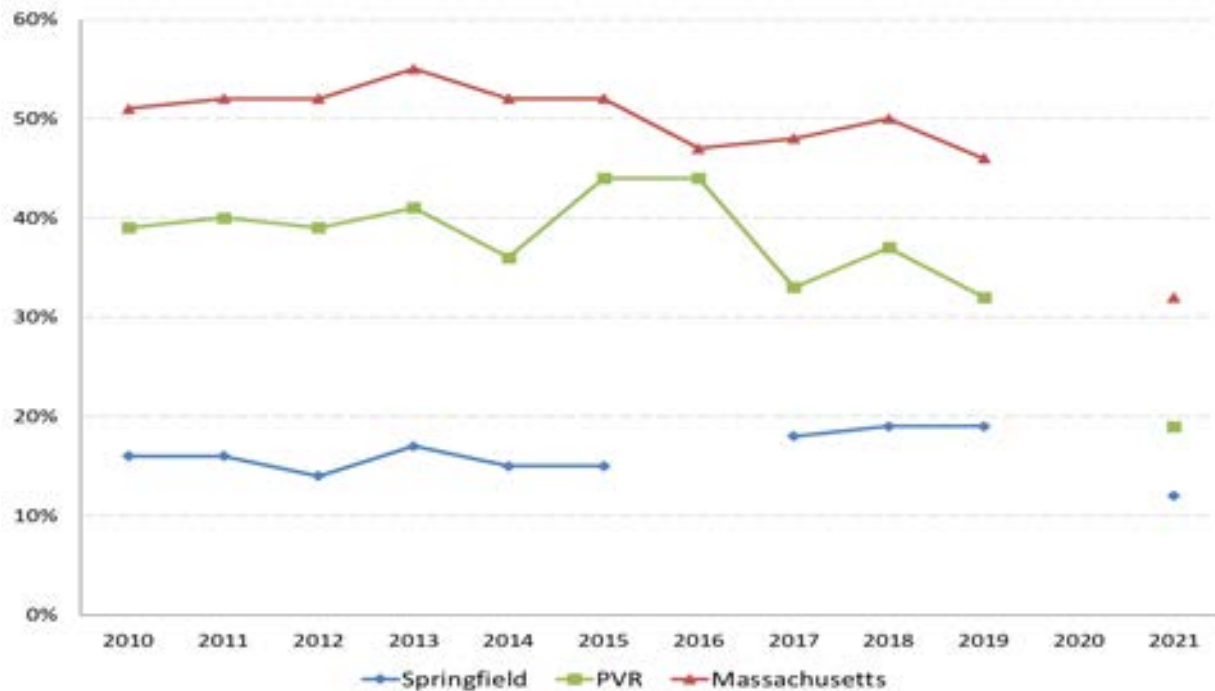
EIGHTH GRADE MATH PROFICIENCY (MCAS)

The MCAS is additionally administered to eighth-grade students attending public schools in Massachusetts. Uniformly, it measures students' basic skills in mathematics. Additionally, MCAS scores are used as a proxy to quantitatively value the quality of a public school or district in Massachusetts.⁷ Although the merits of the MCAS exam are entangled in debate, the scores are now an important measure of the success of our educational institutions. Many studies have shown that success in obtaining skills in Algebra, typically studied in 8th grade, positively correlates to a student's academic and professional success. This indicator represents the percentage of all eighth-grade students testing at the "proficient" level or above on the standardized MCAS math exams, or "meeting expectations" or "exceeding expectations" for the new MCAS.

Like the third grade MCAS test, the state transitioned to a new scoring system in 2016. Springfield did not administer the MCAS in 2016 because of this transition. The city also did not issue the test in 2020 because of the pandemic. Proficiency in mathematics is low for schools in Springfield. The city's proficiency rate of only 12% in 2021 is a little below the Pioneer Valley (19%) and well below the state (32%). The Pioneer Valley and state fared much worse in 2021 than the previous decade, dropping about 19 percentage points from the decade average.

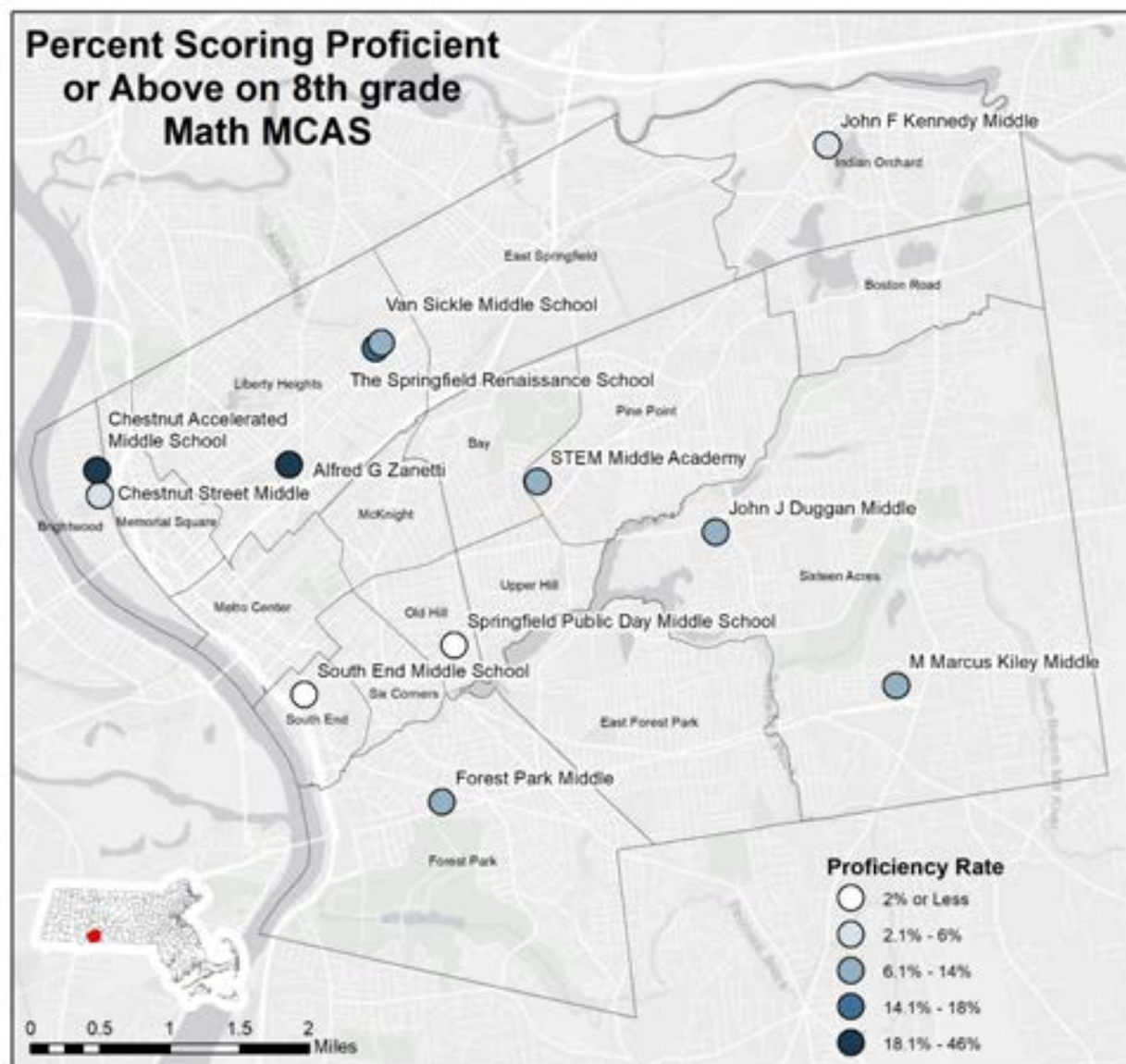
The city's scores have not risen above 20% since 2008. Four schools had scores below 10% in 2021, including Public Day Middle School, which had no students achieving 'proficient' or better. The best performing schools in the city were Alfred G Zanetti (38%) and Chestnut Accelerated Middle School (46%), outperforming the state's 32% proficiency rate.

LONG TERM TRENDS: CITY, REGION, STATE



Source: MA Department of Elementary and Secondary Education

⁷ The 2002 Federal No Child Left Behind law requires monitoring of every school to determine if they are making "adequate yearly progress" (AYP). AYP in Massachusetts is determined, in part, by the percentage of students passing the MCAS exam.



DATA BY MIDDLE SCHOOL

NAME	2021	NAME	2021
<i>Public Day</i>	0%	<i>M Marcus Kiley</i>	12%
<i>South End</i>	2%	<i>John J Duggan</i>	14%
<i>John F Kennedy</i>	5%	<i>Renaissance School</i>	18%
<i>Chestnut Street</i>	6%	<i>Pioneer Valley</i>	19%
<i>Forest Park</i>	10%	<i>Massachusetts</i>	32%
<i>STEM Academy</i>	11%	<i>Alfred G Zanetti</i>	38%
<i>Van Sickle</i>	11%	<i>Chestnut</i>	46%
<i>Springfield</i>	12%		

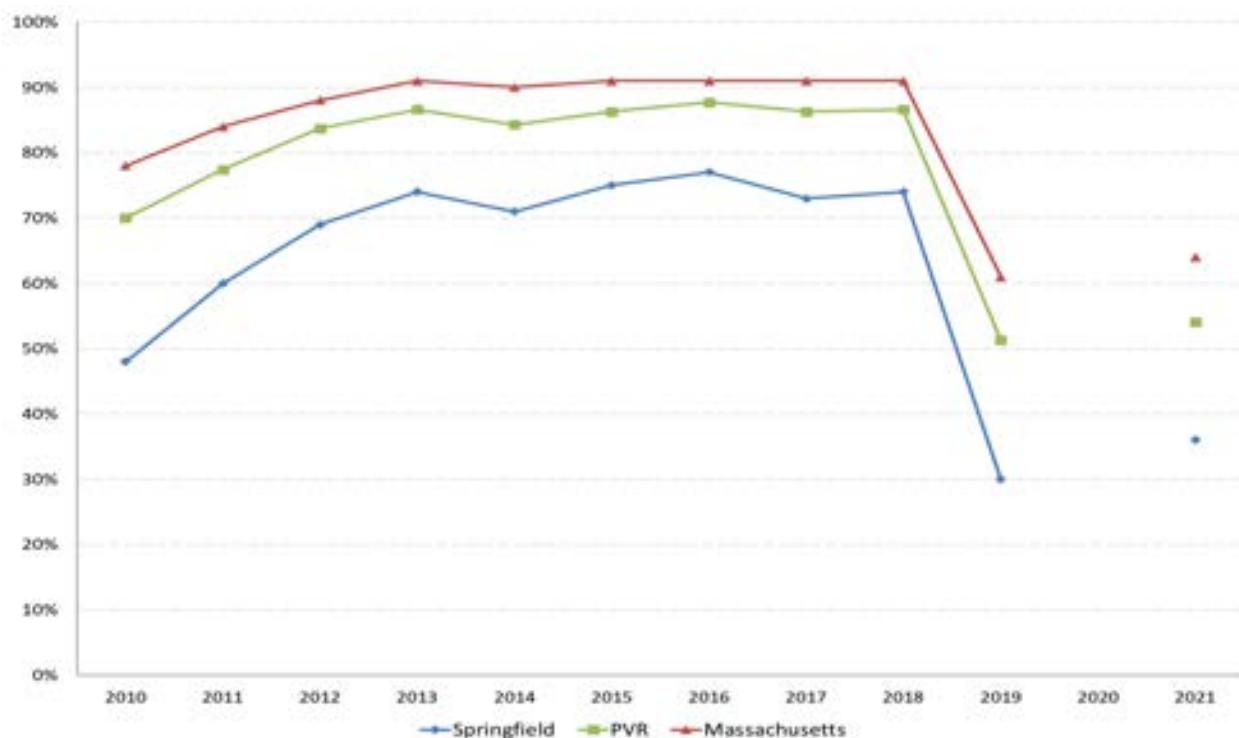
TENTH GRADE ENGLISH PROFICIENCY (MCAS)

Following the eighth-grade exam, tenth-grade students attending public school in Massachusetts are tested. In addition, these scores are used as a proxy to quantitatively value the quality of public high schools and districts in Massachusetts.⁸ As of 2003, students must achieve advanced, proficient, or needs improvement (a scaled score above 220) in English and math to receive a high school diploma. This indicator represents the percent of all tenth-grade students testing at the “advanced” or “proficient” level on the standardized MCAS English exams, or “meeting expectations” or “exceeding expectations” for the new MCAS (above a raw score of 38).

The city’s proficiency rate (36%) was below that of the region (54%) and state (64%) in 2021. Springfield had notably improved since 2008, when the tenth-grade proficiency rate was approximately 46%, improving by about 30 percentage points in 2018. In 2019, Massachusetts changed its scoring system resulting in a steep decline in scores throughout the state. Test scores improved across the state in 2021.

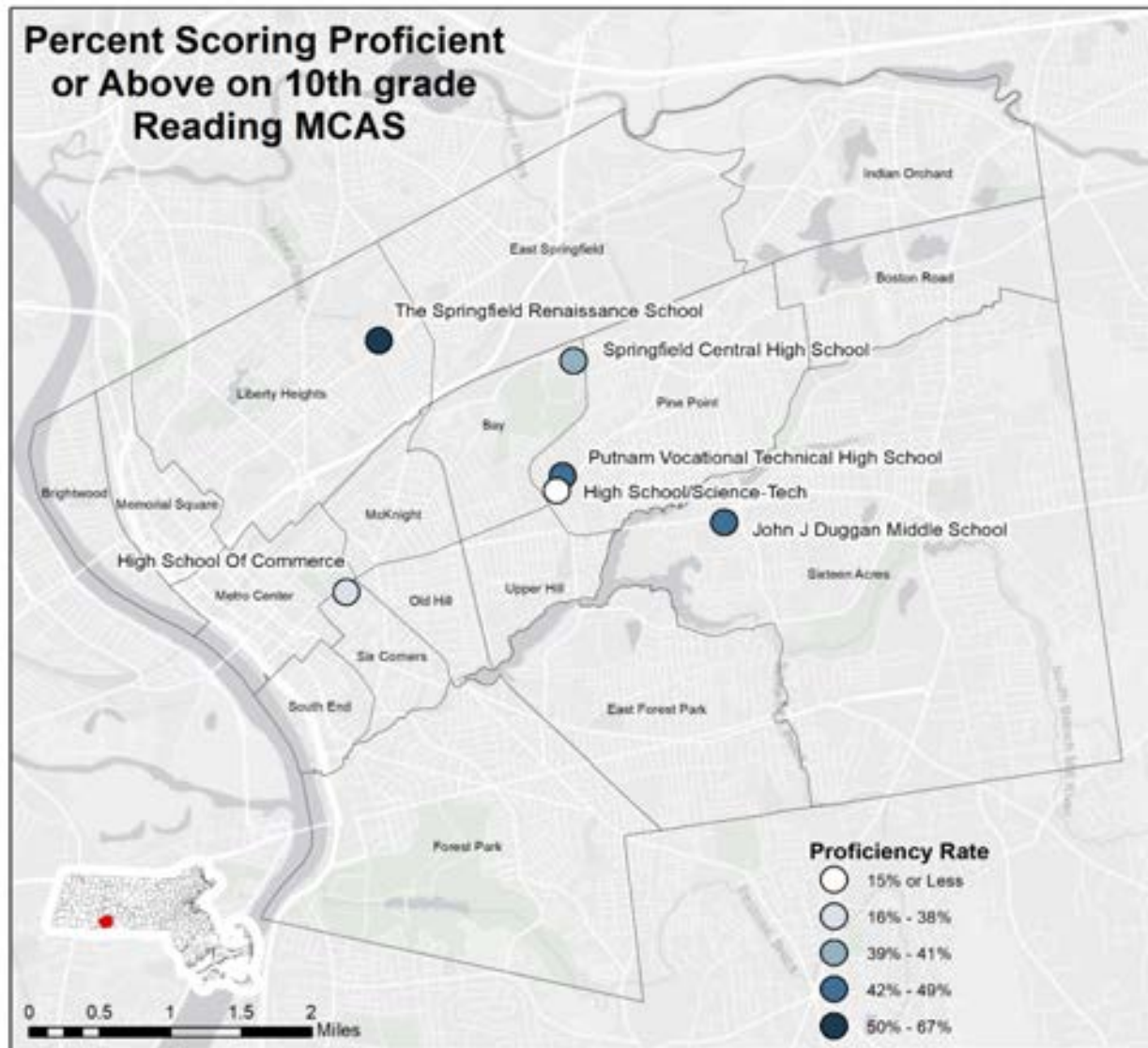
The new MCAS affected Springfield schools in different ways. While all schools suffered a fall in English proficiency scores between 2018 and 2019, some school scores fell much more than others. The score for Springfield Science-Tech High School (15%) is disquietingly low, after having between 50% and 60% of students achieving proficiency. The Springfield Renaissance School (67%). The Springfield Renaissance School has consistently been a high performer in the city, with more than 90% of students achieving ‘proficient’ or better since 2013 until the changeover in the scoring rubric in 2019. Putnam Vocational Technical High School and Springfield Central High achieved between 80% and 90% student proficiency under the old MCAS but then fell by 40 percentage points under the new MCAS.

LONG TERM TRENDS: CITY, REGION, STATE



Source: MA Department of Elementary and Secondary Education

⁸ The 2002 Federal No Child Left Behind law requires monitoring of every school to determine if they are making “adequate yearly progress” (AYP). AYP in Massachusetts is determined, in part, by the percent of students passing the MCAS exam.



DATA BY SCHOOL

NAME	2021
Springfield HS (Sci-Tech)	15%
Springfield	36%
High School Of Commerce	38%
Central High	41%
John J Duggan	46%
Putnam Vocational Technical	49%
Pioneer Valley	54%
Massachusetts	64%
Renaissance School	67%

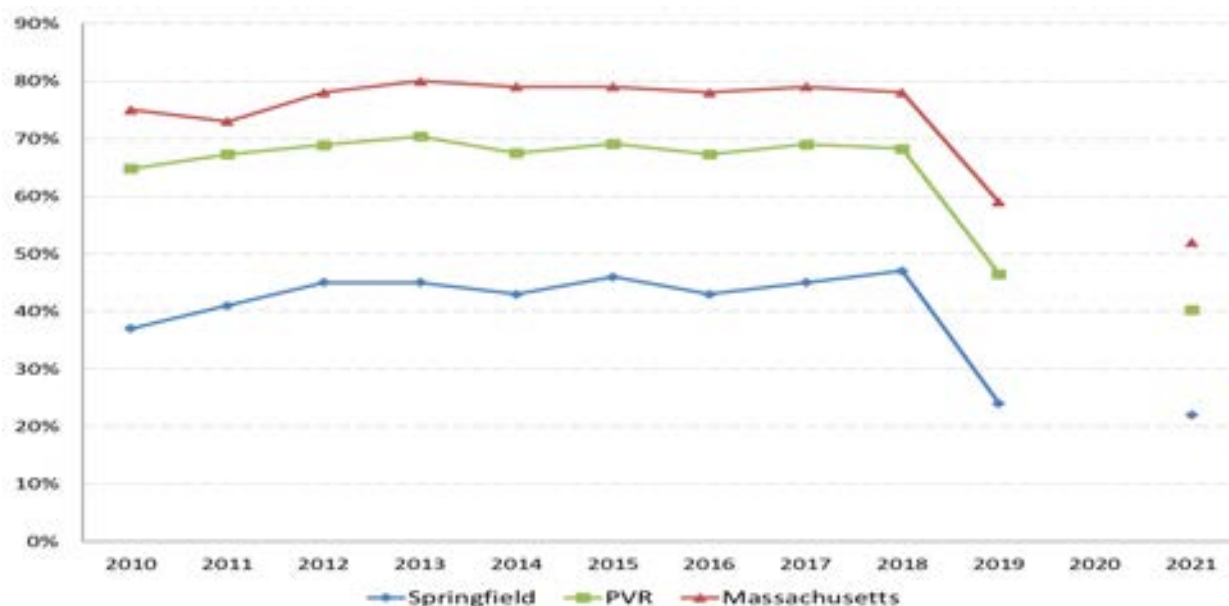
TENTH GRADE MATH PROFICIENCY (MCAS)

Along with English, a math proficiency exam is administered as part of the tenth grade MCAS to measure the basic academic skills possessed by students. These scores, which also determine if a student is eligible for graduation, are used as a proxy to quantitatively evaluate the quality of a public school or district in Massachusetts.⁹ As of 2003, students must achieve advanced, proficient, or needs improvement in English and math to receive a high school diploma. Since 2019, this has changed to “meeting expectations” or “exceeding expectations”. This indicator represents the percentage of all tenth-grade students testing at the “advanced” / “exceeding expectations” or “proficient” / “meeting expectations” level on the standardized MCAS math exam.

Although the city of Springfield has incrementally improved since 2008, the overall proficiency rate stood at only 47% for 2018. Comparatively, the Pioneer Valley and the state of Massachusetts had rates of 68% and 78%, respectively. The disparity continued under the new MCAS even when test scores fell statewide. In 2019, Springfield’s proficiency rate fell to just 24% compared to 47% for the region and 59% for the state. The test was canceled in 2020. Proficiency rates for math suffered a smaller drop in 2021, even though ELA scores in 2021 were better than before COVID.

At the school level, discrepancies among high schools exist. The tenth-grade math proficiency for Springfield High School (0%), Public Day High School (0%), and Science-Tech High School (7%) is alarmingly low. The remaining schools in the city achieved around 30% student proficiency in 2021.

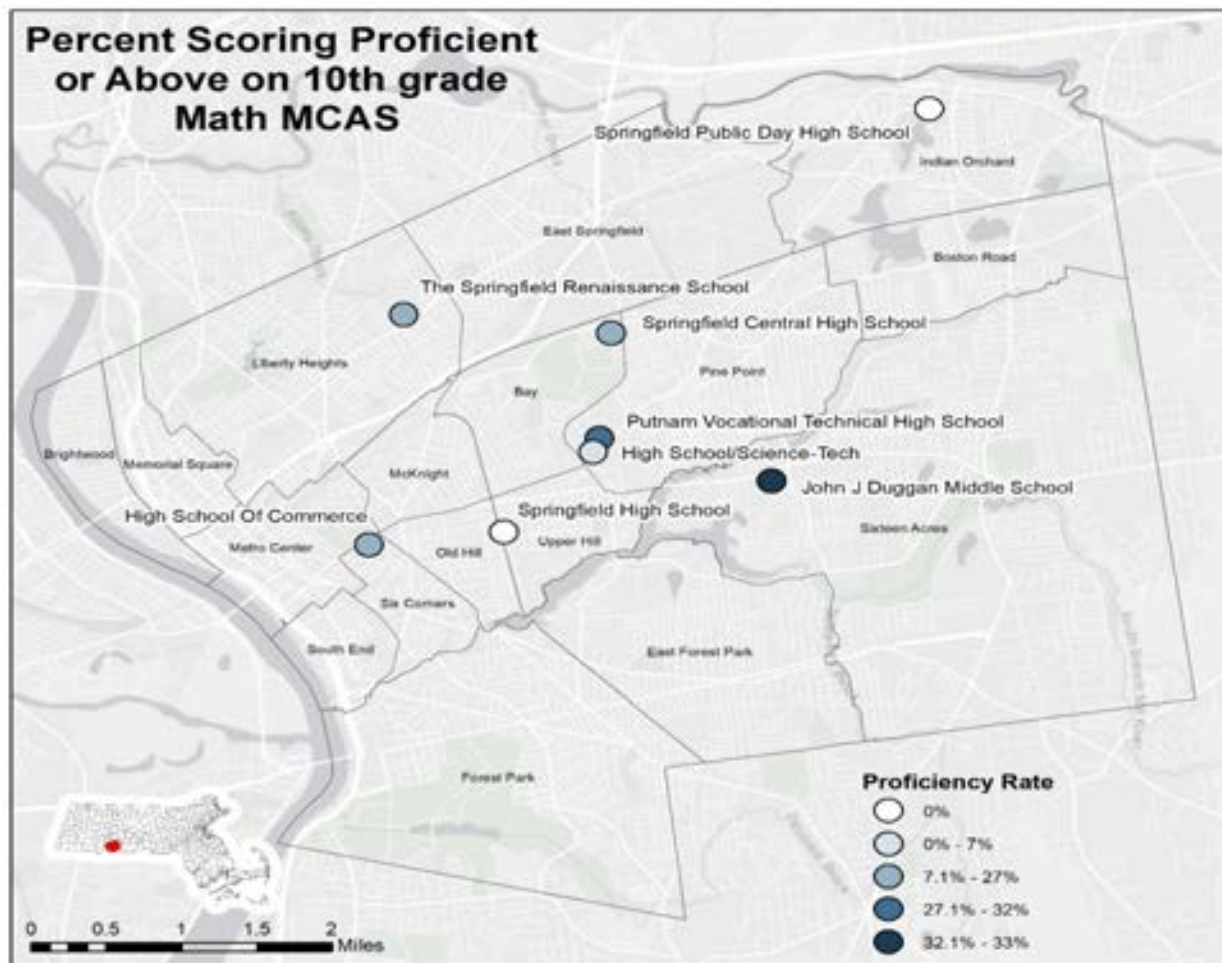
LONG TERM TRENDS: CITY, REGION, STATE



Source: MA Department of Elementary and Secondary Education

TENTH GRADE MATH – NEIGHBORHOOD COMPARISONS - 2021

⁹ The 2002 Federal No Child Left Behind law requires monitoring of every school to determine if they are making “adequate yearly progress” (AYP). AYP in Massachusetts is determined, in part, by the percent of students passing the MCAS exam.



