Health Resources in Action

Massachusetts Community Violence Intervention – Capacity Building Initiative Grant Program

Community Profiles

HEALTH RESOURCES IN ACTION

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Community Profile: Boston, Massachusetts

Introduction

The following community profile prepared for Boston, Massachusetts, provides a high-level overview of the population's composition and characteristics.

This brief is not intended as a comprehensive community profile but instead it is primarily designed to give context and support informed decision-making. It can also aid policymakers, planners, community leaders, and collaborators to understand and address a community's unique needs and challenges - for the individuals represented by this data have lived their lives in circumstances that are both influenced and constrained by economic factors, social context, and government policies. With this in mind, a significant portion of this report is dedicated to examining the social, economic, and community context in which residents live.

Figure 1: Geographic Boundary for Boston, Massachusetts

The profile for Boston also encompassed a review and analysis of secondary data. Secondary data refers to the data that has been collected for a different purpose. Analyzing secondary data helps us to understand patterns, establish a starting point, and recognize variations in populations and communities.

The social, demographic, economic, and health data sources including demographic data for this profile is from the U.S. Census Bureau's American Community Survey (ACS) 1 and 5-Year Estimates, 2018-2022; social vulnerability data is from the Agency for Toxic Substances and Disease Registry (ATDSR), and firearm-related incidents are from the Gun Violence Archive for years 2015 to 2023; Population health data is from the online data portal from the Centers for Disease Control and Prevention's online data portal PLACES: Local Data for Better Health based on 2020 and 2021 Behavioral Risk Factor Surveillance System (BRFSS) data. A description of each data source is located at the end of this report.

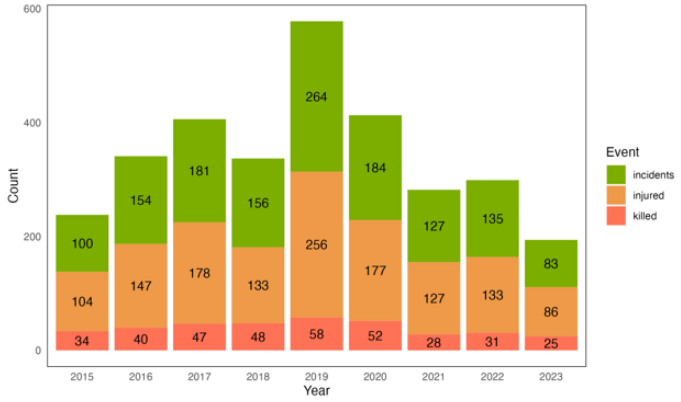
Data collection has limitations, as different sources use different ways of measuring similar variables. There may be a time lag, and data may not be available by specific population groups or at a more granular geographic level due to small sample sizes. In some cases, data from multiple years may have been aggregated to allow for more stable estimates.

The community profile begins with an overview of firearm-related incidents, followed by the status of social vulnerability and a review of population, housing, and economic characteristics as well selected measures for health status and outcomes.

In conclusion, this community profile is a foundational resource that underscores the significance of considering the broader socio-economic context and the impact of policies on residents' lives, highlighting the importance of data-driven strategies for fostering community well-being and resilience.

Firearm-Related Incidents, Deaths, and Injuries

Figure 2: Firearm-Related Incidents, Injuries and Fatalities, Boston, MA, 2015-2023*



Source: Gun Violence Archive, 2015 to 2023; *2023 data is only for January 2023 to November 2023; Reported averages have been rounded.

Firearm deaths continue to be a significant and growing public health problem in communities across the United States. Firearm-related incidents may include a range of events such as homicides, suicides, accidental discharges, and non-fatal injuries involving firearms. The number of firearm incidents is influenced by various factors, including gun ownership rates, gun control policies, socioeconomic conditions, and other social factors.

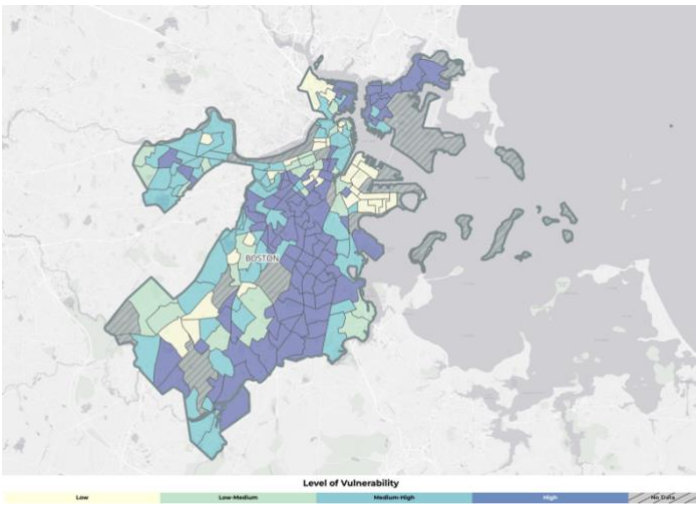
Overall, between January 2015 and November 2023, there were 1,384 firearm-related incidents in the city of Boston (an average of 154 per year) that cumulatively resulted in a total of 1341 injuries and 363 fatalities. **Figure 2** shows the number of shooting incidents was the highest in 2019 (264 cases), resulting in 256 firearm-related injuries and 58 deaths. Further, while December firearm incident data is still pending for 2023, however amid some slight variation overall trends for those injured or killed illustrate a general downward trend in such events since 2019.

Social Vulnerability

The Social Vulnerability Index (SVI) is a measure used to assess the vulnerability of communities to natural or human-made disasters and emergencies. It considers various social, economic, and demographic factors affecting a community's ability to prepare for, respond to, and recover from disasters[1].

Emergency management agencies, researchers, and public health officials often use the index to identify and prioritize areas that may need additional support in a crisis. The SVI is also considered an important tool for promoting equity and ensuring that emergency

Figure 3: Social Vulnerability Index by Census Tract, Boston, MA, 2020



Source: Agency for Toxic Substances and Disease Registry, 2020

[1] The Social Vulnerability Index - At A Glance

response efforts cater to the different needs of various populations within a region.

As **Figure 3** shows, SVI is often represented as a map, with different areas shaded or colored to indicate their level of vulnerability. By identifying vulnerable communities, emergency planners can allocate resources more effectively and implement targeted interventions to enhance resilience and reduce the impact of disasters on these communities.

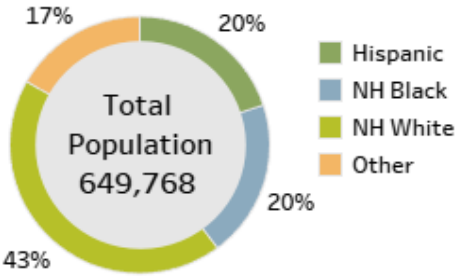
Overall, out of the 207 census tracts that fall within the geographical boundary of Boston, a majority of them (136) – 65.7% - reflect an SVI ranging from medium-high to high. This suggests that most of the census tracts exhibit characteristics associated with increased vulnerability.

People residing in these areas may face challenges related to poverty, limited access to education and healthcare, social isolation, or other factors that hinder their ability to prepare for, respond to, and recover from adverse events. Furthermore, the overall SVI score for Suffolk County, which includes the cities of Boston, Revere, Chelsea, and Winthrop, is 0.79, which similarly reflects a high level of vulnerability for the county.

Sociodemographic Profile

According to the latest U.S. Census estimates, the population of Boston is 649,768. In 2020 U.S. Census recorded a population of 675,632 an increase of just over 9 percent (**9.4%**) from 2010, up from 617,647. However, since then the population has experienced a rate of decline of just under four percent (**-3.8%**).

Figure 4: Race and Ethnicity, Boston, MA, 2018-2022



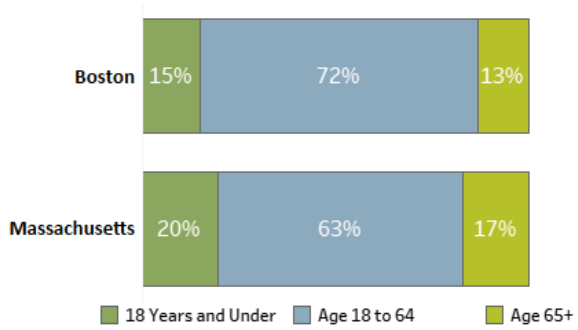
Source: 2022 ACS 1-Year Estimates

Figure 4 shows that in Boston, nearly 60% of the population identifies as a racial or ethnic minority. Boston has a more diverse population compared to the broader state of Massachusetts. Approximately 63% of the state's population identifies as non-Hispanic white while nearly 37% self-identify as belonging to a racial or ethnic minority group. Additionally, almost three in ten Boston residents are foreign born (27.6%) which is also comparatively higher than the rest of Massachusetts (18%).

Age

Age is an important demographic indicator for understanding the age structure of a population, which has various implications for the community, such as healthcare demands, social services, workforce challenges, and other factors that are often associated with certain age groups. **Figure 5** shows that Boston has a greater proportion of working-aged adults than the rest of the state (63%).

Figure 5: Population by Age Category, 2022



Source: 2022 ACS 1-Year Estimates

The working-age group, typically defined as individuals aged 18 to 64, is considered an extremely important segment to society for several reasons, as they play a central role in economic, social, and demographic stability.

For example, within this age group, individuals are expected to be in the labor force, either employed or actively seeking employment. This age range also typically spans the years when individuals complete their education, enter the workforce, and continue working until they approach retirement age.

In summary, adults of working age are crucial to maintaining economic vitality, supporting public services, fostering social cohesion, and shaping demographic trends. Their well-being and productive engagement are essential for the prosperity and stability of communities.

Table 1: Median Age by City, 2022

Pittsfield	44.6
Fall River	41.6
Massachusetts	39.8
Brockton	39.5
New Bedford	38.9
Haverhill	37.6
Lynn	37.2
Holyoke	36.5
Lowell	35.6
Springfield	33.9
Boston	33.3
Worcester	32.9
Somerville	31.4
Lawrence	31.0
Cambridge	29.6

Source: 2022 ACS 1-Year Estimates

Table 1 shows that Boston's median age is **33.3**, which is comparatively younger than that of most other cities included in this assessment and the state (Massachusetts, median age **39.8**). Further, while Boston's median age reflects a generally younger population, additional demographic indicators also suggest that the population of Boston is relatively balanced in terms of age, with a mix of younger and older individuals.

For example, the **dependency ratio** is a measure that shows how many people depend on others for financial support, such as children and the elderly. A lower dependency ratio means that a larger percentage of the population can support dependents, which can have positive economic effects. Conversely, a higher dependency ratio indicates that the working population is under greater financial pressure to support dependents.

For Boston, the age dependency ratio is comparatively lower (**39.4%**) and suggests a relatively low level of dependency, suggesting a demographic structure that may be conducive to economic growth and stability. This figure is also lower than that of Massachusetts, which has a dependency ratio of **59.2%**.

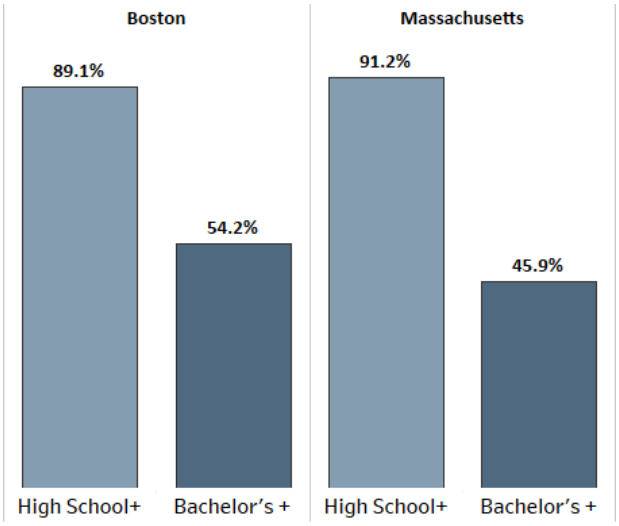
Education

The relationship between education and income is often positive, as individuals with higher levels of education tend to earn higher incomes on average. Additionally, while education can be a significant factor, it is not the sole determinant of income, and various factors contribute to an individual's overall financial situation.

Regarding education, most residents in Boston aged 25 and older possess at least a high school diploma or higher (89.1%), with over half obtaining bachelor's degree or higher (54.2%) (**Figure 6**).

Overall, when compared to the rest of Massachusetts, Boston high school completion rates are slightly lower, while the rate for completing a four-year college degree or higher is above the state rate.

Figure 6: Population Aged 25+ with High School & Bachelor's Degree or Higher, 2022



Source: 2022 ACS 1-Year Estimates

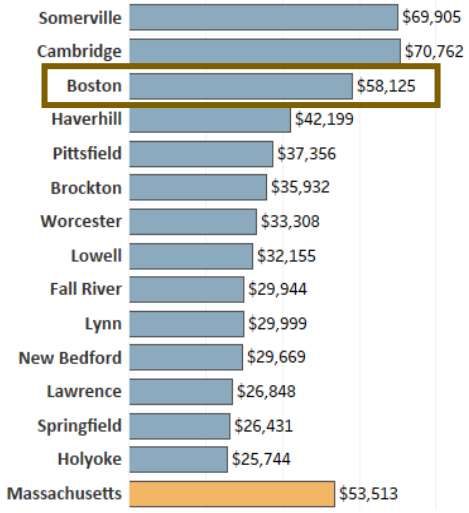
Income

Per capita income and median household income are both important indicators used to measure the economic well-being of individuals and households in a given geographic area. Further, while they provide insight into the overall financial health of a region, they capture different aspects of income distribution.

For example, Per capita income is a measure used to assess the average income earned per person in a given area over a specific period, typically a year. It is calculated by dividing the total income generated in the region by the total population. Per capita income reflects the overall income level within a community and the income distribution among its residents.

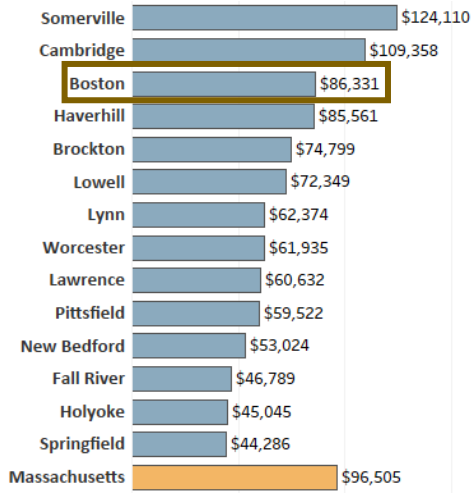
Disparities in per capita income can highlight inequalities and socioeconomic challenges within a population, guiding efforts to address poverty, improve access to economic opportunities, and promote inclusive growth. Furthermore, per capita income is an essential indicator for assessing living standards, economic development, and the purchasing power of individuals within a community.

Figure 7: Per Capita Income by City, 2022



Source: 2022 ACS 1-Year Estimates

Figure 8: Median Household Income by City, 2022



Source: 2022 ACS 1-Year Estimates

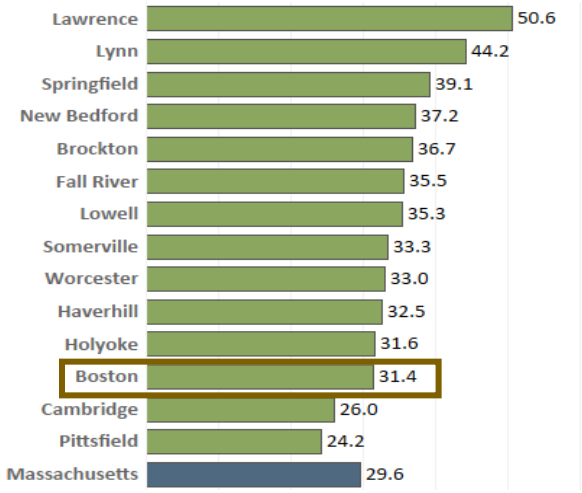
The median household income is a measure used to understand the typical income of a household. It identifies the income level that separates the higher-earning half of households from the lower-earning half. Unlike mean income, which extremely high or low values can influence, the median offers a better representation of the income distribution within a community. This metric can provide valuable insights into the economic well-being of households. Moreover, trends in median household income over time can indicate broader economic shifts and disparities within a community or region.

Median household income is intended to measure and understand the typical income of a household. **Figures 7 and 8** show how Boston compares both per capita income (higher than the state rate) and household median income (lower than the state rate) across the 14-cities profiled for this assessment.

Housing

Households are considered cost-burdened when they spend more than 30% of their income on housing-related expenses. These expenses include rent, mortgage payments, utilities, and other housing needs.

Figure 9: Renters Experiencing Housing Cost Burden (30%+ of income), 2022



Source: 2022 ACS 1-Year Estimates

The 30% threshold is based on the idea that spending beyond this limit on housing can strain household budgets and limit financial flexibility. When a significant portion of income goes towards housing costs, households may have fewer financial resources for other essential expenses such as food, healthcare, and education. This financial strain can lead to difficult trade-offs and compromises, ultimately affecting the overall well-being and quality of life.

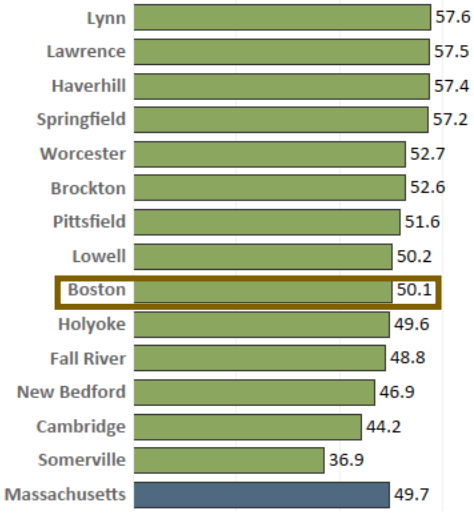
Identifying cost-burdened families is crucial in understanding and addressing housing affordability issues. By identifying and assisting cost-burdened households, communities can work towards creating more equitable housing opportunities, reducing poverty, and fostering economic stability. Further, addressing housing affordability challenges is not only crucial for

individual households, but also for promoting broader societal goals, such as reducing inequality, promoting social mobility, and enhancing overall community resilience.

Of 307,836 housing units in Boston, approximately 92% are occupied, of which 35% are owner-occupied and 65% are renter-occupied. **Figure 9** shows that a higher percentage of renters in Boston, specifically 31.6%, allocate 30% or more of their income to housing costs, compared to homeowners, with approximately half, or 50.1%, facing a similar burden.

Overall, the housing burden for in Boston is above the state average of renters (29.6%), while for homeowners it is 49.7% (**Figure 10**).

Figure 10: Homeowners Experiencing Housing Cost Burden (30%+ of income), 2022.



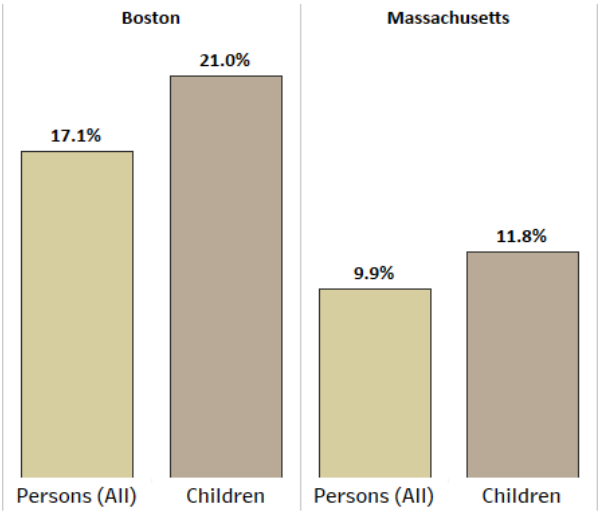
Source: 2022 ACS 1-Year Estimates

Financial Hardship and Public Assistance

Financial hardship can be considered a state where individuals or communities are unable to afford the resources necessary for a minimum standard of living, often as a result of limited of income and or an inability to meet basic needs, such as adequate food, shelter, education, and healthcare.

According to the U.S. Census, about 17.1% of all Boston residents and 21.0% of children (18 years of age and younger) are facing financial hardship, which is higher than the state rates (9.9% and 11.8%, respectively) (**Figure 11**). Moreover, families with a female householder and households with children under the age of 18 experienced higher rates of financial hardship (33.8%). Also, households with children aged five and younger had a similar rate of hardship, with 33.5% of them struggling financially.

Figure 11: Total Population and Children* Facing Financial Hardship, 2022



Source: 2022 ACS 1-Year Estimates
*Children are defined as those aged 18 and under

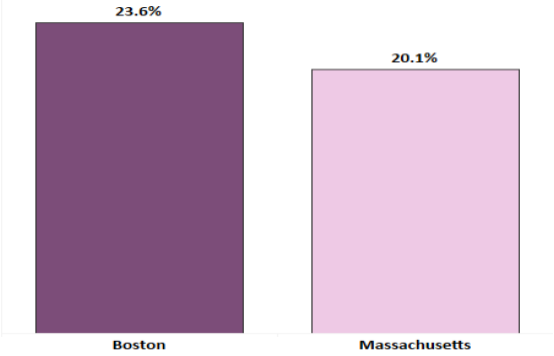
Regarding food assistance, about 18.1% of households in Boston received food stamp/ Supplemental Nutrition Assistance Program (SNAP) benefits within the past year. However, the rates were twice as high for Black and Hispanic/Latino households, with 36.9% and 30.7% respectively.

Similarly, households with children under the age of 18 and those led by a female head of household also had higher rates of SNAP benefits, with 36.9% and 24.5% respectively. The determination of SNAP benefits is based on income, household size, and expenses. The purpose of food assistance programs, such as SNAP, is to reduce hunger, improve nutrition, and support individuals and families who are experiencing financial difficulties.

Public Health Insurance

Health insurance coverage is a financial mechanism for covering an individual's healthcare expenses. It grants access to medical services, safeguards against high costs, and contributes to economic stability for individuals and families. While most Boston residents have some form of health insurance coverage (96.7%), specific segments of the community are more likely to be uninsured. This includes individuals who identify as Native Hawaiian and Other Pacific Islander (23.2%), those who are non-citizens (7.3%), individuals experiencing unemployment (9.8%) and those with a high school diploma only (6.0%).

Figure 12: Public Health Insurance Coverage Rates, 2018-2022



Source: 2018-2022 ACS 5-Year Estimates

In the United States, public health insurance refers to government-sponsored health insurance programs such as Medicaid or Medicare that cover specific populations, such as seniors, economically vulnerable individuals, and people with disabilities, as well those requiring access to life-saving medical services and care such as dialysis treatment. It's important to note that public health insurance is distinct from private health insurance, typically provided by employers or purchased by individuals on the private market. **Figure 12** shows that approximately 23.6% of Boston residents have some form of public health insurance, slightly higher than for Massachusetts (20.1%).

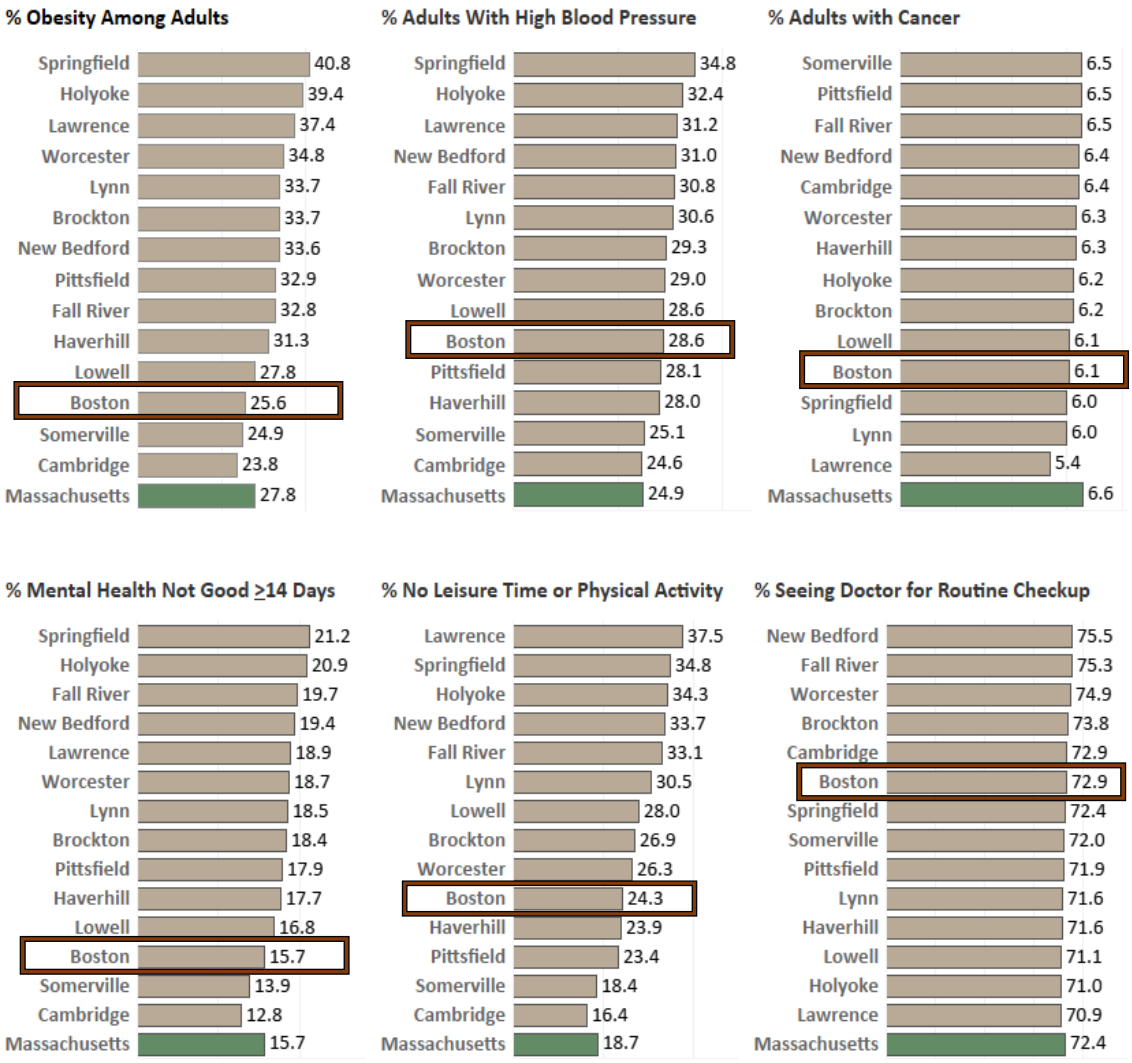
Health Outcomes and Status

Health status and health outcomes are two different concepts in the field of healthcare and public health. Health status refers to the overall condition of an individual's or a population's health at a particular point in time. It comprises several dimensions, including mental, physical, and social well-being. Health outcomes, on the other hand, are the specific results or consequences of healthcare or health interventions. **Figure 13** focuses on a subset of indicators that capture health status and health outcomes for Boston and the other thirteen priority communities.

The overall health status of Boston can be characterized by a mix of positive and negative indicators compared to the rest of Massachusetts. For example, Boston has a higher percentage of adults who report having high blood pressure (28.6%) and no leisure time or physical activity (24.3%) than the state average (24.9% and 18.7% respectively). However, Boston also has a lower percentage of adults who consider themselves obese (25.6%). Additionally, the percentage of adults reporting poor mental health

(15.7%), a diagnosis of cancer (6.1%), and having visited a medical provider for a routine check-up is similar to the rest of Massachusetts.

Figure 13: Self-Reported Health Outcomes and Health Status for Persons Aged 18 and Older by City, 2020-2021



Source: Centers for Disease Control and Prevention, PLACES: Local Data for Better Health; Estimates for each measure are based on 2020 and 2021 Behavioral Risk Factor Surveillance System data.

The information provided offers a snapshot of specific health indicators in Boston but may not capture the full complexity of the city's overall health status. Further, it is important to understand that health outcomes are influenced by various factors, making it a complex issue. While the analysis provides insight into certain health indicators, a comprehensive understanding necessitates consideration of additional factors such as socioeconomic status, access to healthcare, and environmental influences. Moreover, continuous efforts in public health and preventive measures can bring about changes in these indicators over time.

Community Profile: Brockton, Massachusetts

Introduction

The following community profile prepared for Brockton, Massachusetts, provides a high-level overview of the population's composition and characteristics. This brief is not intended as a comprehensive community profile but instead it is primarily designed to give context and support informed decision-making. It can also aid policymakers, planners, community leaders, and collaborators to understand and address a community's unique needs and challenges - for the individuals represented by this data have lived their lives in circumstances that are both influenced and constrained by economic factors, social context, and government policies. With this in mind, a significant portion of this report is dedicated to examining the social, economic, and community context in which residents live.

Figure 1: Geographic Boundary for Brockton, Massachusetts

The profile for Brockton also encompassed a review and analysis of secondary data. Secondary data refers to the data that has been collected for a different purpose. Analyzing secondary data helps us to understand patterns, establish a starting point, and recognize variations in populations and communities.

The social, demographic, economic, and health data sources including demographic data for this profile is from the U.S. Census Bureau's American Community Survey (ACS) 1 and 5-Year Estimates, 2018-2022; social vulnerability data is from the Agency for Toxic Substances and Disease Registry (ATDSR), and firearm-related incidents are from the Gun Violence Archive for years 2015 to 2023; Population health data is from the online data portal from the Centers for Disease Control and Prevention's online data portal PLACES: Local Data for Better Health based on 2020 and 2021 Behavioral Risk Factor Surveillance System (BRFSS) data. A description of each data source is located at the end of this report.

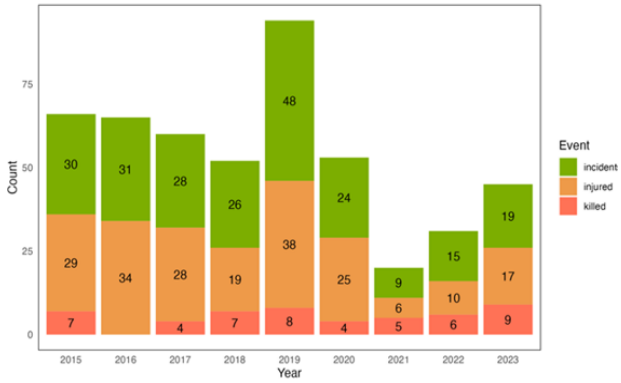
Data collection has limitations, as different sources use different ways of measuring similar variables. There may be a time lag, and data may not be available by specific population groups or at a more granular geographic level due to small sample sizes. In some cases, data from multiple years may have been aggregated to allow for more stable estimates.

The community profile for Brockton begins with an overview of firearm-related incidents, followed by the status of social vulnerability and a review of population, housing, and economic characteristics as well selected measures for health status and outcomes.

In conclusion, this community profile is a foundational resource that underscores the significance of considering the broader socio-economic context and the impact of policies on residents' lives, highlighting the importance of data-driven strategies for fostering community well-being and resilience.

Firearm-Related Incidents, Deaths, and Injuries

Figure 2: Firearm-Related Incidents, Injuries and Fatalities, Brockton, MA,



Source: Gun Violence Archive, 2015 to 2023; *2023 data is only for January 2023 to November 2023; Reported averages have been rounded.

Firearm deaths continue to be a significant and growing public health problem in communities across the United States. Firearm-related incidents may include a range of events such as homicides, suicides, accidental discharges, and non-fatal injuries involving firearms. The number of firearm incidents is influenced by various factors, including gun ownership rates, gun control policies, socioeconomic conditions, and other social factors.

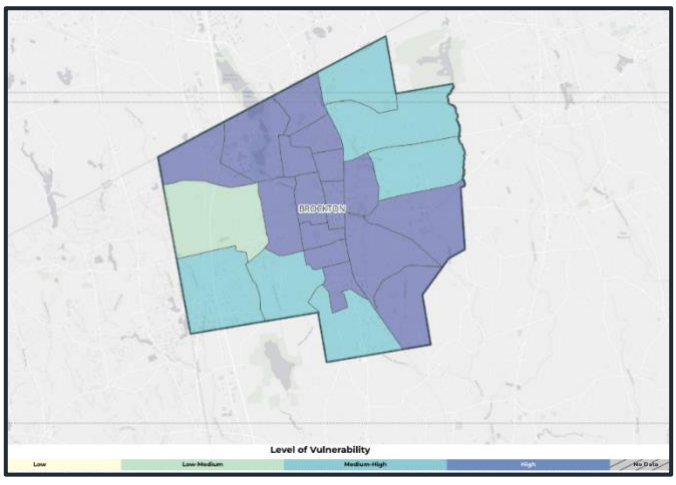
Overall, between January 2015 and November 2023, there were 230 firearm-related incidents in the city of Brockton (an average of 26 per year) that cumulatively resulted in a total of 206 injuries and 50 fatalities. **Figure 2** shows the number of shooting incidents was the highest in 2019 (48 cases), resulting in 38 firearm-related injuries and eight deaths. Further, while December firearm incident data is still pending for 2023, overall trends for those injured or killed also illustrate a general uptick in such events since 2021.

Social Vulnerability

The Social Vulnerability Index (SVI) is a measure used to assess the vulnerability of communities to natural or human-made disasters and emergencies. It considers various social, economic, and demographic factors affecting a community's ability to prepare for, respond to, and recover from disasters[2]. Emergency management agencies, researchers, and public health officials often use the index to identify and prioritize areas that may need additional support in a crisis. The SVI is also considered an important tool for promoting equity and ensuring that emergency response efforts cater to the different needs of various populations within a region.

As **Figure 3** shows, SVI is often represented as a map, with different areas shaded or colored to indicate their level of vulnerability. By identifying vulnerable communities, emergency planners can

Figure 3: Social Vulnerability Index by Census Tract, Brockton, MA, 2020



Source: Agency for Toxic Substances and Disease Registry, 2020

[2] The Social Vulnerability Index - At A Glance

allocate resources more effectively and implement targeted interventions to enhance resilience and reduce the impact of disasters on these communities.

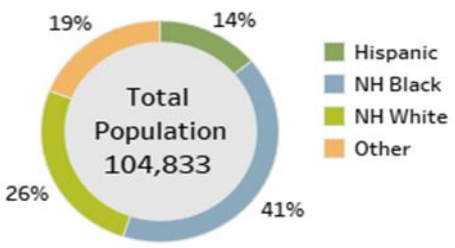
Overall, of the 22 census tracts located within Brockton's geographical boundaries, almost all of them (21) or 95.5% reflect an SVI ranging from medium-high to high. This indicates that most of the census tracts have characteristics that are associated with increased vulnerability. Residents living in these areas may face challenges such as poverty, limited access to education and healthcare, social isolation, or other factors that hinder their ability to prepare for, respond to, and recover from adverse events. Brockton's SVI profile, across its census tracts, is considered to be much higher than that of Plymouth County (0.29). This suggests that Brockton faces greater social vulnerability across various dimensions as compared to the county it is located in. Therefore, there is a need for focused attention and targeted interventions to enhance community resilience and well-being.

Sociodemographic Profile

According to the latest U.S. Census estimates, Brockton's population is 104,833. In 2020, the U.S. Census recorded a population of 105,654, an increase of almost 13 percent (**12.6%**) from 2010, up from 93,810. However, since then, the population has experienced a rate of decline of just under one percent (**-0.8%**).

Figure 4 shows that in Brockton, nearly 60% of the population identifies as a racial or ethnic minority. Brockton has a more diverse population compared to the broader state of Massachusetts. Approximately 63% of the state's population identifies as non-Hispanic white while over seven in ten residents (74%) self-identify as a racial or ethnic minority. Additionally, almost three in ten Brockton residents are foreign born (32.7%) which is also comparatively higher than the rest of Massachusetts (18%).

Figure 4: Race and Ethnicity, Brockton, MA, 2018-2022



Source: 2022 ACS 1-Year Estimates

Age

Age is an important demographic indicator for understanding the age structure of a population, which has various implications for the community, such as healthcare demands, social services, workforce challenges, and other factors that are often associated with certain age groups.

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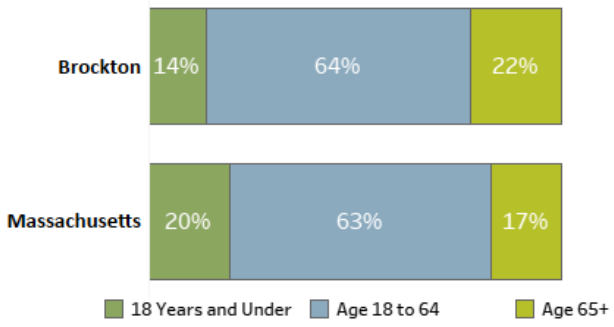


Source: 2022 ACS 1-Year Estimates

Regarding age distribution, **Figure 5** shows that Brockton has a similar proportion of working-aged adults (64%) when compared to the rest of the state (63%).

The working-age group, typically defined as individuals aged 18 to 64, is considered an extremely important segment to society for several reasons, as they play a central role in economic, social, and demographic stability.

The working-age population also generally represents the segment of the population that is actively engaged in the labor force. These individuals contribute to economic productivity through their work, which is essential for the overall growth and development of a nation's economy. Within this age group, individuals are expected to be in the labor force, either employed or actively seeking employment.

Table 1: Median Age by City, 2022

Pittsfield	44.6
Fall River	41.6
Massachusetts	39.8
Brockton	39.5
New Bedford	38.9
Haverhill	37.6
Lynn	37.2
Holyoke	36.5
Lowell	35.6
Springfield	33.9
Boston	33.3
Worcester	32.9
Somerville	31.4
Lawrence	31.0
Cambridge	29.6

Source: 2022 ACS 1-Year

This age range also typically spans the years when individuals complete their education, enter the workforce, and continue working until they approach retirement age.

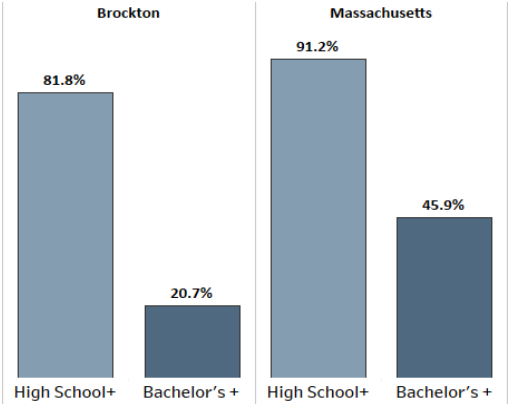
Table 1 indicates that the median age of Brockton's population is 39.5 years, which is comparatively higher than most other cities included in this assessment, but similar to the state's median age of 39.8 years. The **dependency ratio** of Brockton is also an essential measure, which represents the percentage of people who depend on others for financial support, such as children and the elderly. A lower dependency ratio means that a larger percentage of the population can support dependents, leading to positive economic outcomes. Conversely, a higher dependency ratio indicates that the working population is under greater financial pressure to support dependents.

In the case of Brockton, the age dependency ratio is **56.8%,** suggesting a moderate level of dependency, which means that there are more dependents relative to the working-aged population. This figure is comparable to that of Massachusetts, which has a dependency ratio of **59.2%.**

Education

In Brockton, most aged 25 and older possess at least a high school diploma or higher (86.7%), with about one in five obtaining a bachelor's degree or higher (25.6%) (**Figure 6**). Compared to the rest of Massachusetts, Brockton high school completion rates are less than 4% lower, while those completing a four-year college degree or higher are about half the state rate. The relationship between education and income is often positive, as individuals with higher levels of education tend to earn higher incomes on average. Additionally, while education can be a significant factor, it is not the sole determinant of income, and various factors contribute to an individual's overall financial situation.

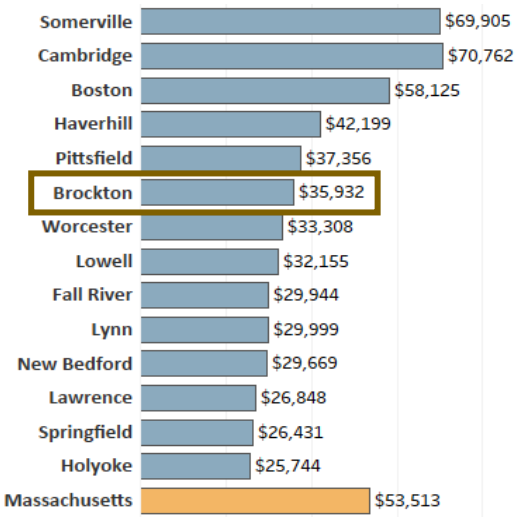
Figure 6: Population Aged 25+ with High School & Bachelor's Degree or Higher, 2022



Source: 2022 ACS 1-Year Estimates

Income

Figure 7: Per Capita Income by City, 2022

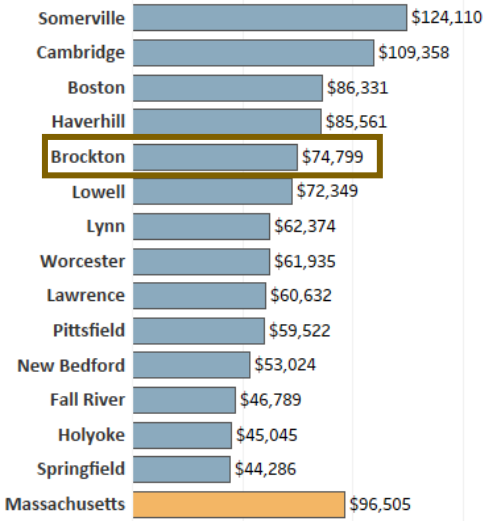


Source: 2022 ACS 1-Year Estimates

For example, Per capita income is a measure used to assess the average income earned per person in a given area over a specific period, typically a year. It is calculated by dividing the total income generated in the region by the total population. Per capita income reflects the overall income level within a community and the income distribution among its residents.

Per capita income and median household income are both important indicators used to measure the economic well-being of individuals and households in a given geographic area. Further, while they provide insights into the overall financial health of a region, they capture different aspects of income distribution.

Figure 8: Median Household Income by City, 2022



Source: 2022 ACS 1-Year

Disparities in per capita income can highlight inequalities and socioeconomic challenges within a population, guiding efforts to address poverty, improve access to economic opportunities, and promote inclusive growth. Furthermore, per capita income is an essential indicator for assessing living standards, economic development, and the purchasing power of individuals within a community.

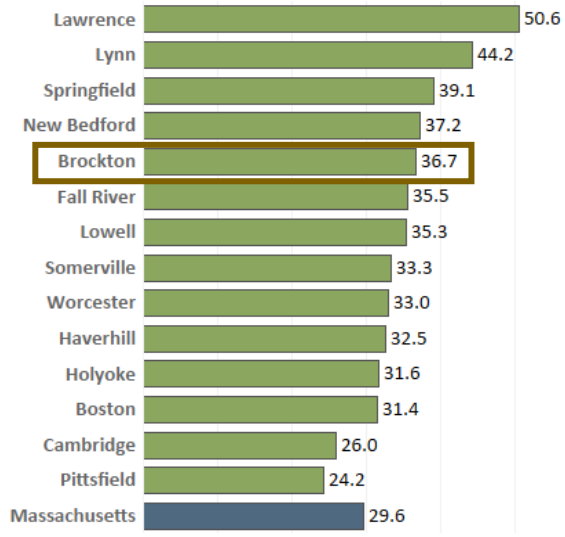
The median household income is a measure used to understand the typical income of a household. It identifies the income level that separates the higher-earning half of households from the lower-earning half. Unlike mean income, which extremely high or low values can influence, the median offers a better representation of the income distribution within a community. This metric can provide valuable insights into the economic well-being of households. Moreover, trends in median household income over time can indicate broader economic shifts and disparities within a community or region.

Median household income is intended to measure and understand the typical income of a household. **Figures 7 and 8** show how Brockton compares for both per capita income (lower than the state rate) and household median income across the 14-cities profiled for this assessment (similarly, lower than the state rate).

Housing

Households are considered cost-burdened when they spend more than 30% of their income on housing-related expenses. These expenses include rent, mortgage payments, utilities, and other housing needs. The 30% threshold is based on the idea that spending beyond this limit on housing can strain household budgets and limit financial flexibility. When a significant portion of income goes towards housing costs, households may have fewer financial resources for other essential expenses such as food, healthcare, and education. This financial strain can lead to difficult trade-offs and compromises, ultimately affecting the overall well-being and quality of life.

Figure 9: Renters Experiencing Housing Cost Burden (30%+ of income), 2022

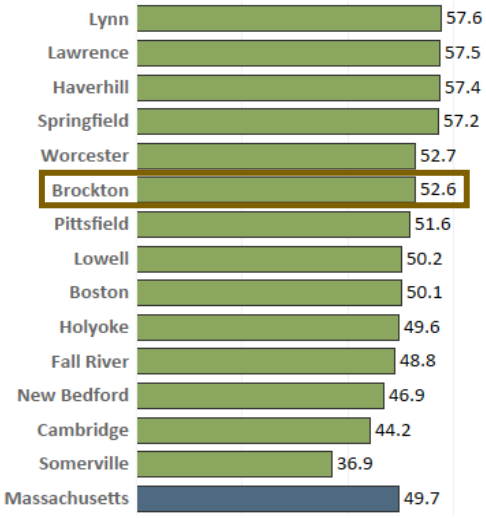


Source: 2022 ACS 1-Year Estimates

Identifying cost-burdened families is crucial in understanding and addressing housing affordability issues. By identifying and assisting cost-burdened households, communities can work towards creating more equitable housing opportunities, reducing poverty, and fostering economic stability. Further, addressing housing affordability challenges is not only crucial for individual households, but also for promoting broader societal goals, such as reducing inequality, promoting social mobility, and enhancing overall community resilience.

Of 40,693 housing units in Brockton, approximately 95% are occupied, of which 56% are owner-occupied and 44% are renter-occupied.

Figure 10: Homeowners Experiencing Housing Cost Burden (30%+ of income),



Source: 2022 ACS 1-Year Estimates

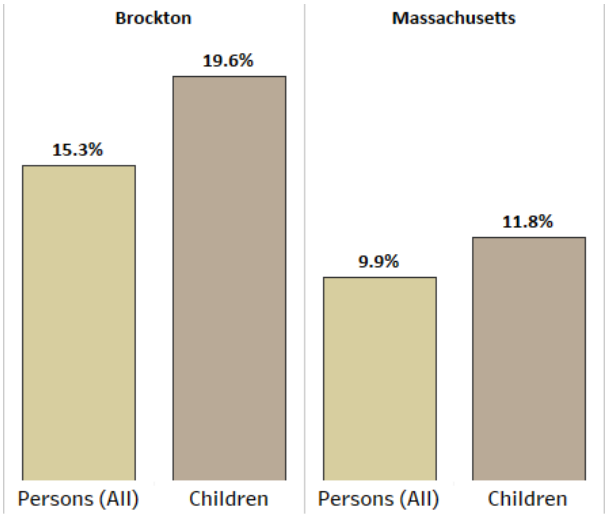
Figure 9 shows that a higher percentage of renters in Brockton, specifically 36.7%, allocate 30% or more of their income to housing costs, compared to homeowners, with slightly over half, or 52.6%, facing a similar burden. Overall, the housing burden in Brockton is above the state average of renters (29.6%), and comparatively higher to the state rate for homeowners (49.7%) (**Figure 10**).

Financial Hardship and Public Assistance

Financial hardship can be considered a state where individuals or communities are unable to afford the resources necessary for a minimum standard of living, often as a result of limited of income and or an inability to meet basic needs, such as adequate food, shelter, education, and healthcare.

According to the U.S. Census, about 15.3% of all Brockton residents and 17% of children (18 years of age and younger) are facing financial hardship, which is higher than the state rates (9.9% and 11.8%, respectively) (**Figure 11**).

Figure 11: Total Population and Children* Facing Financial Hardship, 2022



Source: 2022 ACS 1-Year Estimates
*Children are defined as those aged 18 and under

Moreover, families with a female householder and households with children under the age of 18 experienced higher rates of financial hardship (25.2%). Also, households with children aged five and younger had a similar rate of hardship, with 27.6% of them struggling financially.

Approximately 30.2% of households in Brockton have received food stamp/Supplemental Nutrition Assistance Program (SNAP) benefits in the past year for food assistance. However, the rate of receiving these benefits was higher among the heads of household who identified as Black (40.5%), followed by Whites alone (30.9%), and those who identified with White alone, not Hispanic or Latino (26.8%).

Similarly, households with children under the age of 18 and those led by a female head of household also had higher rates of SNAP benefits, at 50.7% and 25.2% respectively. The determination of SNAP benefits is based on income, household size, and expenses. The purpose of food assistance such as SNAP is to reduce hunger, improve nutrition, and support individuals and families facing financial hardship.

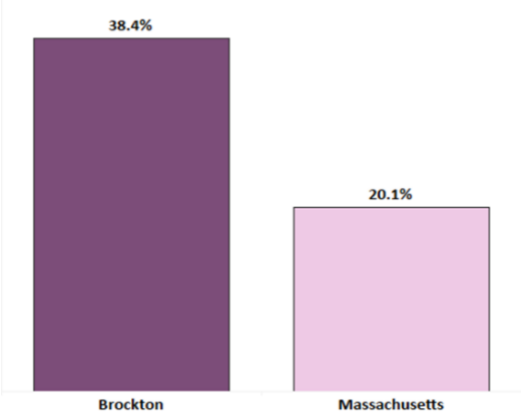
Public Health Insurance

Health insurance coverage is a financial mechanism for covering an individual's healthcare expenses. It grants access to medical services, safeguards against high costs, and contributes to economic stability for individuals and families. While most Brockton residents have some form of health insurance coverage (95.5%), specific segments of the community are more likely to be **uninsured**. This includes individuals who identify as Hispanic or Latino (of any race) (9.3%), those who are non-citizens (14.5%), individuals experiencing unemployment (13.7%) and those without a high school diploma (7.0%).

In the United States, public health insurance refers to government-sponsored health insurance programs such as Medicaid or Medicare that cover specific populations, such as seniors, economically vulnerable individuals, and people with disabilities, as well those requiring access to life-saving medical services and

care such as dialysis treatment. It's important to note that public health insurance is distinct from private health insurance, typically provided by employers or purchased by individuals on the private market. **Figure 12** shows that approximately 38.4% of Brockton residents have some form of public health insurance, higher than for Massachusetts (20.1%).

Figure 12: Public Health Insurance Coverage Rates, 2018-2022



Source: 2018-2022 ACS 5-Year Estimates

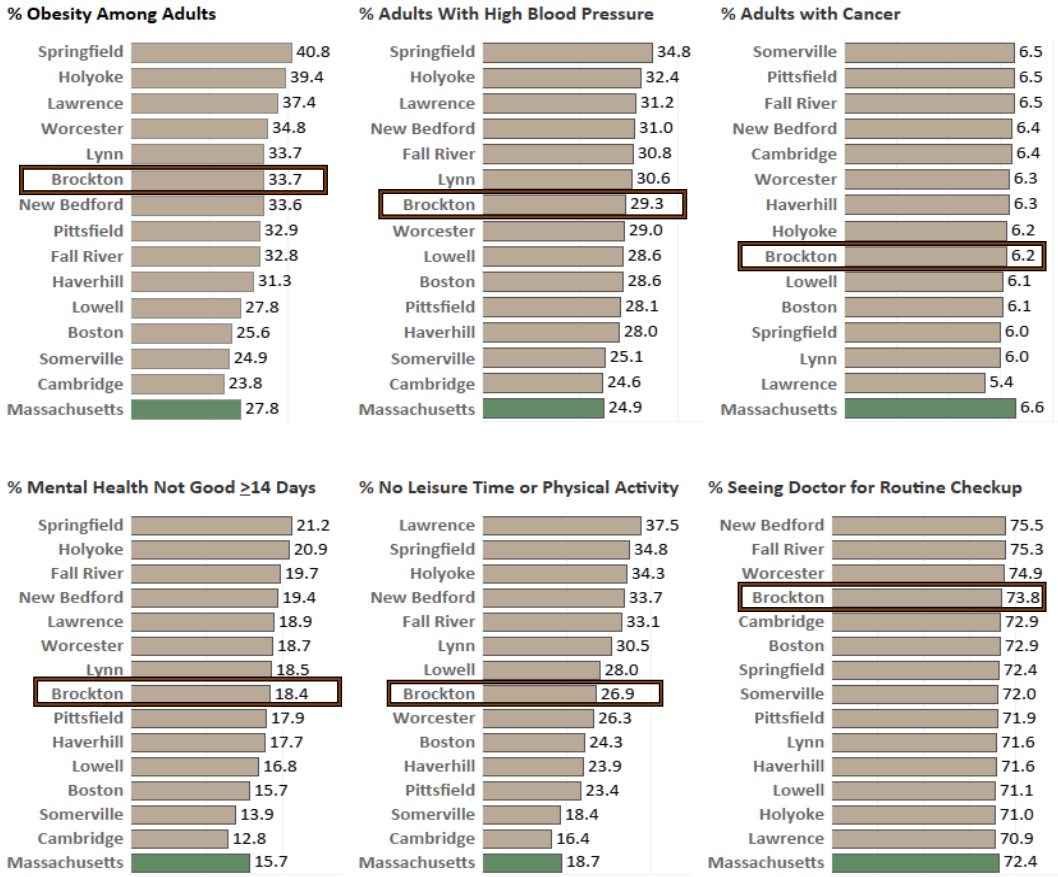
Health Outcomes and Status

Health status and health outcomes are two different concepts in the field of healthcare and public health. Health status refers to the overall condition of an individual's or a population's health at a particular point in time. It comprises several dimensions, including mental, physical, and social well-being. Health outcomes, on the other hand, are the specific results or consequences of healthcare or health interventions. **Figure 13** focuses on a subset of indicators that capture health status and health outcomes for Brockton and the other thirteen priority communities.

The health status of Brockton is a combination of positive and negative indicators when compared to other cities and the state of Massachusetts. Brockton has a higher percentage of adults who are obese (33.7%), suffer from high blood pressure (26.9%), have poor mental health (18.4%), and report no leisure time or physical activity (26.9%) compared to the state average. However, the percentage of adults diagnosed with cancer (6.2%) and those who have visited a medical provider for a routine check-up is similar to that of the rest of Massachusetts.