DATA BY SCHOOL¹⁰

NAME	2021
Springfield High School	0%
Public Day	0%
Science-Tech	7%
Springfield	22%
High School Of Commerce	27%
Renaissance School	27%
Central High	27%
Putnam Vocational Technical	32%
John J Duggan Middle	33%
Pioneer Valley	40%
Massachusetts	52%

¹⁰ Excluded schools: Conservatory for the Arts, Springfield International Academy at Sci-Tech

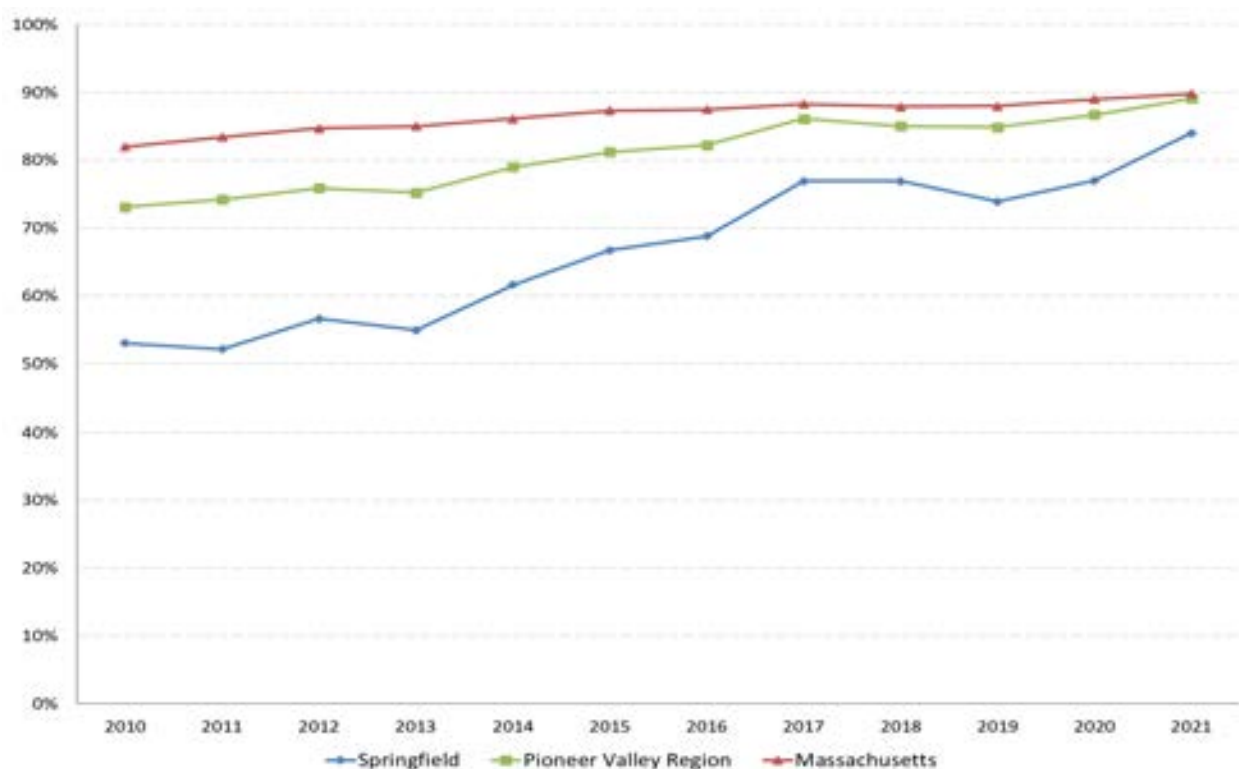
HIGH SCHOOL GRADUATION RATE

High school graduation rates are a vital component in assessing the status of individuals and communities. High school graduation has become the minimum threshold for participation in most of our nation's economy. The percentage of all students enrolled in grades nine through twelve who graduate within four years or less is measured in this indicator.

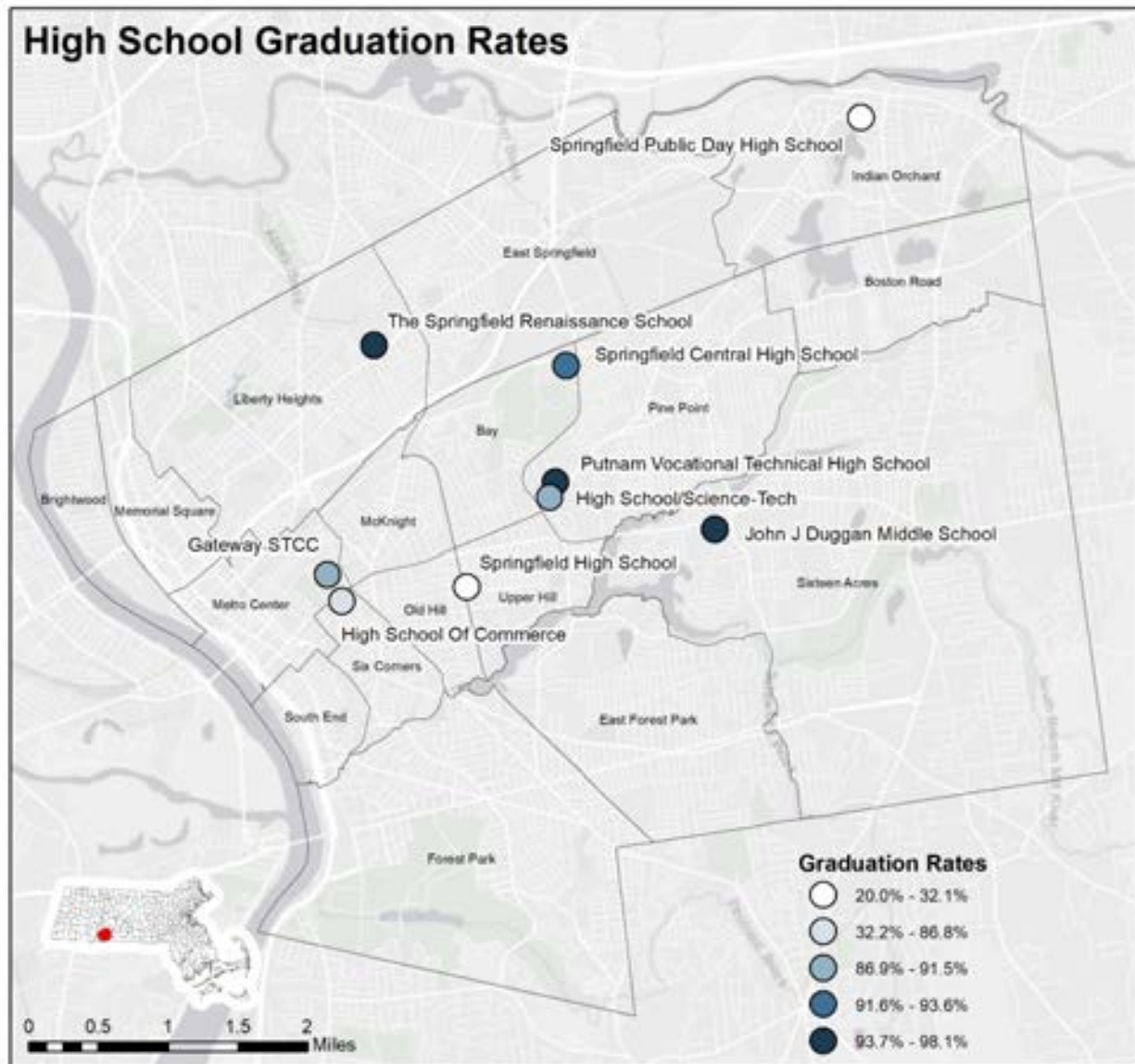
Springfield's graduation rate has increased in a promising way since 2013 after stagnating for several years. As of 2021, 84% of enrolled students graduated high school within four years. Springfield has closed the gap in graduation rates between the city and the wider region and state. The Pioneer Valley Region had a graduation rate of 89% for the Pioneer Valley, and the state had a graduation rate of 90%, just five percentage points higher than Springfield.

Within Springfield, there is noticeable variation in graduation rates between schools. Certain schools possess alarmingly low graduation rates. Springfield Public Day High School (32%) and Springfield High School (20%) were the lowest performing schools in 2021. However, almost every other school bypassed the state's graduation rate. There are remarkable variations in the trajectory between schools. Some, such as Springfield High School, have worsened in the past decade, while others, such as Putnam Vocational High School and Springfield High School of Science and Technology, have improved. Nearly every high school in the city had higher graduation rates in 2021 than the prior year owing to the extreme difficulties facing schoolchildren during the COVID-19 pandemic and the leniency offered toward them. The Gateway to College increased its graduation rate from 30% to 90% between 2020 and 2021.

LONG TERM TREND: CITY, REGION, STATE



Source: MA Department of Elementary and Secondary Education



DATA BY SCHOOL

NAME	2021	NAME	2021
Springfield High School	20.0%	Gateway	90.9%
Public Day High School	32.1%	Sci-Tech	91.5%
Springfield	84.0%	Central High	93.6%
High School of Commerce	86.8%	Putnam Vocational Technical	96.8%
Pioneer Valley	89.1%	Renaissance School	97.6%
Massachusetts	89.8%	John J Duggan Middle	98.1%

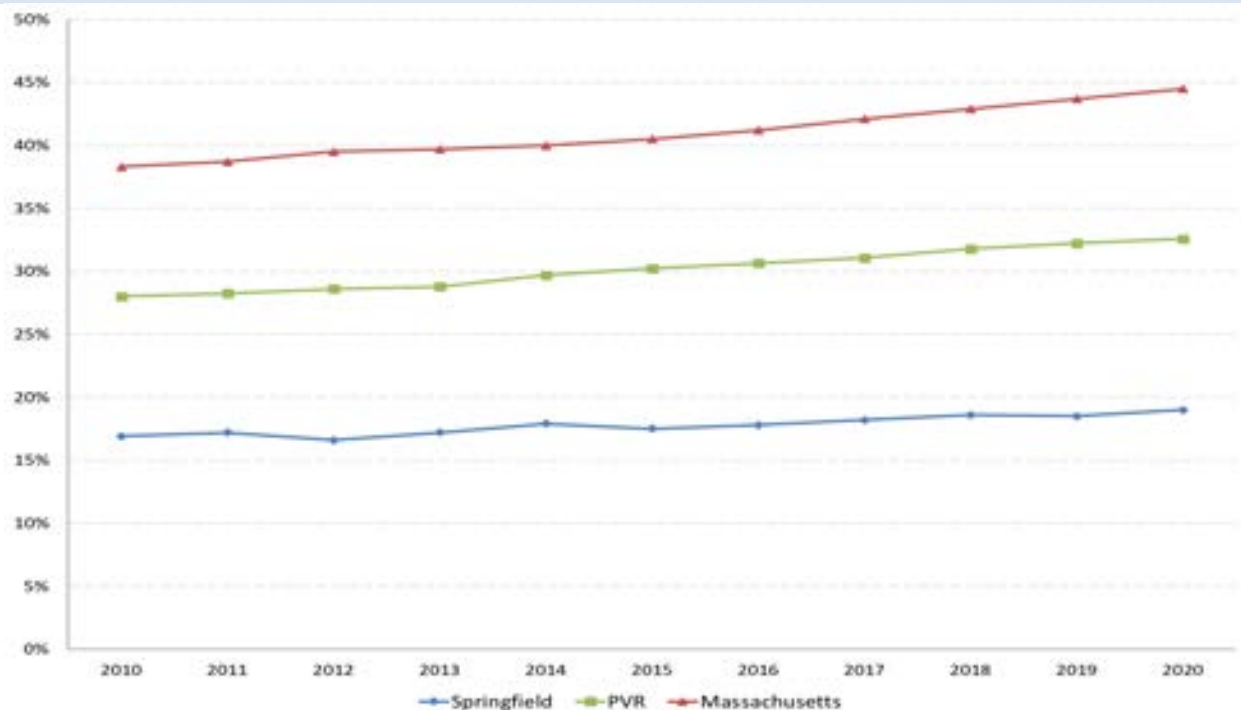
ATTAINMENT OF HIGHER EDUCATION

Higher education is increasingly necessary for long-term access to well-paying jobs. The extent of educational attainment is indicative of a population's ability to function and excel economically, thus leading to economic and social opportunities in life. While two-year associate degrees meet the needs of certain positions, a bachelor's degree is rapidly emerging as a requirement for entry-level positions in many industries. Because a solid educational background, typically achieved during high school, is a prerequisite for getting a bachelor's degree, this indicator also measures a community's ability to prepare their children for college. Educational attainment is calculated by measuring the percentage of the population over age 25 with a bachelor's degree or higher.

Massachusetts is internationally renowned for being the home of a variety of excellent college institutions. In 2020, nearly 45% of state residents possessed a bachelor's degree or higher. Statewide, this figure has remained represented a slight increase – about six percentage points – in recent years. Regionally, 32.6% of residents in the Pioneer Valley, an area encompassing a cluster of colleges (including the Five College Consortium), reported holding a bachelor's degree or higher during the same year. In Springfield, only 19% of residents had that level of education. This level is only a very slight increase since 2010.

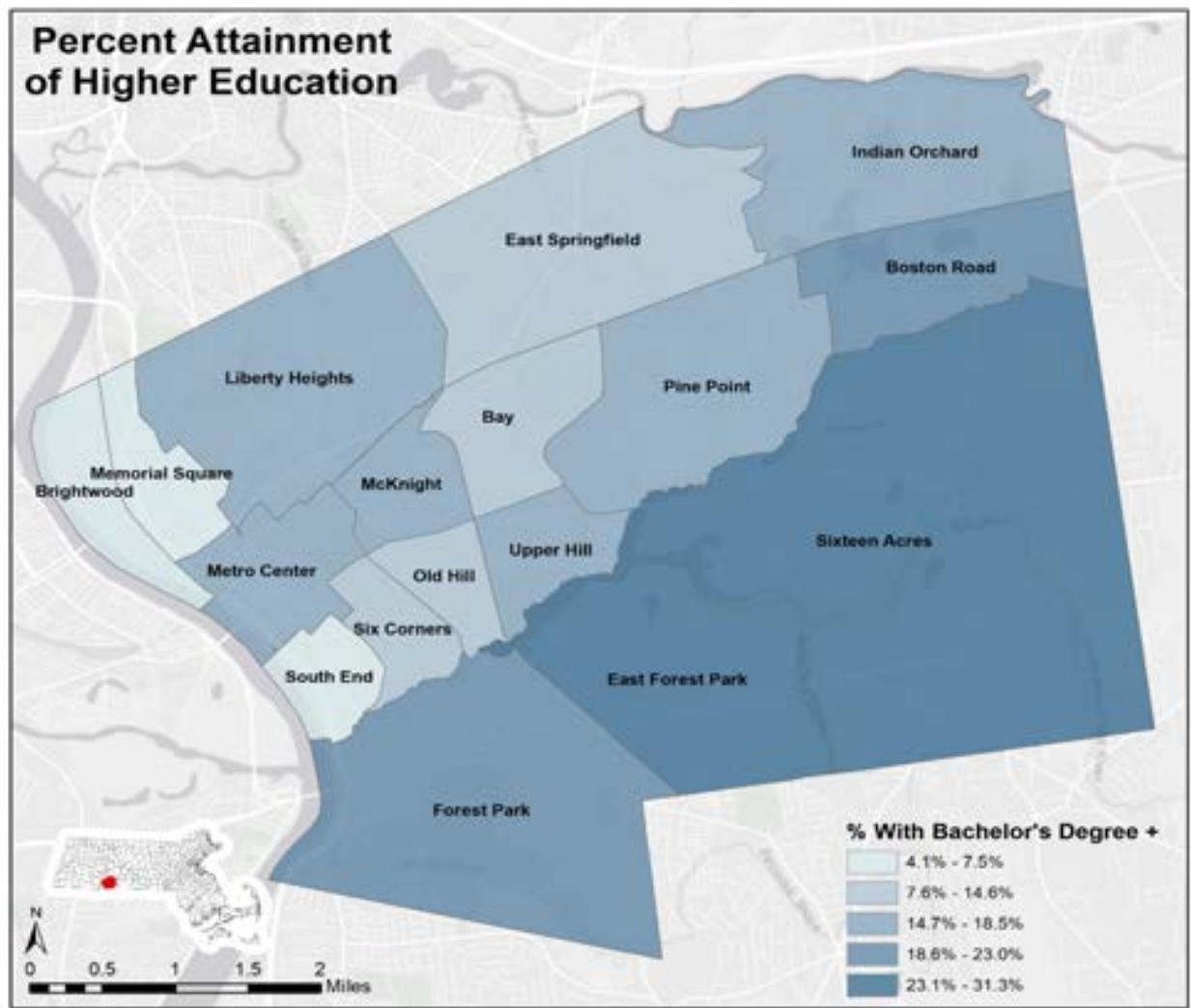
Rates vary widely by neighborhood. Less than one in ten residents hold a bachelor's degree in three neighborhoods of the city, including the South End (7.5%), Brightwood (6%), and Memorial Square (4.1%). East Forest Park (31.3%), Forest Park (20.4%), and Sixteen Acres (26.2%) are the city's most highly educated neighborhoods.

LONG TERM TREND: CITY, REGION, STATE



Source: U.S. Census Bureau

ATTAINMENT OF HIGHER EDUCATION – NEIGHBORHOOD COMPARISONS - 2020



DATA BY NEIGHBORHOOD

NAME	2020	NAME	2020
Memorial Square	4.1%	Upper Hill	17.6%
Brightwood	5.9%	Indian Orchard	17.9%
South End	7.5%	Metro Center	18.5%
Bay	10.8%	Springfield	19.0%
East Springfield	12.1%	Forest Park	20.4%
Old Hill	14.0%	Boston Road	23.0%
Six Corners	14.6%	Sixteen Acres	26.2%
McKnight	16.3%	East Forest Park	31.3%
Pine Point	16.7%	Pioneer Valley	32.6%
Liberty Heights	16.9%	Massachusetts	44.5%

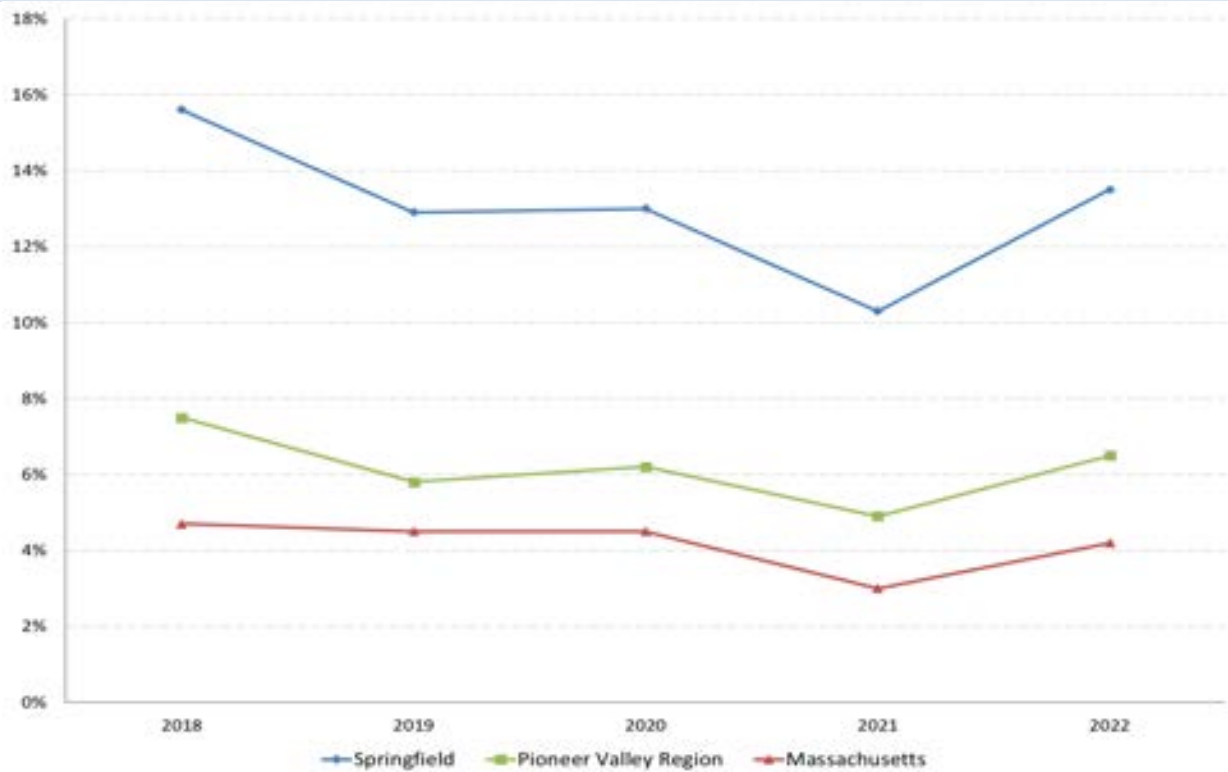
NINTH GRADE RETENTION

When it is determined that a student needs to repeat 9th grade, it can indicate a lack of preparation for the academic rigors of high school. It can also point to problems around the transition between middle school and high school. Students repeating 9th grade are at a higher risk of dropping out of high school. Knowing the percentage of students that meet this criterion can serve as a method to gauge the efficacy of our education system, the likelihood of student success, and community values. The percentage of students that repeat the ninth grade is reflected in this indicator.

The percentage of Springfield’s ninth-grade students who repeat the academic year had declined until the 2020-2021 school year, when it went back up again. It’s important to note that the increase in 2022 was following an academic school year that involved much remote school and interruptions due to the COVID 19 pandemic. Even so, ninth-grade retention in 2021 is still lower than in the previous decade. 2021 was a low point in long term trends for student retention, at 10%. Although the state (3%) and region (5%) have performed better in this category in 2021, the overall trend present in Springfield’s data is cautiously optimistic. When the state, region, and city are approached broadly, it is evident that retention is improving, albeit incrementally. It will be important to monitor trends as schools and students recover from the impacts of the COVID-19 pandemic.

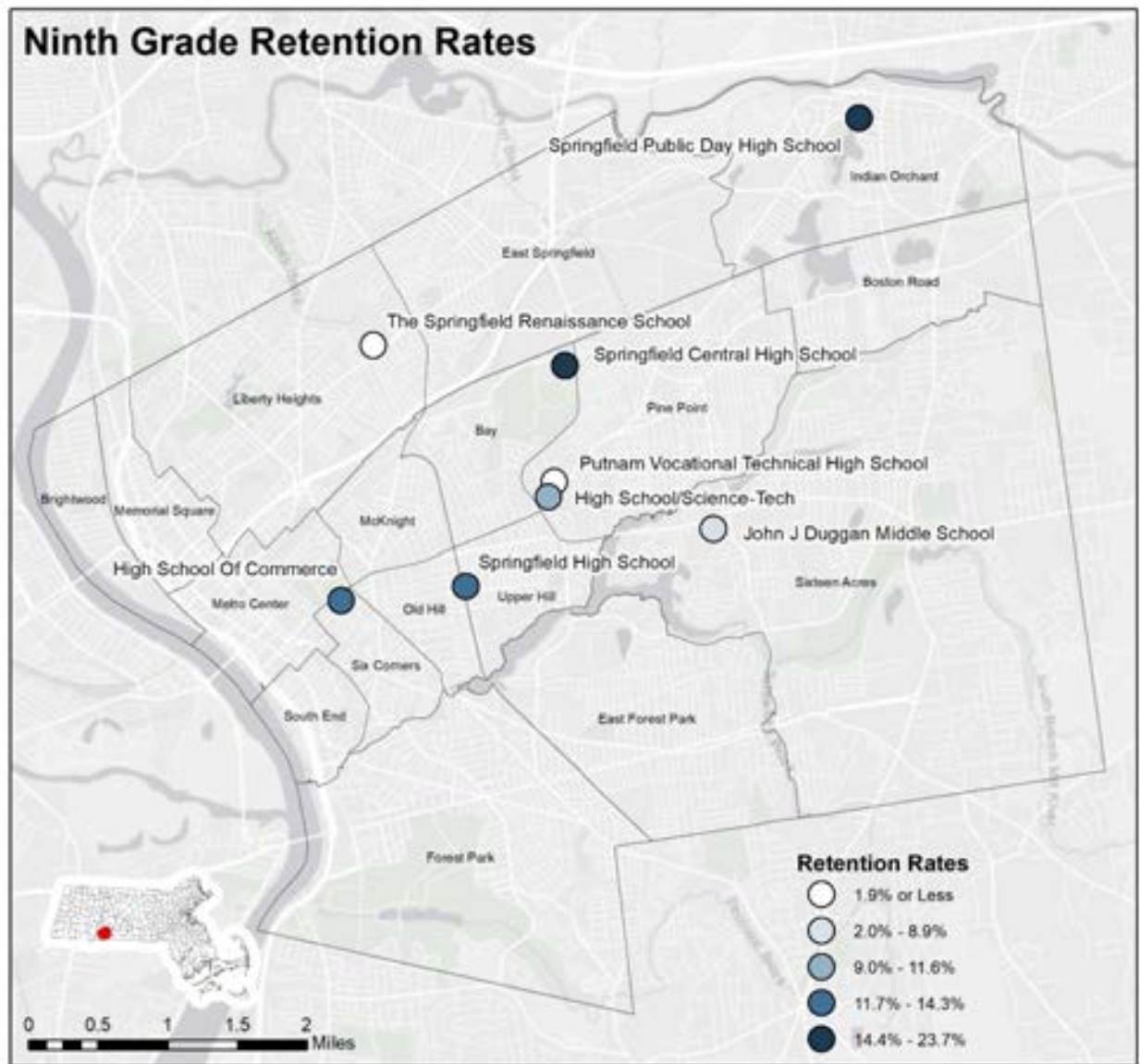
Within the city, the Springfield Renaissance School (0%), Putnam Vocational Technical High School (1.9%), and John J Duggan Middle School (8.9%) encompass the lowest occurrences of ninth-grade students needing to repeat the curriculum. This, though, is offset by Springfield Central High School (23.7%) and Springfield Public Day High School (20.8%). While Springfield Public Day High School has consistently improved from much worse figures in the past, Springfield Central High seems to be experiencing rising rates.

LONG TERM TREND: CITY, REGION, STATE



Source: MA Department of Elementary and Secondary Education

NINTH GRADE RETENTION - NEIGHBORHOOD COMPARISONS – 2022



DATA BY SCHOOL

NAME	2022	NAME	2022
<i>Renaissance School</i>	<i>0.0%</i>	<i>John J Duggan</i>	<i>13.5%</i>
<i>Putnam Vocational Technical</i>	<i>1.9%</i>	Springfield	13.5%
Massachusetts	4.2%	<i>Springfield High</i>	<i>14.3%</i>
Pioneer Valley	6.5%	<i>Public Day</i>	<i>20.8%</i>
<i>High School/Science-Tech</i>	<i>11.1%</i>	<i>Central High</i>	<i>23.7%</i>

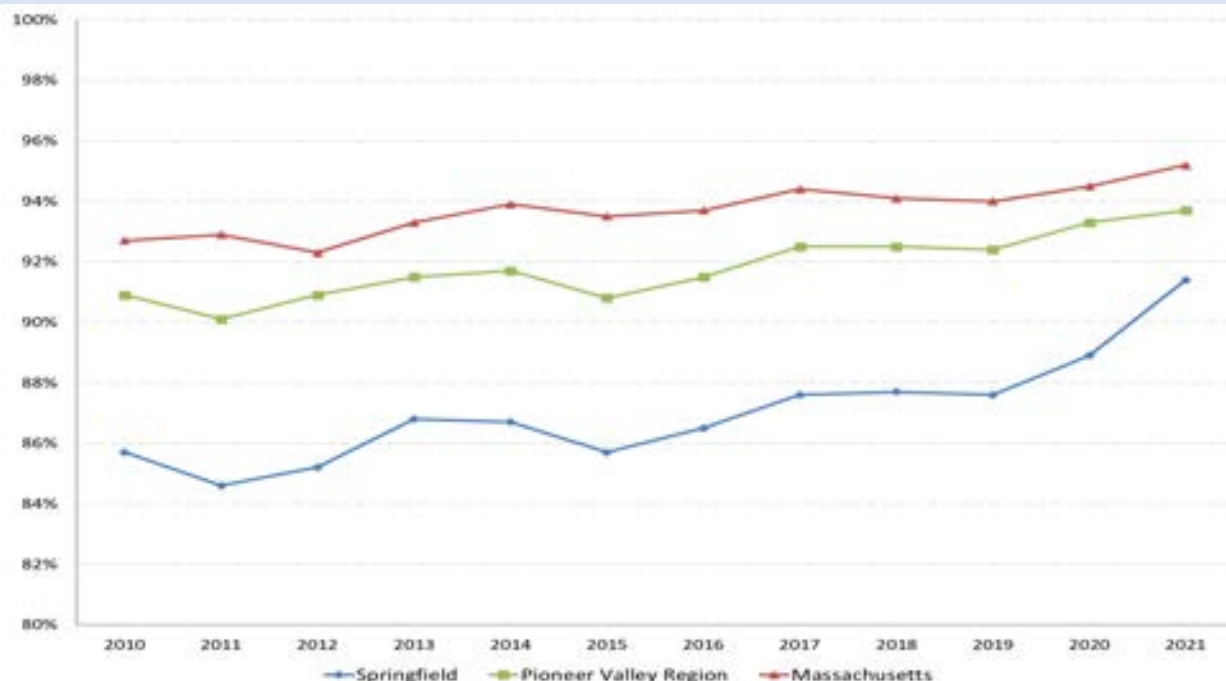
STUDENT MOBILITY (STABILITY RATE)

When a student moves between school districts during a school year or from one grade to another, it disrupts the child's education because schools often do not teach the same information simultaneously. A teacher can sometimes adapt their curriculum to the background of a student transferring from a new district based on what they have already been exposed to. Still, the student is often forced to commence where the new class is in their lessons, regardless of whether it is repetitive or unfamiliar. Knowing how many students enter and exit a school system can help understand instability in educational and community settings. The degree to which students remain in the same classroom is called the student stability rate. The stability rate measured here, defined by the Massachusetts Department of Elementary and Secondary Education, is the percentage of students who remain in a district or school throughout the school year.

The City of Springfield has consistently had lower stability rates than that of Pioneer Valley region or statewide, however the gap has been decrease significantly since 2015. Indeed, in 2021 the stability rate of the city was 91.4%, falls below that of the state and the Pioneer Valley, which have rates of 93.67% and 95.2%, respectively. Whereas in 2015, Springfield's rate fell almost 8 percent lower than that of the state, in 2021, the difference had lowered to 3.8 percent. Springfield's rate has increased markedly in the past few years and is on track to close the gap between the city and the rest of the state and region. Massachusetts and the Pioneer Valley also have increasing stability rates, but at a slower pace than Springfield.

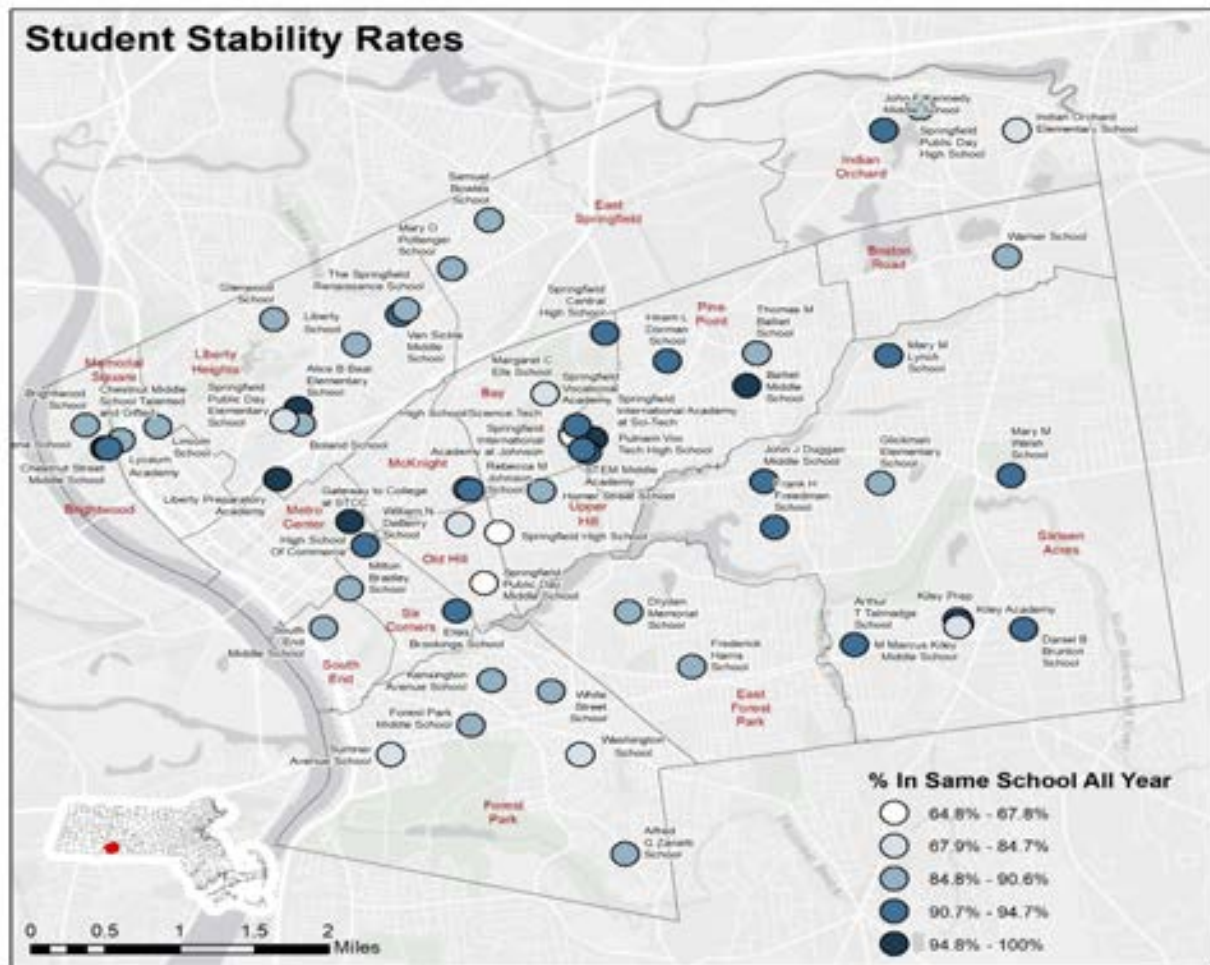
Many schools in Springfield have improved their stability rates since the previous decade. Indeed, at least half the schools in Springfield had a higher stability rate in 2021 than in any previous year. For example, the Gateway to College at Springfield Technical Community College improved its mobility rate from 54.5% in 2014 to 96% in 2021. The Balliet Middle School, an alternative school that offers social and emotional counseling services for students, increased its stability rate from 60% in 2012 to 100% in 2021. Liberty Preparatory Academy has long suffered from low stability rates, tending to vacillate between 30 and 50% but achieved 100% stability in 2021. The COVID-19 pandemic likely reduced student mobility as students shifted to online learning. It will be important to monitor if these trends continue moving forward.

LONG TERM TRENDS: CITY, REGION, STATE



Source: Massachusetts Department of Elementary and Secondary Education

STUDENT MOBILITY – NEIGHBORHOOD COMPARISONS – 2021



DATA BY SCHOOL

See full list of data by school on following page.

STUDENT MOBILITY – NEIGHBORHOOD DATA COMPARISON – 2021

NAME	2021	NAME	2021
<i>Springfield Vocational Academy</i>	64.8%	<i>Public Day Elementary School</i>	90.2%
<i>Springfield High School</i>	65.2%	<i>South End Middle School</i>	90.5%
<i>Public Day High School</i>	67.8%	<i>German Gerena</i>	90.6%
<i>Margaret C Ells</i>	75.9%	<i>Mary M Lynch</i>	91.1%
<i>Springfield Intl Academy (Sci-Tech)</i>	79.4%	<i>Public Day Middle School</i>	91.1%
<i>William N. DeBerry</i>	79.7%	<i>Daniel B Brunton</i>	91.2%
<i>Indian Orchard Elementary</i>	83.8%	<i>Kiley Preparatory School</i>	91.3%
<i>Summer Avenue</i>	84.0%	Springfield	91.4%
<i>Kiley Academy</i>	84.7%	<i>Arthur T Talmadge</i>	91.5%
<i>Washington</i>	84.7%	<i>John F Kennedy Middle School</i>	91.6%
<i>Thomas M Balliet</i>	87.3%	<i>Chestnut Street Middle School</i>	91.8%
<i>Kensington Avenue</i>	87.5%	<i>Mary M Walsh</i>	92.0%
<i>Rebecca M Johnson</i>	87.5%	<i>Emergence Academy</i>	92.3%
<i>Frederick Harris</i>	87.6%	<i>Frank H Freedman</i>	92.3%
<i>Glenwood</i>	87.7%	<i>High School of Commerce</i>	92.6%
<i>Dryden Memorial</i>	88.0%	<i>Hiram L Dorman</i>	92.9%
<i>Mary O Pottenger</i>	88.0%	<i>M Marcus Kiley Middle School</i>	92.9%
<i>Elias Brookings</i>	88.2%	<i>High School of Science and Tech</i>	93.1%
<i>Boland School</i>	88.4%	<i>Lyceum Academy</i>	93.5%
<i>Liberty</i>	88.4%	Pioneer Valley	93.7%
<i>Warner</i>	88.4%	<i>Intl Academy at Johnson</i>	94.1%
<i>Homer Street</i>	88.5%	<i>Central High</i>	94.5%
<i>Alice B Beal Elementary School</i>	88.6%	<i>John J Duggan Middle</i>	94.7%
<i>Brightwood</i>	88.8%	Massachusetts	95.2%
<i>White Street</i>	88.9%	<i>Gateway to College (STCC)</i>	96.0%
<i>Milton Bradley</i>	89.2%	<i>STEM Middle Academy</i>	96.2%
<i>Samuel Bowles</i>	89.8%	<i>Putnam Voc Tech High School</i>	96.5%
<i>Forest Park Middle School</i>	89.9%	<i>Chestnut Accel. Middle School</i>	96.6%
<i>Lincoln</i>	90.0%	<i>Alfred G Zanetti</i>	97.3%
<i>Glickman Elementary School</i>	90.1%	<i>Balliet Middle School</i>	100%
<i>Van Sickle Middle School</i>	90.1%	<i>Liberty Preparatory Academy</i>	100%

HEALTH AND SAFETY

The health and safety of the City of Springfield affects residents on a personal, local, and regional scale, influencing their quality of life, physical and mental well-being, and their ability to care for themselves, their families, and their neighbors. Due to a variety of factors, including mandated universal health coverage, world-class hospitals, and leading research institutions dedicated to the issue, the Commonwealth of Massachusetts is a leading state pertaining to the health of its citizens. Health and safety indicators range from those that point to instances of systemic failure to those that reveal notable success. Premature mortality, asthma, and diabetes touch on systemic problems, societal habits, and personal behaviors which, consequentially, impact the health and safety of people throughout the city. Crime rates measure the degree of safety and stress that residents and their visitors are exposed to throughout the community.

In Springfield, the continually declining crime rates are a testament to progress made in terms of public safety. However, there have not been encouraging signs in health indicators. There are concerning trends related to the growth in documented cases of diabetes, mirroring the state trend. There have been no considerable improvements to asthma hospitalizations or premature deaths.

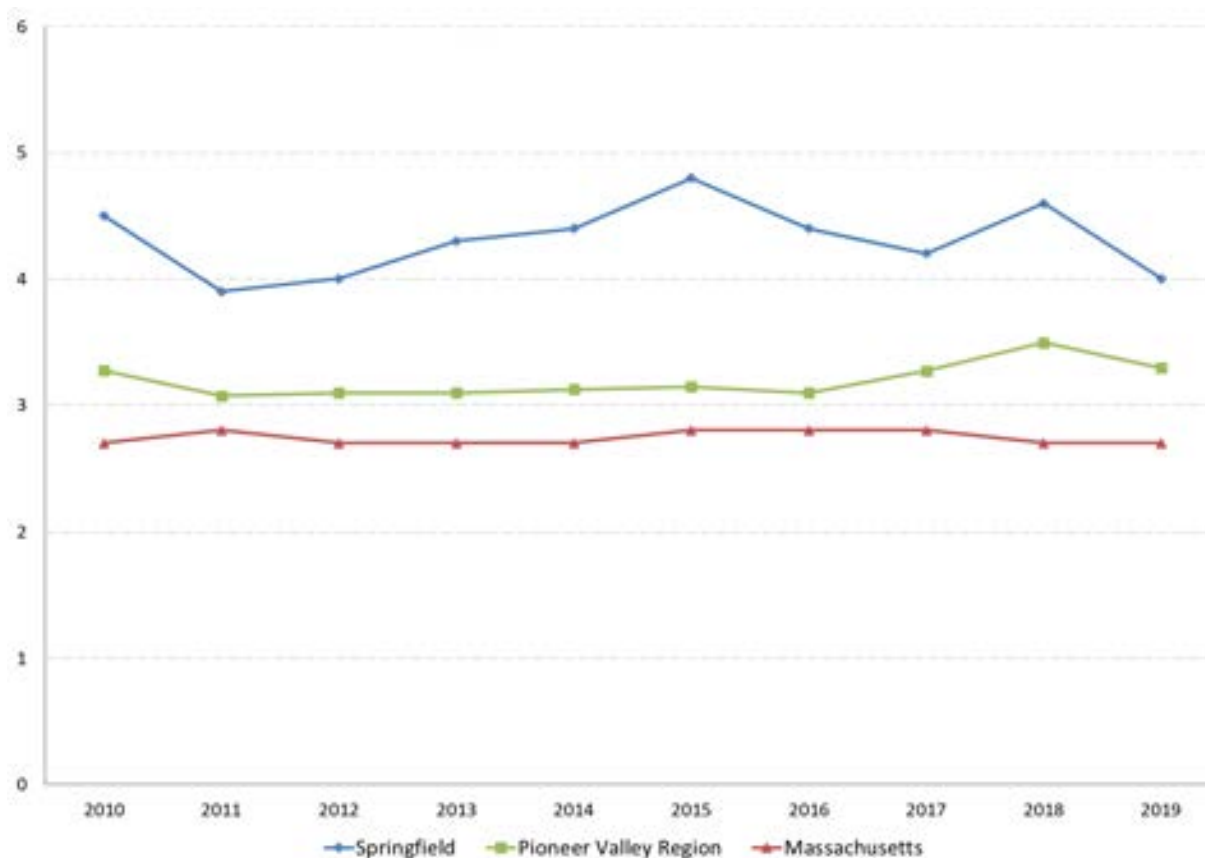
PREMATURE MORTALITY

The premature mortality rate is a widely recognized indicator of the state of public and environmental health in a community. High premature mortality rates draw attention to areas where preventable health issues are not remedied through existing policy and the current health care system. Moreover, these rates may allude to the hardship a population faces when accessing care. This indicator reflects the number of people who die prematurely, as defined by the Massachusetts Department of Public Health (deaths occurring before age 75), each year for every 1,000 people.

In 2019, the city of Springfield reported premature mortality rates of 4 per 1000 people, remarkably higher than those of the state (2.7) and region (3.3). While statewide and regional rates have remained relatively consistent throughout the decade, instances of premature mortality in Springfield had consistently increased between 2011 and 2015, nearly reaching five premature deaths per 1,000 people. Since then, progress has been made, but rates are still worse than in the rest of the state. Premature deaths in 2020 are preliminary and therefore not shown here, but data so far indicate a much larger increase in premature mortality in Springfield than in the rest of the state likely because the COVID-19 pandemic disproportionality affected the city.

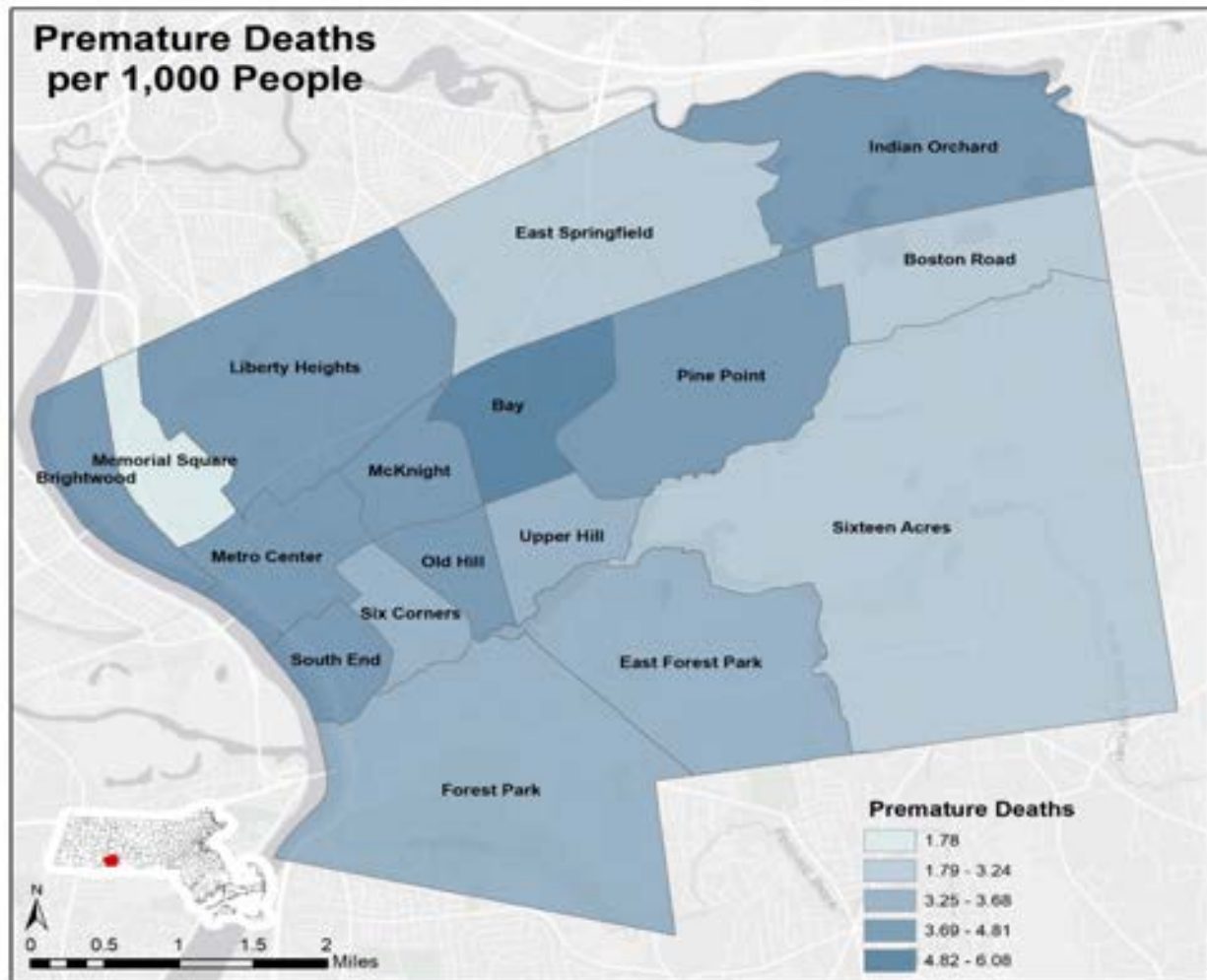
At the neighborhood level, Bay (6.1) and Pine Point (4.8) encompassed significantly elevated premature death rates in 2019. Most Springfield neighborhoods reported between 3 and 4.5 cases per 1,000 people, while Memorial Square was an outlier at 1.8 – a considerable improvement from just a few years prior.