The information provided offers a snapshot of specific health indicators in Brockton but may not capture the full complexity of the city's overall health status. Further, it is important to understand that health outcomes are influenced by various factors, making it a complex issue. While the analysis provides insight into certain health indicators, a comprehensive understanding necessitates consideration of additional factors such as socioeconomic status, access to healthcare, and environmental influences. Moreover, continuous efforts in public health and preventive measures can bring about changes in these indicators over time.

Figure 13: Self-Reported Health Outcomes and Health Status for Persons Aged 18 and Older by City, 2020-2021



Source: Centers for Disease Control and Prevention, PLACES: Local Data for Better Health; Estimates for each measure are based on 2020 and 2021 Behavioral Risk Factor Surveillance System data.

Community Profile: Cambridge, Massachusetts

Introduction

The following community profile prepared for Cambridge, Massachusetts, provides a high-level overview of the population's composition and characteristics. This brief is not intended as a comprehensive community profile but instead it is primarily designed to give context and support informed decision-making. It can also aid policymakers, planners, community leaders, and collaborators to understand and address a community's unique needs and challenges - for the individuals represented by this data have lived their lives in circumstances that are both influenced and constrained by economic factors, social context, and government policies. With this in mind, a significant portion of this report is dedicated to examining the social, economic, and community context in which residents live.

Figure 1: Geographic Boundary for Cambridge, Massachusetts

The profile for Cambridge also encompassed a review and analysis of secondary data. Secondary data refers to the data that has been collected for a different purpose. Analyzing secondary data helps us to understand patterns, establish a starting point, and recognize variations in populations and communities.

The social, demographic, economic, and health data sources including demographic data for this profile is from the U.S. Census Bureau's American Community Survey (ACS) 1 and 5-Year Estimates, 2018-2022; social vulnerability data is from the Agency for Toxic Substances and Disease Registry (ATDSR), and firearm-related incidents are from the Gun Violence Archive for years 2015 to 2023; Population health data is from the online data portal from the Centers for Disease Control and Prevention's online data portal PLACES: Local Data for Better Health based on 2020 and 2021 Behavioral Risk Factor Surveillance System (BRFSS) data. A description of each data source is located at the end of this report.

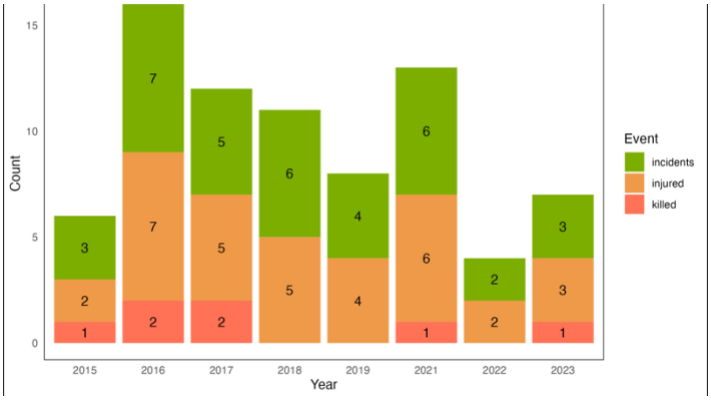
Data collection has limitations, as different sources use different ways of measuring similar variables. There may be a time lag, and data may not be available by specific population groups or at a more granular geographic level due to small sample sizes. In some cases, data from multiple years may have been aggregated to allow for more stable estimates.

The community profile begins with an overview of firearm-related incidents, followed by the status of social vulnerability and a review of population, housing, and economic characteristics as well selected measures for health status and outcomes.

In conclusion, this community profile is a foundational resource that underscores the significance of considering the broader socio-economic context and the impact of policies on residents' lives, highlighting the importance of data-driven strategies for fostering community well-being and resilience.

Firearm-Related Incidents, Deaths, and Injuries

Figure 2: Firearm-Related Incidents, Injuries and Fatalities, Cambridge, MA, 2015-2023*



Source: Gun Violence Archive, 2015 to 2023; *2023 data is only for January 2023 to November 2023; Reported averages have been rounded.

Firearm deaths continue to be a significant and growing public health problem in communities across the United States. Firearm-related incidents may include a range of events such as homicides, suicides, accidental discharges, and non-fatal injuries involving firearms. The number of firearm incidents is influenced by various factors, including gun ownership rates, gun control policies, socioeconomic conditions, and other social factors.

Overall, between January 2015 and November 2023, there were 36 firearm-related incidents in the city of Cambridge (an average of 5 per year) that cumulatively resulted in a total of 34 injuries and 7 fatalities.

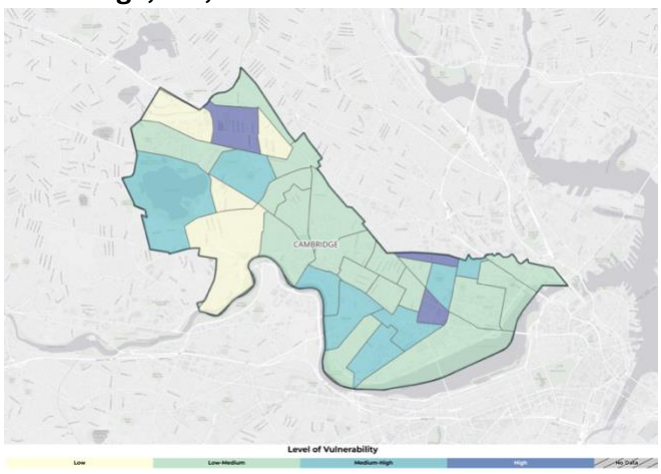
Figure 2 shows the number of shooting incidents was the highest in 2016 (7 cases), resulting in 7 firearm-related injuries and 2 deaths. Further, while December firearm incident data is still pending for 2023, however amid some slight variation overall trends in those injured or killed in Cambridge illustrate a general downward trend in such events since 2016.

Social Vulnerability

The Social Vulnerability Index (SVI) is a measure used to assess the vulnerability of communities to natural or human-made disasters and emergencies. It considers various social, economic, and demographic factors affecting a community's ability to prepare for, respond to, and recover from disasters[3].

Emergency management agencies, researchers, and public health officials often use the index to identify and prioritize areas that may need additional support in a crisis. The SVI is also considered an important tool for

Figure 3: Social Vulnerability Index by Census Tract, Cambridge, MA, 2020



Source: Agency for Toxic Substances and Disease Registry, 2020

[3] The Social Vulnerability Index - At A Glance

promoting equity and ensuring that emergency response efforts cater to the different needs of various populations within a region.

As **Figure 3** shows, SVI is often represented as a map, with different areas shaded or colored to indicate their level of vulnerability. By identifying vulnerable communities, emergency planners can allocate resources more effectively and implement targeted interventions to enhance resilience and reduce the impact of disasters on these communities.

Overall, out of the 32 census tracts that fall within the geographical boundary of Cambridge, less than a half of them (11) - almost 34.4% - reflect an SVI ranging from medium-high to high. This suggests that most of the census tracts exhibit characteristics associated with decreased vulnerability.

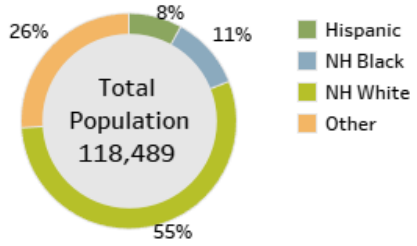
People residing in these areas may face less challenges related to poverty, limited access to education and healthcare, social isolation, or other factors that hinder their ability to prepare for, respond to, and recover from adverse events. Furthermore, the overall SVI score for Middlesex County, which includes the cities of Cambridge, Somerville, Arlington, and Medford is 0.26 which similarly indicates a low to medium level of vulnerability for this area.

Sociodemographic Profile

According to the latest U.S. Census estimates, the population of Cambridge is 118,489. In 2020 U.S. Census recorded a population of 118,403 an increase of almost thirteen percent (**12.6%)** from 2010, up from 105,162. However, since the population has not increased significantly (**0.07%**).

Figure 4 shows that in Cambridge, less than half – 45% – of the population identifies as a racial or ethnic minority. Cambridge has a more diverse population compared to the broader state of Massachusetts. Approximately 63% of the state's population identifies as non-Hispanic white while nearly 37% self-identify as belonging to a racial or ethnic minority group. Additionally, 28.9% Cambridge residents are foreign born which is also comparatively higher than the rest of Massachusetts (18%).

Figure 4: Race and Ethnicity, Cambridge, MA, 2018-2022



Source: 2022 ACS 1-Year Estimates

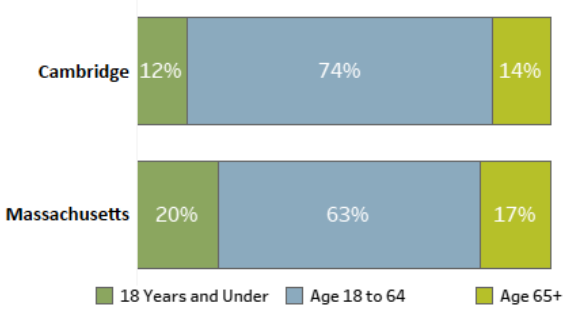
Age

Age is an important demographic indicator for understanding the age structure of a population, which has various implications for the community, such as healthcare demands, social services, workforce challenges, and other factors that are often associated with certain age groups.

Figure 5 shows that Cambridge has a higher proportion of working- aged adults than the rest of the state (63%). The working-age group, typically defined as individuals aged 18 to 64, is considered an extremely important segment to society for several reasons, as they play a central role in economic, social, and demographic stability.

For example, within this age group, individuals are expected to be in the labor force, either employed or actively seeking employment. This age range also typically spans the years when individuals complete their education, enter the workforce, and continue working until they approach retirement age.

Figure 5: Population by Age Category, 2022



Source: 2022 ACS 1-Year Estimates

In summary, adults of working age are crucial to maintaining economic vitality, supporting public services, fostering social cohesion, and shaping demographic trends. Their well-being and productive engagement are essential for the prosperity and stability of communities.

Table 1: Median Age by City, 2022

Pittsfield	44.6
Fall River	41.6
Massachusetts	39.8
Brockton	39.5
New Bedford	38.9
Haverhill	37.6
Lynn	37.2
Holyoke	36.5
Lowell	35.6
Springfield	33.9
Boston	33.3
Worcester	32.9
Somerville	31.4
Lawrence	31.0
Cambridge	29.6

Source: 2022 ACS 1-Year Estimates

Table 1 shows that Cambridge's median age is 29.6, which is comparatively younger than the state (Massachusetts, median age 39.8) and the youngest compared to the other cities included in the assessment. Further, while Cambridge's median age reflects a generally younger population, additional demographic indicators also suggest that the population of Cambridge is leaning toward a younger age.

For example, the dependency ratio is a measure that shows how many people depend on others for financial support, such as children and the elderly.

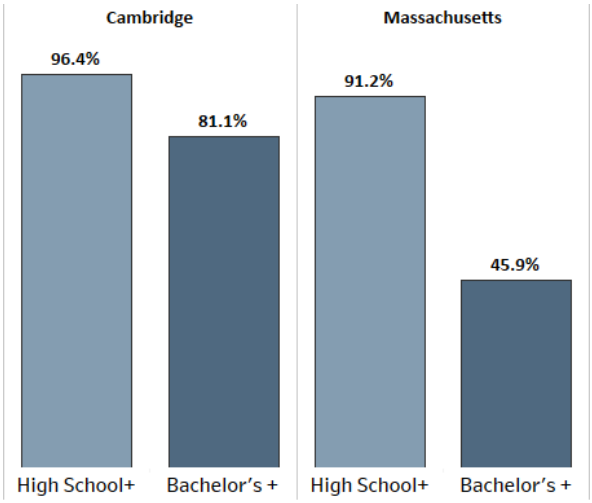
A lower dependency ratio means that a larger percentage of the population can support dependents, which can have positive economic effects. Conversely, a higher dependency ratio indicates that the working population is under greater financial pressure to support dependents. In the case of Cambridge, the age dependency ratio is **34.5%**, suggesting a low level of dependency, which means that there are less dependents relative to the working-age population. This figure is also lower than that of Massachusetts, which has a dependency ratio of **59.2%**.

Education

The relationship between education and income is often positive, as individuals with higher levels of education tend to earn higher incomes on average. Additionally, while education can be a significant factor, it is not the sole determinant of income, and various factors contribute to an individual's overall financial situation.

In terms of education, most residents in Cambridge aged 25 and older possess at least a high school diploma or higher (96.4%), with 8 in 10 obtaining bachelor's degree or higher (81.1%) (**Figure 6**). Overall, when compared to the rest of Massachusetts, Cambridge's high school completion rates are higher, and the rate for completing a four-year college degree or higher is almost twice as high as the state rate.

Figure 6: Population Aged 25+ with High School & Bachelor's degree or Higher, 2022



Source: 2022 ACS 1-Year Estimates

Income

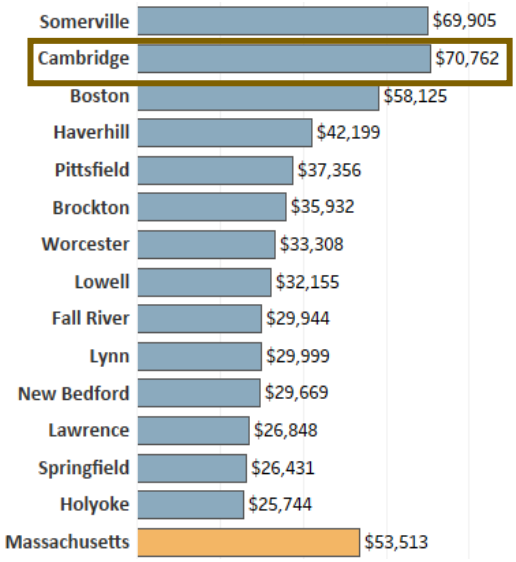
Per capita income and median household income are both important indicators used to measure the economic well-being of individuals and households in a given geographic area. Further, while they provide insights into the overall financial health of a region, they capture different aspects of income distribution. For example, Per capita income is often used to measure the standard of living and economic development. A higher per capita income generally indicates a higher standard of living and economic prosperity.

For example, Per capita income is a measure used to assess the average income earned per person in a given area over a specific period, typically a year. It is calculated by dividing the total income generated in the region by the total population. Per capita income reflects the overall income level within a community and the income distribution among its residents.

Disparities in per capita income can highlight inequalities and socioeconomic challenges within a population, guiding efforts to address poverty, improve access to economic opportunities, and promote inclusive growth. Furthermore, per capita income is an essential indicator for assessing living standards, economic development, and the purchasing power of individuals within a community.

The median household income is a measure used to understand the typical income of a household. It identifies the income level that separates the higher-earning half of households from the lower-earning half. Unlike mean income, which extremely high or low values can influence, the median offers a better representation of the income distribution within a community. This metric can provide valuable insights into the economic well-being of households. Moreover, trends in median household income over time can indicate broader economic shifts and disparities within a community or region.

Figure 7: Per Capita Income by City, 2022



Source: 2022 ACS 1-Year Estimates

Median household income is intended to measure and understand the typical income of a household. **Figures 7 and 8** show how Cambridge compares for both per capita income (higher than the state rate and the highest compared to the other cities included in the assessment) and household median income (similarly, higher than the state rate) across the 14-cities profiled for this assessment.

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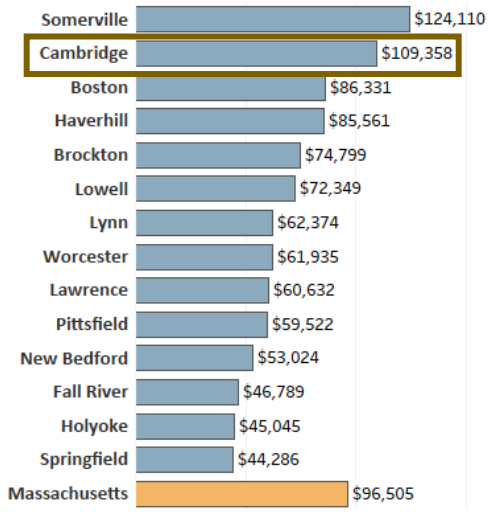


Source: 2022 ACS 1-Year

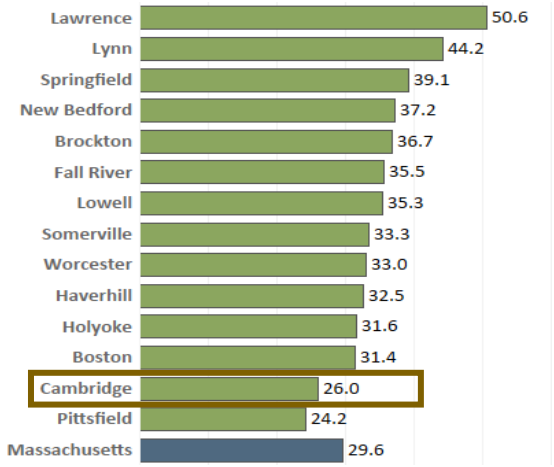
Housing

Households are considered cost-burdened when they spend more than 30% of their income on housing-related expenses. These expenses include rent, mortgage payments, utilities, and other housing needs. The 30% threshold is based on the idea that spending beyond this limit on housing can strain household budgets and limit financial flexibility. When a significant portion of income goes towards housing costs, households may have fewer financial resources for other essential expenses such as food, healthcare, and education. This financial strain can lead to difficult trade-offs and compromises, ultimately affecting the overall well-being and quality of life.

Identifying cost-burdened families is crucial in understanding and addressing housing affordability issues. By identifying and assisting cost-burdened households, communities can work towards creating more equitable housing opportunities, reducing poverty, and fostering economic stability. Further, addressing housing affordability challenges is not only crucial for individual households, but also for promoting broader societal goals, such as reducing inequality, promoting social mobility, and enhancing overall community resilience.

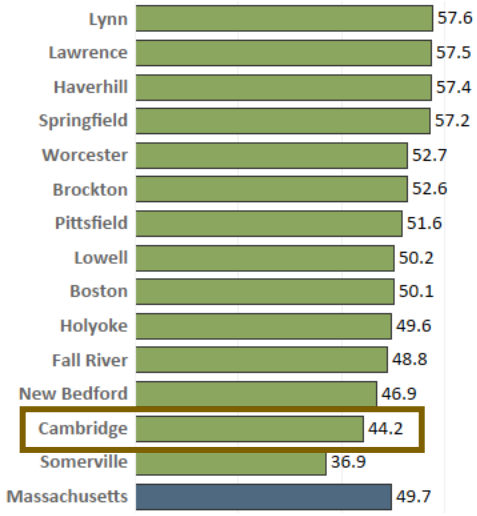
Of 56,934 housing units in Cambridge, approximately 89% are occupied, of which 34% are owner-occupied and 66% are renter-occupied. **Figure 9** shows that a lower percentage of renters in Cambridge, specifically 26%, allocate 30% or more of their income to housing costs, compared to homeowners, with approximately half, or 44.2%, facing a similar burden. Overall, the housing burden for in Cambridge is below the state average of renters (29.6%), while for homeowners it is 49.7% (**Figure 10**).

Figure 9: Renters Experiencing Housing Cost Burden (30%+ of income), 2022



Source: 2022 ACS 1-Year Estimates

Figure 10: Homeowners Experiencing Housing Cost Burden (30%+ of income), 2022



Source: 2022 ACS 1-Year Estimates

Financial Hardship and Public Assistance

Financial hardship can be considered a state where individuals or communities are unable to afford the resources necessary for a minimum standard of living, often as a result of limited of income and or an inability to meet basic needs, such as adequate food, shelter, education, and healthcare. According to the U.S. Census, about 14.6% of all Cambridge residents and 14% of children (18 years of age and younger) are facing financial hardship, which is higher than the state rates (9.9% and 11.8%, respectively) (**Figure 11**).

Moreover, families with a female householder and households with children under the age of 18 experienced higher rates of financial hardship (28.2%). Also, households with children aged five and younger had a similar rate of hardship, with 34.8% of them struggling financially

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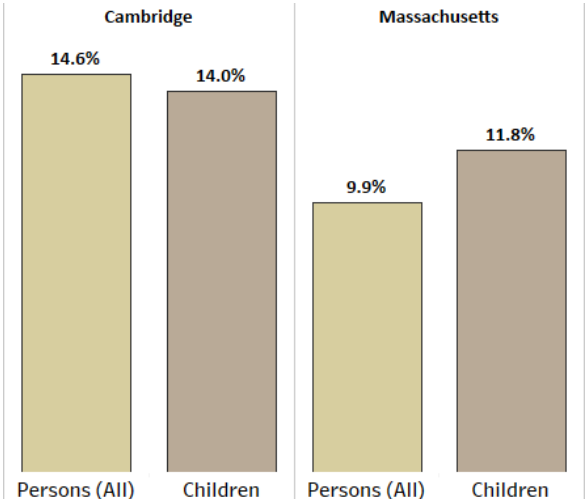
Regarding food assistance, about 7.4% of households in Cambridge received food stamp/ Supplemental Nutrition Assistance Program (SNAP) benefits within the past year. The rates for Black and Hispanic/Latino households were 34.3% and 17.0% respectively. Additionally, households with children under the age of 18 and those led by a female head of household also had higher rates of SNAP benefits, with 30.5% and 22.9% respectively. The determination of SNAP benefits is based on income, household size, and expenses. The purpose of food assistance programs, such as SNAP, is to reduce hunger, improve nutrition, and support individuals and families who are experiencing financial difficulties.

Figure 11: Total Population and Children* Facing Financial Hardship, 2022

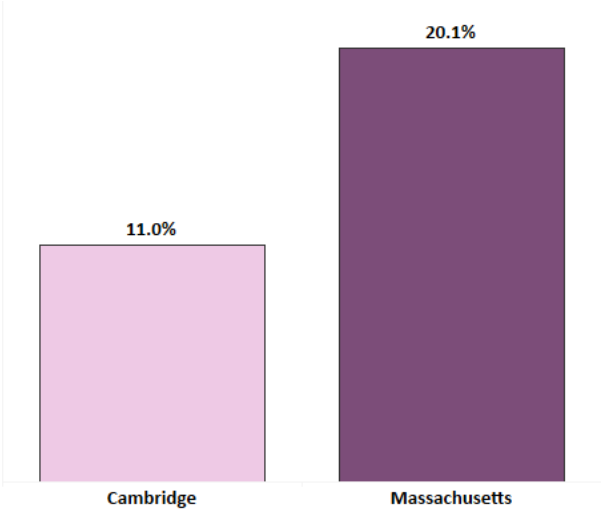


Source: 2022 ACS 1-Year Estimates
*Children are defined as those aged 18 and under

Public Health Insurance

Health insurance coverage is a financial mechanism for covering an individual's healthcare expenses. It grants access to medical services, safeguards against high costs, and contributes to economic stability for individuals and families. While most Cambridge residents have some form of health insurance coverage (98%), specific segments of the community are more likely to be uninsured. This includes individuals who identify as Black/African American (7.1%), naturalized (3.7%), individuals experiencing unemployment (5.8%) and those with a high school diploma only (7.0%).

Figure 12: Public Health Insurance Coverage Rates, 2018-2022



Source: 2018-2022 ACS 5-Year Estimates

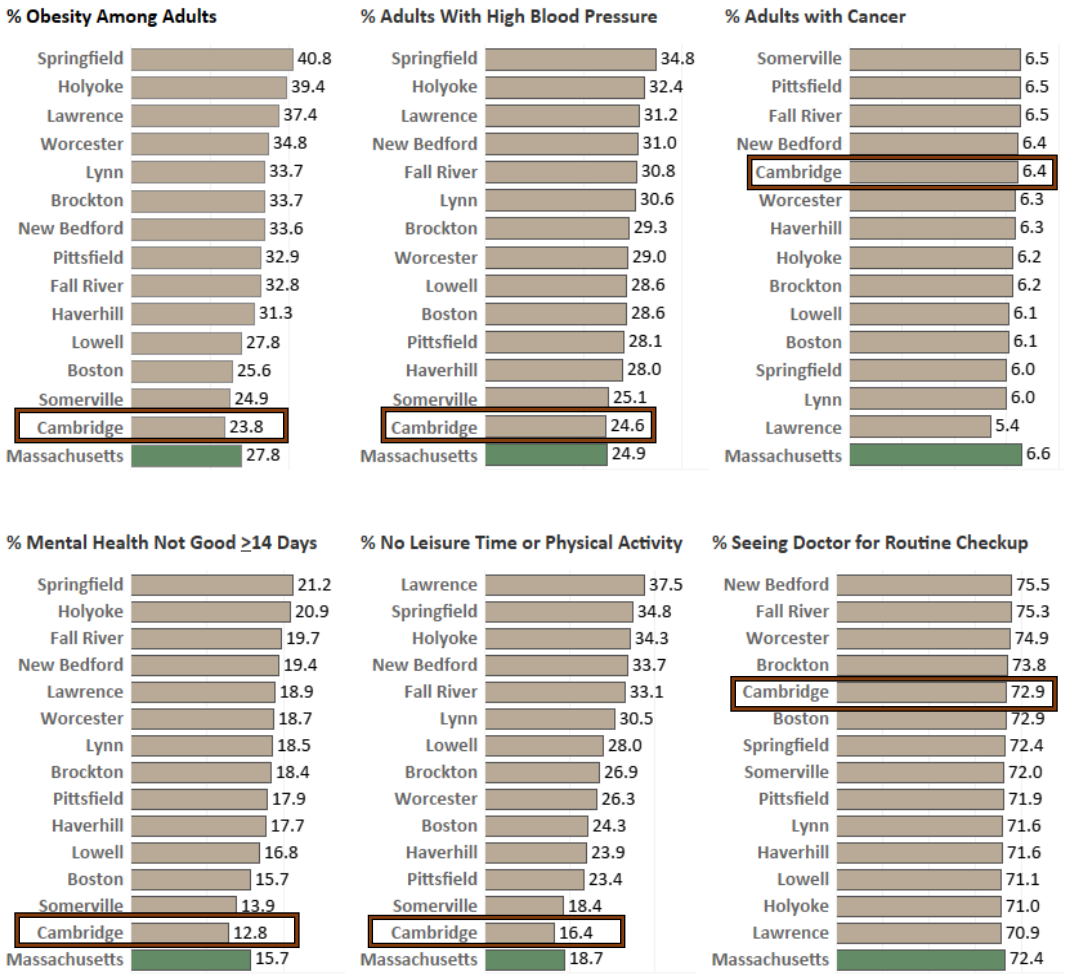
In the United States, public health insurance refers to government-sponsored health insurance programs such as Medicaid or Medicare that cover specific populations, such as seniors, economically vulnerable individuals, and people with disabilities, as well those requiring access to life-saving medical services and care such as dialysis treatment. It's important to note that public health insurance is distinct from private health insurance, typically provided by employers or purchased by individuals on the private market.

Figure 12 shows that approximately 11% of Cambridge residents have some form of public health insurance, which is about half the rate for Massachusetts (20.1%).