LONG TERM TRENDS: CITY, REGION, STATE



Source: MA Department of Public Health; U.S. Census Bureau

PREMATURE MORTALITY - NEIGHBORHOOD COMPARISONS – 2019



DATA BY NEIGHBORHOOD

NAME	2019	NAME	2019
<i>Memorial Square</i>	1.8	<i>Six Corners</i>	3.7
<i>Sixteen Acres</i>	3.0	<i>Springfield</i>	4.0
<i>Six Corners</i>	2.0	<i>Metro Center</i>	4.1
<i>Massachusetts</i>	2.7	<i>McKnight</i>	4.1
<i>Boston Road</i>	3.1	<i>Old Hill</i>	4.3
<i>East Springfield</i>	3.2	<i>Indian Orchard</i>	4.4
<i>Pioneer Valley</i>	3.3	<i>South End</i>	4.4
<i>Upper Hill</i>	3.4	<i>Liberty Heights</i>	4.5
<i>East Forest Park</i>	3.5	<i>Pine Point</i>	4.8
<i>Forest Park</i>	3.5	<i>Bay</i>	6.1

CRIME

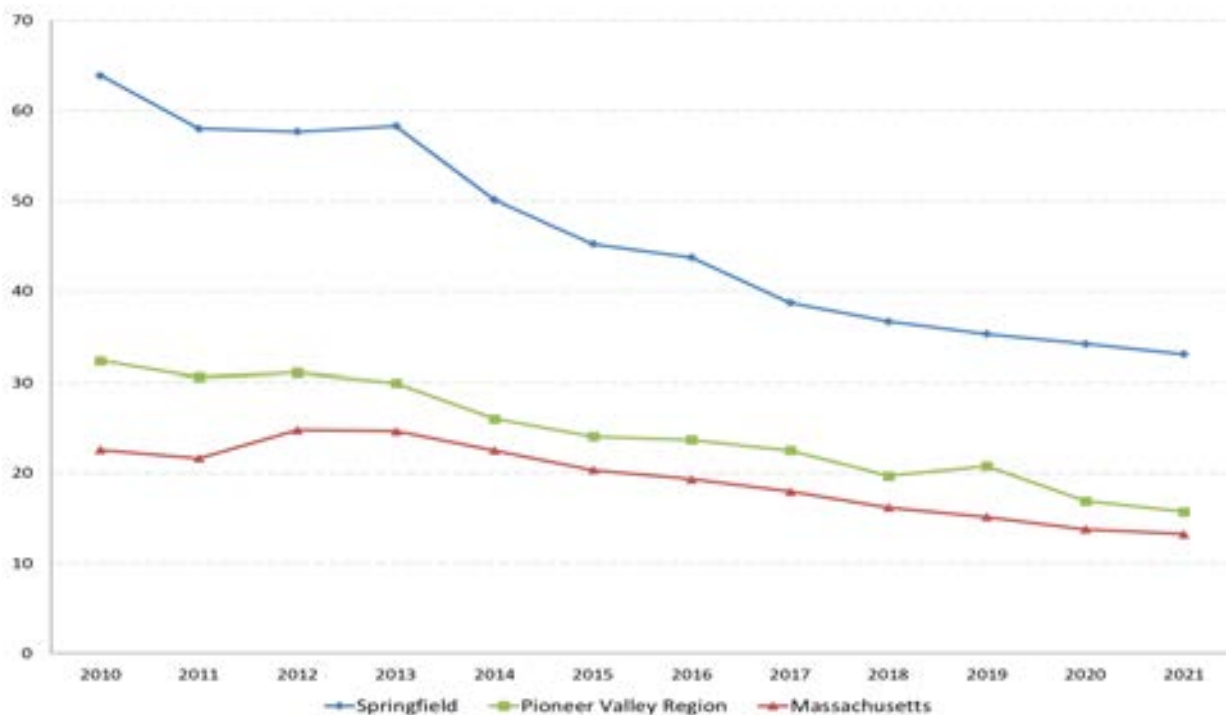
Crime rates are one of the most direct and recognizable indicators of public safety and well-being. Reflecting a community's ability to protect its people and their property, crime statistics depict the probability that a person will become a victim of a crime. Safe living conditions are determinants of people's quality of life, as well as the socioeconomic vitality of a region. High crime rates discourage employers from conducting business and people from spending time out in the community. Subsequently, municipalities are required to spend more money protecting public safety, thus diverting public funds from other important areas. The number of reported violent and property crimes per 1,000 people is represented by this indicator. Violent crimes include murder, rape, robbery, and aggravated assault. Property crimes include burglary, larceny, arson, and motor vehicle thefts.

Between 2010-2021, Springfield saw a huge decline in crime rates, dropping to almost half of what they were in 2010. At the same time, Springfield continues to be experiencing rates far above those of the state and region. Massachusetts reported 13.2 instances of property and violent crime per 1,000 people in 2021, a 40% reduction from the decade prior. The Pioneer Valley region's occurrence of crime, 15.7 per 1,000 people, is higher than the state. Within the region, contrasting rates exist which contribute to this aggregate. Springfield, with 33 reported crimes per 1,000 people during the same year, faces starkly different circumstances than other communities.

Accentuated by poverty, socioeconomic instability, and public health risks, the crime rate in Springfield has declined since 2010, when 63.9 crimes per 1,000 people were reported. Regardless, it is evident that it is still an issue of some enormity that the city must grapple with. Not depicted are crimes which occurred yet went unreported, a reality faced throughout the city. While police departments are often considered as the first solution to high crime rates, social and educational services that provide concerted outreach are often the most effective method of addressing the underlying factors that result in crime.

Data at the neighborhood level are not available.

LONG TERM TRENDS, CITY REGION, STATE



Source: Massachusetts Crime Statistics

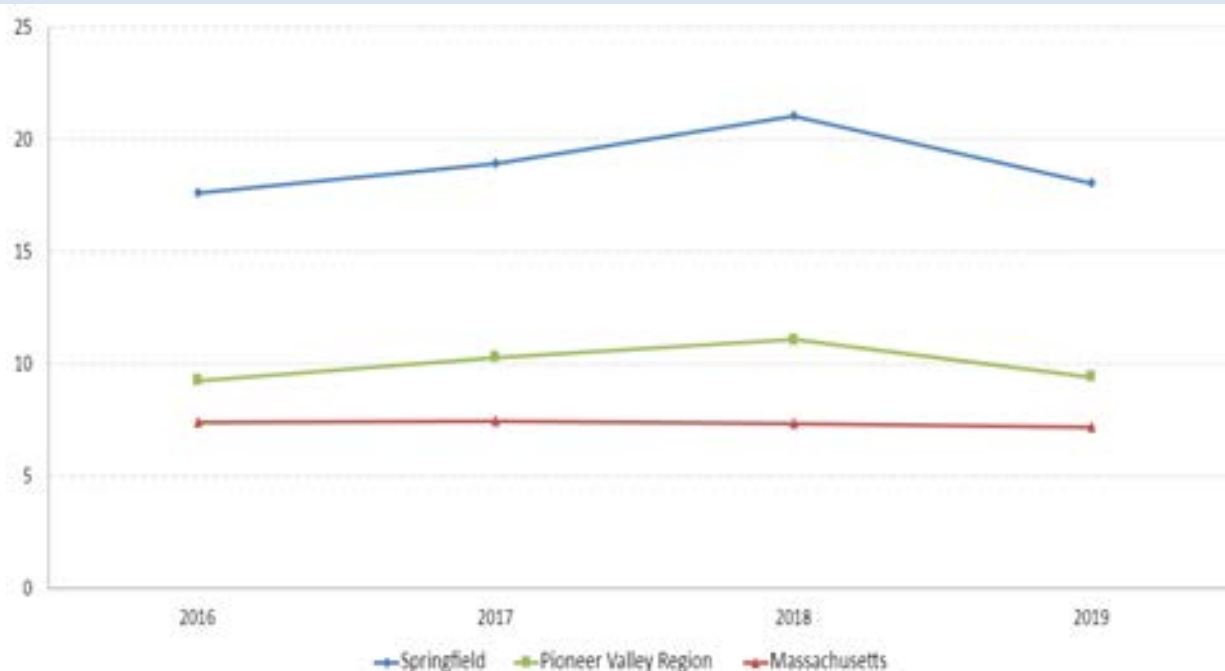
ASTHMA

Asthma is related to environmental health, specifically air quality such as mold in older residential structures or excess congestion through residential or school environments. Rates of asthma often measure the impact of our living environment on physical health. Furthermore, they portray how environmental health factors are disseminated across a diverse population. An increase in asthma hospitalizations is frequently indicative of problematic environmental conditions that surrounding residents face. The number of people admitted to hospitals due to asthma-related complications is represented in this indicator, measured by the number of hospitalizations per 10,000 people.¹¹ It should be noted that rapid climactic changes often unveil increased asthma symptoms. Therefore, rates of admittance may also be related to variations in seasonal weather patterns.

In 2019, approximately 7.2 people per 10,000 were admitted to Massachusetts hospitals due to asthma-related complications. The Pioneer Valley, which reported 9.4 admissions per 10,000 people, encompasses an array of environments, some of which may compound asthma complications. In Springfield, rates were nearly double, reaching 18 people per 10,000 in 2019. The 2019 figure is a recent improvement following worrying increases in the previous three years. Many environmental health phenomena, such as air pollution, contribute at this rate.

Data at the neighborhood level are not available.

LONG TERM TRENDS: CITY, REGION, STATE



Source: MA Department of Public Health, U.S. Census Bureau ACS 5-year estimates

¹¹ In 2015, the International Statistical Classification of Diseases and Related Health Problems (ICD) changed the way it counts asthma-related diseases. For this reason, data prior to 2016 is not comparable with data from 2016 and after. This also means these data cannot be compared with the previous version of the Springfield Data Atlas.

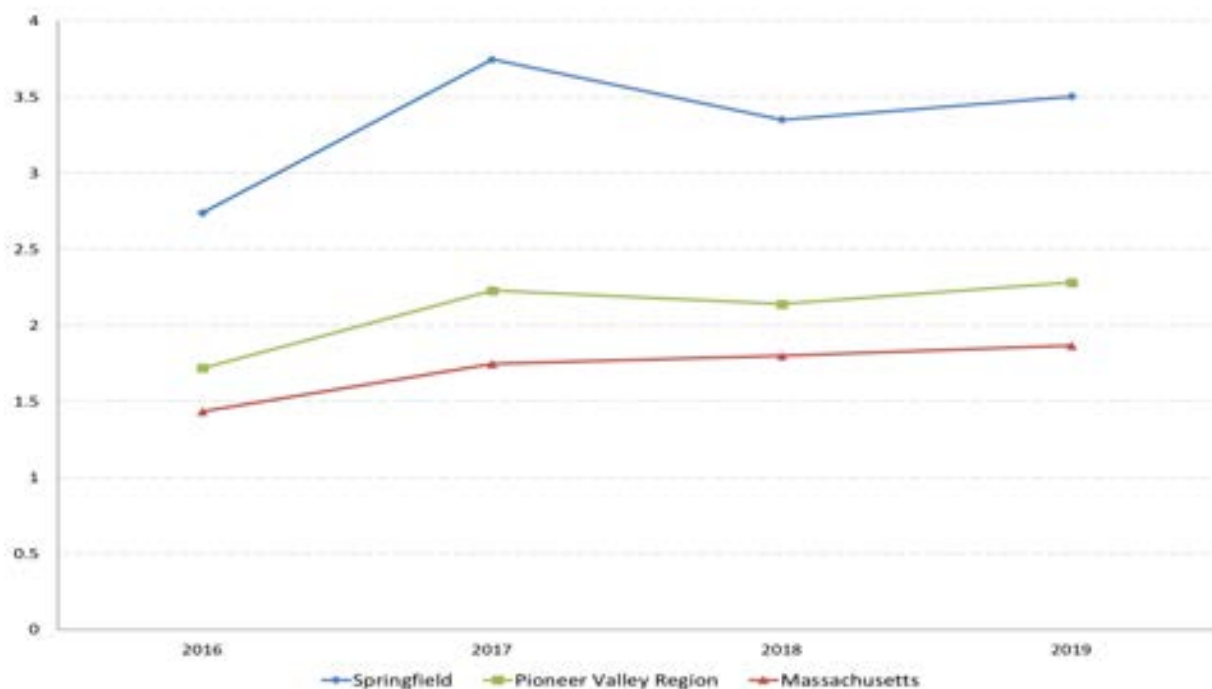
DIABETES

Like cardiovascular disease and many types of cancer, diabetes is a health condition whose risk can often be reduced by diet and lifestyle choices. Diabetes may also lead to other serious diseases and can be life threatening. In addition to the physical impact, the prevalence of diabetes can create a financial burden, both on an individual and community at-large. Thus, monitoring the prominence of diabetes in the population is imperative. Policy that is crafted to facilitate a healthy lifestyle and nutritious diet is the best countermeasure in preventing diseases, such as diabetes, throughout the population. The number of hospitalizations due to diabetes and diabetes related complications per 1,000 people are reflected in this indicator.

Within Massachusetts, the number of patients afflicted with diabetes has been steadily climbing. As of 2019, 1.87 people per 1,000 were hospitalized for the disease, an increase from 1.34 in 2016. The Pioneer Valley, which reported 2.28 people per 1,000, hovered slightly above the state. However, Springfield reported 3.5 people per 1,000 burdened with the disease during the same year, substantially departing from the state and regional trend. While the trend has fluctuated in the city, the rise may be attributed to a combination of poor nutrition and increased medical attention resulting in diagnosis.

Data at the neighborhood level are unfortunately not available.

LONG TERM TRENDS: CITY, REGION, STATE



Source: MA Department of Public Health, U.S. Census Bureau

ECONOMIC SECURITY

Economic security is essential for local prosperity, good quality of life, and social stability. Topics relevant to financial security, household income, income inequality, rates of poverty, rates of unemployment, and the presence of food deserts, are discussed in this section. These indicators measure the overall health and vitality of the city, as without financial security, people cannot afford their basic needs. Furthermore, without economic security, one cannot support a thriving local economy, or contribute to the local tax base, which is subsequently invested in community safety, education, and infrastructure.

Overall, Springfield's economic security is weaker than the region and the state. For example, the median household income in the city has consistently been around half of the median income for the rest of Massachusetts. While unemployment rates have gone down slightly, they continue to remain comparatively high. Undoubtedly, the economic recession's implications resonated throughout the city and though many aspects of the economy have since rebounded, the COVID-19 pandemic undid a lot of progress. Positively, though, the percentage of people living in food deserts have declined. Poverty rates have also continued to decline, though elderly poverty is higher. When examined closely, the neighborhoods in the city experience imbalanced economic security.

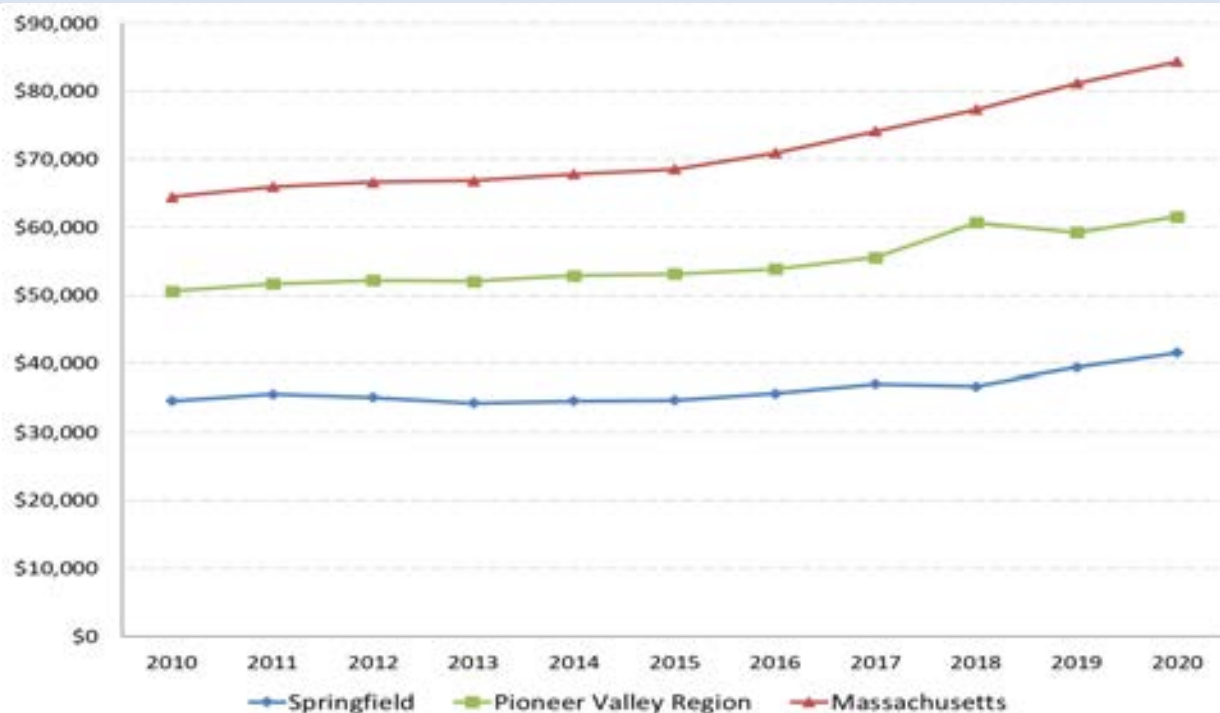
HOUSEHOLD INCOME

Median household income represents the amount of money a household who is middle-income for a given area receives in a year. It is a common indicator of household finances and economic standing. Unlike measuring average (mean) income, median income is not as affected by a few extremely large or small cases. The median amount of money a household brings in is perhaps the most important indicator of economic security, as it is reflective of a household's ability to provide for itself. Half of all households have more income and half of all households have less income than the median household income for a given community. A household refers to any group of people who live within the same housing unit. Collectively, this figure is determined according to the income received by all members of the household who are older than 14 during the year. Household income includes wages, social security, retirement funds, public assistance, and other forms of cash income.

As evident in the graph below, the 2020 median household income in Springfield (\$41,571) falls far below that of both the Pioneer Valley (\$61,569) and the state (\$84,385). Indeed, in 2021, Springfield's median household income was less than half of that statewide. Springfield has long suffered from stagnating incomes compared to the rest of the state, with years of increase and others of decline. This suggests that city households do not possess the economic insulation that allowed other Massachusetts' households to experience relative stability during hardships throughout the economy. For instance, households earning minimum wage would not have experienced a real increase in income between 2008 and 2014.

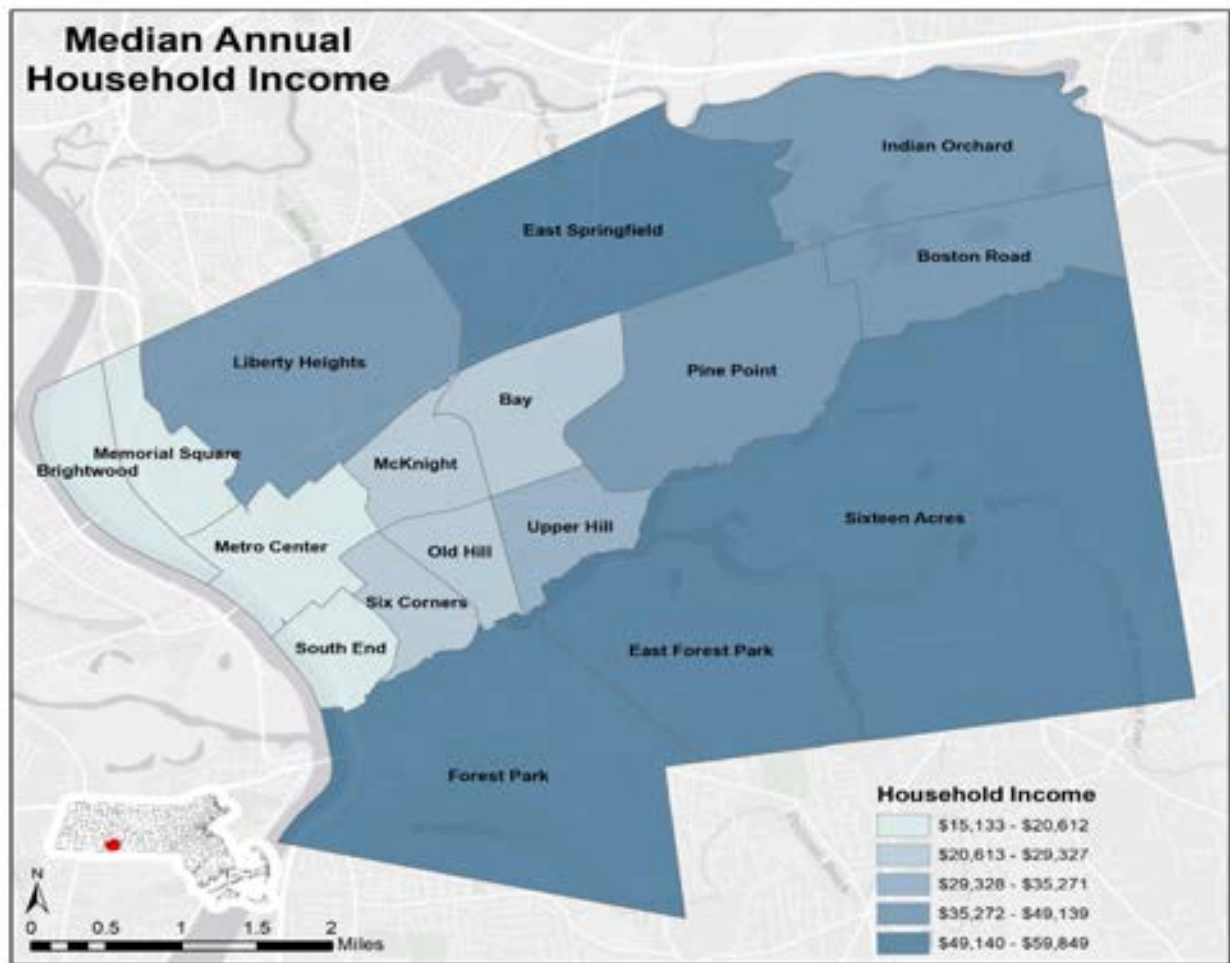
Within the city, there exists a disparity which should be examined closely. Neighborhoods, such as Sixteen Acres (\$59,848) and Forest Park (\$55,136) maintain a high level of median household income that is just below the regional average. This trend diverges, though, as residents in neighborhoods such as Memorial Square (\$15,133, lower in inflation-adjusted terms than in 2013), Brightwood (\$17,898) and South End (\$20,202) possess the lowest economic capabilities. Median household income in Sixteen Acres is almost four times higher than that in Memorial Square.

LONG TERM TRENDS: CITY, REGION, STATE



Source: U.S. Census Bureau, American Community Survey

HOUSEHOLD INCOME – NEIGHBORHOOD COMPARISONS- 2016-2020



DATA BY NEIGHBORHOOD

NAME	2020	NAME	2020
<i>Memorial Square</i>	<i>\$15,133</i>	<i>Springfield</i>	<i>\$41,571</i>
<i>Brightwood</i>	<i>\$17,898</i>	<i>Liberty Heights</i>	<i>\$44,102</i>
<i>South End</i>	<i>\$20,202</i>	<i>Indian Orchard</i>	<i>\$44,564</i>
<i>Metro Center</i>	<i>\$20,612</i>	<i>Boston Road</i>	<i>\$49,139</i>
<i>Six Corners</i>	<i>\$23,981</i>	<i>East Forest Park</i>	<i>\$54,553</i>
<i>McKnight</i>	<i>\$27,019</i>	<i>East Springfield</i>	<i>\$55,043</i>
<i>Old Hill</i>	<i>\$28,015</i>	<i>Forest Park</i>	<i>\$55,136</i>
<i>Bay</i>	<i>\$29,327</i>	<i>Sixteen Acres</i>	<i>\$59,849</i>
<i>Upper Hill</i>	<i>\$35,271</i>	<i>Pioneer Valley</i>	<i>\$61,569</i>
<i>Pine Point</i>	<i>\$41,446</i>	<i>Massachusetts</i>	<i>\$84,385</i>

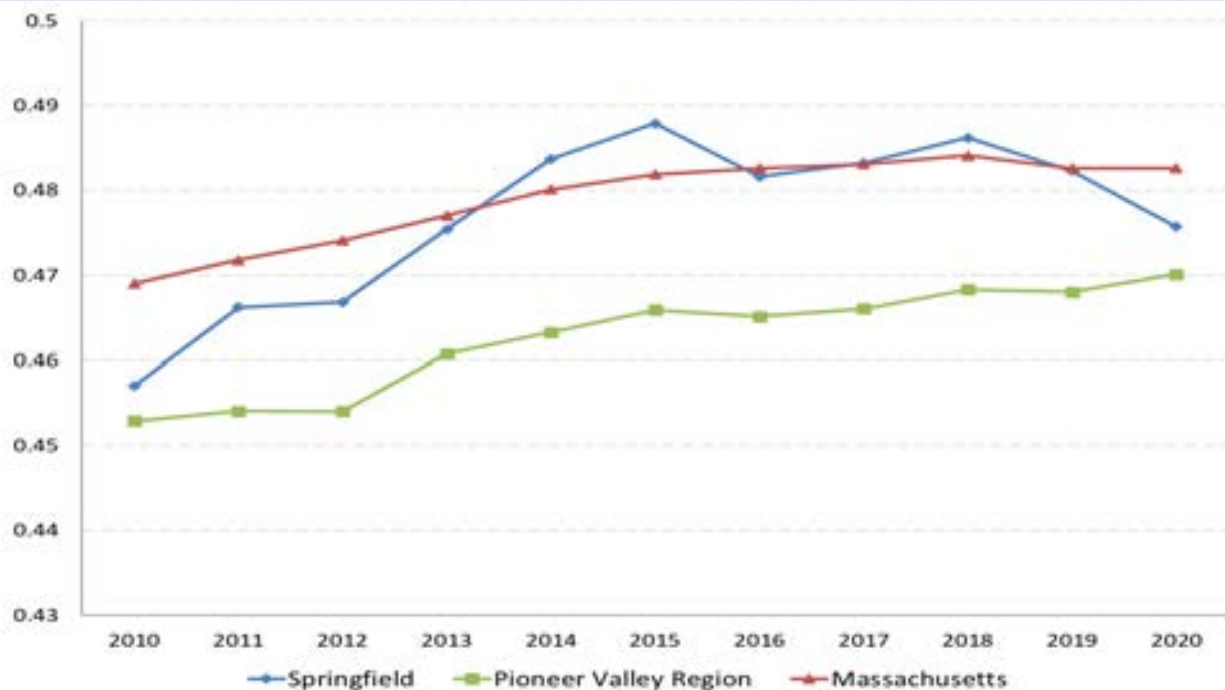
INCOME EQUALITY

Measuring the overall level of income equality between the people throughout the region is necessary to accurately analyze an area's economic condition. This is done by looking at how income is distributed throughout a study area. A community with lower levels of economic inequality is more likely to have economic and social stability and thus a higher quality of life. The income equality of an area is measured with the Gini Coefficient, which illustrates how uniformly income is distributed. Calculating the Gini Coefficient provides a number on a scale of 0 to 1, where 0 is complete equality and 1 is complete inequality. Conducting these measurements are necessary as patterns of inequality can be revealed which would otherwise not appear in a simple income analysis. The Gini Coefficient can account for higher incomes that would skew standard averages. Furthermore, this analysis depicts socioeconomic segregation. A neighborhood may appear to have low levels of inequality, but when looked at collectively with other areas, the neighborhood could be an area of concentrated poverty or concentrated wealth.

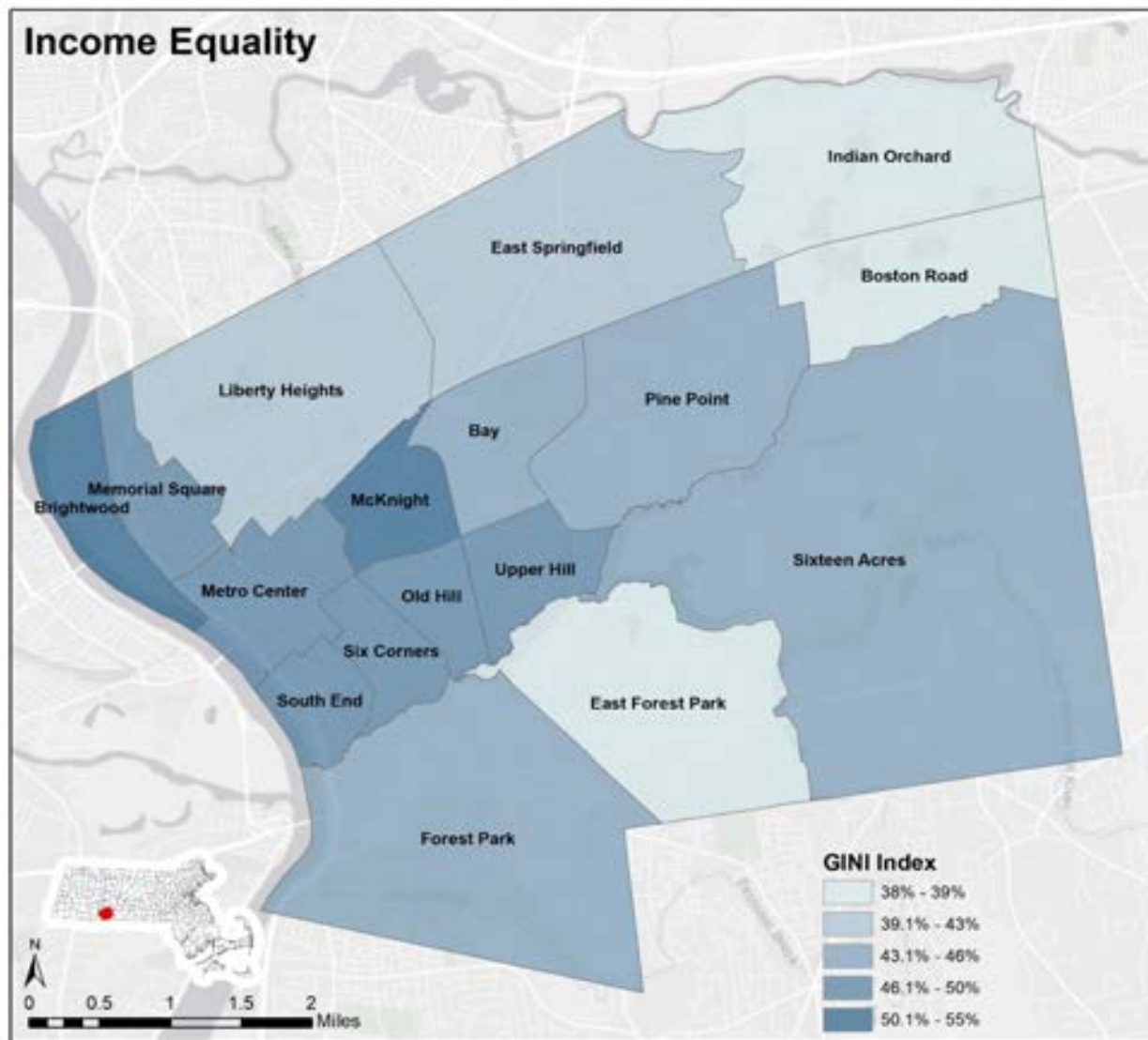
Historically, the state, city, and region have experienced greater levels of inequality in the past ten years. The City of Springfield has witnessed starkly increasing inequality rates, briefly surpassing that of the state, though it has declined in the past two years. The Gini index increased from 0.457 in 2010, peaked at 0.486 in 2018 before falling to 0.476 in 2020. The Pioneer Valley has lower levels of inequality than the rest of the state, though this too has been increasing. The Gini index for the Pioneer valley increased from 0.453 in 2010 to 0.47 in 2020. In Massachusetts, inequality increased from 0.459 in 2010 to 0.483 in 2010.

This economic shift disproportionately affected certain neighborhoods in the city. In 2020, the neighborhoods of Brightwood (0.55), McKnight (0.52), and Six Corners (0.50) have inequality metrics that are higher than those of other neighborhoods and the city (0.48) as a whole. Conversely, the relatively wealthier neighborhoods of East Forest Park (0.38) and Boston Road (0.39) maintained a more homogenous distribution, suggesting a concentration of middle-class households in these areas. These figures, coupled with the historical trend of heightened inequality overall, illustrate the disparity present among the different neighborhoods of the city.

LONG TERM TRENDS: CITY, REGION, STATE



Source: US. Census Bureau, American Community Survey



DATA BY NEIGHBORHOOD

NAME	2020	NAME	2020
East Forest Park	0.38	Upper Hill	0.48
Boston Road	0.39	Springfield	0.48
Indian Orchard	0.39	Massachusetts	0.48
Liberty Heights	0.41	Metro Center	0.48
East Springfield	0.43	South End	0.49
Pine Point	0.44	Old Hill	0.49
Sixteen Acres	0.45	Memorial Square	0.50
Bay	0.45	Six Corners	0.50
Forest Park	0.46	McKnight	0.52
Pioneer Valley	0.47	Brightwood	0.55

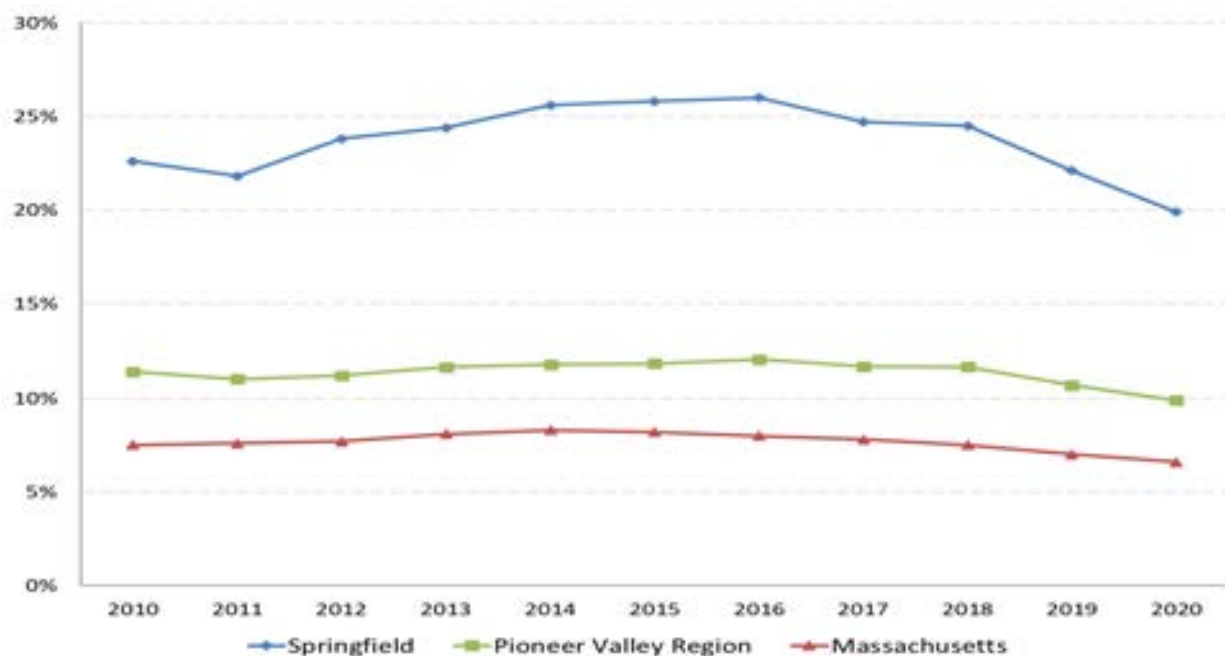
POVERTY

Poverty rates are an important indicator of what portion of a community's population likely lacks the necessary resources, such as food security and adequate income, to provide for themselves or their families. Identifying these areas allows government and private organizations to strategically allocate resources to alleviate poverty. The poverty rate, the common unit of measurement, is the percentage of all people (for whom poverty status was determined) who are living in households with incomes that fall below the federal poverty line. The poverty line is established by calculating the proportion of household income and the current costs of essential goods and services, such as food, housing, and transportation. Although the threshold is adjusted over time and is dependent on family size and the ages of family members, it is increasingly thought to understate the extent of poverty. In 2020, the poverty threshold for a family of four with two children under 18 was \$26,246. The poverty line for the same family that rents in Springfield is \$29,709 – still a low figure given that a low-cost one-bedroom apartment in western Massachusetts will typically rent for more than \$10,500 per year.

This economic reality in Springfield, which, historically, has maintained a poverty rate more than twice as high as the state and 10% or higher than the region, requires attention. Furthermore, the poverty levels remained elevated until 2016, after which they moderately declined. The COVID-19 pandemic threatens to undo this progress. Poverty dipped just below 20% in 2020, the lowest level in at least 13 years.

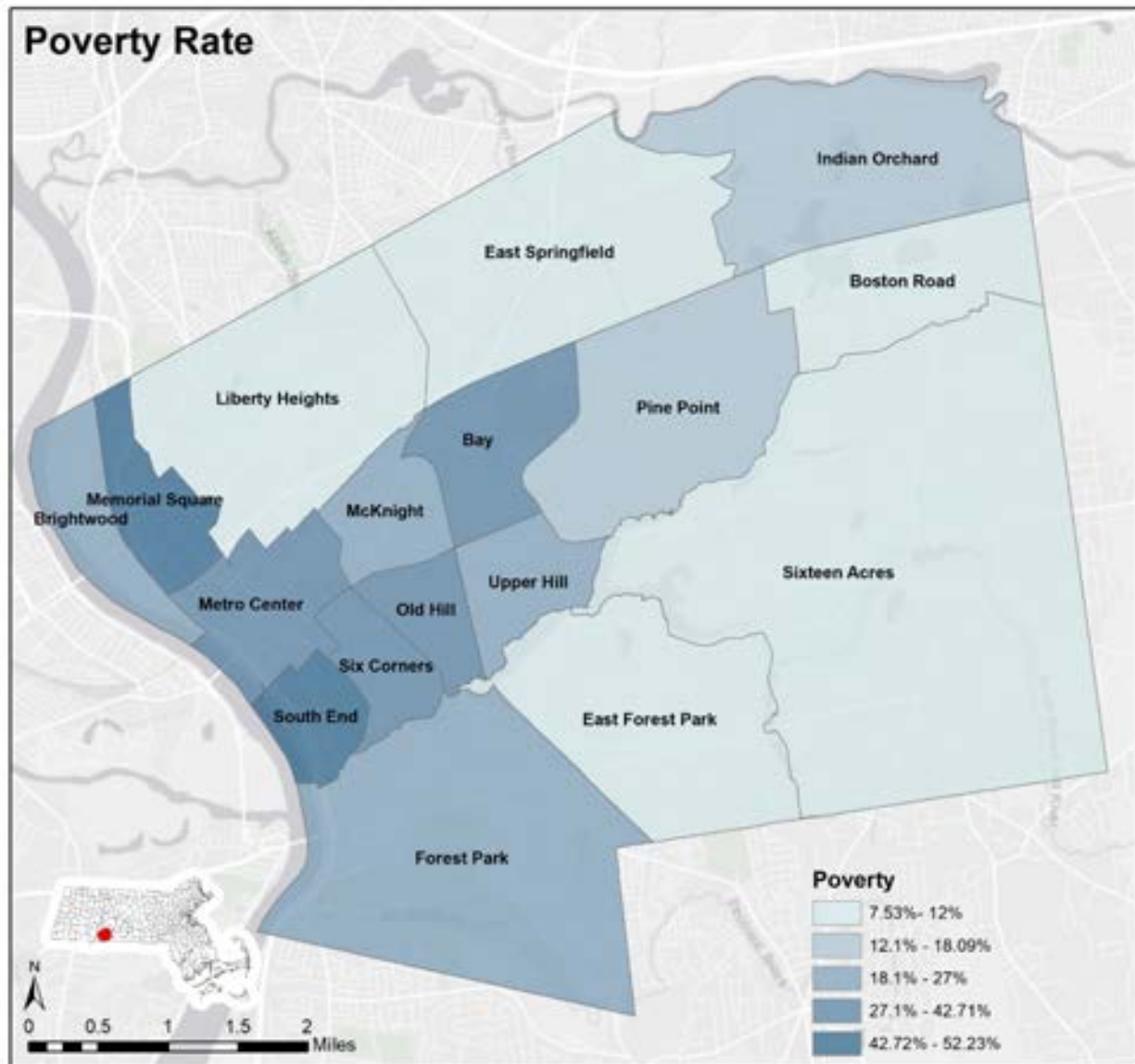
While poverty rates are high across the city, there is a disparity amongst neighborhoods. As of 2020, over two-thirds of neighborhoods in Springfield had rates more than double (as much as eight-fold higher) that statewide. Memorial Square (52.2%), South End (50.1%), Six Corners (42.7%), Metro Center (37.8%), and Old Hill (43.5%) all maintained acutely high rates of poverty that are disproportionate to the city's rate (19.9%). Moreover, when compared to the rate of poverty present in the Pioneer Valley (9.9%) and Massachusetts at-large (6.6%), it is evident that resources need to be directed to ensure Springfield's poverty rate continues to decline in the years to come.

LONG TERM TRENDS: CITY, REGION, STATE



Source: U.S. Census Bureau, American Community Survey

POVERTY – NEIGHBORHOOD COMPARISONS 2016-2020



DATA BY NEIGHBORHOOD

NAME	2020	NAME	2020
Massachusetts	6.6%	Forest Park	21.2%
East Forest Park	7.5%	McKnight	22.1%
Sixteen Acres	7.8%	Upper Hill	25.1%
East Springfield	9.3%	Brightwood	27.0%
Pioneer Valley	9.9%	Bay	32.6%
Liberty Heights	10.7%	Old Hill	34.5%
Boston Road	12.0%	Metro Center	37.8%
Indian Orchard	15.5%	Six Corners	42.7%
Pine Point	18.1%	South End	50.1%
Springfield	19.9%	Memorial Square	52.2%

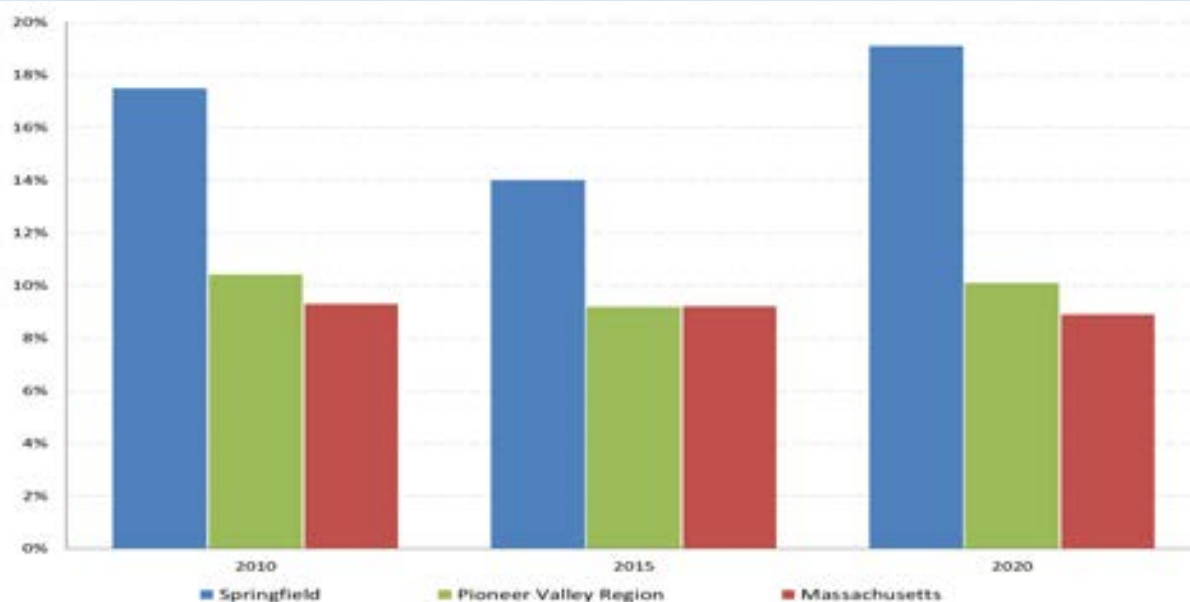
POVERTY RATES FOR PEOPLE 65+

As people age, their income and support networks may decrease significantly, often at a time when certain expenses may be climbing, such as health and medical costs. It is common for people to move from relative economic security throughout their working career to a lower income or impoverished economic state during this time, triggered by a reliance on fixed incomes and retirement savings that they accrued. As people get older, their ability to work to support themselves economically is reduced and they may be less likely to have friends or family members who can assist them. This indicator measures the percentage of all people over the age of 65 whose income falls below the poverty line. It is an indicator of the health and well-being of our older population.

Over the past three decades, there has been significant variability in poverty rates for residents of Springfield who are over the age of 65. Elderly poverty increased between 1990 and 2010 from around 10% to 17.5%, fell in 2015 to 14%, but rose again to a three-decade high of 19% in 2020.¹² Poverty among adults older than 65 has remained relatively stable in the rest of the state and Pioneer Valley, hovering around 9% for the state and between 9% and 10% for the region.

As with most economic indicators in Springfield, there is significant variation between neighborhoods in the city. While rates in East Springfield (4.1%), East Forest Park (6.3%), Boston Road (6.9%). And Sixteen Acres (8.2%) were relatively low, all falling below 10%, half of all neighborhoods had rates over 20 percent). Residents who are 65+ in the South End (46.3%), Bay (50.8%), Brightwood (49.5%), and Metro Center (54.4%) face a disproportionate economic hardship. Of note, East Springfield has experienced a vast decline in elderly poverty, falling from 21% in 2012 to 4% in 2020. Others, such as Upper Hill have higher rates of poverty among those 65 and older, increasing from 5% in 2012 to 20% in 2020.

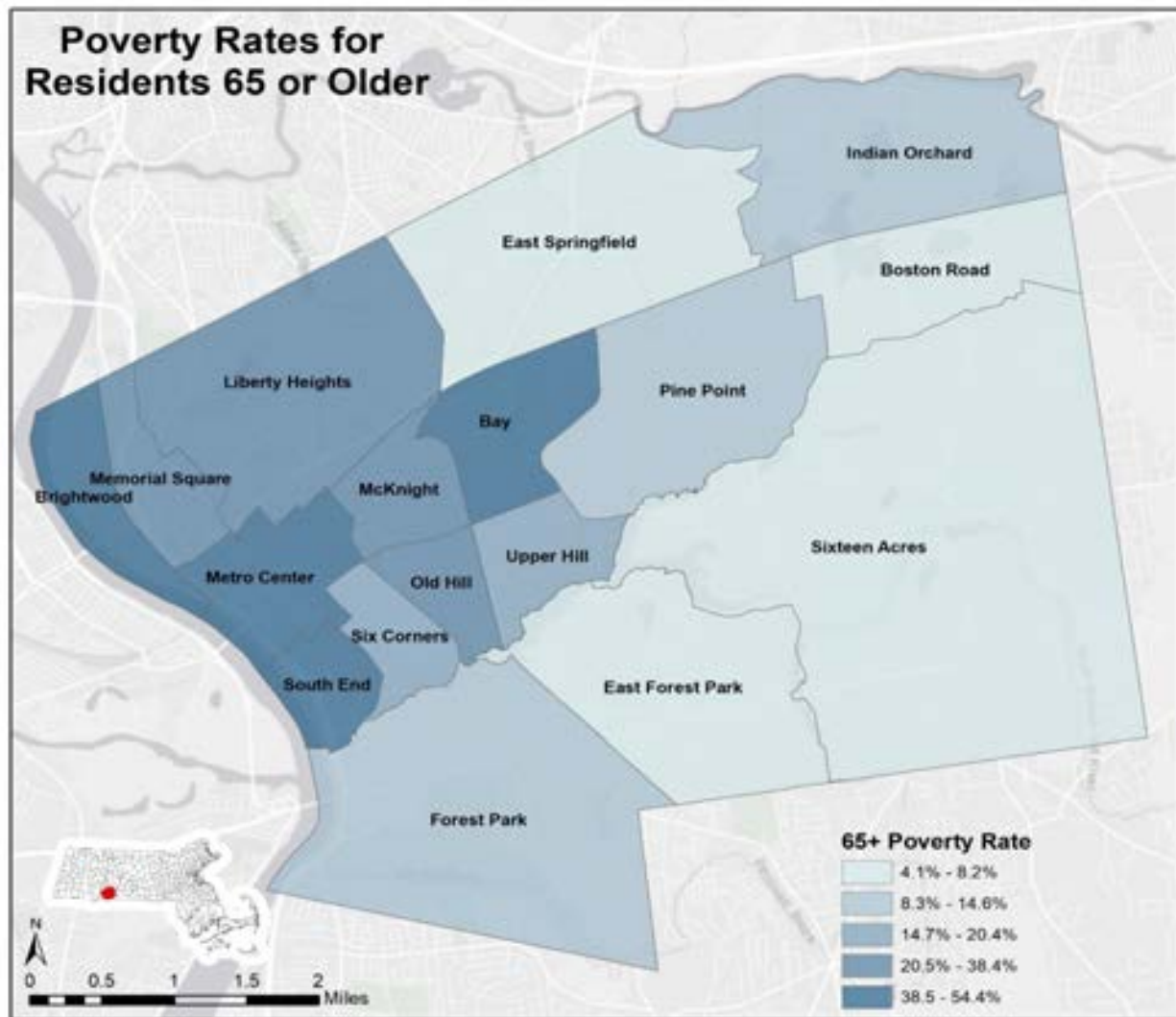
LONG TERM TRENDS: CITY, REGION, STATE



Source: U.S. Census Bureau

¹² Data for all years including 2020 was based on the ACS 5-year estimate, meaning that most responses would have been collected before the COVID-19 pandemic began in the United States. Thus, it is unlikely that the increase in elderly poverty is because of the pandemic.