Health Outcomes and Status

Health status and health outcomes are two different concepts in the field of healthcare and public health. Health status refers to the overall condition of an individual's or a population's health at a particular point in time. It comprises several dimensions, including mental, physical, and social well-being. Health outcomes, on the other hand, are the specific results or consequences of healthcare or health interventions. **Figure 13** focuses on a subset of indicators that capture health status and health outcomes for Cambridge and the other thirteen priority communities.

Figure 13: Self-Reported Health Outcomes and Health Status for Persons Aged 18 and Older by City, 2020-2021



Source: Centers for Disease Control and Prevention, PLACES: Local Data for Better Health; Estimates for each measure are based on 2020 and 2021 Behavioral Risk Factor Surveillance System data.

The overall health status of Cambridge has mostly positive indicators compared to the rest of Massachusetts. For example, Cambridge has lower rates than Massachusetts in terms of adults reporting high blood pressure (24.6%), obesity (23.8%), poor mental health (12.8%), lower percentage of adults with a diagnosis of cancer (6.4%) and reporting no leisure time or physical activity (16.4%). Additionally, a higher percentage of people having seen a medical provider for a routine check-up (72.9%) (compared to the rest of Massachusetts).

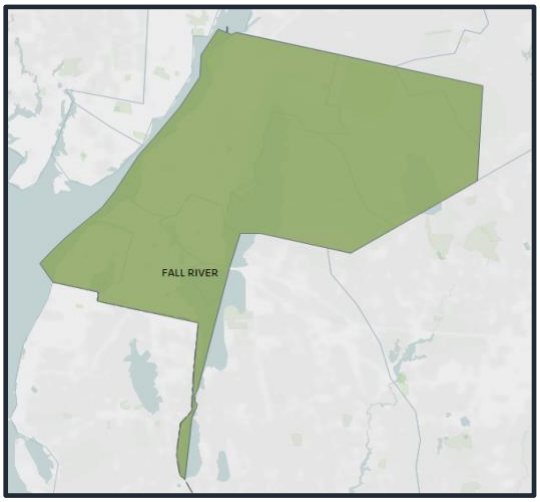
The information provided offers a snapshot of specific health indicators in Cambridge but may not capture the full complexity of the city's overall health status. Further, it is important to understand that health outcomes are influenced by various factors, making it a complex issue. While the analysis provides insight into certain health indicators, a comprehensive understanding necessitates consideration of additional factors such as socioeconomic status, access to healthcare, and environmental influences. Moreover, continuous efforts in public health and preventive measures can bring about changes in these indicators over time.

Community Profile: Fall River, Massachusetts

Introduction

The following community profile prepared for Fall River, Massachusetts, provides a high-level overview of the population's composition and characteristics. This brief is not intended as a comprehensive community profile but instead it is primarily designed to give context and support informed decision-making. It can also aid policymakers, planners, community leaders, and collaborators to understand and address a community's unique needs and challenges - for the individuals represented by this data have lived their lives in circumstances that are both influenced and constrained by economic factors, social context, and government policies. With this in mind, a significant portion of this report is dedicated to examining the social, economic, and community context in which residents live.

Figure 1: Geographic Boundary for Fall River, Massachusetts



The profile for Fall River also encompassed a review and analysis of secondary data. Secondary data refers to the data that has been collected for a different purpose. Analyzing secondary data helps us to understand patterns, establish a starting point, and recognize variations in populations and communities.

The social, demographic, economic, and health data sources including demographic data for this profile is from the U.S. Census Bureau's American Community Survey (ACS) 1 and 5-Year Estimates, 2018-2022; social vulnerability data is from the Agency for Toxic Substances and Disease Registry (ATDSR), and firearm-related incidents are from the Gun Violence Archive for years 2015 to 2023; Population health data is from the online data portal from the Centers for Disease Control and Prevention's online data portal PLACES: Local Data for Better Health based on 2020 and 2021 Behavioral Risk Factor Surveillance System (BRFSS) data. A description of each data source is located at the end of this report.

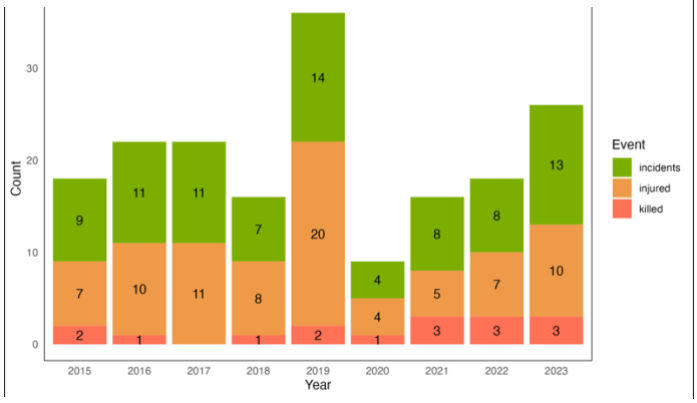
Data collection has limitations, as different sources use different ways of measuring similar variables. There may be a time lag, and data may not be available by specific population groups or at a more granular geographic level due to small sample sizes. In some cases, data from multiple years may have been aggregated to allow for more stable estimates.

The community profile begins with an overview of firearm-related incidents, followed by the status of social vulnerability and a review of population, housing, and economic characteristics as well selected measures for health status and outcomes.

In conclusion, this community profile is a foundational resource that underscores the significance of considering the broader socio-economic context and the impact of policies on residents' lives, highlighting the importance of data-driven strategies for fostering community well-being and resilience.

Firearm-Related Incidents, Deaths, and Injuries

Figure 2: Firearm-Related Incidents, Injuries and Fatalities, Fall River, MA, 2015 to 2023*



Source: Gun Violence Archive, 2015 to 2023; *2023 data is only for January 2023 to November 2023; Reported averages have been

Firearm deaths continue to be a significant and growing public health problem in communities across the United States. Firearm-related incidents may include a range of events such as homicides, suicides, accidental discharges, and non-fatal injuries involving firearms. The number of firearm incidents is influenced by various factors, including gun ownership rates, gun control policies, socioeconomic conditions, and other social factors.

Overall, between January 2015 and November 2023, there were 85 firearm-related incidents in the city of Fall River (an average of 9 per year) that cumulatively resulted in a total of 82 injuries and 16 fatalities.

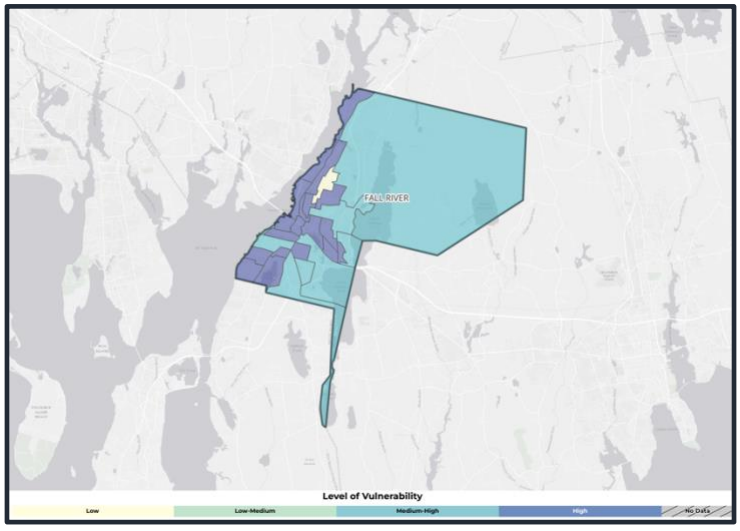
Figure 2 shows the number of shooting incidents was the highest in 2019 (14 cases), resulting in 20 firearm-related injuries and 2 deaths. Further, while December firearm incident data is still pending for 2023, however amid some slight variation overall trends for those injured or killed illustrate a general downward trend in such events since 2019.

Social Vulnerability

The Social Vulnerability Index (SVI) is a measure used to assess the vulnerability of communities to natural or human-made disasters and emergencies. It considers various social, economic, and demographic factors affecting a community's ability to prepare for, respond to, and recover from disasters[4].

Emergency management agencies, researchers, and public health officials often use the index to identify and prioritize areas that may need additional support in a crisis. The SVI is also considered an important tool for promoting equity and ensuring

Figure 3: Social Vulnerability Index by Census Tract, Fall River, MA, 2020



Source: Agency for Toxic Substances and Disease Registry, 2020

[4] The Social Vulnerability Index - At A Glance

that emergency response efforts cater to the different needs of various populations within a region.

As **Figure 3** shows, SVI is often represented as a map, with different areas shaded or colored to indicate their level of vulnerability. By identifying vulnerable communities, emergency planners can allocate resources more effectively and implement targeted interventions to enhance resilience and reduce the impact of disasters on these communities.

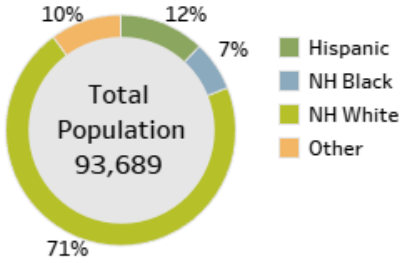
Overall, out of the 26 census tracts that fall within the geographical boundary of Fall River, almost all of them (25) - almost 96.2% - reflect an SVI ranging from medium-high to high. This suggests that most of the census tracts exhibit characteristics associated with increased vulnerability.

People residing in these areas may face challenges related to poverty, limited access to education and healthcare, social isolation, or other factors that hinder their ability to prepare for, respond to, and recover from adverse events. Furthermore, the overall SVI score for Bristol County, which includes the cities of Fall River, Taunton, Rehoboth, New Bedford, Dighton and other is 0.59, which is lower than SVI for Fall River.

Sociodemographic Profile

According to the latest U.S. Census estimates, the population of Fall River is 93,689. In 2020 U.S. Census recorded a population of 94,000 an increase of over five percent (**5.8%)** from 2010, up from 88,857. However, since the population has declined declining at a rate of less than half a percent (-0.3%).

Figure 4: Race and Ethnicity, Fall River, MA,



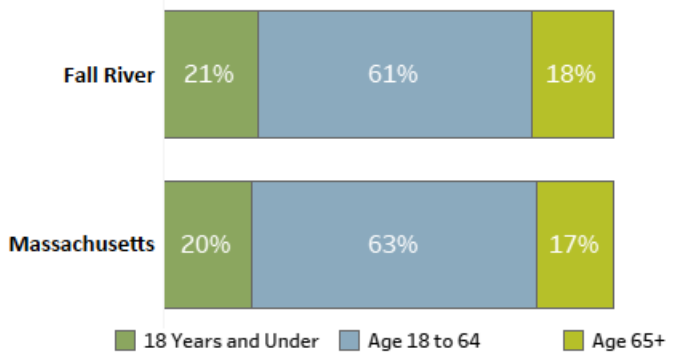
Source: 2022 ACS 1-Year Estimates

Figure 4 shows that in Fall River, nearly 29% of the population identifies as a racial or ethnic minority. Fall River has a less diverse population compared to the broader state of Massachusetts. Approximately 63% of the state's population identifies as non-Hispanic white while nearly 37% self-identify as belonging to a racial or ethnic minority group. Additionally, more than two in ten Fall River residents are foreign born (20.3%) which is comparatively higher than the rest of Massachusetts (18%).

Age

Age is an important demographic indicator for understanding the age structure of a population, which has various implications for the community, such as healthcare demands, social services, workforce challenges, and other factors that are often associated with certain age groups. **Figure 5** shows that Fall River has a slightly smaller proportion of working-aged adults than the rest of the state (63%).

Figure 5: Population by Age Category, 2022



Source: 2022 ACS 1-Year Estimates

The working-age group, typically defined as individuals aged 18 to 64, is considered an extremely important segment to society for several reasons, as they play a central role in economic, social, and demographic stability.

For example, within this age group, individuals are expected to be in the labor force, either employed or actively seeking employment. This age range also typically spans the years when individuals complete their education, enter the workforce, and continue working until they approach retirement age.

In summary, adults of working age are crucial to maintaining economic vitality, supporting public services, fostering social cohesion, and shaping demographic trends. Their well-being and productive engagement are essential for the prosperity and stability of communities.

Table 1: Median Age by City, 2022

Pittsfield	44.6
Fall River	41.6
Massachusetts	39.8
Brockton	39.5
New Bedford	38.9
Haverhill	37.6
Lynn	37.2
Holyoke	36.5
Lowell	35.6
Springfield	33.9
Boston	33.3
Worcester	32.9
Somerville	31.4
Lawrence	31.0
Cambridge	29.6

Source: 2022 ACS 1-Year

Table 1 shows that Fall River's median age is **41.6,** which is comparatively older than that of most other cities included in this assessment and the state (Massachusetts, median age **39.8**). Further, while Fall River's median age reflects a generally older population, additional demographic indicators also suggest that the population of Fall River is relatively balanced in terms of age, with a mix of younger and older individuals.

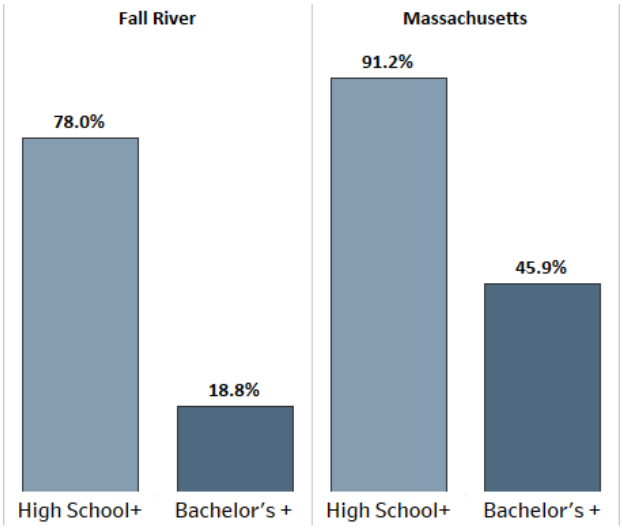
For example, the **dependency ratio** is a measure that shows how many people depend on others for financial support, such as children and the elderly. A lower dependency ratio means that a larger percentage of the population can support dependents, which can have positive economic effects. Conversely, a higher dependency ratio indicates that the working population is under greater financial pressure to support dependents.

In the case of Fall River, the age dependency ratio is 63.9%, suggesting a higher level of dependency, which means that there are more dependents relative to the working-age population. This figure is higher than that of Massachusetts, which has a dependency ratio of 59.2%.

Education

The relationship between education and income is often positive, as individuals with higher levels of education tend to earn higher incomes on average. Additionally, while education can be a significant factor, it is not the sole determinant of income, and various factors contribute to an individual's overall financial situation. Regarding education, most residents in Fall River aged 25 and older possess at least a high school diploma or higher (78.0%), with less than 1/5 obtaining bachelor's degree or higher (18.8%) (**Figure 6**). Overall, when compared to the rest of Massachusetts, Fall River high school completion rates are lower, and the rate for completing a four-year college degree or higher is below the state rate.

Figure 6: Population Aged 25+ with High School & Bachelor's degree or Higher, 2022



Source: 2022 ACS 1-Year Estimates

Income

Per capita income and median household income are both important indicators used to measure the economic well-being of individuals and households in a given geographic area. Further, while they provide insights into the overall financial health of a region, they capture different aspects of income distribution. For example, Per capita income is often used to measure the standard of living and economic development. A higher per capita income generally indicates a higher standard of living and economic prosperity.

For example, Per capita income is a measure used to assess the average income earned per person in a given area over a specific period, typically a year. It is calculated by dividing the total income generated in the region by the total population. Per capita income reflects the overall income level within a community and the income distribution among its residents.

Disparities in per capita income can highlight inequalities and socioeconomic challenges within a population, guiding efforts to address poverty, improve access to economic opportunities, and promote inclusive growth. Furthermore, per capita income is an essential indicator for assessing living standards, economic development, and the purchasing power of individuals within a community.

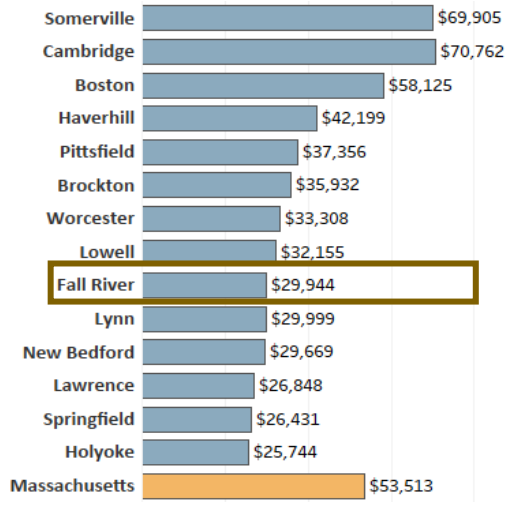
The median household income is a measure used to understand the typical income of a household. It identifies the income level that separates the higher-earning half of households from the lower-earning half. Unlike mean income, which extremely high or low values can influence, the median offers a better representation of the income distribution within a community. This metric can provide valuable insights

into the economic well-being of households. Moreover, trends in median household income over time can indicate broader economic shifts and disparities within a community or region.

Median household income is intended to measure and understand the typical income of a household.

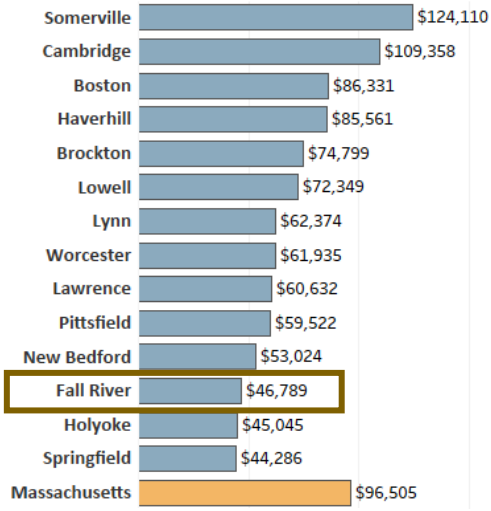
Figures 7 and 8 show how Fall River compares for both per capita income (lower than the state rate) and household median income (similarly, lower than the state rate) across the 14-cities profiled for this assessment.

Figure 7: Per Capita Income by City, 2022



Source: 2022 ACS 1-Year Estimates

Figure 8: Median Household Income by City, 2022

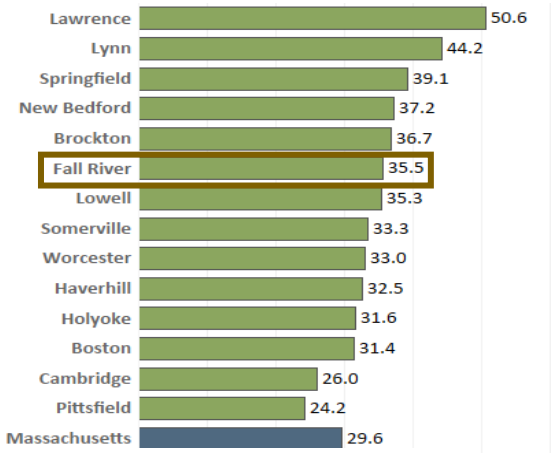


Source: 2022 ACS 1-Year

Housing

Households are considered cost-burdened when they spend more than 30% of their income on housing-related expenses. These expenses include rent, mortgage payments, utilities, and other housing needs. The 30% threshold is based on the idea that spending beyond this limit on housing can strain household budgets and limit financial flexibility. When a significant portion of income goes towards housing costs, households may have fewer financial resources for other essential expenses such as food, healthcare, and education. This financial strain can lead to difficult trade-offs and compromises, ultimately affecting the overall well-being and quality of life.

Figure 9: Renters Experiencing Housing Cost Burden (30%+ of income), 2022



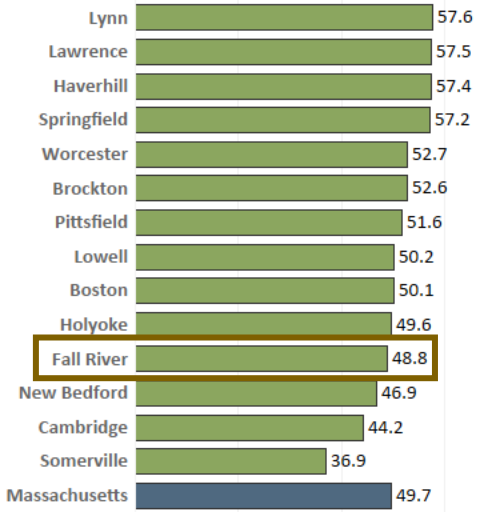
Source: 2022 ACS 1-Year Estimates

Identifying cost-burdened families is crucial in understanding and addressing housing affordability issues. By identifying and assisting cost-burdened households, communities can work towards creating more equitable housing opportunities, reducing poverty, and fostering economic stability. Further, addressing housing affordability challenges is not only

crucial for individual households, but also for promoting broader societal goals, such as reducing inequality, promoting social mobility, and enhancing overall community resilience.

Of 44,303 housing units in Fall River, approximately 94% are occupied, of which 37% are owner-occupied and 63% are renter-occupied. **Figure 9** shows that a higher percentage of renters in Fall River, specifically 35.5%, allocate 30% or more of their income to housing costs, compared to homeowners, with approximately half, or 48.8%, facing a similar burden. Overall, the housing burden for in Fall River is above the state average of renters (29.6%), while for homeowners it is 49.7% (**Figure 10**).

Figure 10: Homeowners Experiencing Housing Cost Burden (30%+ of income), 2022



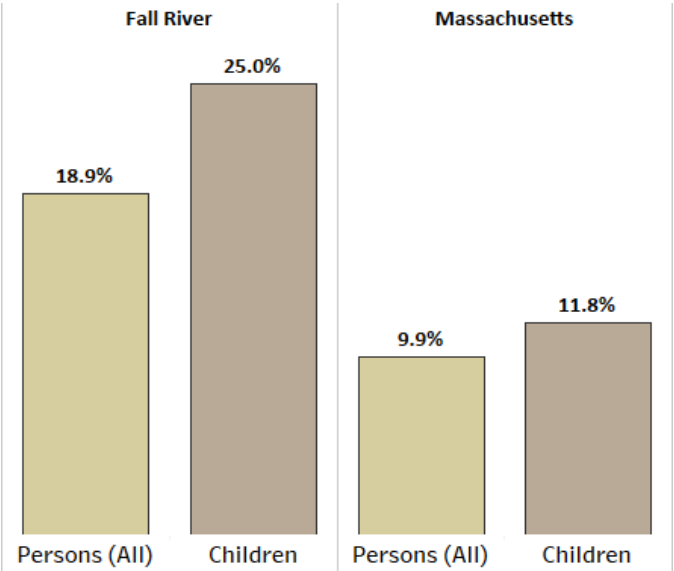
Source: 2022 ACS 1-Year Estimates

Financial Hardship and Public Assistance

Financial hardship can be considered a state where individuals or communities are unable to afford the resources necessary for a minimum standard of living, often as a result of limited of income and or an inability to meet basic needs, such as adequate food, shelter, education, and healthcare.

According to the U.S. Census, about 18.9% of all Fall River residents and 25% of children (18 years of age and younger) are facing financial hardship, which is higher than the state rates (9.9% and 11.8%, respectively) (**Figure 11**). Moreover, families with a female householder and households with children under the age of 18 experienced higher rates of financial hardship (41.8%). Also, households with children aged five and younger had a similar rate of hardship, with 45.2% of them struggling financially.

Figure 11: Total Population and Children* Facing Financial Hardship, 2022



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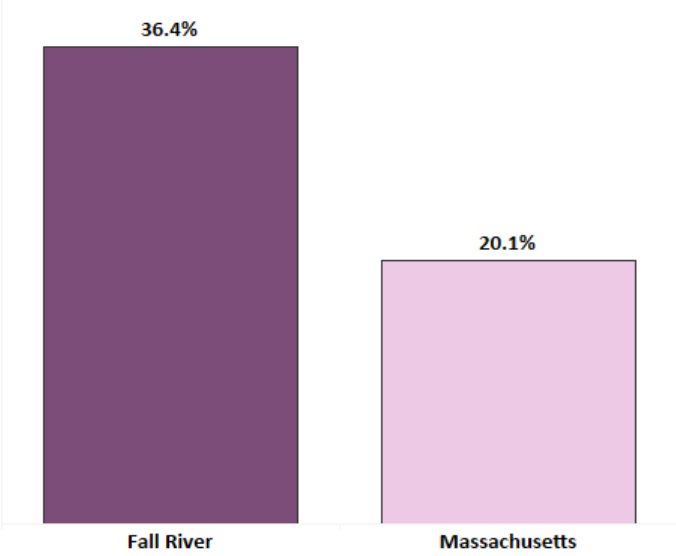
Regarding food assistance, about 30.5% of households in Fall River received food stamp/ Supplemental Nutrition Assistance Program (SNAP) benefits within the past year. The rates for Black and Hispanic/Latino households were 7.9% and 15.6% respectively. Additionally, households with children under the age of 18 and those led by a female head of household also had

higher rates of SNAP benefits, with 41.4% and 27.0% respectively. The determination of SNAP benefits is based on income, household size, and expenses. The purpose of food assistance programs, such as SNAP, is to reduce hunger, improve nutrition, and support individuals and families who are experiencing financial difficulties.

Figure 12: Public Health Insurance Coverage Rates, 2018-2022



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Public Health Insurance

Health insurance coverage is a financial mechanism for covering an individual's healthcare expenses. It grants access to medical services, safeguards against high costs, and contributes to economic stability for individuals and families. While most Fall River residents have some form of health insurance coverage (95.2%), specific segments of the community are more likely to be uninsured. This includes individuals who identify as Asian (10.7%), those who are non-citizens (16.5%), individuals experiencing unemployment (9.7%) and those without a high school diploma (8.9%).

In the United States, public health insurance refers to government-sponsored health insurance programs such as Medicaid or Medicare that cover specific populations, such as seniors, economically vulnerable individuals, and people with disabilities, as well those requiring access to life-saving medical services and care such as dialysis treatment. It's important to note that public health insurance is distinct from private health insurance, typically provided by employers or purchased by individuals on the private market. Figure 12 shows that approximately 29.4% of Fall River residents have some form of public health insurance, higher than for Massachusetts (20.1%).