POVERTY RATES FOR PEOPLE 65+ - NEIGHBORHOOD COMPARISONS – 2016-2020



DATA BY NEIGHBORHOOD

NAME	2020	NAME	2020
<i>East Springfield</i>	10.0%	<i>Six Corners</i>	19.5%
<i>East Forest Park</i>	5.4%	<i>Upper Hill</i>	20.4%
<i>Boston Road</i>	2.8%	<i>Old Hill</i>	29.8%
<i>Sixteen Acres</i>	6.0%	<i>Liberty Heights</i>	34.6%
<i>Forest Park</i>	8.4%	<i>Memorial Square</i>	35.9%
Massachusetts	8.9%	<i>McKnight</i>	38.4%
Pioneer Valley	10.1%	<i>South End</i>	46.3%
Springfield	13.7%	<i>Brightwood</i>	49.5%
<i>Indian Orchard</i>	6.0%	<i>Bay</i>	50.8%
<i>Forest Park</i>	8.4%	<i>Metro Center</i>	54.4%

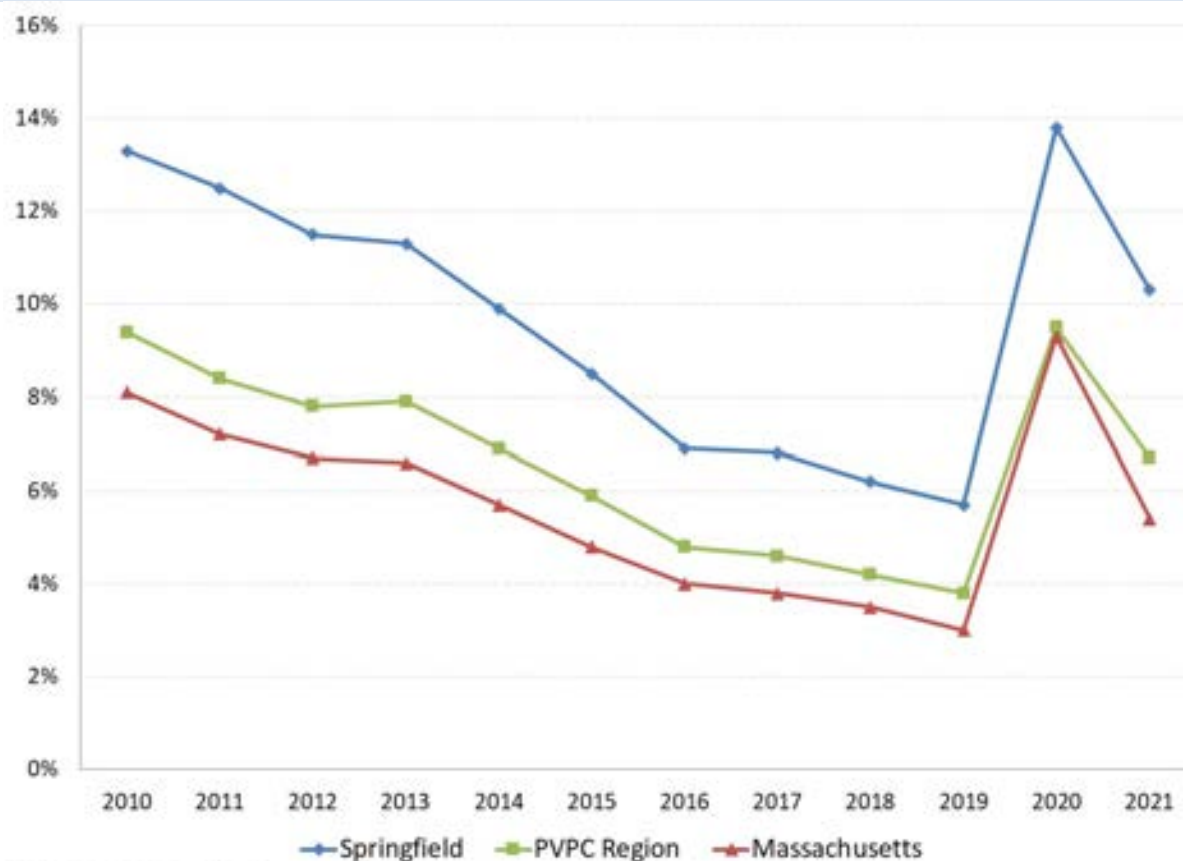
UNEMPLOYMENT

The unemployment rate is the percentage of people in the region's labor force who do not have a job. The labor force is the sum of the working-age population who currently possess a job and those actively searching for employment. The unemployment rate is a commonly used indicator to report on the state of the economy and labor market. A high unemployment rate may indicate a contracting economy. Furthermore, unemployment rates depict the portion of a community's population that is financially insecure due to a lack of employment.

Unemployment in Springfield, like that of the wider region and state, had continuously declined since the Great Recession until the COVID-19 pandemic resulted in an economic shutdown and widespread unemployment. By 2019, 5.8% of the labor force in the city was reportedly unemployed, increasing to 14.5% in 2020 and falling to 10.5% in 2021. Springfield's unemployment rate has consistently remained above the regional rate, 10.1%, and the state rate, 8.9%. Springfield experienced a larger percentage-point increase in unemployment during the pandemic than the wider region and state, demonstrating the precarity of jobs there.

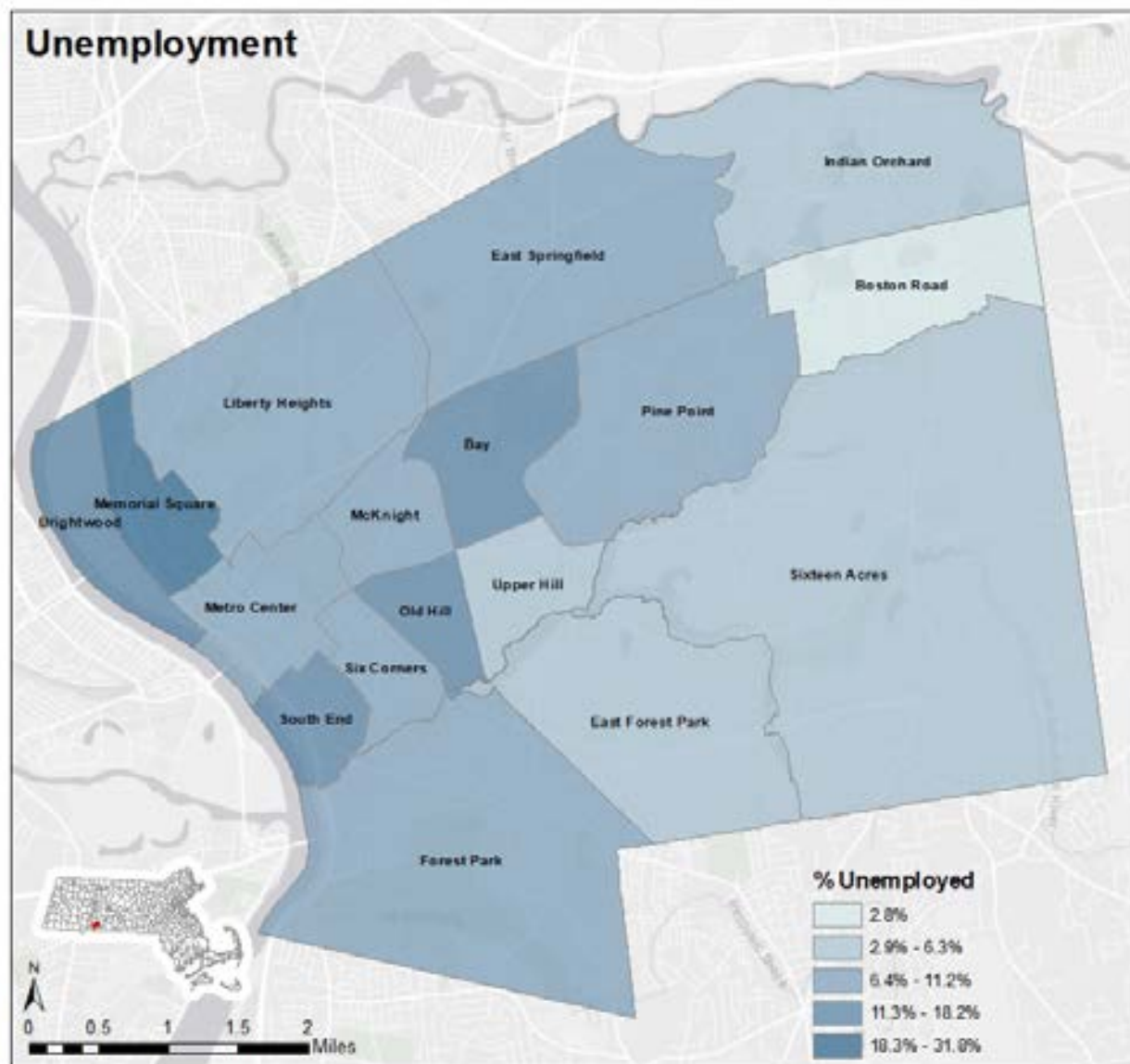
Substantial disparities are evident between neighborhoods¹³ in Springfield. Although Boston Road (2.8%), East Forest Park (5.4%), and Upper Hill (5.6%) reported the lowest unemployment rates in the city, most Springfield neighborhoods reported unemployment rates higher than 8%. Furthermore, Memorial Square (31.8%) and Brightwood (18.2%) are currently facing a daunting challenge. In these areas, rates two to three times those of adjacent neighborhoods illustrate the unevenness of the current labor market.

LONG TERM TRENDS: CITY, REGION, STATE



¹³ **Important Note About Data:** Neighborhood data is provided from Census Bureau estimates as it is not through the MA EOLWD. Neighborhood data should NOT be compared to City, Region, or State Data.

UNEMPLOYMENT –NEIGHBORHOOD COMPARISONS – 2016-2020



DATA BY NEIGHBORHOOD (SEE FOOTNOTE ON PREVIOUS PAGE.)

NAME	2020	NAME	2020
Massachusetts	5.7%	Forest Park	8.4%
Pioneer Valley	6.7%	McKnight	9.9%
East Forest Park	5.4%	Upper Hill	5.6%
East Springfield	10.0%	Brightwood	18.2%
Springfield	10.5%	Bay	13.1%
Sixteen Acres	6.0%	Old Hill	12.9%
Boston Road	2.8%	Metro Center	11.1%
Indian Orchard	6.0%	Six Corners	11.2%
Liberty Heights	10.3%	South End	12.3%
Pine Point	8.7%	Memorial Square	31.8%

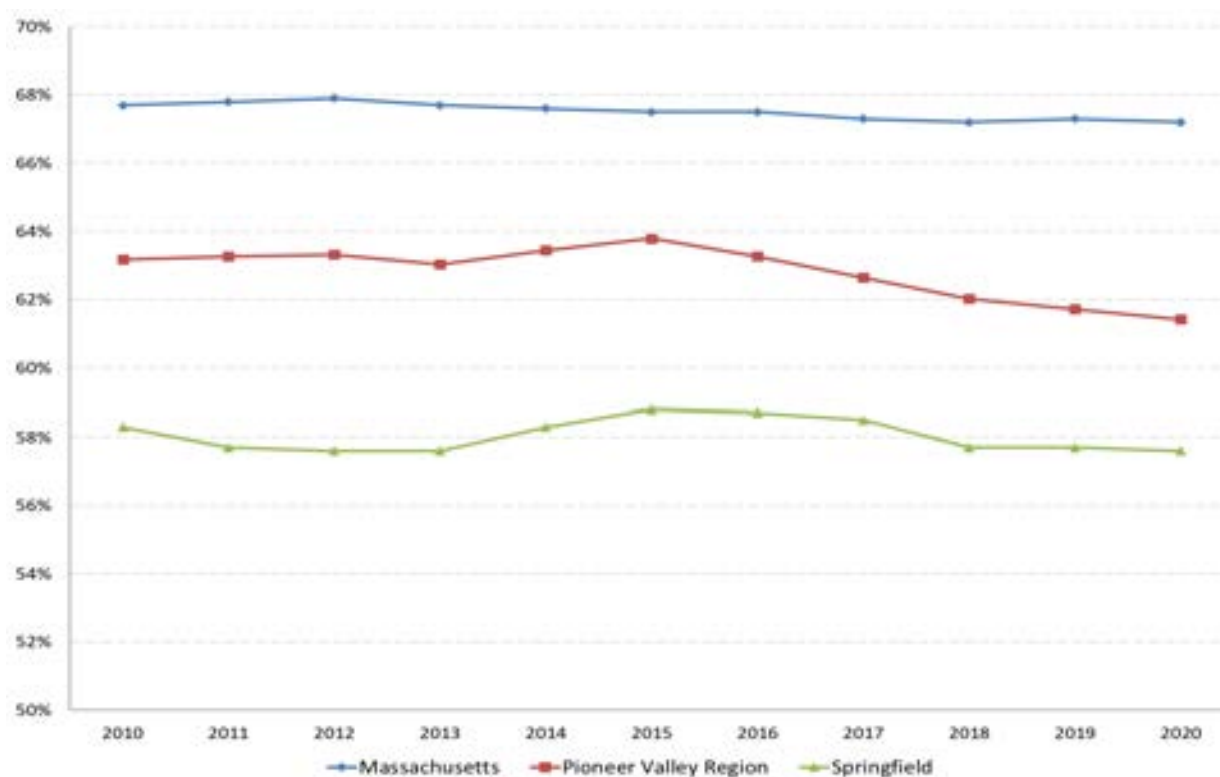
LABOR FORCE PARTICIPATION

The labor force participation rate, also known as the economic activity rate, is a measure of the proportion of the non-institutionalized population who are either working or looking for work. It counts both the employed and unemployed. As described by the U.S. Bureau of Labor Statistics, “This rate is an important labor market measure because it represents the relative amount of labor resources available for the production of goods and services.” Together with the unemployment rate, these indicators can provide a better understanding of the state of an area’s economy.

Massachusetts has consistently had a higher labor force participation rate than that of the Pioneer Valley region or the City of Springfield. The state’s labor participation rate has been remarkably stable in the last decade, hovering between 67% and 68% consistently between 2010-2020. By contrast, the Pioneer Valley witnessed a slight decrease in its labor participation rate from 63.2% in 2010 to 61.4% in 2020. In Springfield, there have been consistently lower rates than that of the region or statewide, however they have remained relatively stable. The city had a participation rate of 58.3% in 2010, increasing slightly to 58.8% in 2015 but then declining to 57.6% in 2020.

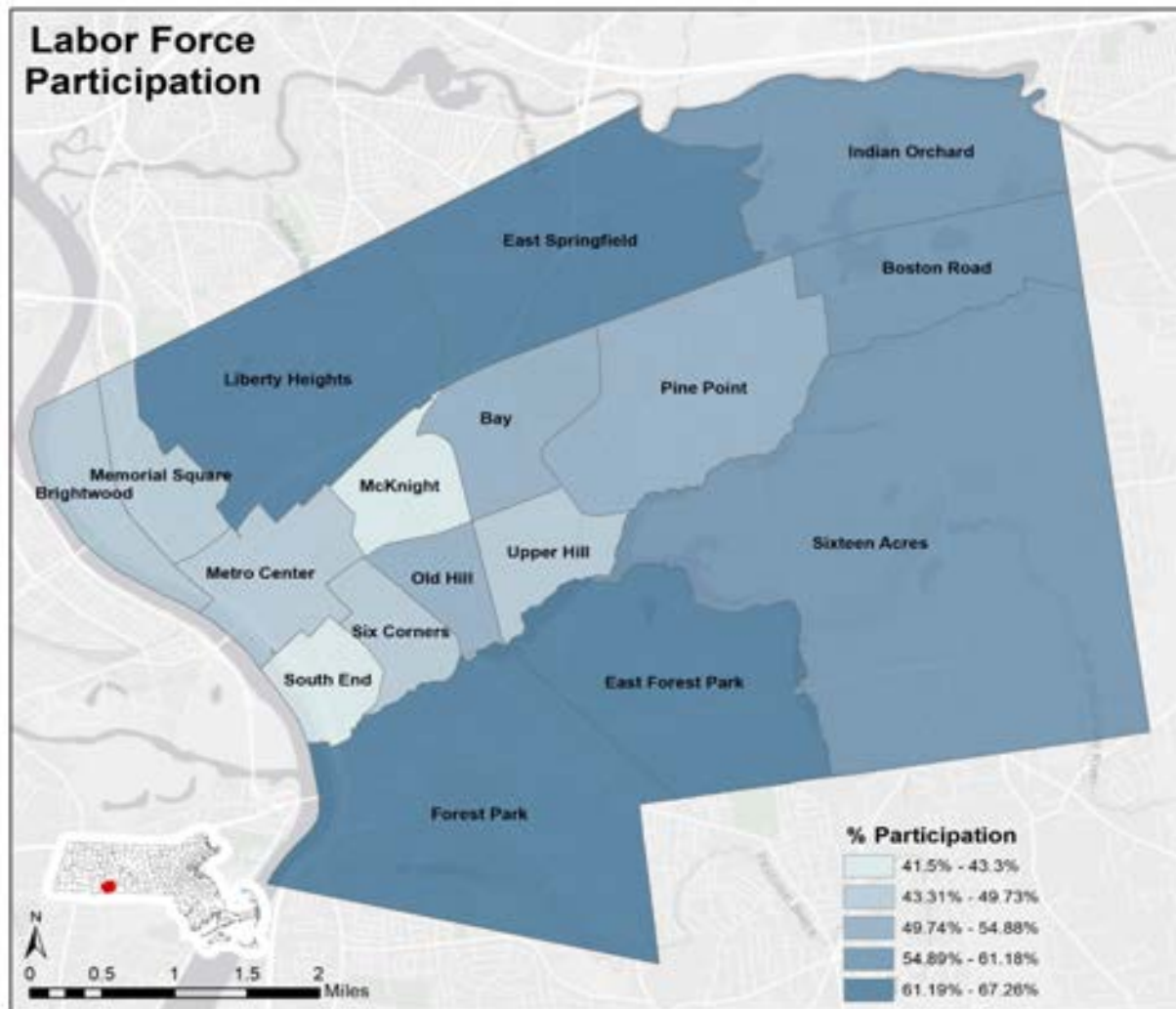
Within Springfield, five of the neighborhoods have held rates that equal or are greater than that of the broader region, including East Forest Park (67.3%), East Springfield (63%), (Forest Park 62.6%), Liberty Heights (62.2%), and Sixteen Acres (61.2%). On the other hand, many neighborhoods experienced much lower rates of labor force participation, such as the South End (41.5%), McKnight (43.3%), and Memorial Square and Brightwood (both 46.8%).

LONG TERM TRENDS: CITY, REGION, AND STATE



Source: U.S. Census Bureau

LABOR FORCE PARTICIPATION –NEIGHBORHOOD COMPARISONS – 2016-2020



DATA BY NEIGHBORHOOD

NAME	2020	NAME	2020
South End	41.5%	Springfield	57.6%
McKnight	43.3%	Indian Orchard	59.1%
Memorial Square	46.8%	Boston Road	59.5%
Brightwood	46.8%	Sixteen Acres	61.2%
Upper Hill	48.6%	Pioneer Valley	61.4%
Metro Center	49.0%	Liberty Heights	62.2%
Six Corners	49.7%	Forest Park	62.6%
Bay	52.1%	East Springfield	62.9%
Old Hill	53.9%	Massachusetts	67.2%
Pine Point	54.9%	East Forest Park	67.3%

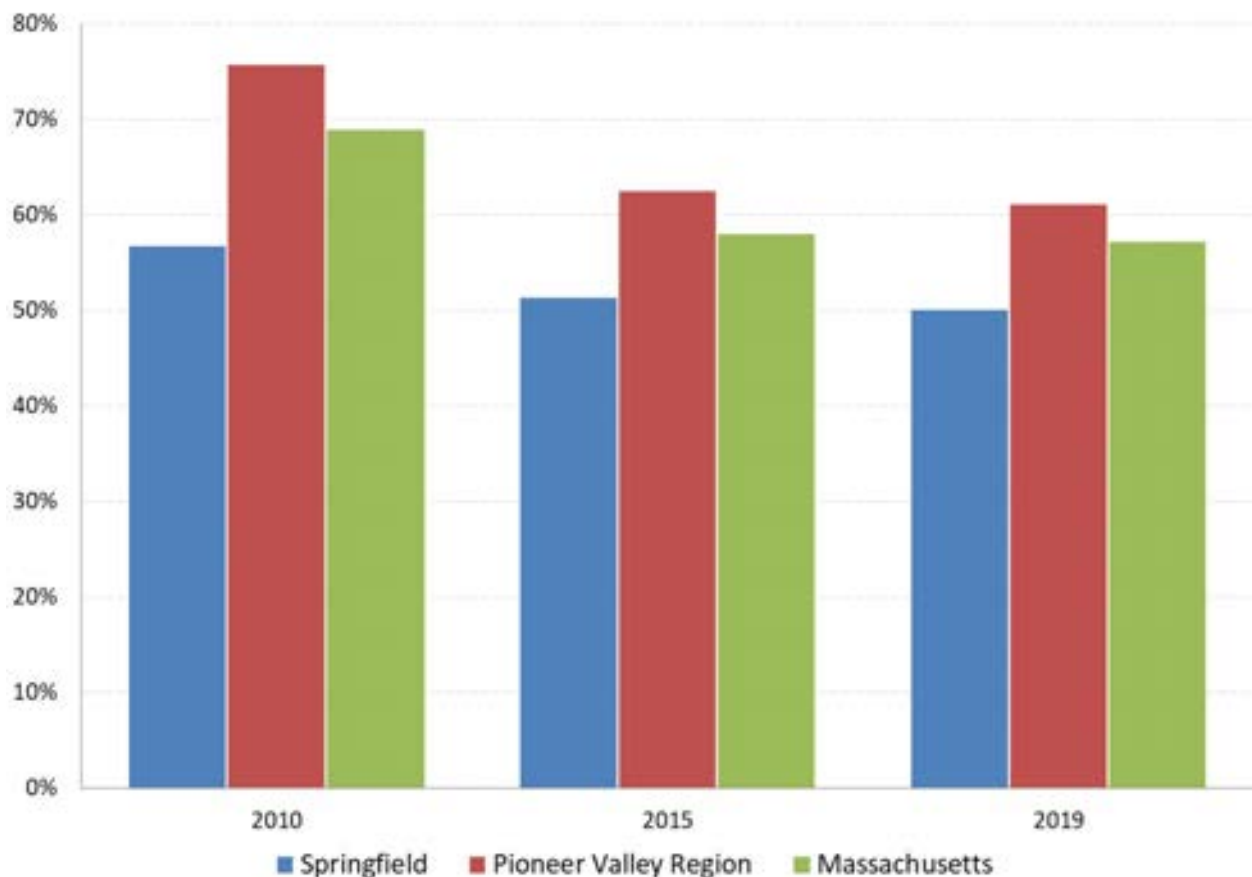
FOOD DESERTS

The Centers for Disease Control (CDC) and Prevention define food deserts as “areas that lack access to affordable fruits, vegetables, whole grains, low fat milk, and other foods that make up a full range of a healthy diet.” The absence of accessibility can negatively affect people’s physical wellness and economic stability, both of which influence the overall sustainability and health of a community. This indicator examines data from a U.S. Department of Agriculture (USDA) study that identified food desert locations by census tract. Food Deserts are defined here as the percentage of the population with low access to grocery stores within 1/2 mile for urban areas and 10 miles for rural areas.