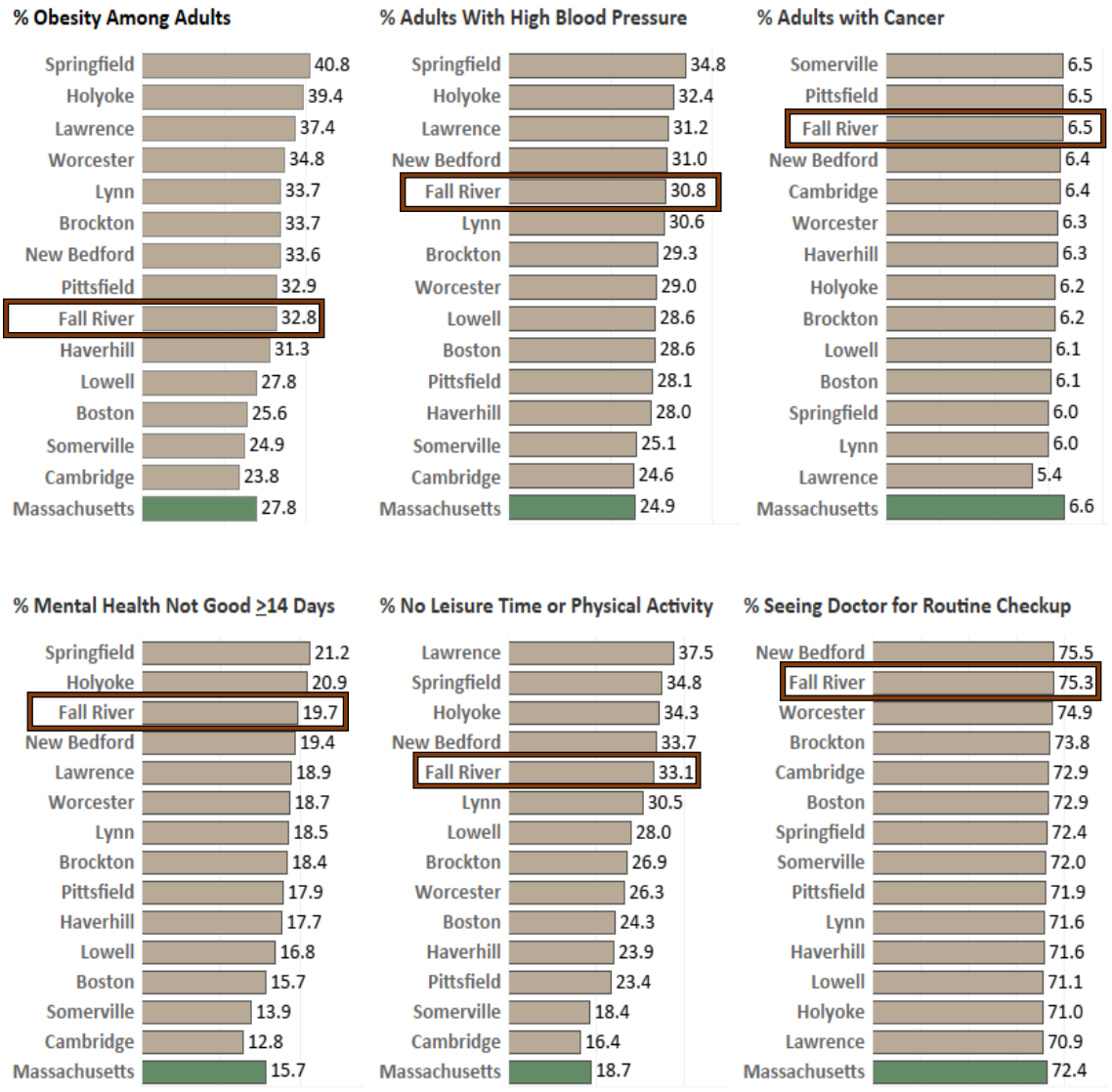
Health Outcomes and Status

Health status and health outcomes are two different concepts in the field of healthcare and public health. Health status refers to the overall condition of an individual's or a population's health at a particular point in time. It comprises several dimensions, including mental, physical, and social well-being. Health outcomes, on the other hand, are the specific results or consequences of healthcare or health interventions. **Figure 13** focuses on a subset of indicators that capture health status and health outcomes for Fall River and the other thirteen priority communities.

The health status of Fall River exhibits a mix of positive and negative indicators when compared to Massachusetts as a whole. Fall River has higher rates of adults reporting high blood pressure (30.8%), obesity (32.8%), poor mental health (19.7%), and no leisure time or physical activity (33.1%). On the other hand, a higher percentage of people in Fall River have seen a medical provider for routine check-

ups (75.3%) compared to the rest of Massachusetts. At the same time, a similar percentage of Fall River residents report having been diagnosed with cancer (6.5%).

Figure 13: Self-Reported Health Outcomes and Health Status for Persons Aged 18 and Older by City, 2020-2021



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The information provided offers a snapshot of specific health indicators in Fall River but may not capture the full complexity of the city's overall health status. Further, it is important to understand that health outcomes are influenced by various factors, making it a complex issue. While the analysis provides insight into certain health indicators, a comprehensive understanding necessitates consideration of additional factors such as socioeconomic status, access to healthcare, and environmental influences.

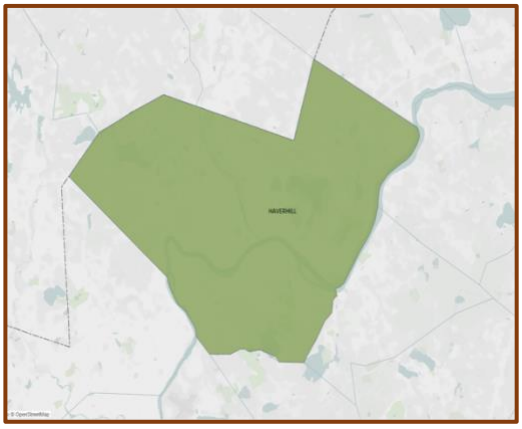
Moreover, continuous efforts in public health and preventive measures can bring about changes in these indicators over time.

Community Profile: Haverhill, Massachusetts

Introduction

The following community profile prepared for Haverhill, Massachusetts, provides a high-level overview of the population's composition and characteristics. This brief is not intended as a comprehensive community profile but instead it is primarily designed to give context and support informed decision-making. It can also aid policymakers, planners, community leaders, and collaborators to understand and address a community's unique needs and challenges - for the individuals represented by this data have lived their lives in circumstances that are both influenced and constrained by economic factors, social context, and government policies. With this in mind, a significant portion of this report is dedicated to examining the social, economic, and community context in which residents live.

Figure 1: Geographic Boundary for Haverhill, Massachusetts



The profile for Haverhill also encompassed a review and analysis of secondary data. Secondary data refers to the data that has been collected for a different purpose. Analyzing secondary data helps us to understand patterns, establish a starting point, and recognize variations in populations and communities.

The social, demographic, economic, and health data sources including demographic data for this profile is from the U.S. Census Bureau's American Community Survey (ACS) 1 and 5-Year Estimates, 2018-2022; social vulnerability data is from the Agency for Toxic Substances and Disease Registry (ATDSR), and firearm-related incidents are from the Gun Violence Archive for years 2015 to 2023; Population health data is from the online data portal from the Centers for Disease Control and Prevention's online data portal PLACES: Local Data for Better Health based on 2020 and 2021 Behavioral Risk Factor Surveillance System (BRFSS) data. A description of each data source is located at the end of this report.

Data collection has limitations, as different sources use different ways of measuring similar variables. There may be a time lag, and data may not be available by specific population groups or at a more granular geographic level due to small sample sizes. In some cases, data from multiple years may have been aggregated to allow for more stable estimates.

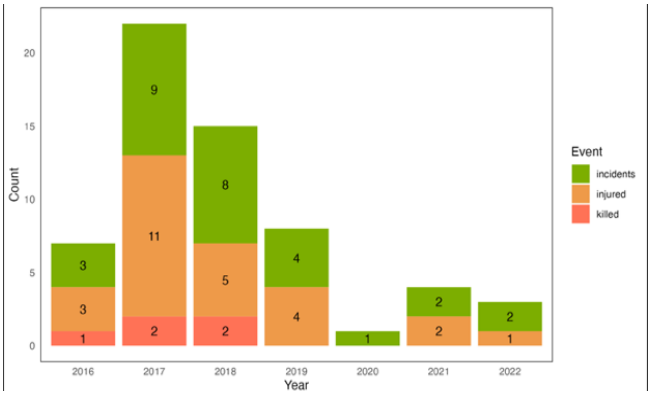
The community profile begins with an overview of firearm-related incidents, followed by the status of social vulnerability and a review of population, housing, and economic characteristics as well selected measures for health status and outcomes.

In conclusion, this community profile is a foundational resource that underscores the significance of considering the broader socio-economic context and the impact of policies on residents' lives, highlighting the importance of data-driven strategies for fostering community well-being and resilience.

Firearm-Related Incidents, Deaths, and Injuries

Firearm deaths continue to be a significant and growing public health problem in communities across the United States. Firearm-related incidents may include a range of events such as homicides, suicides, accidental discharges, and non-fatal injuries involving firearms. The number of firearm incidents is influenced by various factors, including gun ownership rates, gun control policies, socioeconomic conditions, and other social factors.

Figure 2: Firearm-Related Incidents, Injuries and Fatalities, Haverhill, MA, 2015- 2023*



Source: Gun Violence Archive, 2015 to 2023; *2023 data is only for January 2023 to November 2023; Reported averages have been rounded.

Overall, between January 2015 and November 2023, there were 29 firearm-related incidents in the city of Haverhill (an average of 4 per year) that cumulatively resulted in a total of 26 injuries and 5 fatalities.

Figure 2 shows the number of shooting incidents was the highest in 2017 (9 cases), resulting in 11 firearm-related injuries and 2 deaths. Further, while December firearm incident data is still pending for 2023, however amid some slight variation overall trends in those injured or killed in Haverhill illustrate a general downward trend in such events since 2017.

Social Vulnerability

The Social Vulnerability Index (SVI) is a measure used to assess the vulnerability of communities to natural or human-made disasters and emergencies. It considers various social, economic, and demographic factors affecting a community's ability to prepare for, respond to, and recover from disasters[5].

Emergency management agencies, researchers, and public health officials often use the index to identify and prioritize areas that may need additional support in a crisis. populations within a region. As **Figure 3** shows, SVI is often represented as a map, with different areas shaded or colored to indicate their level of vulnerability. By identifying vulnerable communities, emergency planners can allocate resources more effectively and implement targeted interventions to enhance resilience and reduce the impact of disasters on these communities.

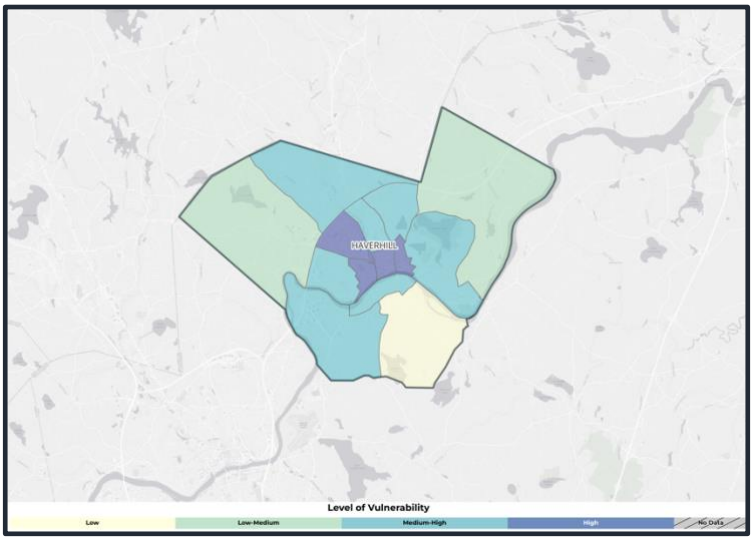
Overall, out of the 14 census tracts that fall within the geographical boundary of Haverhill, a majority (11) - reflect an SVI ranging from medium-high to high. This suggests that most of the census tracts exhibit characteristics associated with increased vulnerability.

[5] The Social Vulnerability Index - At A Glance

People residing in these areas may face challenges related to poverty, limited access to education and healthcare, social isolation, or other factors that hinder their ability to prepare for, respond to, and recover from adverse events.

Furthermore, the overall SVI score for Essex County, which includes the cities of Haverhill, Ipswich, Newburyport, Gloucester is 0.61 which similarly indicates a medium to high level of vulnerability for this area.

Figure 3: Social Vulnerability Index by Census Tract, Haverhill, MA, 2020



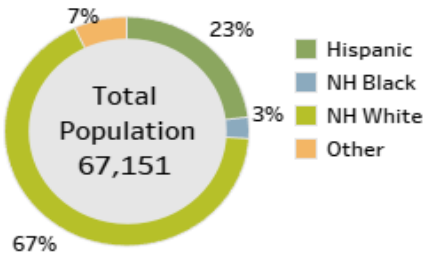
Source: Agency for Toxic Substances and Disease Registry, 2020

Sociodemographic Profile

According to the latest U.S. Census estimates, the population of Haverhill is 67,151. In 2020 U.S. Census recorded a population of 67,787 an increase of just slightly over eleven percent (11.3%) from 2010, up from 60,879. However, since then the population has declined at a rate of just under one percent (-0.9%).

Figure 4 shows that in Haverhill, nearly 33% of the population identifies as a racial or ethnic minority. Haverhill has a less diverse population compared to the broader state of Massachusetts.

Figure 4: Race and Ethnicity, Haverhill, MA, 2018-2022



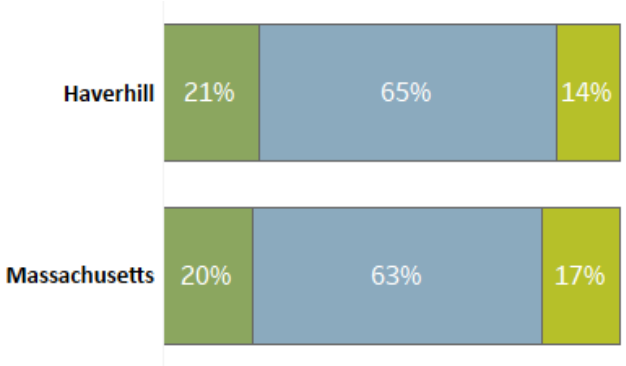
Source: 2022 ACS 1-Year Estimates

Approximately 63% of the state's population identifies as non-Hispanic white while nearly 37% self-identify as belonging to a racial or ethnic minority group. Additionally, 16.6% of Haverhill residents are foreign born, which is also comparatively lower than the rest of Massachusetts (18%).

Age

Age is an important demographic indicator for understanding the age structure of a population, which has various implications for the community, such as healthcare demands, social services, workforce challenges, and other factors that are often associated with certain age groups. **Figure 5** shows that Haverhill has a slightly higher proportion of working-aged adults than the rest of the state (65%).

Figure 5: Population by Age Category, 2022



Source: 2022 ACS 1-Year Estimates

The working-age group, typically defined as individuals aged 18 to 64, is considered an extremely important segment to society for several reasons, as they play a central role in economic, social, and demographic stability.

For example, within this age group, individuals are expected to be in the labor force, either employed or actively seeking employment. This age range also typically spans the years when individuals complete their education, enter the workforce, and continue working until they approach retirement age.

In summary, adults of working age are crucial to maintaining economic vitality, supporting public services, fostering social cohesion, and shaping demographic trends. Their well-being and productive engagement are essential for the prosperity and stability of communities.

Table 1: Median Age by City, 2022

Pittsfield	44.6
Fall River	41.6
Massachusetts	39.8
Brockton	39.5
New Bedford	38.9
Haverhill	37.6
Lynn	37.2
Holyoke	36.5
Lowell	35.6
Springfield	33.9
Boston	33.3
Worcester	32.9
Somerville	31.4
Lawrence	31.0
Cambridge	29.6

Source: 2022 ACS 1-Year Estimates

Table 1 shows that Haverhill's median age is **37.6**, which is comparatively younger than the state (Massachusetts, median age **39.8**). Further, while Haverhill's median age reflects a generally younger population, additional demographic indicators also suggest that the population of Haverhill is relatively balanced in terms of age, with a mix of younger and older individuals.

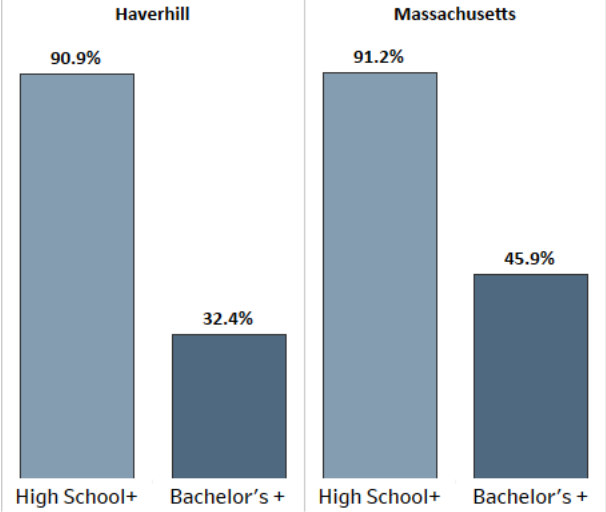
For example, the **dependency ratio** is a measure that shows how many people depend on others for financial support, such as children and the elderly. A lower dependency ratio means that a larger percentage of the population can support dependents, which can have positive economic effects. Conversely, a higher dependency ratio indicates that the working population is under greater financial pressure to support dependents.

In the case of Haverhill, the age dependency ratio is 53.8%, suggesting a moderate level of dependency, which means that there are more dependents relative to the working-age population. This figure is lower than that of Massachusetts, which has a dependency ratio of 59.2%.

Education

In terms of education, most residents in Haverhill aged 25 and older possess at least a high school diploma or higher (90.9%), with more than 1/4 obtaining bachelor's degree or higher (32.4%) (**Figure 6**). Overall, when compared to the rest of Massachusetts, Haverhill high school completion rates are slightly lower, and the rate for completing a four-year college degree or higher is below the state rate. The relationship between education and income is often positive, as individuals with higher levels of education tend to earn higher incomes on average. Additionally, while education can be a significant factor, it is not the sole determinant of income, and various factors contribute to an individual's overall financial situation.

Figure 6: Population Aged 25+ with High School & Bachelor's degree or Higher, 2022



Source: 2022 ACS 1-Year Estimates

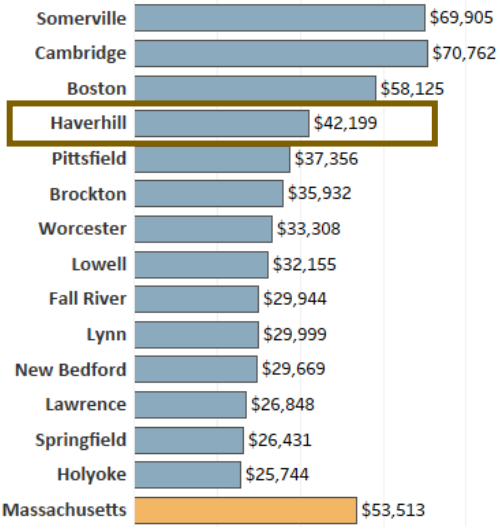
Income

Per capita income and median household income are both important indicators used to measure the economic well-being of individuals and households in a given geographic area. Further, while they provide insights into the overall financial health of a region, they capture different aspects of income distribution. For example, Per capita income is often used to measure the standard of living and economic development. A higher per capita income generally indicates a higher standard of living and economic prosperity.

For example, Per capita income is a measure used to assess the average income earned per person in a given area over a specific period, typically a year. It is calculated by dividing the total income generated in the region by the total population. Per capita income reflects the overall income level within a community and the income distribution among its residents.

Disparities in per capita income can highlight inequalities and socioeconomic challenges within a population, guiding efforts to address poverty, improve access to economic opportunities, and promote inclusive growth. Furthermore, per capita income is an essential

Figure 7: Per Capita Income by City, 2022



Source: 2022 ACS 1-Year Estimates

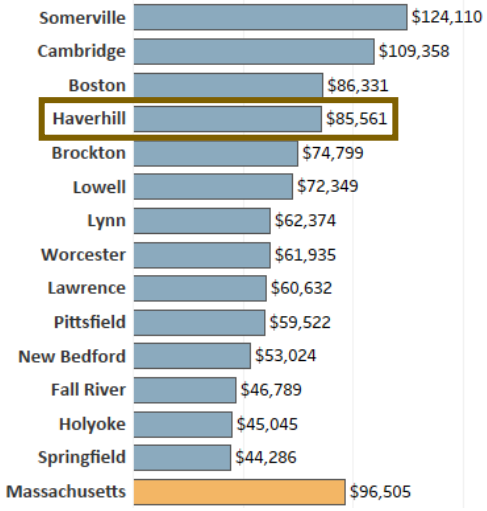
indicator for assessing living standards, economic development, and the purchasing power of individuals within a community.

The median household income is a measure used to understand the typical income of a household. It identifies the income level that separates the higher-earning half of households from the lower-earning half. Unlike mean income, which extremely high or low values can influence, the median offers a better representation of the income distribution within a community. This metric can provide valuable insights

into the economic well-being of households. Moreover, trends in median household income over time can indicate broader economic shifts and disparities within a community or region.

Figures 7 and 8 show how Haverhill compares for both per capita income (lower than the state rate) and household median income (similarly, lower than the state rate) across the 14-cities profiled for this assessment.

Figure 8: Median Household Income by City, 2022

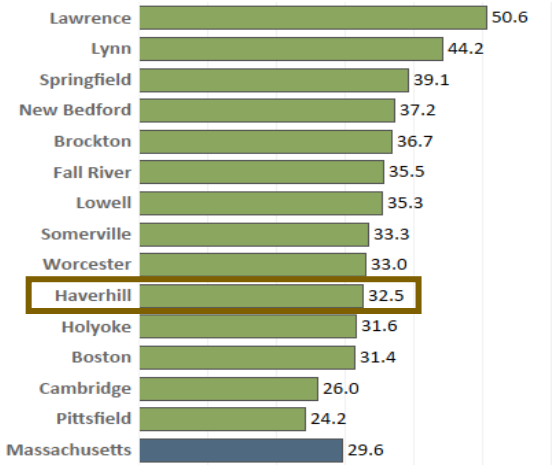


Source: 2022 ACS 1-Year Estimates

Housing

Households are considered cost-burdened when they spend more than 30% of their income on housing-related expenses. These expenses include rent, mortgage payments, utilities, and other housing needs. The 30% threshold is based on the idea that spending beyond this limit on housing can strain household budgets and limit financial flexibility. When a significant portion of income goes towards housing costs, households may have fewer financial resources for other essential expenses such as food, healthcare, and education. This financial strain can lead to difficult trade-offs and compromises, ultimately affecting the overall well-being and quality of life.

Figure 9: Renters Experiencing Housing Cost Burden (30%+ of income), 2022



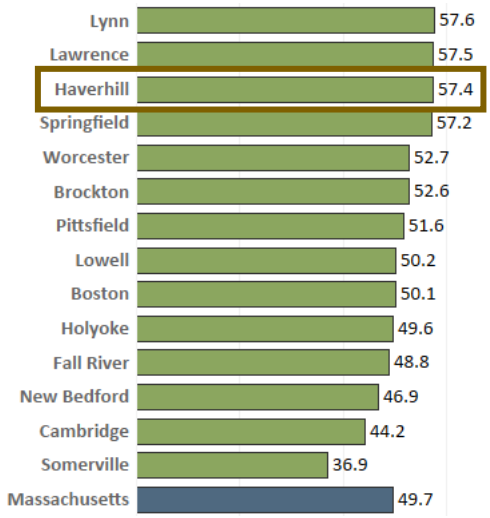
Source: 2022 ACS 1-Year Estimates

Identifying cost-burdened families is crucial in understanding and addressing housing affordability issues. By identifying and assisting cost-burdened households, communities can work towards creating more equitable housing opportunities, reducing poverty, and fostering economic stability. Further, addressing housing affordability challenges is not only crucial for individual

households, but also for promoting broader societal goals, such as reducing inequality, promoting social mobility, and enhancing overall community resilience.

Of 27,232 housing units in Haverhill, approximately 94% are occupied, of which 64% are owner-occupied and 36% are renter-occupied. **Figure 9** shows that a higher percentage of renters in Haverhill, specifically 32.5%, allocate 30% or more of their income to housing costs, compared to homeowners, with more than half, or 57.4%, facing a similar burden. Overall, the housing burden for in Haverhill is above the state average of renters (29.6%), while for homeowners it is 49.7% (**Figure 10**).

Figure 10: Homeowners Experiencing Housing Cost Burden (30%+ of income), 2022



Source: 2022 ACS 1-Year Estimates

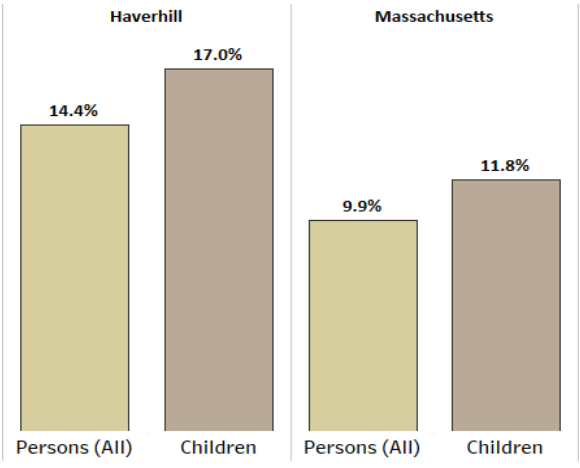
Financial Hardship and Public Assistance

Financial hardship can be considered a state where individuals or communities are unable to afford the resources necessary for a minimum standard of living, often as a result of limited of income and or an inability to meet basic needs, such as adequate food, shelter, education, and healthcare.

According to the U.S. Census, about 14.4% of all Haverhill residents and 17% of children (18 years of age and younger) are facing financial hardship, which is higher than the state rates (9.9% and 11.8%, respectively) (**Figure 11**). Moreover, families with a female householder and households with children under the age of 18 experienced higher rates of financial hardship (25.3%). Also, households with children aged five and younger had a similar rate of hardship, with 23.4% of them struggling financially.

With respect to food assistance, the determination of Supplemental Nutrition Assistance Program (SNAP) benefits is based on income, household size, and expenses. The purpose of food assistance programs,

Figure 11: Total Population and Children* Facing Financial Hardship, 2022



Source: 2022 ACS 1-Year Estimates
*Children are defined as those aged 18 and under

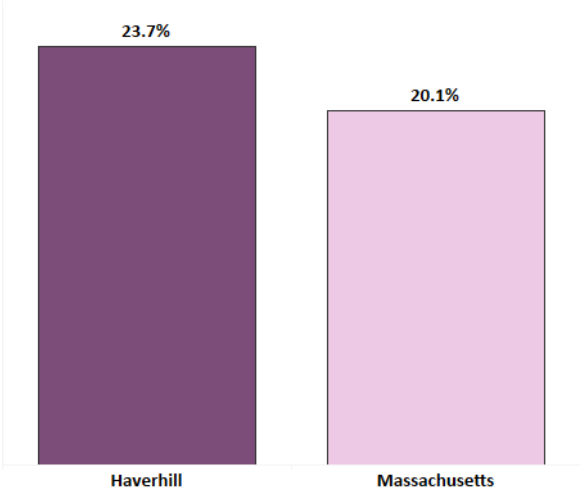
such as SNAP, is to reduce hunger, improve nutrition, and support individuals and families who are experiencing financial difficulties.

In Haverhill, about 20.6% of households received food stamp/ Supplemental Nutrition Assistance Program (SNAP) benefits within the past year. Additionally, households with children under the age of 18 and those led by a female head of household also had higher rates of SNAP benefits, with 46.4% and 34.2% respectively.