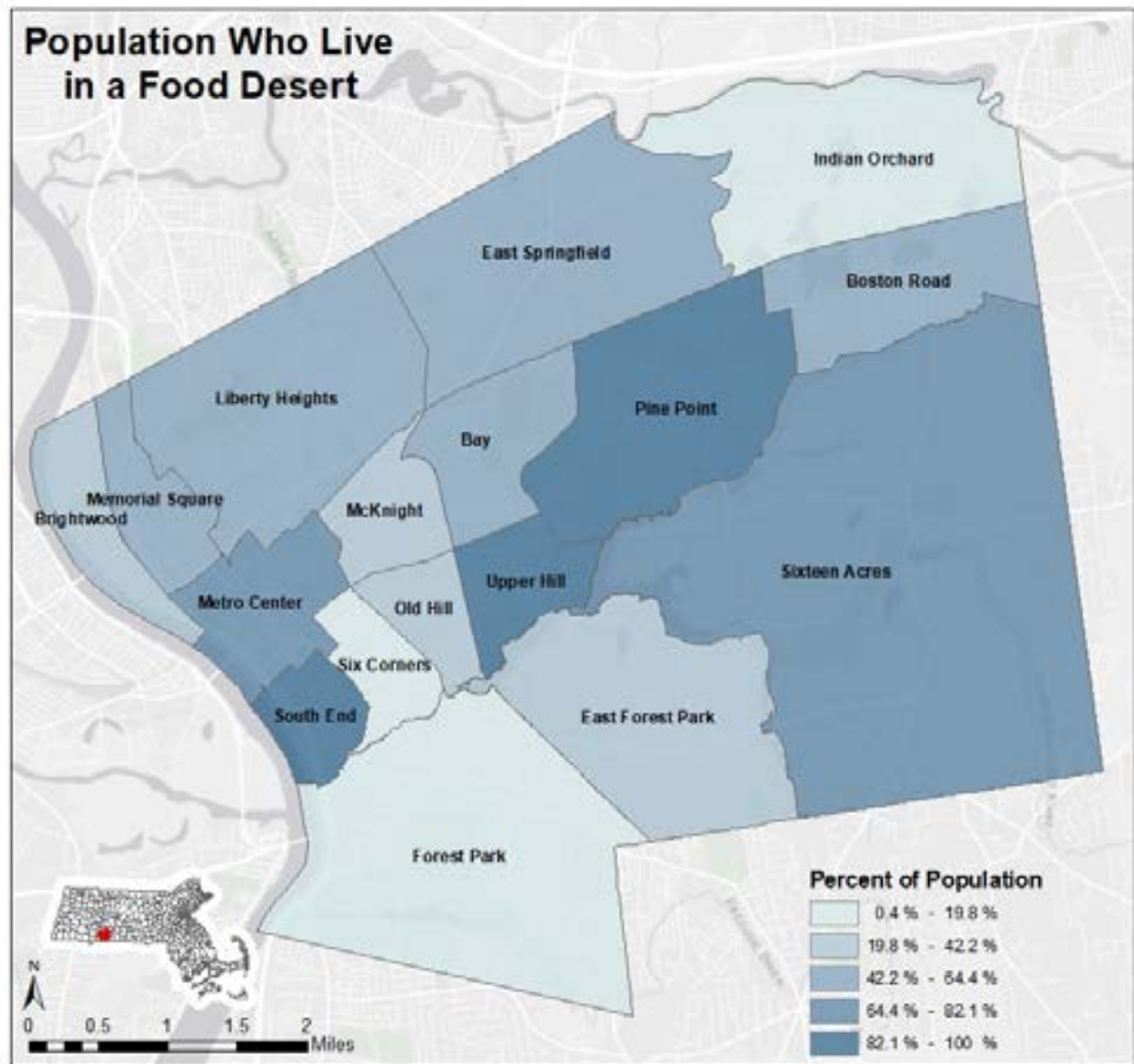
In 2010, Massachusetts had nearly 70% of people living in food deserts. While this rate has remained high, there has been a significant decrease to 57% in 2019. This is an imminent issue for the Pioneer Valley Region as well, with 2019 figures of just over 60%. Springfield is faring slightly better than the rest of the state, which includes many rural and remote areas. Still in 2019, about 50% of the population in Springfield lives in a population desert, a decline of 6.7% since 2010.

Access to food is not equal across Springfield neighborhoods. Some neighborhood rates are much higher than those regional or statewide. The following communities are distinctly in food deserts: Upper Hill (100%), Pine Point (95.7%), South End (95.0%), Metro Center (82.1%), Sixteen Acres (79.4%), Memorial Square (64.4%), Bay (61.1%), Boston Road (59.1%), East Springfield (55.8%), Liberty Heights (52.4%). All have a rate of limited access to markets providing healthy foods that exceed the city average. Most of these neighborhoods also exceed the state and pioneer valley region’s degree of low access to healthy food. Some neighborhood residents live within closer proximity to grocery stores or may have higher rates of personal vehicle ownership which would ease access.

LONG TERM TRENDS: CITY, REGION, STATE



Source: USDA, Economic Research Service: Food Access Research Atlas 2010-2015 Aggregate and 2019



DATA BY NEIGHBORHOOD

NAME	2019
<i>Indian Orchard</i>	0.46%
<i>Six Corners</i>	16.36%
<i>Forest Park</i>	19.84%
<i>Old Hill</i>	24.99%
<i>East Forest Park</i>	30.67%
<i>Brightwood</i>	39.10%
<i>McKnight</i>	42.24%
<i>Springfield</i>	50.07%
<i>Liberty Heights</i>	52.38%
<i>East Springfield</i>	55.84%

NAME	2019
<i>Massachusetts</i>	57.15%
<i>Boston Road</i>	59.11%
<i>Pioneer Valley</i>	61.12%
<i>Bay</i>	61.12%
<i>Memorial Square</i>	64.42%
<i>Sixteen Acres</i>	79.44%
<i>Metro Center</i>	82.12%
<i>South End</i>	94.97%
<i>Pine Point</i>	95.70%
<i>Upper Hill</i>	100.00%

HOUSING

Housing is a basic need and fundamental component of economic security. It is essential for Springfield's economic and social vitality. Safe and affordable homes are the backbone of strong, stable, and vibrant communities. The ability to own a home establishes roots that encourage people to further invest, socially and economically, in their community. Investing in this manner positively impacts many aspects of a locality, including the environment, economy, education, and health. Housing is also the most common method of establishing personal wealth. Once acquired, it can be transferred to future generations, effectively improving their quality of life and economic capacity. Tracking housing costs reveals insight into the financial state of homeowners and renters, an important metric to monitor during periods of growth and development.

Overall, the situation of the city's housing is mixed. Progress has been made pertaining to housing foreclosures, with rates stabilizing following the recession and a spike in 2014-15. There has been a negligible improvement in the percentage of people being housing cost burdened people. However, rates of home ownership are down slightly from previous years.

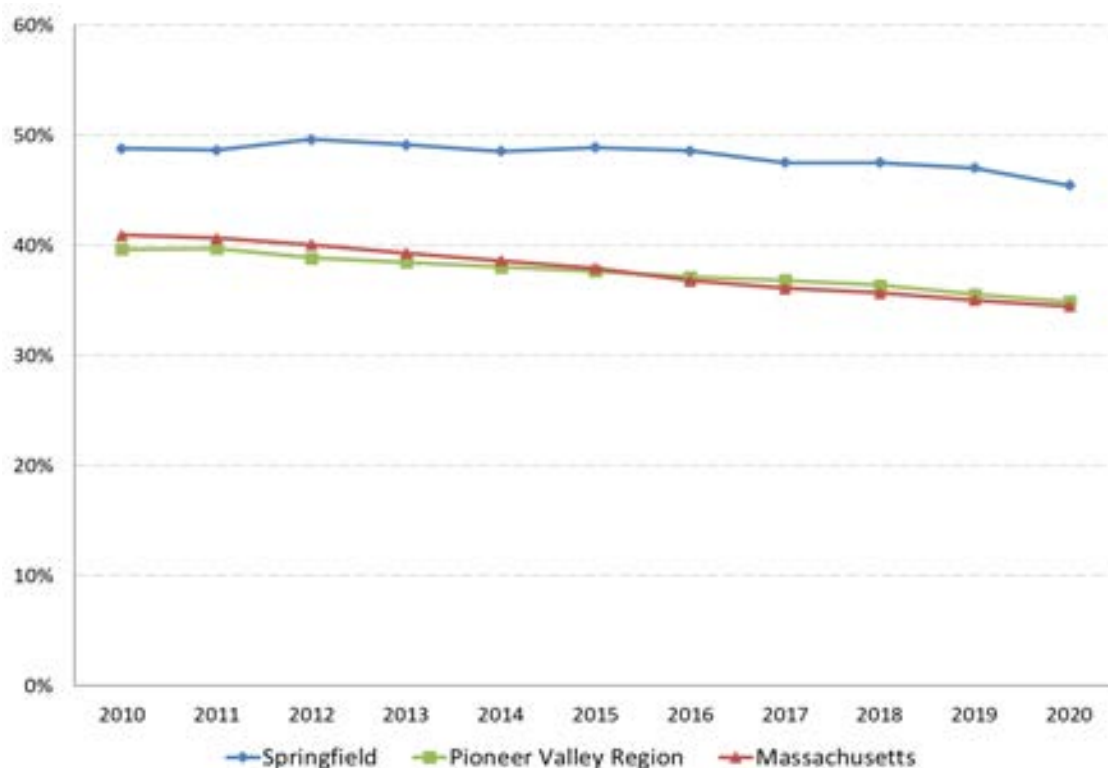
HOUSING COST BURDEN

According to many government agencies, people who pay more than 30% of their income on housing costs are considered housing cost burdened. The U.S. Census Bureau provides estimates on this statistic in the American Community Survey. Data for this indicator includes renters, as well as homeowners with mortgages who were surveyed. Monthly owner costs include payment for rent, mortgages, real estate taxes, various insurances, utilities, fuels, mobile home costs, and condominium fees. Housing cost burden identifies anyone who pays over 30% of their income towards either rent or home ownership.

From 2010-2020, approximately half of all Springfield residents have been housing cost burdened, though there has been a slight decline in recent years. Throughout Massachusetts and the Pioneer Valley, the percent of people being housing cost burdened has steadily declined, from around 40% in 2010 to around 35% in 2020. Springfield's rate has consistently remained ten percentage points higher than the rest of the region, reflecting lower incomes relative to housing costs.

The presence of this phenomenon varies by neighborhood. South End (68.9%), Memorial Square (68.0%), Old Hill (68.9%) and Upper Hill (62.8%) are neighborhoods with over 60% of the population being housing burdened. The neighborhoods between these outliers reported 41-59% of house units incurring high costs for owners and tenants. East Springfield and Sixteen Acres, where 34.2% of households pay more than 30% of their income towards housing costs, as well as East Forest Park, where 30.7% of households do the same, are the only three neighborhoods with cost burdens affecting less than 40% of reported households. These suburban neighborhoods, despite having more expensive housing stock, have much higher median incomes compared to their inner-city counterparts.

LONG TERM TRENDS: CITY, REGION, STATE



Source: U.S. Census Bureau

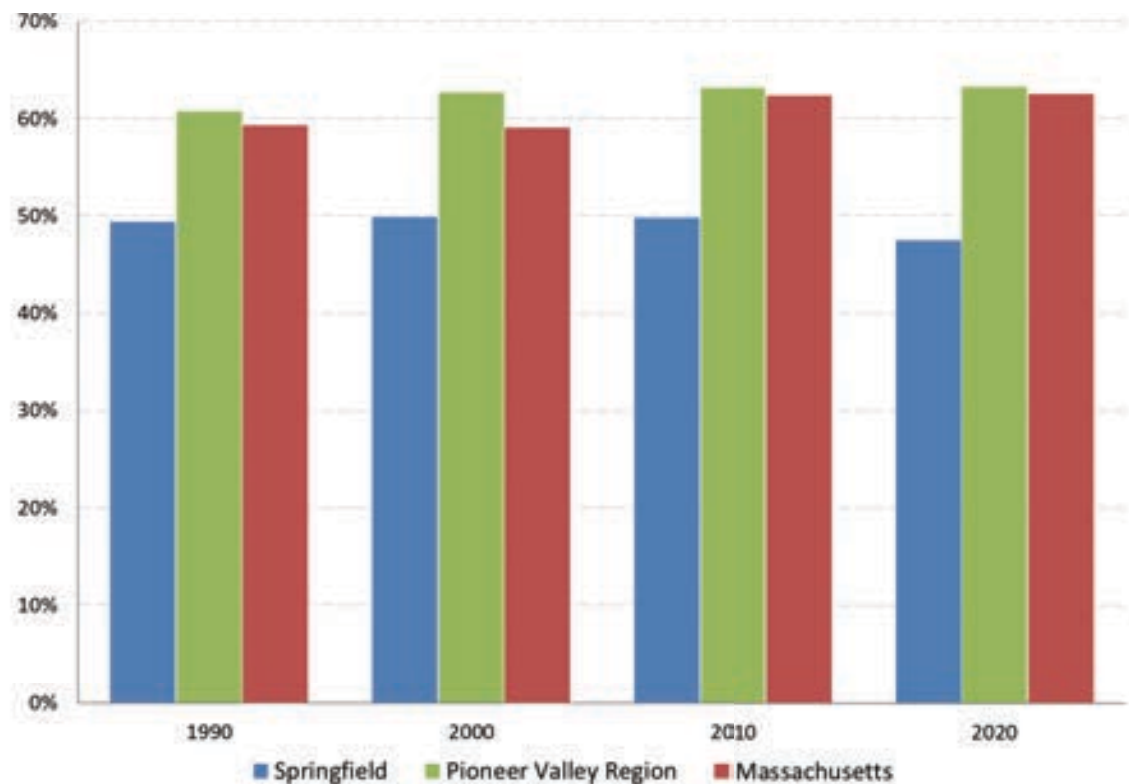
HOMEOWNERSHIP

Homeownership is a significant indicator of economic security. As the primary financial investment for most people in this country, the homeownership rate represents financial, employment, and income stability. Home ownership also strengthens communities by forging a firm connection between people and the place where they live. However, the downside of a high owner-occupancy rate is that rental options for young, old, or transitional populations are subsequently limited as housing stock departs from the rental market. Homeownership is expressed as the percentage of all housing units that the property's owner occupies.

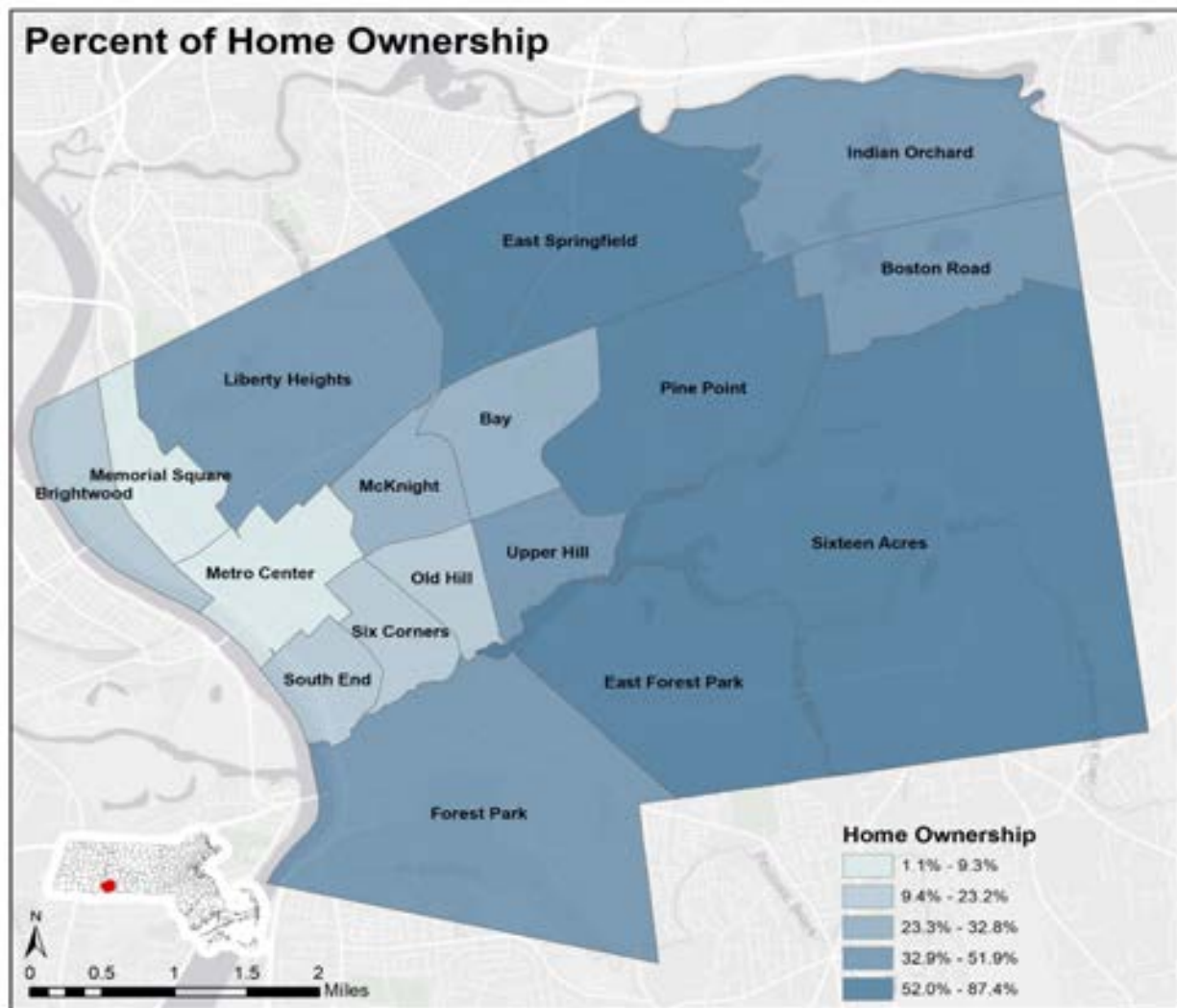
Home ownership rates have risen slightly across the state between 1990 (59.2%) and 2020 (62.5%). This increase is echoed in the Pioneer Valley, where rates rose from 60.7% in 1990 to 63.2% in 2020. Springfield, which maintains a substantially lower present rate of 47.4%, experienced a divergence from the overall trend, subsequently decreasing 1.86 percentage points from its 1990 rate of 49.4%.

When examined in detail, it is evident that ownership is not shared equally across neighborhoods within the city. East Forest Park (87.4%), Sixteen Acres (76.1%), East Springfield (71.8%), and Pine Point (61.9%) envelop a significant portion of residents who own their homes and may experience a greater degree of economic stability. Many neighborhoods reported rates between 30-45%, a fraction of the state and regional homeownership trends. This figure continues to decrease in neighborhoods closer to the urban core. Most residents in the Metro Center (1.1%), Memorial Square (9.3%), and the South End (13.3%) reported they did not own their housing.

LONG TERM TRENDS: CITY, REGION, STATE



HOME OWNERSHIP – NEIGHBORHOOD COMPARISON – 2020



DATA BY NEIGHBORHOOD

NAME	2020	NAME	2020
<i>Metro Center</i>	1.1%	<i>Forest Park</i>	43.9%
<i>Memorial Square</i>	9.3%	<i>Indian Orchard</i>	44.8%
<i>South End</i>	13.3%	Springfield	47.4%
<i>Brightwood</i>	16.0%	<i>Boston Road</i>	51.9%
<i>Six Corners</i>	16.8%	<i>Pine Point</i>	61.9%
<i>Old Hill</i>	23.2%	Massachusetts	62.5%
<i>McKnight</i>	31.0%	Pioneer Valley	63.2%
<i>Bay</i>	32.8%	<i>East Springfield</i>	71.8%
<i>Upper Hill</i>	40.2%	<i>Sixteen Acres</i>	76.1%
<i>Liberty Heights</i>	42.6%	<i>East Forest Park</i>	87.4%

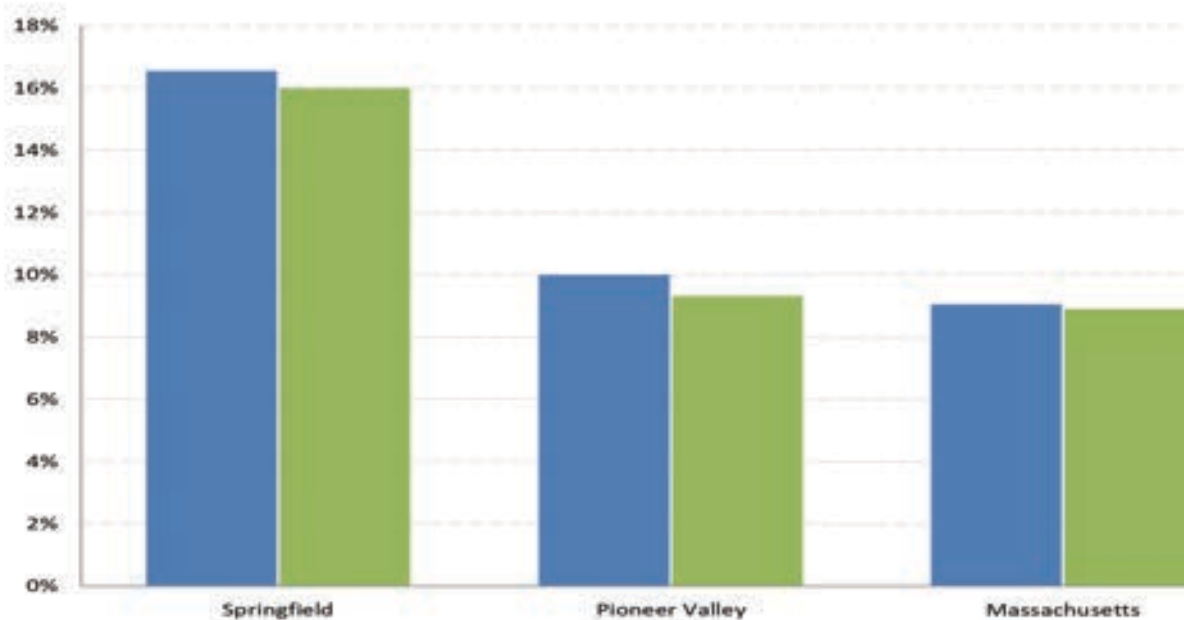
SUBSIDIZED HOUSING

Subsidized housing is housing that is restricted to individuals and families with low to moderate incomes. Those who qualify typically receive financial assistance to bring down the cost of owning or renting the unit, usually in the form of a government subsidy. Subsidized housing in Massachusetts dates to the 1930s when the state and the federal government acknowledged that there was an overriding public interest in providing subsidies to lower-income households. This was a response to the daunting reality of a lack of housing affordability. The theory was and continues to be that such assistance will help to alleviate the housing cost burden and allow these households to focus on employment, education, and personal health. It also allows households to stay within the city instead of moving to cheaper locations that may be further away from their jobs. This indicator measures the percentage of all housing units in a community that are designated as subsidized housing units.¹⁴ Not included in this indicator is housing that is affordable but does not have established long-term affordability restrictions attached to the property.

Springfield's subsidized housing stock overshadows that of the state and region. In the city, 16% of housing units are publicly subsidized compared to 9.3% of units in the Pioneer Valley and 8.9% of units in Massachusetts. These rates are a few tenths of a percentage point lower than in 2010. Springfield's and the Pioneer Valley's declining trend has been slightly more pronounced than the rest of the state.

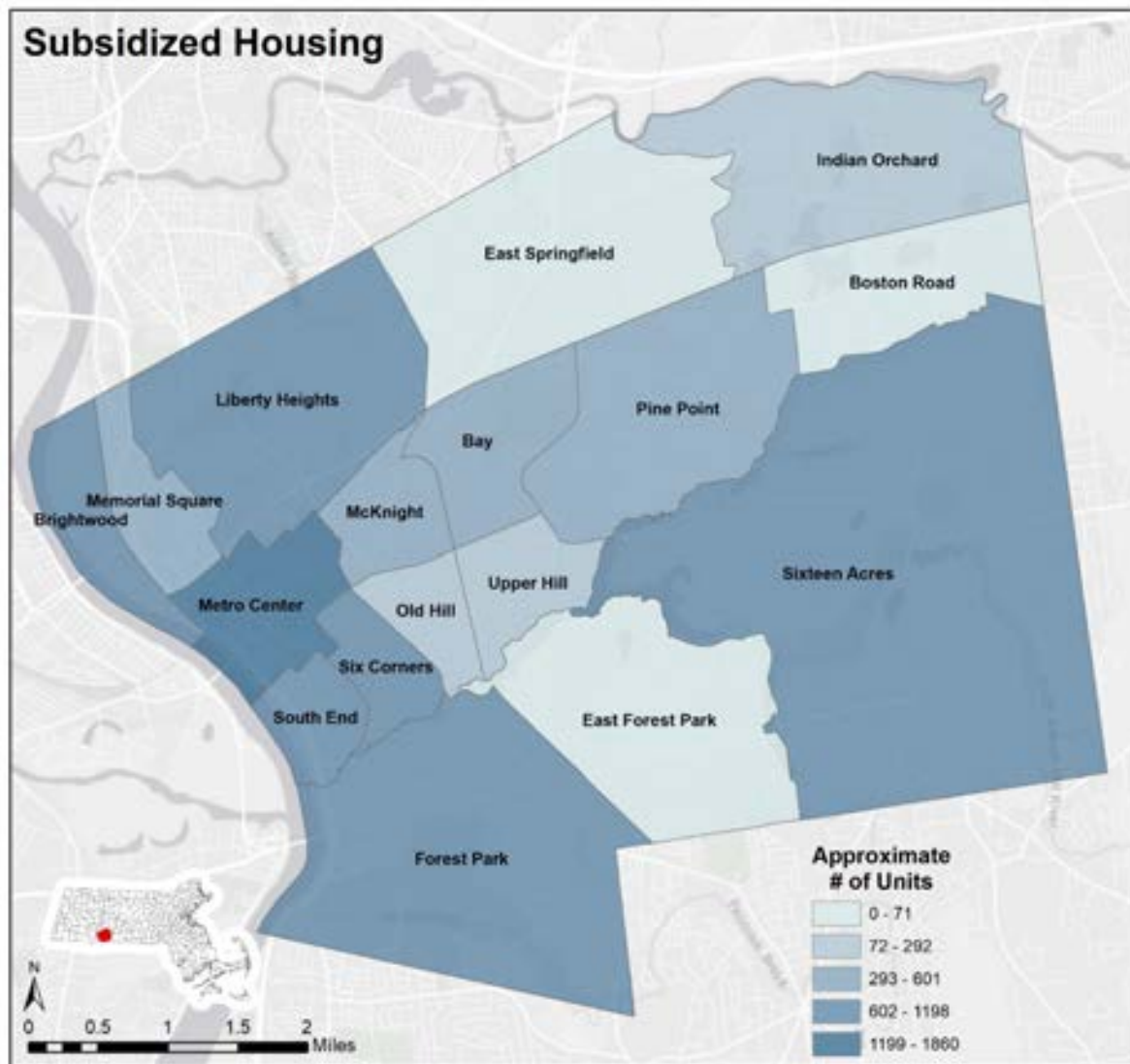
Subsidized housing has increased in many neighborhoods since 2014, though East Forest Park and East Springfield continue to have a dearth of subsidized housing. There has been a substantial decrease in subsidized housing in the Boston Road neighborhood. More than a third of subsidized units mapped in Springfield neighborhoods were in the three neighborhoods of Metro Center, Sixteen Acres, and Brightwood.