Public Health Insurance

Health insurance coverage is a financial mechanism for covering an individual's healthcare expenses. It grants access to medical services, safeguards against high costs, and contributes to economic stability for individuals and families. While most Haverhill residents have some form of health insurance coverage (96.2%), specific segments of the community are more likely to be uninsured. This includes individuals who identify as American Indian and Alaska Native (9.5%), those who are non-citizens (9.7%), individuals experiencing unemployment (8.9%) and those with only a high school diploma (6.6%).

Figure 12: Public Health Insurance Coverage Rates, 2018-2022



Source: 2018-2022 ACS 5-Year Estimates

In the United States, public health insurance refers to government-sponsored health insurance programs such as Medicaid or Medicare that cover specific populations, such as seniors, economically vulnerable individuals, and people with disabilities, as well those requiring access to life-saving medical services and care such as dialysis treatment. It's important to note that public health insurance is distinct from private health insurance, typically provided by employers or purchased by individuals on the private market. **Figure 12** shows that approximately 23.7% of Haverhill residents have some form of public health insurance, slightly higher than for Massachusetts (20.1%).

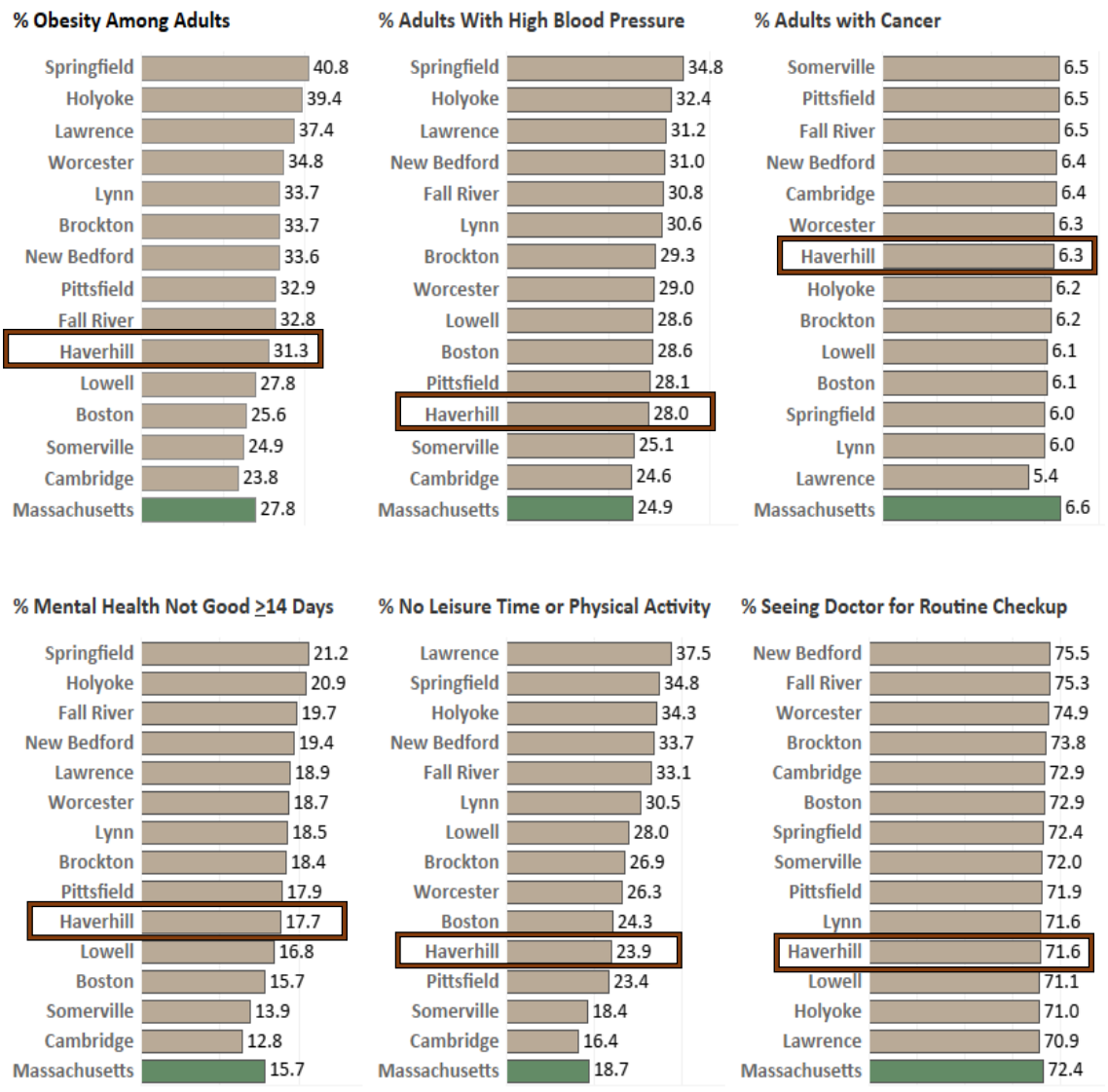
Health Outcomes and Status

Health status and health outcomes are two different concepts in the field of healthcare and public health. Health status refers to the overall condition of an individual's or a population's health at a particular point in time. It comprises several dimensions, including mental, physical, and social well-being. Health outcomes, on the other hand, are the specific results or consequences of healthcare or health interventions. **Figure 13** focuses on a subset of indicators that capture health status and health outcomes for Haverhill and the other thirteen priority communities.

The overall health status of Haverhill can be characterized by a mix of positive and negative indicators compared to the rest of Massachusetts. For example, Haverhill has higher rates than Massachusetts in

terms of adults reporting high blood pressure (28%), obesity (31.3%), poor mental health (17.7%), and reporting no leisure time or physical activity (23.9%). Additionally, a slightly lower percentage of people having seen a medical provider for a routine check-up (71.6%). However, Haverhill also reports a slightly

Figure 13: Self-Reported Health Outcomes and Health Status for Persons Aged 18 and Older by City, 2020-2021



Source: Centers for Disease Control and Prevention, PLACES: Local Data for Better Health; Estimates for each measure are based on 2020 and 2021 Behavioral Risk Factor Surveillance System data.

lower percentage of adults with a diagnosis of cancer (6.3%) (compared to the rest of Massachusetts).

The information provided offers a snapshot of specific health indicators in Haverhill but may not capture the full complexity of the city's overall health status. Further, it is important to understand that health outcomes are influenced by various factors, making it a complex issue. While the analysis provides

insight into certain health indicators, a comprehensive understanding necessitates consideration of additional factors such as socioeconomic status, access to healthcare, and environmental influences. Moreover, continuous efforts in public health and preventive measures can bring about changes in these indicators over time.

Community Profile: Holyoke, Massachusetts

Introduction

The following community profile prepared for Holyoke, Massachusetts, provides a high-level overview of the population's composition and characteristics. This brief is not intended as a comprehensive community profile but instead it is primarily designed to give context and support informed decision-making. It can also aid policymakers, planners, community leaders, and collaborators to understand and address a community's unique needs and challenges - for the individuals represented by this data have lived their lives in circumstances that are both influenced and constrained by economic factors, social context, and government policies. With this in mind, a significant portion of this report is dedicated to examining the social, economic, and community context in which residents live.

Figure 1: Geographic Boundary for Holyoke, Massachusetts

The profile for Holyoke also encompassed a review and analysis of secondary data. Secondary data refers to the data that has been collected for a different purpose. Analyzing secondary data helps us to understand patterns, establish a starting point, and recognize variations in populations and communities.

The social, demographic, economic, and health data sources including demographic data for this profile is from the U.S. Census Bureau's American Community Survey (ACS) 5-Year Estimates, 2018-2022; social vulnerability data is from the Agency for Toxic Substances and Disease Registry (ATDSR), and firearm-related incidents are from the Gun Violence Archive for years 2015 to 2023; Population health data is from the online data portal from the Centers for Disease Control and Prevention's online data portal PLACES: Local Data for Better Health based on 2020 and 2021 Behavioral Risk Factor Surveillance System (BRFSS) data. A description of each data source is located at the end of this report.

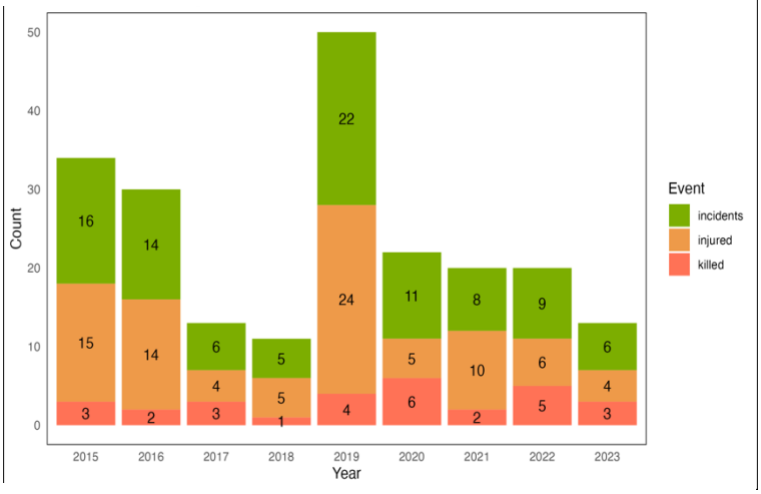
Data collection has limitations, as different sources use different ways of measuring similar variables. There may be a time lag, and data may not be available by specific population groups or at a more granular geographic level due to small sample sizes. In some cases, data from multiple years may have been aggregated to allow for more stable estimates.

The community profile begins with an overview of firearm-related incidents, followed by the status of social vulnerability and a review of population, housing, and economic characteristics as well selected measures for health status and outcomes.

In conclusion, this community profile is a foundational resource that underscores the significance of considering the broader socio-economic context and the impact of policies on residents' lives, highlighting the importance of data-driven strategies for fostering community well-being and resilience.

Firearm-Related Incidents, Deaths, and Injuries

Figure 2: Firearm-Related Incidents, Injuries and Fatalities, Holyoke, MA, 2015-2023*



Source: Gun Violence Archive, 2015 to 2023; *2023 data is only for January 2023 to November 2023; Reported averages have been rounded.

Firearm incidents may include a range of events such as homicides, suicides, accidental discharges, and non-fatal injuries involving firearms. The number of firearm incidents is influenced by various factors, including gun ownership rates, gun control policies, socioeconomic conditions, and other social factors.

Firearm deaths continue to be a significant and growing public health problem in communities across the United States. Overall, between January 2015 and November 2023, there were 97 firearm-related incidents in the city of Holyoke (an average of 11 per year) that cumulatively resulted in a total of 87 injuries and 29 fatalities.

Figure 2 shows the number of shooting incidents was the highest in 2019 (22 cases), resulting in 24 firearm-related injuries and 4 deaths. As for the year 2023, the data is incomplete as information regarding incidents for December is still pending, with four injuries and three fatalities reported across eleven months.

Social Vulnerability

The Social Vulnerability Index (SVI) is a measure used to assess the vulnerability of communities to natural or human-made disasters and emergencies. It considers various social, economic, and demographic factors affecting a community's ability to prepare for, respond to, and recover from disasters[6].

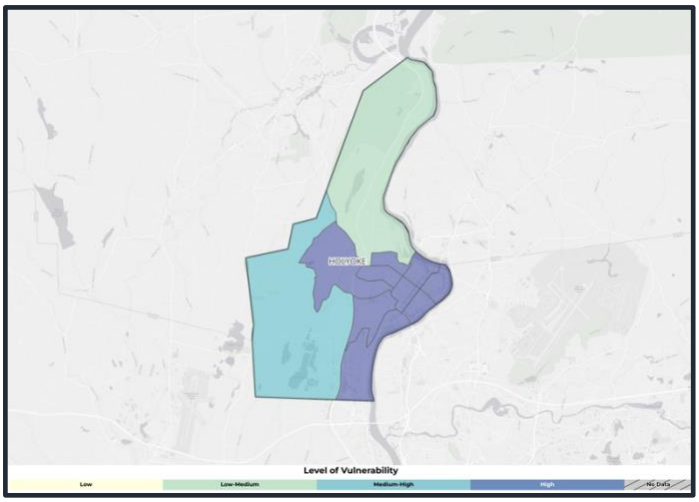
Emergency management agencies, researchers, and public health officials often use the index to identify and prioritize areas that may need additional support in a crisis. As **Figure 3** shows, SVI is often represented as a map, with different areas shaded or colored to indicate their level of vulnerability. By identifying vulnerable communities, emergency planners can allocate resources more effectively and implement targeted interventions to enhance resilience and reduce the impact of disasters on these communities.

[6] The Social Vulnerability Index - At A Glance

Overall, out of the 11 census tracts that fall within the geographical boundary of Holyoke, almost all of them (10) - almost 91% - reflect an SVI ranging from medium-high to high. This suggests that most of the census tracts exhibit characteristics associated with increased vulnerability.

People residing in these areas may face challenges related to poverty, limited access to education and healthcare, social isolation, or other factors that hinder their ability to prepare for, respond to, and recover from adverse events. Furthermore, the overall SVI score for Hampden County, which includes the cities of Holyoke, Hampden, Springfield, Chicopee, and Wilbraham is 0.82 which similarly indicates a medium to high level of vulnerability for this area.

Figure 3: Social Vulnerability Index by Census Tract, Holyoke, MA



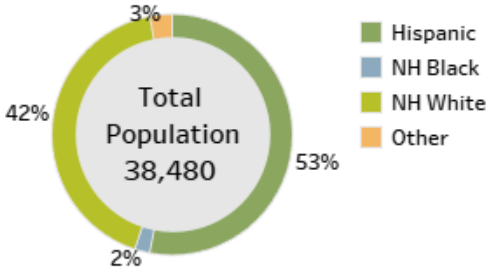
Source: Agency for Toxic Substances and Disease Registry, 2020

Sociodemographic Profile

According to the latest U.S. Census estimates, the population of Holyoke is 38,480. In 2020 U.S. Census recorded a population of 38,238 a decrease of just slightly over four percent (-4.1%) from 2010, down from 39,880. Since then, the population has decreased by a rate of almost one and a half percent (-1.4%).

Figure 4 shows that in Holyoke, more than half – 58% – of the population identifies as a racial or ethnic minority. Holyoke has a more diverse population compared to the broader state of Massachusetts. Approximately 63% of the state's population identifies as non-Hispanic white while nearly 37% self-identify as belonging to a racial or ethnic minority group. However, only 5.5% Holyoke residents are foreign born which is comparatively lower than the rest of Massachusetts (18%).

Figure 4: Race and Ethnicity, Holyoke, MA, 2018-2022

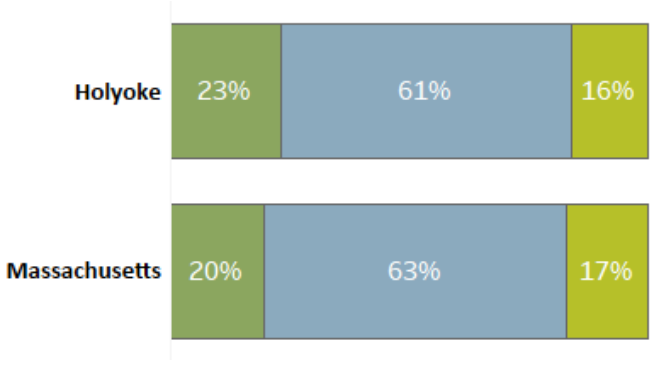


Source: 2022 ACS 5-Year Estimates

Age

Age is an important demographic indicator for understanding the age structure of a population, which has various implications for the community, such as healthcare demands, social services, workforce challenges, and other factors that are often associated with certain age groups. **Figure 5** shows that Holyoke has a slightly smaller proportion of working- aged adults than the rest of the state (63%).

Figure 5: Population by Age Category. 2018-2022



Source: 2018-2022 ACS 5-Year Estimates

The working-age group, typically defined as individuals aged 18 to 64, is considered an extremely important segment to society for several reasons, as they play a central role in economic, social, and demographic stability.

For example, within this age group, individuals are expected to be in the labor force, either employed or actively seeking employment. This age range also typically spans the years when individuals complete their education, enter the workforce, and continue working until they approach retirement age.

In summary, adults of working age are crucial to maintaining economic vitality, supporting public services, fostering social cohesion, and shaping demographic trends. Their well-being and productive engagement are essential for the prosperity and stability of communities.

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Pittsfield	44.6
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Lowell	35.6
Springfield	33.9
Boston	33.3
Worcester	32.9
Somerville	31.4
Lawrence	31.0
Cambridge	29.6

Source: 2018-2022 ACS 5-Year Estimates

Table 1 shows that Holyoke's median age is **36.5**, which is comparatively younger than half of other cities included in this assessment and the state (Massachusetts, median age **39.8**). Further, while Holyoke's median age reflects a generally older population, additional demographic indicators also suggest that the population of Holyoke is relatively balanced in terms of age, with a mix of younger and older individuals.

For example, the **dependency ratio** is a measure that shows how many people depend on others for financial support, such as children and the elderly. A lower dependency ratio means that a larger percentage of the population can support dependents, which can have positive economic effects. Conversely, a higher dependency ratio indicates that the working population is under greater financial pressure to support dependents.

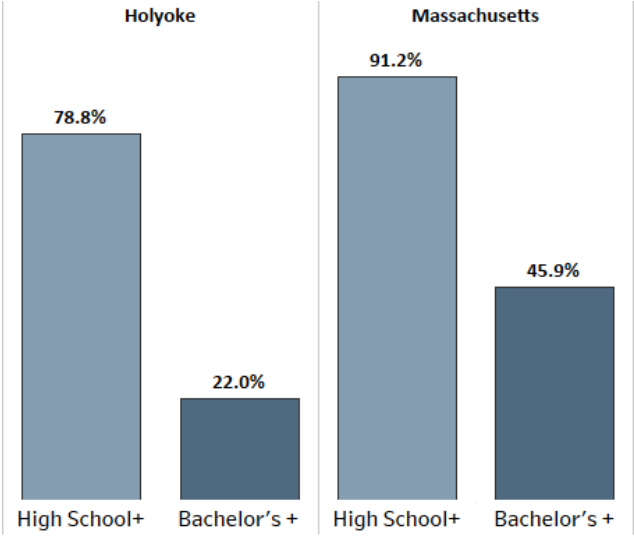
In the case of Holyoke, the age dependency ratio is **64.4%,** suggesting a moderate level of dependency, which means that there are more dependents relative to

the working-age population. This figure is higher than that of Massachusetts, which also a dependency ratio of **59.2%.**

Education

In terms of education, most residents in Holyoke aged 25 and older possess at least a high school diploma or higher (78.8%), with less than a quarter obtaining bachelor's degree or higher (22%) (**Figure 6**). Overall, when compared to the rest of Massachusetts, Holyoke high school completion rates are lower, and the rate for completing a four-year college degree or higher is below the state rate. The relationship between education and income is often positive, as individuals with higher levels of education tend to earn higher incomes on average. Additionally, while education can be a significant factor, it is not the sole determinant of income, and various factors contribute to an individual's overall financial situation.

Figure 6: Population Aged 25+ with High School & Bachelor's degree or Higher, 2018-2022



Source: 2018-2022 ACS 5-Year Estimates

Income

Per capita income and median household income are both important indicators used to measure the economic well-being of individuals and households in a given geographic area. Further, while they provide insight into the overall financial health of a region, they capture different aspects of income distribution.

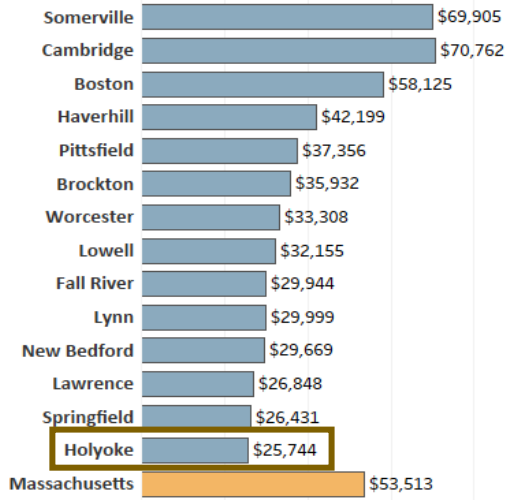
For example, Per capita income is a measure used to assess the average income earned per person in a given area over a specific period, typically a year. It is calculated by dividing the total income generated in the region by the total population. Per capita income reflects the overall income level within a community and the income distribution among its residents.

Disparities in per capita income can highlight inequalities and socioeconomic challenges within a population, guiding efforts to address poverty, improve access to economic opportunities, and promote inclusive growth. Furthermore, per capita income is an essential indicator for assessing living standards, economic development, and the purchasing power of individuals within a community.

The median household income is a measure used to understand the typical income of a household. It identifies the income level that separates the higher-earning half of households from the lower-earning half. Unlike mean income, which extremely high or low values can influence, the median offers a better representation of the income distribution within a community. This metric can provide valuable insights into the economic well-being of households. Moreover, trends in median household income over time can indicate broader economic shifts and disparities within a community or region.

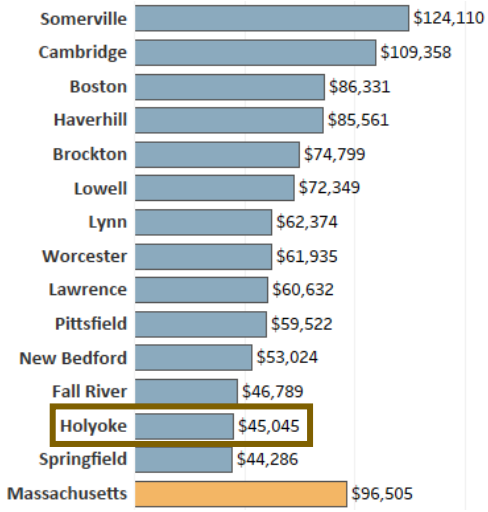
Figures 7 and 8 show how Holyoke compares for both per capita income (lower than the state rate and the other cities) and household median income (similarly, lower than the state rate) across the 14-cities profiled for this assessment.

Figure 7: Per Capita Income by City, 2018-2022



Source: 2018-2022 ACS 5-Year Estimates

Figure 8: Median Household Income by City, 2018-2022

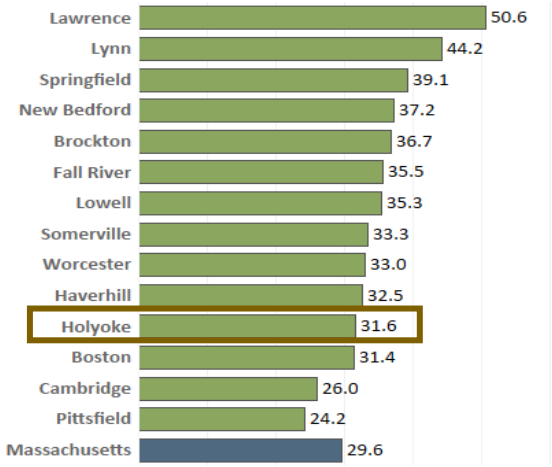


Source: 2018-2022 ACS 5-Year Estimates

Housing

Households are considered cost-burdened when they spend more than 30% of their income on housing-related expenses. These expenses include rent, mortgage payments, utilities, and other housing needs. The 30% threshold is based on the idea that spending beyond this limit on housing can strain household budgets and limit financial flexibility. When a significant portion of income goes towards housing costs, households may have fewer financial resources for other essential expenses such as food, healthcare, and education. This financial strain can lead to difficult trade-offs and compromises, ultimately affecting the overall well-being and quality of life.

Figure 9: Renters Experiencing Housing Cost Burden (30%+ of income), 2018-



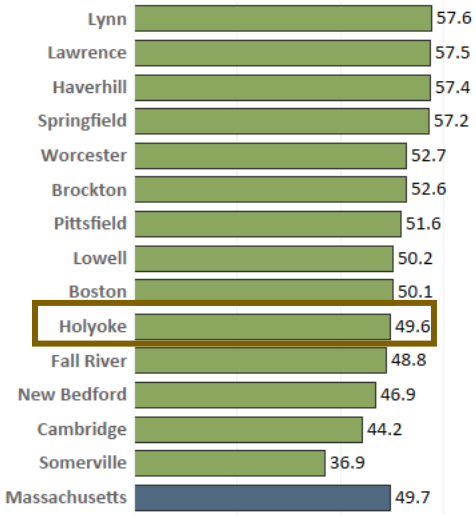
Source: 2018-2022 ACS 5-Year Estimates

Identifying cost-burdened families is crucial in understanding and addressing housing affordability issues. By identifying and assisting cost-burdened households, communities can work towards creating more equitable housing opportunities, reducing

poverty, and fostering economic stability. Further, addressing housing affordability challenges is not only crucial for individual households, but also for promoting broader societal goals, such as reducing inequality, promoting social mobility, and enhancing overall community resilience.

Of 16,743 housing units in Holyoke, approximately 90% are occupied, of which 42% are owner-occupied and 58% are renter-occupied. **Figure 9** shows that a higher percentage of renters in Holyoke, specifically 31.6%, allocate 30% or more of their income to housing costs, compared to homeowners, with approximately half, or 49.6%, facing a similar burden. Overall, the housing burden for in Holyoke is above the state average of renters (29.6%), while for homeowners it is 49.7% (**Figure 10**).

Figure 10: Homeowners Experiencing Housing Cost Burden (30%+ of income), 2018-2022

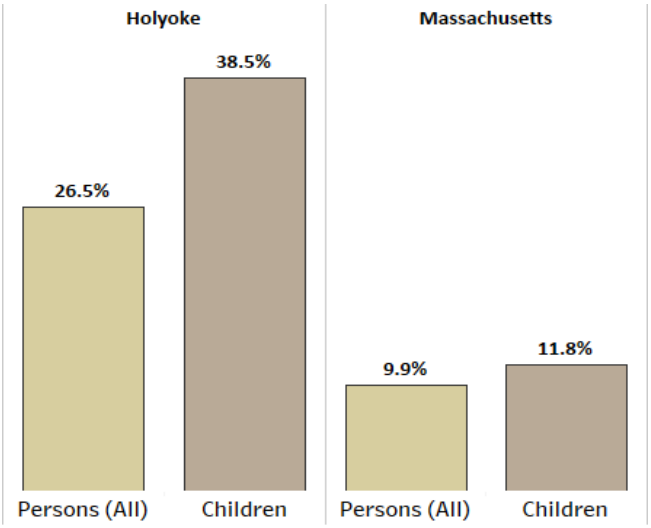


Source: 2018-2022 ACS 5-Year Estimates

Financial Hardship and Public Assistance

Financial hardship can be considered a state where individuals or communities are unable to afford the resources necessary for a minimum standard of living, often as a result of limited of income and or an inability to meet basic needs, such as adequate food, shelter, education, and healthcare. According to the U.S. Census, about 26.5% of all Holyoke residents and 38.5% of children (18 years of age and younger) are facing financial hardship, which is higher than the state rates (9.9% and 11.8%, respectively) (**Figure 11**). Moreover, families with a female householder and households with children under the age of 18 experienced higher rates of financial hardship (46.6%). Also, households with children aged five and younger had a similar rate of hardship, with 49.9% of them struggling financially.