LONG TERM TRENDS: CITY, REGION, STATE



¹⁴ **Neighborhood Data Limitations:** A list of subsidized housing units was provided by MA DHCD as of 5/12/14. In most cases, units we provided with a specific address, but about 9% of all units (962) were listed with addresses that were “confidential” or “scattered” and thus we were unable to apply those units to specific neighborhoods. As a result, neighborhood rates were not calculated as they could not be guaranteed to be valid, and some neighborhood unit counts are actually larger than listed on the map. Still, over 90% of units are mapped accurately and should provide a strong basis for examining distribution of subsidized housing throughout the city.

SUBSIDIZED HOUSING – NEIGHBORHOOD COMPARISON – 2020



DATA BY NEIGHBORHOOD

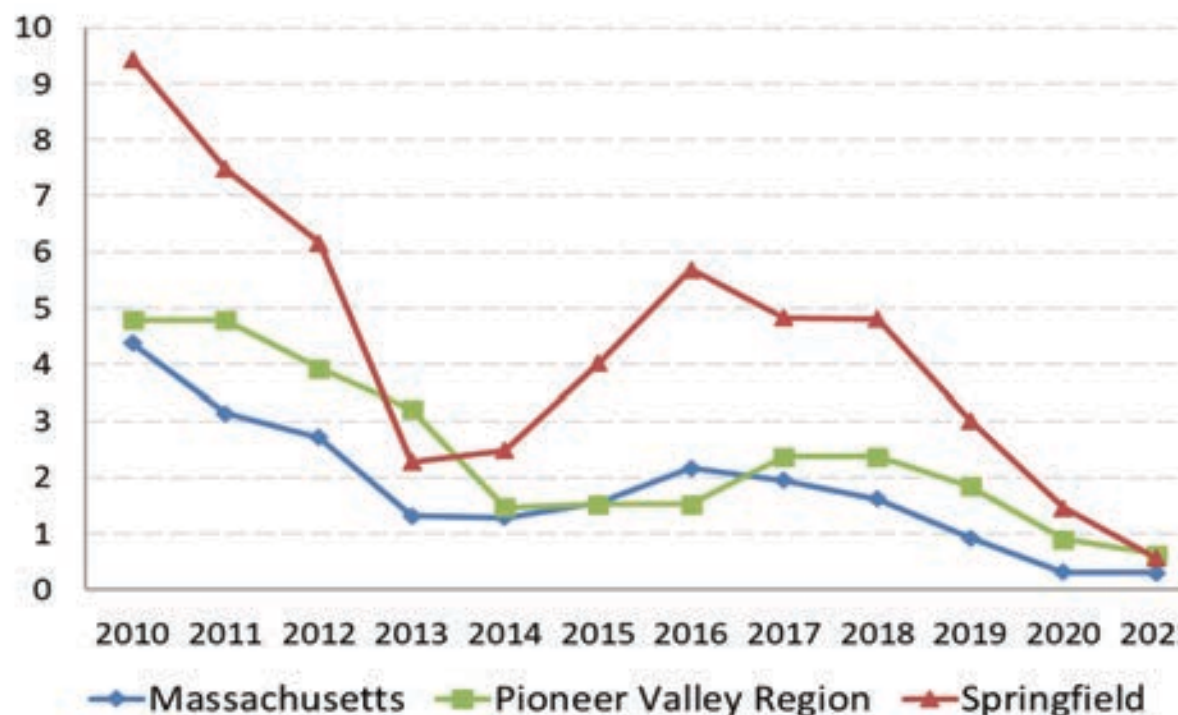
NAME	2020	NAME	2020
East Forest Park	0	Memorial Square	437
East Springfield	7	Pine Point	601
Boston Road	71	Six Corners	654
Old Hill	169	Liberty Heights	658
Upper Hill	220	Forest Park	676
Indian Orchard	292	South End	711
Bay	373	Brightwood	957
McKnight	425	Sixteen Acres	1198
		Metro Center	1860

FORECLOSURE RATES

Foreclosure rates are an indicator of areas of distress and unstable neighborhoods. A foreclosed home represents a massive loss in equity for the individual and, therefore, collectively reflects a loss in the region's wealth. Foreclosures affect more than the individual family who loses their house, as they tend to drive down property values of homes in the surrounding area when sold below market value or when they sit vacant and deteriorate for an extended time. The most significant recent wave of foreclosures has been on the heels of the recession that started in 2008, when the housing market crash was one of the primary causes of the economic downturn. This indicator measures foreclosure deeds as a rate per 1,000 housing units. Another wave of foreclosures occurred between 2014 and 2016.

2010 marked the highest point in foreclosure rates across the state in the past decade. In Massachusetts, 4.37 housing units out of 1,000 have been repossessed by mortgage lenders. Subsequently, this figure dropped by over half, with foreclosures of only 1.32 homes per 1,000 occurring in 2013. Foreclosures hit a record low in 2020 and 2021, below 0.5 foreclosures per 1,000 houses, possibly because of relief that mortgage lenders may have offered during the COVID pandemic. Foreclosure rates are higher in the Pioneer Valley, at 4.8 homes per 1,000 in 2010, falling to 1.85 in 2019 and less than 1 during the pandemic. Springfield was more affected by the financial crisis, having a foreclosure rate of 9.44 per 1,000 in 2010. Such a high rate illustrated the dire effects of the housing market decline on the city. The market had quickly improved to a low of 2.49 in 2013 – lower than the rest of the Pioneer Valley, before increasing again until 2016. The rate before the pandemic was 3 houses per 1,000 in 2019 and reached a record low of 0.56 in 2021.

LONG TERM TRENDS: CITY, REGION, STATE



ENVIRONMENT

The condition of the environment is one of the paramount factors that influence a city and population's long-term health and quality of life. Air quality, water quality, and sustainable transportation options all affect residents' physical well-being, economic stature, long-term livelihood, and the capacity to enjoy their surroundings. Reducing the day-to-day impact of contemporary life on the environment, through pollution reduction and sustainability improvements, can lead to a better quality of life especially for future generations.

The average time it takes for residents of Springfield to commute to their places of employment has increased slightly. Moreover, the percentage of residents commuting with environmentally friendly transportation modes is also down. However, the addition of Riverfront Park and Bikeway, the city's first dedicated path for pedestrians and bicyclists, is an example of the environmental progress that can be a catalyst for further sustainability.

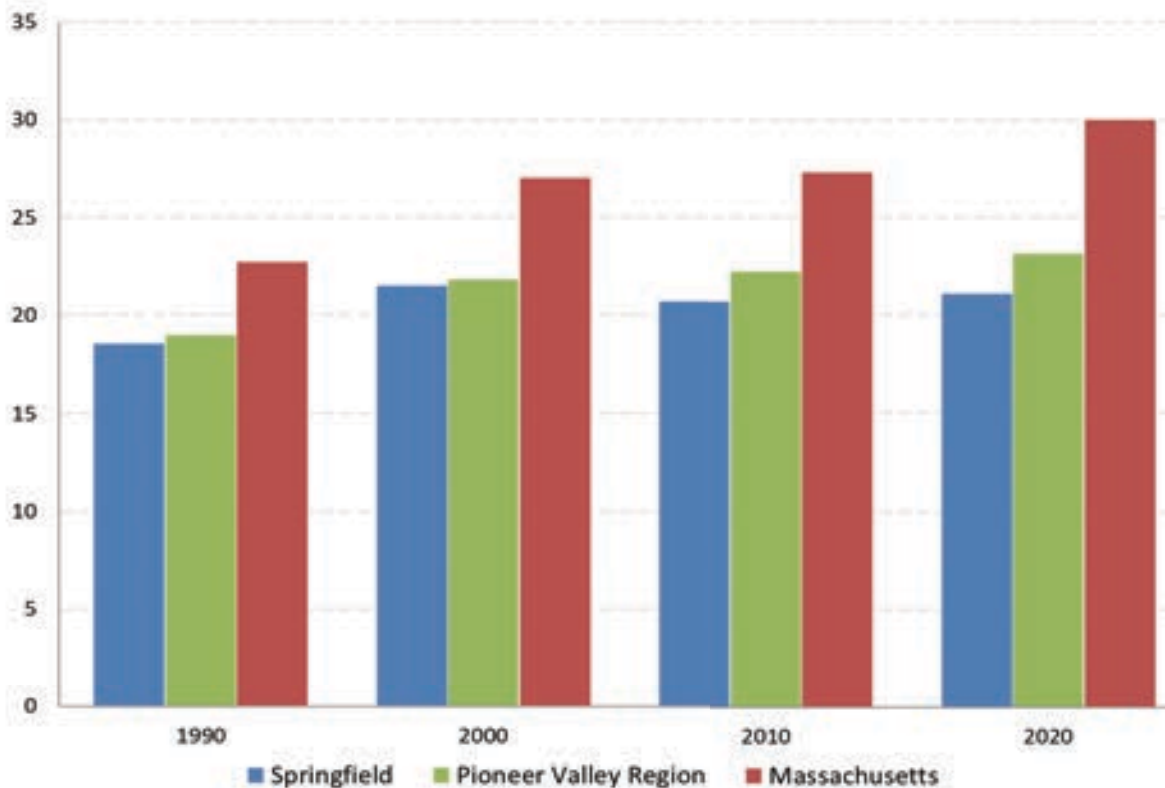
AVERAGE COMMUTE TIME

Understanding shifts in citizens' average commute time is important when assessing environmental impacts. This can proxy for analyzing transportation system efficiency, worker productivity, and greenhouse gas emissions. Factors impacting commute time include distance from work and rush-hour traffic volume. Moreover, it can show flaws in availability and accessibility of public transit, including wait times, journey length, and the number of available transit stops. This indicator measures the average commute time (in minutes) from a person's home to their place of employment.¹⁵

As of 2020, a typical Massachusetts resident spent approximately 30 minutes in transit during their commute. Influenced by new development and heightened congestion, this is higher than the 22.7 minutes one would spend traveling to work in 1990. Residents in the Pioneer Valley (23.1 minutes) and Springfield (21.1 minutes) have shorter commutes, although their modal choices are comparatively limited. This figure has been increasing slightly since 1990, where averages were 18.9 minutes for the Pioneer Valley and 18.5 minutes for Springfield.

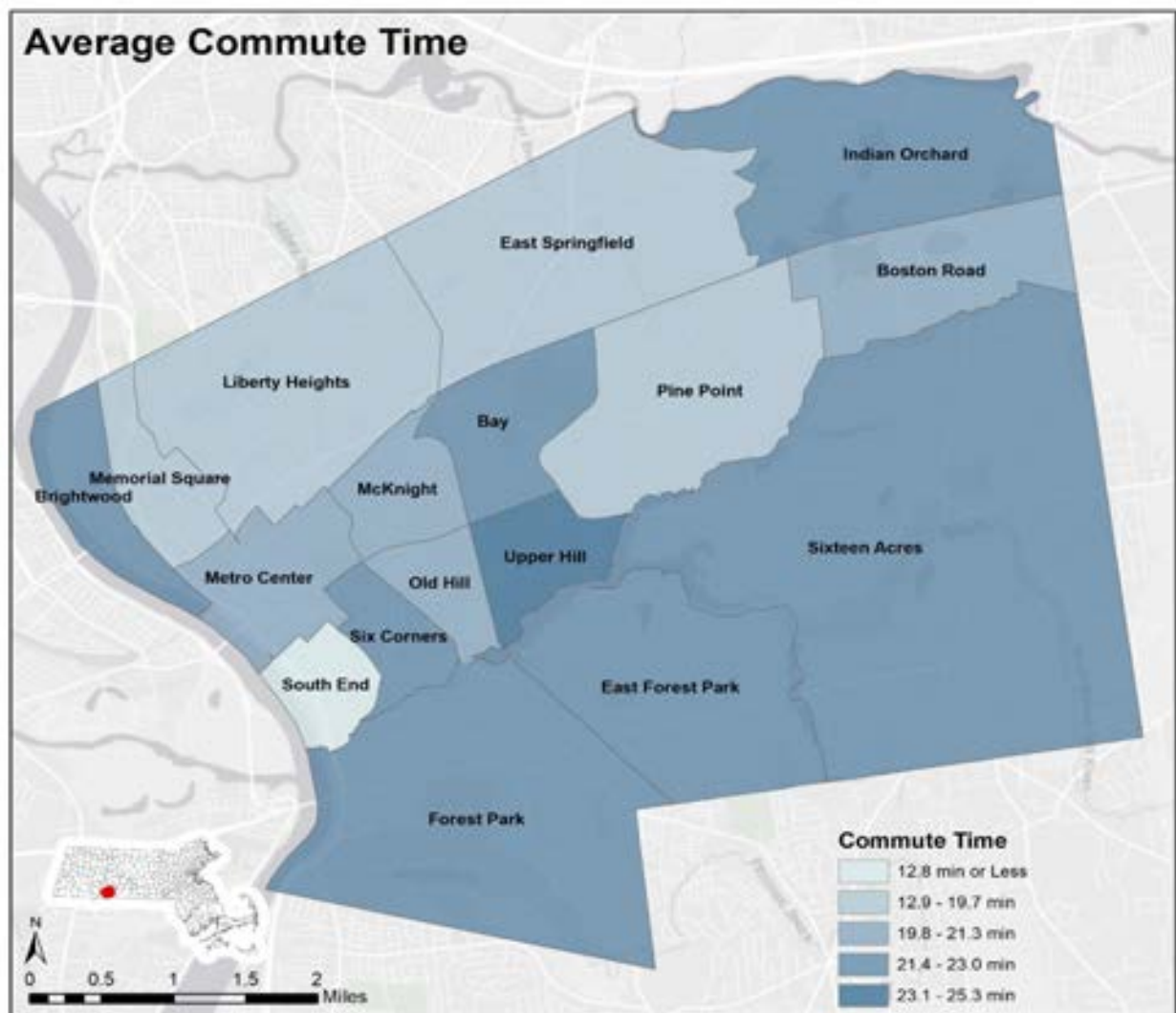
When examined, there are striking differences in commute time contingent upon which neighborhood one resides in. For example, those who live in the South End, East Springfield, Liberty Heights, Memorial Square, and Pine Point experience commutes shorter than 20 minutes. Residents of Upper Hill have average commute times longer than 25 minutes.

LONG TERM TRENDS: CITY, REGION, STATE



¹⁵ **Note about the data:** Data does not include people who work from home.

AVERAGE COMMUTE TIME – NEIGHBORHOOD COMPARISONS – 2020



DATA BY NEIGHBORHOOD

NAME	2020	NAME	2020
<i>South End</i>	12.8	<i>East Forest</i>	21.7
<i>East Springfield</i>	18.4	<i>Sixteen Acres</i>	21.7
<i>Liberty Heights</i>	19.4	<i>Forest Park</i>	21.9
<i>Memorial Square</i>	19.5	<i>Indian Orchard</i>	21.9
<i>Pine Point</i>	19.7	<i>Six Corners</i>	22.1
<i>Boston Road</i>	20.3	<i>Bay</i>	22.3
<i>McKnight</i>	20.8	<i>Brightwood</i>	23.0
<i>Old Hill</i>	21.1	<i>Pioneer Valley</i>	23.1
<i>Springfield</i>	21.1	<i>Upper Hill</i>	25.3
<i>Metro Center</i>	21.4	<i>Massachusetts</i>	30.0

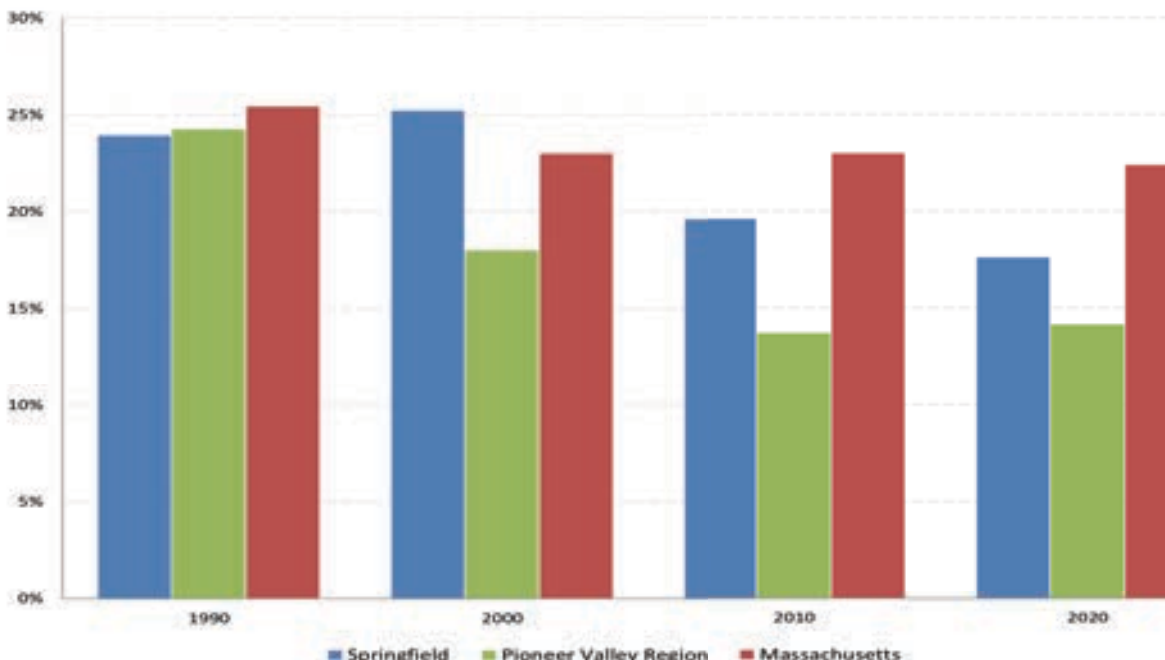
ENVIRONMENTALLY FRIENDLY TRANSPORTATION

Commuting to work by single-occupancy vehicle is a significant cause of pollution. Traffic congestion increases unsustainable greenhouse gas (GHG) emissions, especially during rush hour. The portion of residents that use “environmentally friendly” modes of transportation during their commute is crucial in evaluating how well the region’s population is moving away from environmentally detrimental modes, thus reducing GHG emissions. “Environmentally friendly” transportation options include carpooling, all forms of public transit, bicycling, or walking. By proxy, this indicator can illuminate possible issues regarding vehicular congestion, parking availability, air quality, and the ability to walk or bike. The percentage of all residents who utilize one of these “environmentally friendly” methods to commute to work is reflected in this indicator.

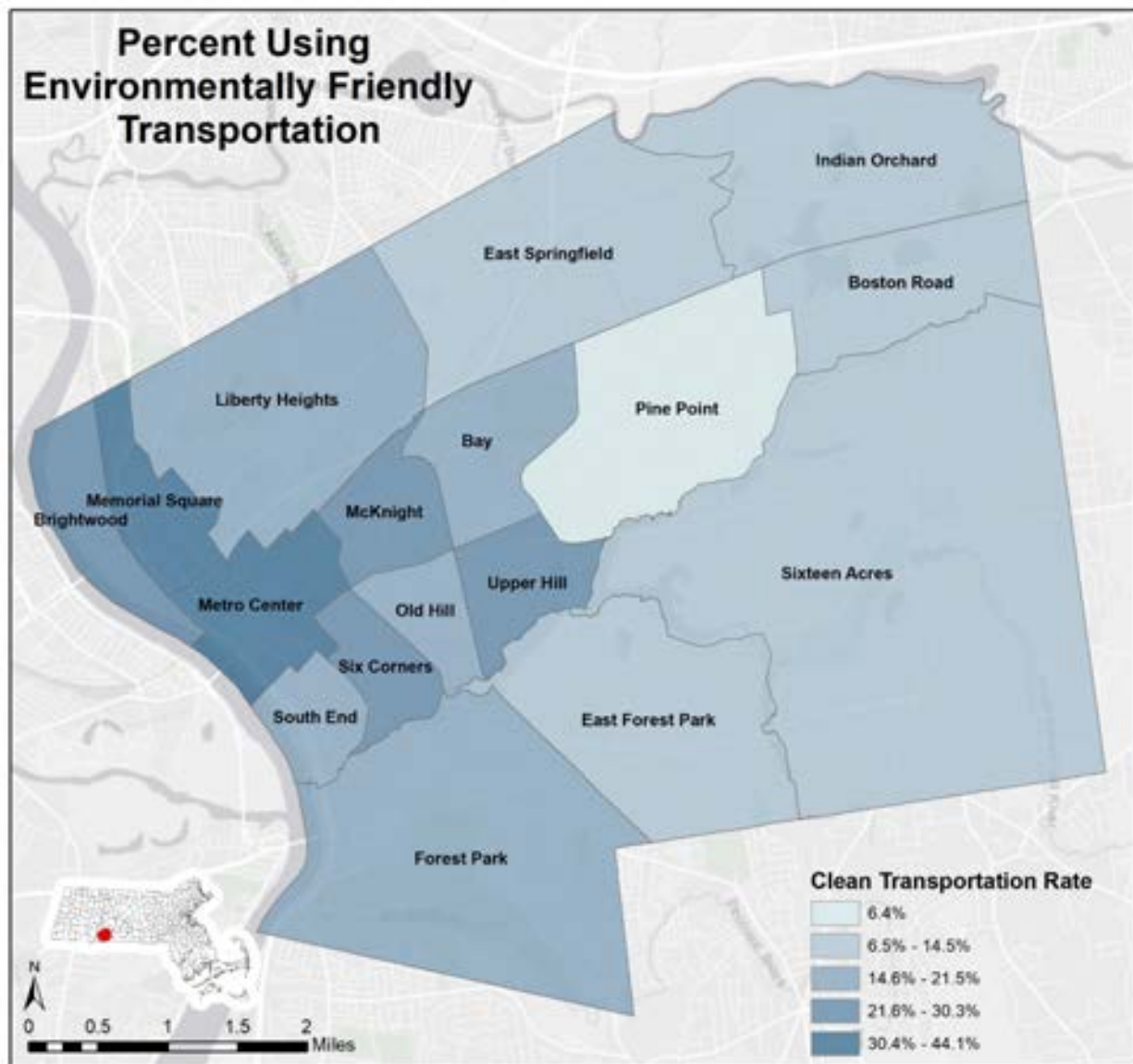
In Massachusetts in 2020, 22.4% of those surveyed reported using sustainable modes during their commute. This is a worrying decline from the previous decade when 23% reported using sustainable transport. Regionally, only 14% of the population in the Pioneer Valley commutes in an environmentally friendly manner. The region has exhibited a starker decline than the state since 1990 when 24% used sustainable transport. It is important to note that these data come from five-year ACS estimates. Thus, the impact of COVID-related lockdowns on data reporting is negligible.

Springfield reported that 17.6% of city residents used sustainable commuting methods in 2020. This is again a decline since 1990 when the figure was 23.9%. When examined closely in 2020, there are divergences at the neighborhood level, which may suggest major differences in neighborhood walkability or access to transit. For example, Metro Center (44.1%), Memorial Square (40.2%), McKnight (30.3%), and Six Corners (30.2%) all exhibited robust commuting habits, with approximately twice as many residents utilizing sustainable modes of transport. In contrast, Pine Point (6.4%), Sixteen Acres (10.7%), East Springfield (11.2%), and Boston Road Orchard (12.0%) reported a much higher majority of residents commuting in single-occupancy-vehicles.

LONG TERM TRENDS: CITY REGION STATE



Source: U.S. Census Bureau



DATA BY NEIGHBORHOOD

NAME	2020	NAME	2020
<i>Pine Point</i>	6.4%	<i>Old Hill</i>	19.7%
<i>Sixteen Acres</i>	10.7%	<i>Liberty Heights</i>	20.7%
<i>East Springfield</i>	11.2%	<i>Bay</i>	21.5%
<i>Boston Road</i>	12.0%	Massachusetts	22.4%
<i>East Forest Park</i>	13.7%	<i>Brightwood</i>	25.2%
Pioneer Valley	14.1%	<i>Upper Hill</i>	26.1%
<i>Indian Orchard</i>	14.5%	<i>Six Corners</i>	30.2%
<i>Forest Park</i>	17.4%	<i>McKnight</i>	30.3%
Springfield	17.6%	<i>Memorial Square</i>	36.0%
<i>South End</i>	17.6%	<i>Metro Center</i>	42.2%