Figure 11: Total Population and Children* Facing Financial Hardship, 2018-2022



Source: 2018-2022 ACS 5-Year Estimates
*Children are defined as those aged 18 and under

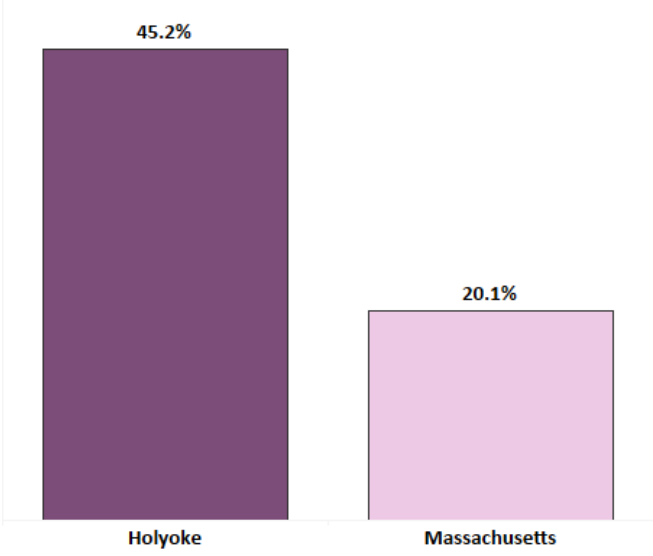
Regarding food assistance, about 35.4% of households in Holyoke received food stamp/ Supplemental Nutrition Assistance Program (SNAP) benefits within the past year. The rates for Black and

Hispanic/Latino households were 5.6% and 74.9% respectively. Additionally, households with children under the age of 18 and those led by a female head of household also had higher rates of SNAP benefits, with 43.6% and 33.7% respectively. The determination of SNAP benefits is based on income, household size, and expenses. The purpose of food assistance programs, such as SNAP, is to reduce hunger, improve nutrition, and support individuals and families who are experiencing financial difficulties.

Public Health Insurance

Health insurance coverage is a financial mechanism for covering an individual's healthcare expenses. It grants access to medical services, safeguards against high costs, and contributes to economic stability for individuals and families. While most Holyoke residents have some form of health insurance coverage (96.5%), specific segments of the community are more likely to be uninsured. This includes individuals who identify as Black/African American (6.9%), native-born (3.6%), individuals experiencing unemployment (13.3%) and those without a high school diploma (4.8%).

Figure 12: Public Health Insurance Coverage Rates, 2018-2022



Source: 2018-2022 ACS 5-Year Estimates

In the United States, public health insurance refers to government-sponsored health insurance programs such as Medicaid or Medicare that cover specific populations, such as seniors, economically vulnerable individuals, and people with disabilities, as well those requiring access to life-saving medical services and care such as dialysis treatment. It's important to note that public health insurance is distinct from private health insurance, typically provided by employers or purchased by individuals on the private market. **Figure 12** shows that approximately 45.2% of Holyoke residents have some form of public health insurance, slightly higher than for Massachusetts (20.1%).

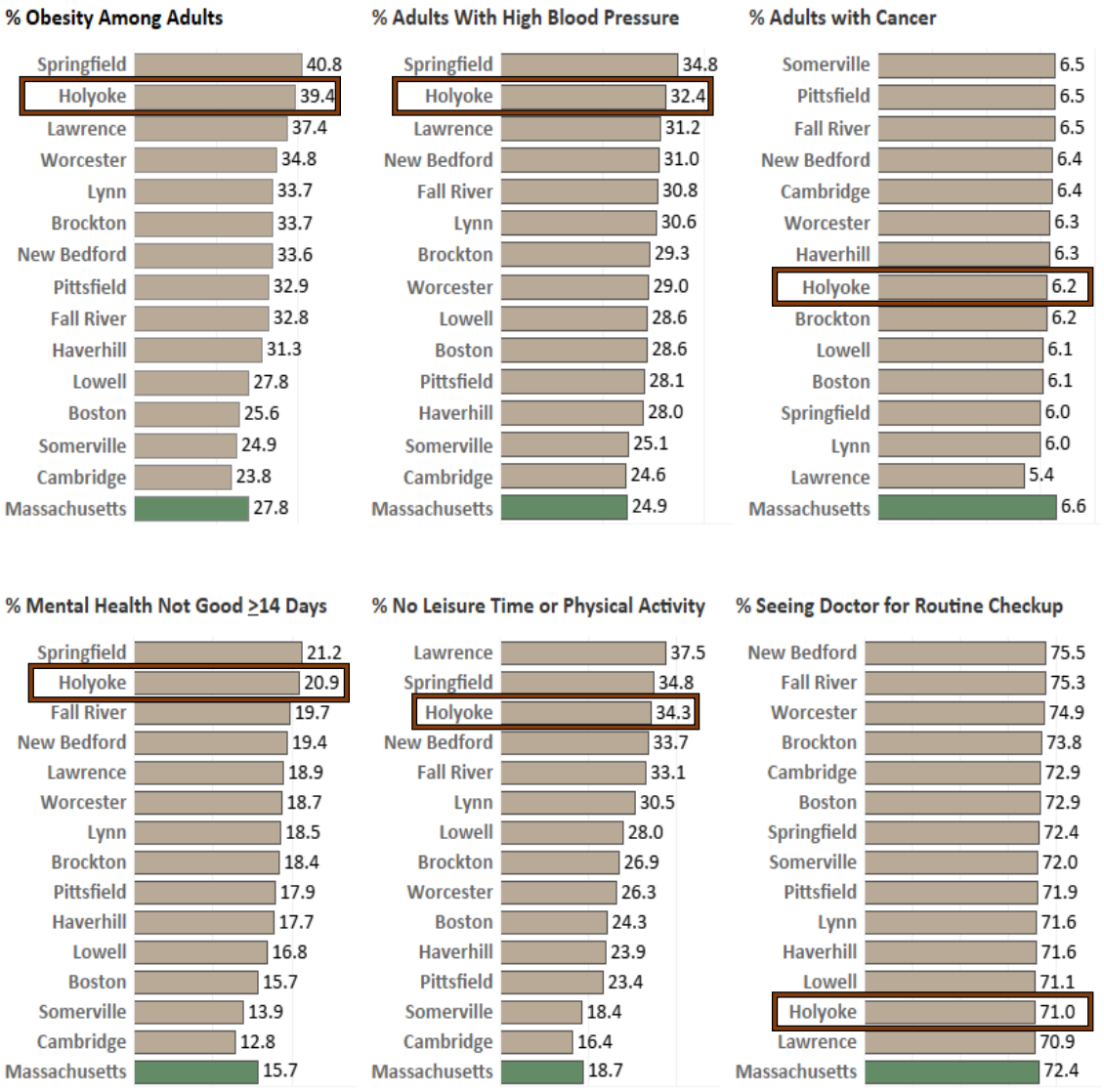
Health Outcomes and Status

Health status and health outcomes are two different concepts in the field of healthcare and public health. Health status refers to the overall condition of an individual's or a population's health at a particular point in time. It comprises several dimensions, including mental, physical, and social well-being. Health outcomes, on the other hand, are the specific results or consequences of healthcare or health interventions. **Figure 13** focuses on a subset of indicators that capture health status and health outcomes for Holyoke and the other thirteen priority communities.

The overall health status of Haverhill can be characterized by a mix of positive and negative indicators compared to the rest of Massachusetts. For example, Holyoke has higher rates than Massachusetts in terms of adults reporting high blood pressure (32.4%), obesity (39.4%), poor mental health (20.9%), and reporting no leisure time or physical activity (34.3%). Additionally, a lower percentage of people having

seen a medical provider for a routine check-up (71%) (compared to the rest of Massachusetts). However, Holyoke also reports a slightly lower percentage of adults with a diagnosis of cancer (6.2%).

Figure 13: Self-Reported Health Outcomes and Health Status for Persons Aged 18 and Older by City, 2020-2021



Source: Centers for Disease Control and Prevention, PLACES: Local Data for Better Health; Estimates for each measure are based on 2020 and 2021 Behavioral Risk Factor Surveillance System data.

The information provided offers a snapshot of specific health indicators in Holyoke but may not capture the full complexity of the city's overall health status. Further, it is important to understand that health outcomes are influenced by various factors, making it a complex issue. While the analysis provides insight into certain health indicators, a comprehensive understanding necessitates consideration of additional factors such as socioeconomic status, access to healthcare, and environmental influences.

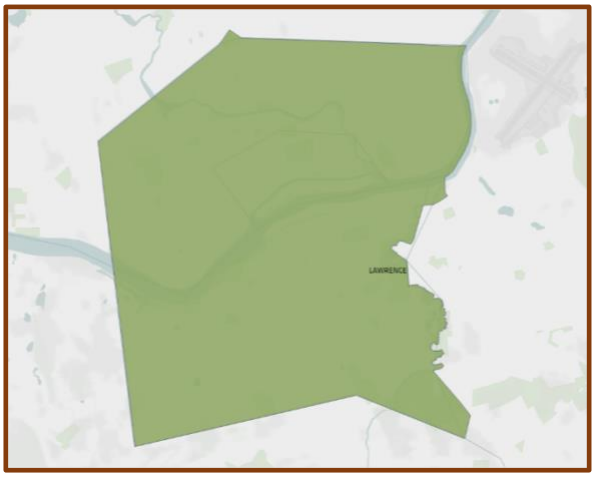
Moreover, continuous efforts in public health and preventive measures can bring about changes in these indicators over time.

Community Profile: Lawrence Massachusetts

Introduction

The following community profile prepared for Lawrence, Massachusetts, provides a high-level overview of the population's composition and characteristics. This brief is not intended as a comprehensive community profile but instead it is primarily designed to give context and support informed decision-making. It can also aid policymakers, planners, community leaders, and collaborators to understand and address a community's unique needs and challenges - for the individuals represented by this data have lived their lives in circumstances that are both influenced and constrained by economic factors, social context, and government policies. With this in mind, a significant portion of this report is dedicated to examining the social, economic, and community context in which residents live.

Figure 1: Geographic Boundary for Lawrence, Massachusetts



The profile for Lawrence also encompassed a review and analysis of secondary data. Secondary data refers to the data that has been collected for a different purpose. Analyzing secondary data helps us to understand patterns, establish a starting point, and recognize variations in populations and communities.

The social, demographic, economic, and health data sources including demographic data for this profile is from the U.S. Census Bureau's American Community Survey (ACS) 1 and 5-Year Estimates, 2018-2022; social vulnerability data is from the Agency for Toxic Substances and Disease Registry (ATDSR), and firearm-related incidents are from the Gun Violence Archive for years 2015 to 2023; Population health data is from the online data portal from the Centers for Disease Control and Prevention's online data portal PLACES: Local Data for Better Health based on 2020 and 2021 Behavioral Risk Factor Surveillance System (BRFSS) data. A description of each data source is located at the end of this report.

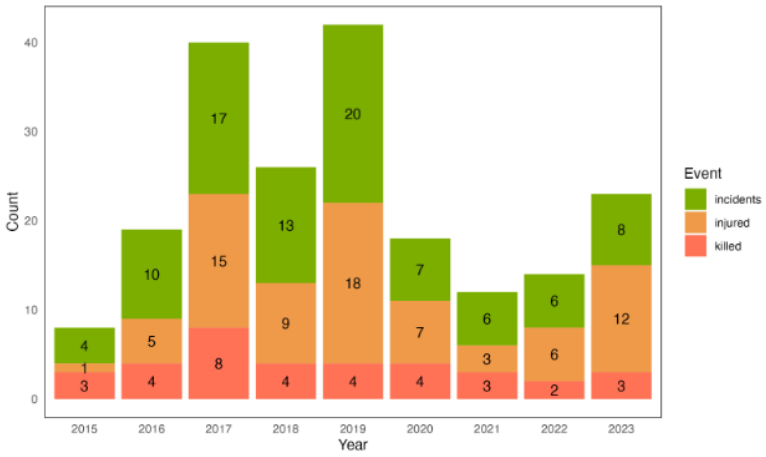
Data collection has limitations, as different sources use different ways of measuring similar variables. There may be a time lag, and data may not be available by specific population groups or at a more granular geographic level due to small sample sizes. In some cases, data from multiple years may have been aggregated to allow for more stable estimates.

The community profile begins with an overview of firearm-related incidents, followed by the status of social vulnerability and a review of population, housing, and economic characteristics as well selected measures for health status and outcomes.

In conclusion, this community profile is a foundational resource that underscores the significance of considering the broader socio-economic context and the impact of policies on residents' lives, highlighting the importance of data-driven strategies for fostering community well-being and resilience.

Firearm-Related Incidents, Deaths, and Injuries

Figure 2: Firearm-Related Incidents, Injuries and Fatalities, Lawrence, MA, 2015-2023*



Source: Gun Violence Archive, 2015 to 2023; *2023 data is only for January 2023 to November 2023; Reported averages have been rounded.

Firearm deaths continue to be a significant and growing public health problem in communities across the United States. Firearm-related incidents may include a range of events such as homicides, suicides, accidental discharges, and non-fatal injuries involving firearms. The number of firearm incidents is influenced by various factors, including gun ownership rates, gun control policies, socioeconomic conditions, and other social factors.

Overall, between January 2015 and November 2023, there were 91 firearm-related incidents in the city of Lawrence (an average of 10 per year) that cumulatively resulted in a total of 76 injuries and 35 fatalities. **Figure 2** shows the number of shooting incidents was the highest in 2019 (20 cases), resulting in 18 firearm-related injuries and 4 deaths. As for the year 2023, the data is incomplete as information regarding incidents for December is still pending, with 12 injuries and three fatalities reported across eleven months.

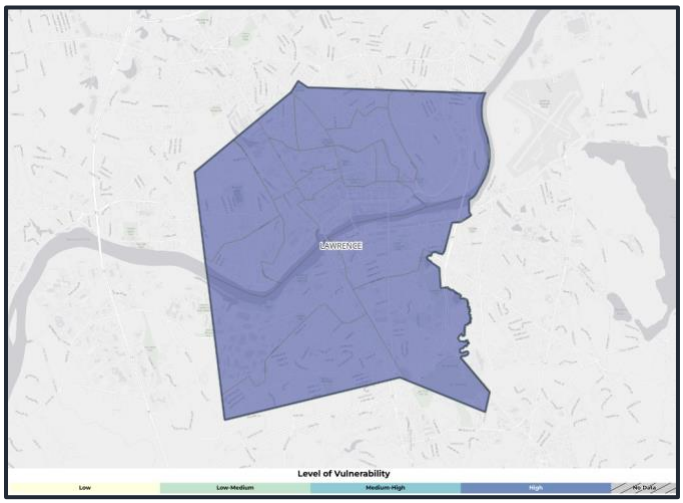
Social Vulnerability

The Social Vulnerability Index (SVI) is a measure used to assess the vulnerability of communities to natural or human-made disasters and emergencies. It considers various social, economic, and demographic factors affecting a community's ability to prepare for, respond to, and recover from disasters[7].

Emergency management agencies, researchers, and public health officials often use the index to identify and prioritize areas that may need additional support in a crisis.

As **Figure 3** shows, SVI is often represented as a map, with different areas shaded or colored to indicate their level of vulnerability. By identifying vulnerable communities, emergency

Figure 3: Social Vulnerability Index by Census Tract, Lawrence, MA, 2020



Source: Agency for Toxic Substances and Disease Registry, 2020

[7] The Social Vulnerability Index - At A Glance

planners can allocate resources more effectively and implement targeted interventions to enhance resilience and reduce the impact of disasters on these communities.

Overall, out of the 18 census tracts that fall within the geographical boundary of Lawrence, all 18 of them reflect an SVI ranging from medium-high to high (100%). This suggests that all of the census tracts exhibit characteristics associated with increased vulnerability.

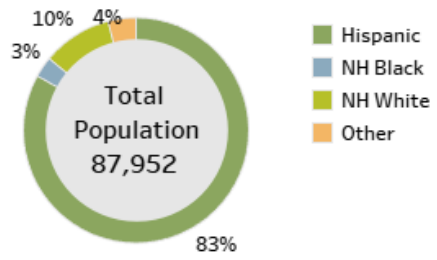
People residing in these areas may face challenges related to poverty, limited access to education and healthcare, social isolation, or other factors that hinder their ability to prepare for, respond to, and recover from adverse events. Furthermore, the overall SVI score for Essex County, which includes the cities of Lawrence, Haverhill, and Lynn, is **0.61**, similarly reflecting a medium to high level of vulnerability.

Sociodemographic Profile

According to the latest U.S. Census estimates, the population of Lawrence is 87,952. In 2020 U.S. Census recorded a population of 89,143 an increase of close to 17 percent (**16.7%)** from 2010, up from 76,377. However, since the population has declined by a rate of almost one and a half percent (**-1.3%**).

Figure 4 shows that approximately nine in ten residents in Lawrence identify as a racial or ethnic minority. The population in Lawrence is much more diverse than that in the broader state of Massachusetts, where approximately 63% of the state's population identifies as non-Hispanic white while nearly 37% self-identify as belonging to a racial or ethnic minority group. Additionally, almost half of Lawrence residents are foreign-born (46.6%), which is also much higher than the rest of Massachusetts (18%)

Figure 4: Race and Ethnicity, Lawrence, MA, 2018-2022



Source: 2022 ACS 1-Year Estimates

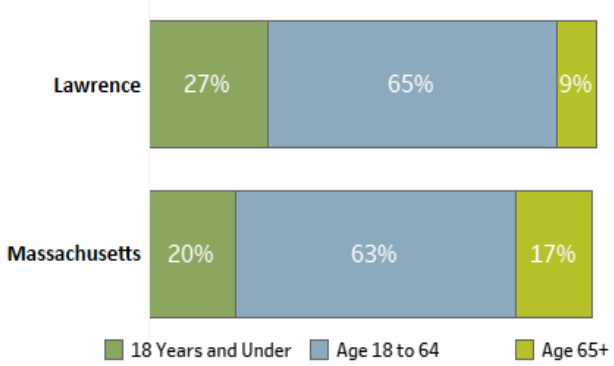
Age

Age is an important demographic indicator for understanding the age structure of a population, which has various implications for the community, such as healthcare demands, social services, workforce challenges, and other factors that are often associated with certain age groups. **Figure 5** shows that Lawrence has a slightly greater proportion of working-aged adults than the rest of the state (65%). The working-age group, typically defined as individuals aged 18 to 64, is considered an extremely important segment to society for several reasons, as they play a central role in economic, social, and demographic stability.

For example, within this age group, individuals are expected to be in the labor force, either employed or actively seeking employment. This age range also typically spans the years when individuals complete their education, enter the workforce, and continue working until they approach retirement age.

In summary, adults of working age are crucial to maintaining economic vitality, supporting public services, fostering social cohesion, and shaping demographic trends. Their well-being and productive engagement are essential for the prosperity and stability of communities.

Figure 5: Population by Age Category, 2022



Source: 2022 ACS 1-Year Estimates

Table 1 reveals Lawrence's median age at **31.0**, positioning it as one of the younger cities profiled for this assessment, trailing only behind Cambridge **(29.6)**. This figure contrasts with the statewide median age of 39.8 in Massachusetts. Lawrence's youthful demographic profile suggests a population that is generally skewed towards younger age groups and hints at underlying factors such as high birth rates, lower life expectancy, and a significant youth migration potentially driving the age structure of the population.

Table 1: Median Age by City, 2022

Pittsfield	44.6
Fall River	41.6
Massachusetts	39.8
Brockton	39.5
New Bedford	38.9
Haverhill	37.6
Lynn	37.2
Holyoke	36.5
Lowell	35.6
Springfield	33.9
Boston	33.3
Worcester	32.9
Somerville	31.4
Lawrence	31.0
Cambridge	29.6

Source: 2022 ACS 1-Year Estimates

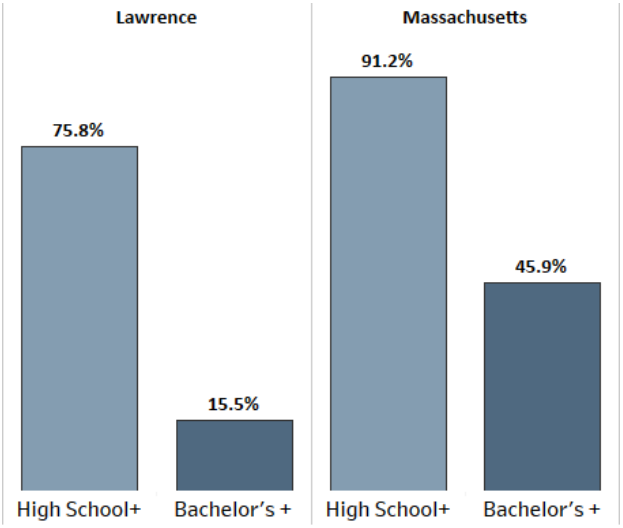
Another demographic measure that can provide insight into the structure of a population is the **dependency ratio**, which shows how many people depend on others for financial support, such as children and older people. A lower dependency ratio means that a more significant percentage of the population can support dependents, which can have positive economic effects. Conversely, a higher dependency ratio indicates that the working population is under more significant financial pressure to support dependents.

In Lawrence's case, the age dependency ratio is 54.8%, suggesting a moderate dependency level, which means there are more dependents relative to the working-age population. This figure is also lower than that of Massachusetts, which has a dependency ratio of 59.2%.

Education

The relationship between education and income is often positive, as individuals with higher levels of education tend to earn higher incomes on average. Additionally, while education can be a significant factor, it is not the sole determinant of income, and various factors contribute to an individual's overall financial situation. Regarding education, most residents in Lawrence aged 25 and older possess at least a high school diploma or higher (75.8%), with less than one in five residents obtaining a bachelor's degree or higher (15.5%) (**Figure 6**). Overall, when compared to the rest of Massachusetts, Lawrence has lower completion rates of completion for both high school and a four-year college degree.

Figure 6: Population Aged 25+ with High School & Bachelor's degree or Higher, 2022



Source: 2022 ACS 1-Year Estimates

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For example, Per capita income is a measure used to assess the average income earned per person in a given area over a specific period, typically a year. It is calculated by dividing the total income generated in the region by the total population. Per capita income reflects the overall income level within a community and the income distribution among its residents.

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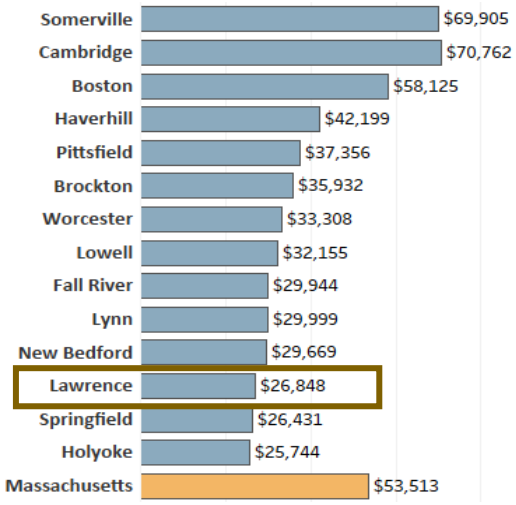

Source: 2022 ACS 1-Year Estimates

The median household income is a measure used to understand the typical income of a household. It identifies the income level that separates the higher-earning half of households from the lower-earning half. Unlike mean income, which extremely high or low values can influence, the median offers a better

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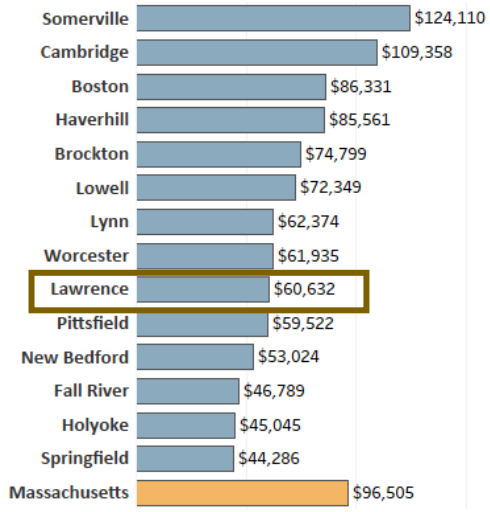

Source: 2022 ACS 1-Year Estimates

representation of the income distribution within a community. This metric can provide valuable insights into the economic well-being of households. Moreover, trends in median household income over time can indicate broader economic shifts and disparities within a community or region.

Median household income is intended to measure and understand the typical income of a household. **Figures 7 and 8** show how Lawrence compares for both per capita income (lower than the state rate) and household median income (also lower than the state rate) across the 14-cities profiled for this assessment.

Housing

Households are considered cost-burdened when they spend more than 30% of their income on housing-related expenses. These expenses include rent, mortgage payments, utilities, and other housing needs. The 30% threshold is based on the idea that spending beyond this limit on housing can strain household budgets and limit financial flexibility. When a significant portion of income goes towards housing costs, households may have fewer financial resources for other essential expenses such as food, healthcare, and education. This financial strain can lead to difficult trade-offs and compromises, ultimately affecting the overall well-being and quality of life.

Identifying cost-burdened families is crucial in understanding and addressing housing affordability issues. By identifying and assisting cost-burdened households, communities can work towards

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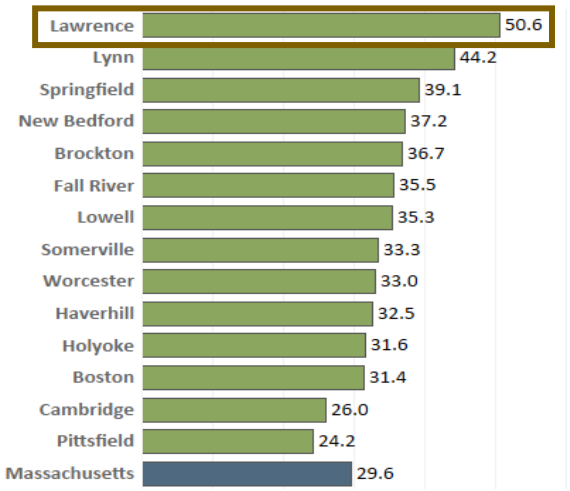
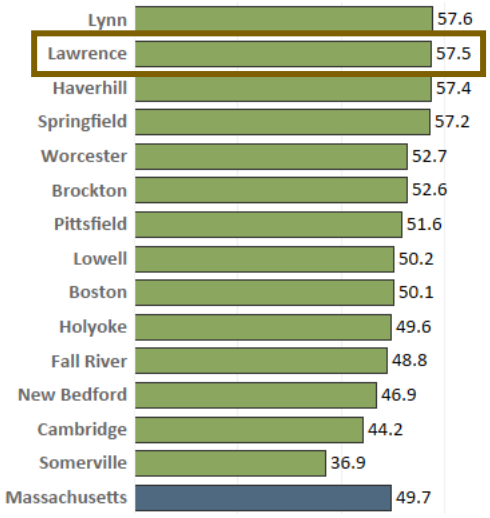


Source: 2022 ACS 1-Year Estimates

Figure 10: Homeowners Experiencing Housing Cost Burden (30%+ of income), 2022



Source: 2022 ACS 1-Year Estimates

creating more equitable housing opportunities, reducing poverty, and fostering economic stability. Further, addressing housing affordability challenges is not only crucial for individual households, but also for promoting broader societal goals, such as reducing inequality, promoting social mobility, and enhancing overall community resilience.

Of 30,711 housing units in Lawrence, approximately 97% are occupied, of which 29% are owner-occupied and 71% are renter-occupied. **Figure 9** shows that Lawrence has the highest percentage of renters (50.6%), that are allocating 30% or more of their income to housing costs. In terms of homeowners, almost six in ten, or 57.5%, are facing a similar burden in Lawrence. Overall, the housing burden for Lawrence is above the state average of renters (29.6%), while for homeowners it is 49.7% (**Figure 10**).

Financial Hardship and Public Assistance

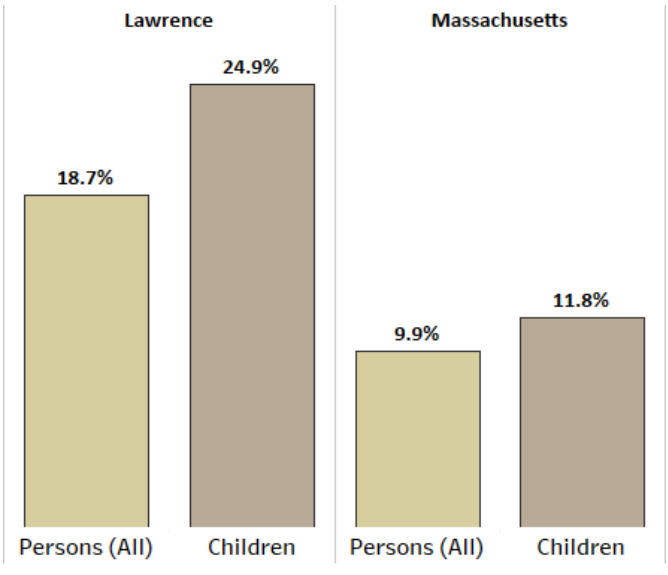
Financial hardship can be considered a state where individuals or communities are unable to afford the resources necessary for a minimum standard of living, often as a result of limited of income and or an inability to meet basic needs, such as adequate food, shelter, education, and healthcare.

According to the U.S. Census, about one in five adult residents (18.7%) and about a quarter of children (18 years of age and younger) (24.9%) in Lawrence are facing financial hardship, which is higher than the state rates (9.9% and 11.8%, respectively) (**Figure 11**).

Moreover, families with a female householder and households with children under the age of 18 experienced higher rates of financial hardship (29.6%). Also, households with children aged five and younger had a similar rate of hardship, with 24.4% of them struggling financially.

Regarding food assistance, about 41.7% of households in Lawrence received food

Figure 11: Total Population and Children* Facing Financial Hardship 2022



Source: 2022 ACS 1-Year Estimates*
Children are defined as those aged 18 and under

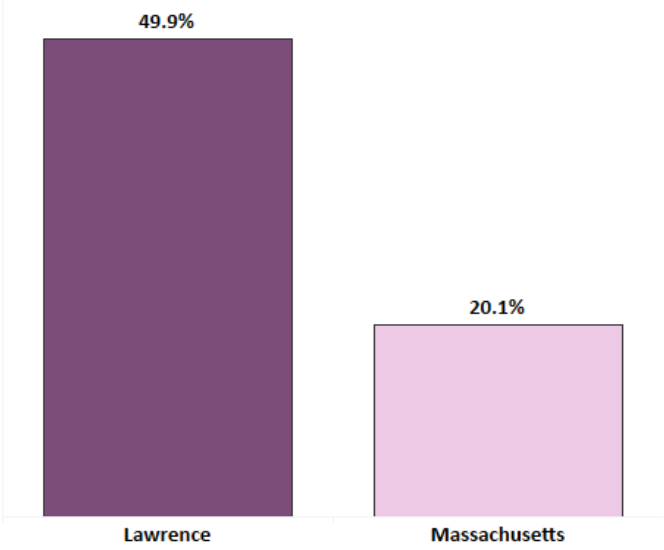
stamp/ Supplemental Nutrition Assistance Program (SNAP) benefits within the past year (about three times the rate for Massachusetts, 12.9%). SNAP rates were also highest for household that self-identified as Hispanic/Latino or Two ore More Races households were 90.8% and 59.5% respectively.

Additionally, households with children under the age of 18 and those led by a female head of household also had higher rates of SNAP benefits, with 50.0% and 8.6% respectively. The determination of SNAP benefits is based on income, household size, and expenses. The purpose of food assistance programs, such as SNAP, is to reduce hunger, improve nutrition, and support individuals and families who are experiencing financial difficulties.

Public Health Insurance

Health insurance coverage is a financial mechanism for covering an individual's healthcare expenses. It grants access to medical services, safeguards against high costs, and contributes to economic stability for individuals and families. While most Lawrence residents have some form of health insurance coverage (94.3%), specific segments of the community are more likely to be uninsured. This includes individuals who identify as Some other race alone (6.4%) or Hispanic (6.0%) those who are non-citizens (8.6%), individuals experiencing unemployment (12.5%) and those with a high school diploma (8.4%).

Figure 12: Public Health Insurance Coverage Rates, 2018-2022



Source: 2018-2022 ACS 5-Year Estimates

In the United States, public health insurance refers to government-sponsored health insurance programs such as Medicaid or Medicare that cover specific populations, such as seniors, economically vulnerable individuals, and people with disabilities, as well those requiring access to life-saving medical services and care such as dialysis treatment. It's important to note that public health insurance is distinct from private health insurance, typically provided by employers or purchased by individuals on the private market. **Figure 12** shows that approximately half (49.9%) of Lawrence residents have some form of public health insurance, which is over twice the rate for Massachusetts (20.1%).

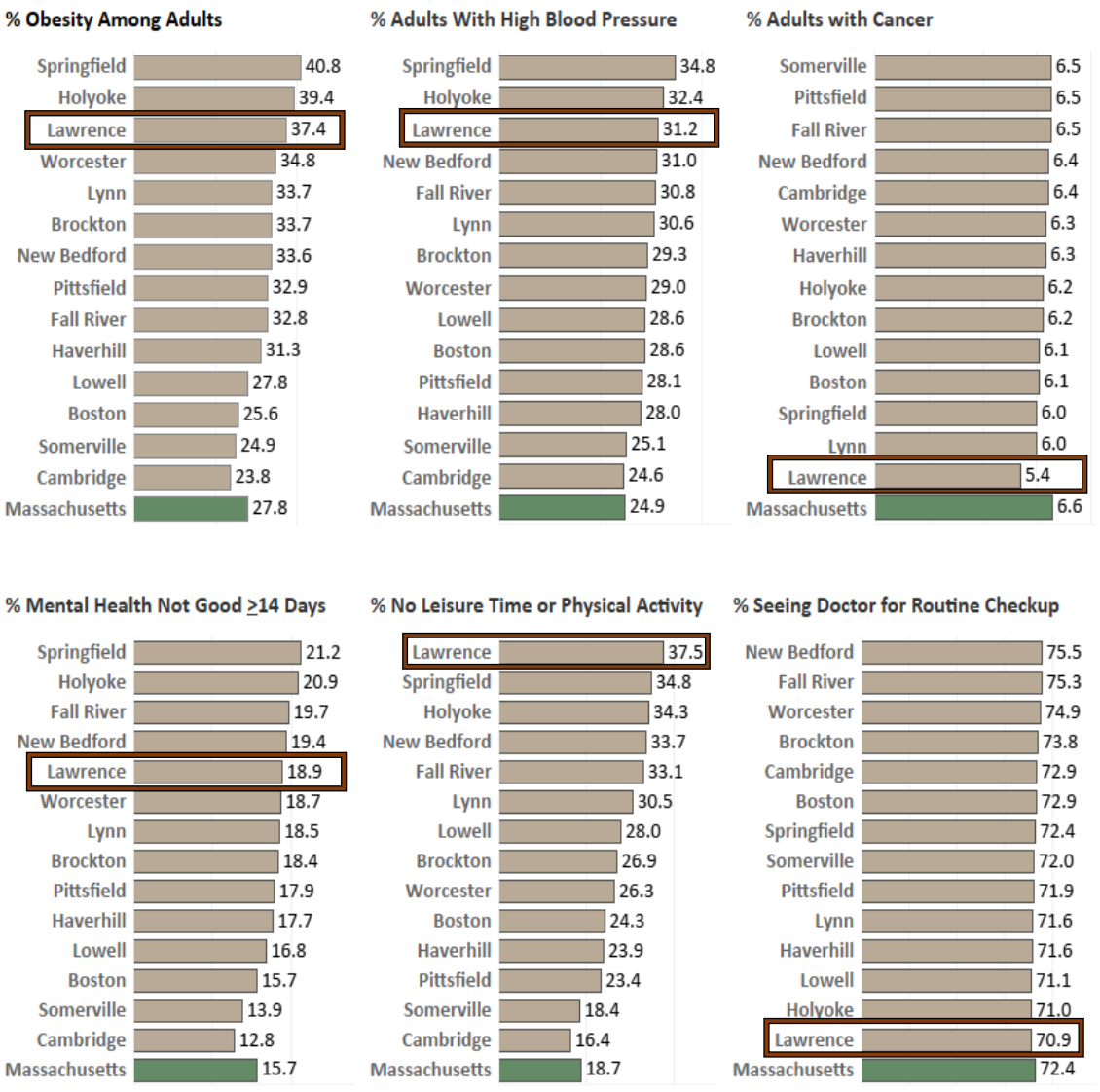
Health Outcomes and Status

Health status and health outcomes are two different concepts in the field of healthcare and public health. Health status refers to the overall condition of an individual's or a population's health at a particular point in time. It comprises several dimensions, including mental, physical, and social well-being. Health outcomes, on the other hand, are the specific results or consequences of healthcare or

health interventions. **Figure 13** focuses on a subset of indicators that capture health status and health outcomes for Lawrence and the other thirteen priority communities.

For example, Lawrence has higher rates of adults that are obese (37.4%), have high blood pressure (31.2%), reporting poor mental health (18.9%), with the highest rate for no leisure time or physical activity (37.5%). On the other hand, a lower percentage of adults in Lawrence report having been given a diagnosis of cancer (5.4%) compared to the rest of Massachusetts, with a relatively similar proportion of residents reporting having seen a medical provider for a routine checkup (70.9%). The information

Figure 13: Self-Reported Health Outcomes and Health Status for Persons Aged 18 and Older by City, 2020-2021



Source: Centers for Disease Control and Prevention, PLACES: Local Data for Better Health; Estimates for each measure are based on 2020 and 2021 Behavioral Risk Factor Surveillance System data.

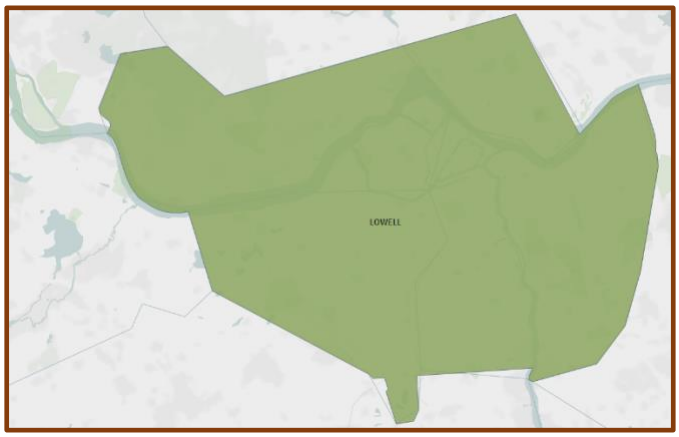
provided offers a snapshot of specific health indicators in Lawrence but may not capture the full complexity of the city's overall health status. Further, it is important to understand that health outcomes are influenced by various factors, making it a complex issue. While the analysis provides insight into certain health indicators, a comprehensive understanding necessitates consideration of additional factors such as socioeconomic status, access to healthcare, and environmental influences. Moreover, continuous efforts in public health and preventive measures can bring about changes in these indicators over time.

Community Profile: Lowell, Massachusetts

Introduction

The following community profile prepared for Lowell, Massachusetts, provides a high-level overview of the population's composition and characteristics. This brief is not intended as a comprehensive community profile but instead it is primarily designed to give context and support informed decision-making. It can also aid policymakers, planners, community leaders, and collaborators to understand and address a community's unique needs and challenges - for the individuals represented by this data have lived their lives in circumstances that are both influenced and constrained by economic factors, social context, and government policies. With this in mind, a significant portion of this report is dedicated to examining the social, economic, and community context in which residents live.

Figure 1: Geographic Boundary for Lowell, Massachusetts



The profile for Lowell also encompassed a review and analysis of secondary data. Secondary data refers to the data that has been collected for a different purpose. Analyzing secondary data helps us to understand patterns, establish a starting point, and recognize variations in populations and communities.

The social, demographic, economic, and health data sources including demographic data for this profile is from the U.S. Census Bureau's American Community Survey (ACS) 1 and 5-Year Estimates, 2018-2022; social vulnerability data is from the Agency for Toxic Substances and Disease Registry (ATDSR), and firearm-related incidents are from the Gun Violence Archive for years 2015 to 2023; Population health data is from the online data portal from the Centers for Disease Control and Prevention's online data portal PLACES: Local Data for Better Health based on 2020 and 2021 Behavioral Risk Factor Surveillance System (BRFSS) data. A description of each data source is located at the end of this report.

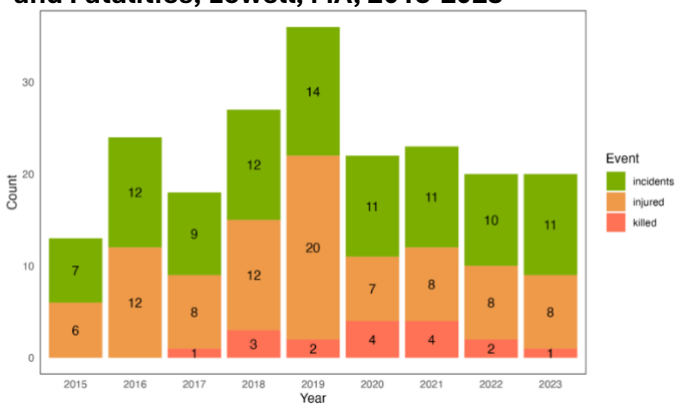
Data collection has limitations, as different sources use different ways of measuring similar variables. There may be a time lag, and data may not be available by specific population groups or at a more granular geographic level due to small sample sizes. In some cases, data from multiple years may have been aggregated to allow for more stable estimates.

The community profile begins with an overview of firearm-related incidents, followed by the status of social vulnerability and a review of population, housing, and economic characteristics as well selected measures for health status and outcomes.

In conclusion, this community profile is a foundational resource that underscores the significance of considering the broader socio-economic context and the impact of policies on residents' lives, highlighting the importance of data-driven strategies for fostering community well-being and resilience

Firearm-Related Incidents, Deaths, and Injuries

Figure 2: Firearm-Related Incidents, Injuries and Fatalities, Lowell, MA, 2015-2023*



Source: Gun Violence Archive, 2015 to 2023; *2023 data is only for January 2023 to November 2023. Reported averages have been rounded.

Firearm deaths continue to be a significant and growing public health problem in communities across the United States. Firearm incidents may include a range of events such as homicides, suicides, accidental discharges, and non-fatal injuries involving firearms. The number of firearm incidents is influenced by various factors, including gun ownership rates, gun control policies, socioeconomic conditions, and other social factors.

Figure 2 displays the number of shooting incidents that have occurred over the past eight years. In total, between January 2015 and November 2023, there were 97 firearm-related incidents in the city of Lowell. This averages out to be 11 incidents per year. These incidents resulted in a total of 89 injuries and 17 fatalities. The highest number of shooting incidents occurred in 2019, with a total of 14 incidents. This resulted in 20 firearm-related injuries and two fatalities. However, it's important to note that the data for the year 2023 is incomplete as information on incidents that occurred in December is still pending. So far, there have been eight injuries and two fatalities reported across the first eleven months of 2023.

Social Vulnerability

The Social Vulnerability Index (SVI) is a measure used to assess the vulnerability of communities to natural or human-made disasters and emergencies. It considers various social, economic, and demographic factors affecting a community's ability to prepare for, respond to, and recover from disasters[8]. Emergency management agencies, researchers, and public health officials often use the index to identify and prioritize areas that may need additional support in a crisis.

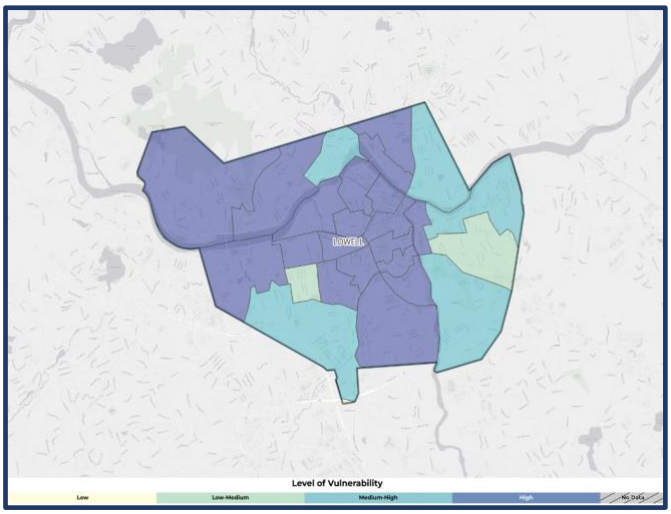
As **Figure 3** shows, SVI is often represented as a map, with different areas shaded or colored to indicate their level of vulnerability. By identifying vulnerable communities, emergency planners can allocate resources more effectively and implement targeted interventions to enhance resilience and reduce the impact of disasters on these communities.

[8] The Social Vulnerability Index - At A Glance

Overall, out of the 26 census tracts that fall within the geographical boundary of Lowell, a majority (24) reflect an SVI ranging from medium-high to high. This suggests that most of the census tracts exhibit characteristics associated with increased vulnerability

People residing in these areas may face less challenges related to poverty, limited access to education and healthcare, social isolation, or other factors that hinder their ability to prepare for, respond to, and recover from adverse events. In contrast, Middlesex County has an SVI score of **0.27**, which indicates a low to medium level of vulnerability.

Figure 3: Social Vulnerability Index by Census Tract, Lowell, MA , 2020



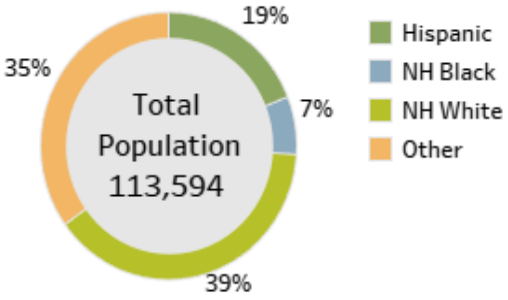
Source: Agency for Toxic Substances and Disease Registry, 2020

Sociodemographic Profile

According to the latest U.S. Census estimates, the population of Lowell is 113,594. In 2020 U.S. Census recorded a population of 115,554 an increase of just over twenty seven percent (**27.9%)** from 2010, up from 90,329. However, since the population has declined at a rate of almost two percent (**-1.7%**).

Figure 4 shows that in Lowell, about six in ten residents identify as a racial or ethnic minority (61%). Lowell has a more diverse population compared to the broader state of Massachusetts where 63% of the state's population identifies as non-Hispanic white while nearly 37% self-identify as belonging to a racial or ethnic minority group. Additionally, 33% of Lowell residents are foreign born which is also comparatively higher than the rest of Massachusetts (18%) while about 12% report moving to Lowell within the past year.

Figure 4: Race and Ethnicity, Lowell, MA, 2018-2022

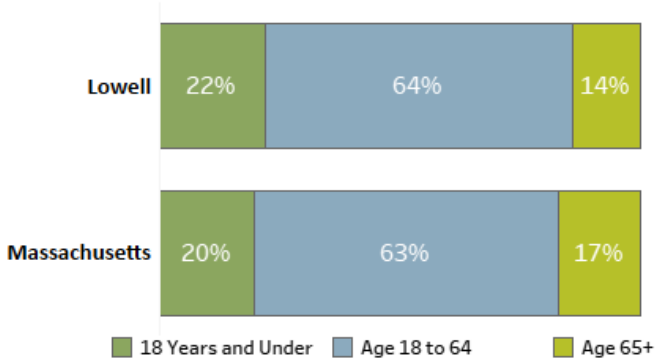


Source: 2022 ACS 1-Year Estimates

Age

Age is an important demographic indicator for understanding the age structure of a population, which has various implications for the community, such as healthcare demands, social services, workforce challenges, and other factors that are often associated with certain age groups.

Figure 5: Population by Age Category, 2022



Source: 2022 ACS 1-Year Estimates

Figure 5 shows that Lowell has relatively similar proportion of working- aged adults than the rest of the state (64%).

This age distribution suggests that a larger percentage of Lowell residents are of working age, i.e., between 18 and 64 years old, which is the age range during which individuals typically finish their education, enter the workforce, and continue working until they approach retirement age. Within this age group, individuals are expected to be in the labor force, either employed or actively seeking employment. generally expected to be in the labor force, either employed or actively seeking employment. This age range is chosen because it typically spans the years when individuals complete their education, enter the workforce, and continue working until they approach retirement age.

Table 1: Median Age by City, 2022

Pittsfield	44.6
Fall River	41.6
Massachusetts	39.8
Brockton	39.5
New Bedford	38.9
Haverhill	37.6
Lynn	37.2
Holyoke	36.5
Lowell	35.6
Springfield	33.9
Boston	33.3
Worcester	32.9
Somerville	31.4
Lawrence	31.0
Cambridge	29.6

Source: 2022 ACS 1-Year Estimates

Table 1 shows that Lowell's median age is 35.6, which is comparatively younger than the state (Massachusetts, median age 39.8) as well as to several other cities included in the assessment. Further, while Lowell's median age reflects a generally younger population, additional demographic indicators also suggest that the population of Lowell is leaning toward a younger age.

For example, the **dependency ratio** is a measure that shows how many people depend on others for financial support, such as children and the elderly. A lower dependency ratio means that a larger percentage of the population can support dependents, which can have positive economic effects. Conversely, a higher dependency ratio indicates that the working population is under greater financial pressure to support dependents.

In the case of Lowell, the age dependency ratio is **57.1%**, suggesting a moderate level of dependency, which means that there are more dependents relative to the working-age population. This figure is also slightly lower than that of Massachusetts, which has a dependency ratio of **59.2%.**

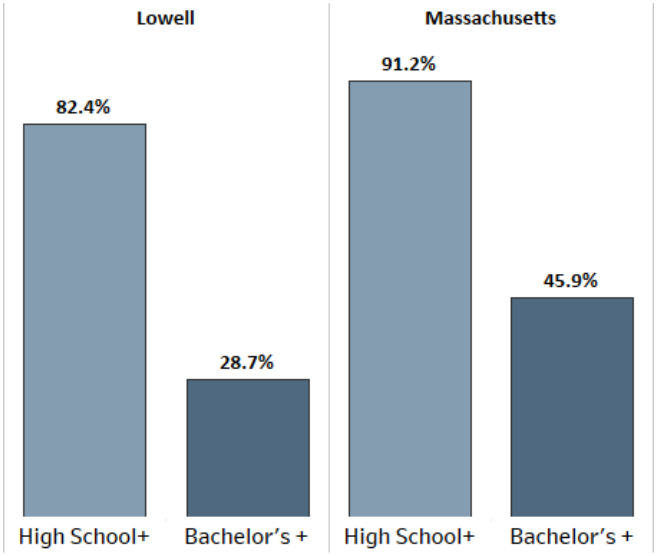
Education

The relationship between education and income is often positive, as individuals with higher levels of education tend to earn higher incomes on average. Additionally, while education can be a significant factor, it is not the sole determinant of income, and various factors contribute to an individual's overall financial situation.

In Lowell, a significant percentage of the population aged 25 and over have completed high school or higher education, with the number standing at 82.4%. However, only 28.7% of the residents have completed a bachelor's degree or higher.

These figures indicate that the rates of high school completion and attainment of a four-year college degree are lower in Lowell when compared to the rest of Massachusetts. degree or higher (28.7%) (**Figure 6**). Overall, when compared to the rest of Massachusetts, Lowell's rates for high school completion and for completing a four-year college degree are lower.

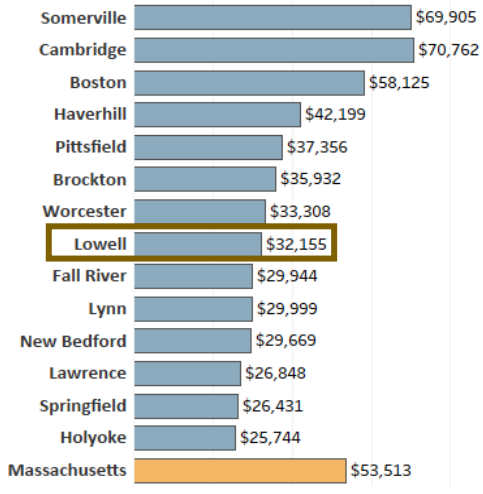
Figure 6: Population Aged 25+ with High School & Bachelor's Degree or Higher, 2022



Source: 2022 ACS 1-Year Estimates

Income

Figure 7: Per Capita Income by City, 2022



Source: 2022 ACS 1-Year Estimates

Per capita income and median household income are both important indicators used to measure the economic well-being of individuals and households in a given geographic area. Further, while they provide insight into the overall financial health of a region, they capture different aspects of income distribution.

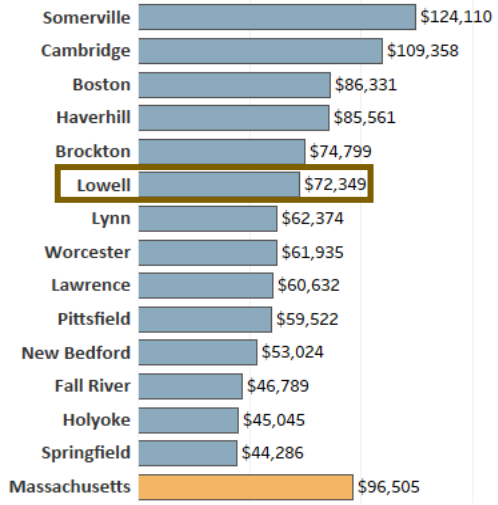
For example, Per capita income is a measure used to assess the average income earned per person in a given area over a specific period, typically a year. It is calculated by dividing the total income generated in the region by the total population. Per capita income reflects the overall income level within a community and the income distribution among its residents.

Disparities in per capita income can highlight inequalities and socioeconomic challenges within a population, guiding efforts to address poverty,

improve access to economic opportunities, and promote inclusive growth. Furthermore, per capita income is an essential indicator for assessing living standards, economic development, and the purchasing power of individuals within a community.

The median household income is a measure used to understand the typical income of a household. It identifies the income level that separates the higher-earning half of households from the lower-earning half. Unlike mean income, which extremely high or low values can influence, the median offers a better representation of the income distribution within a community. This metric can provide valuable insights into the economic well-being of households. Moreover, trends in median household income over time can indicate broader economic shifts and disparities within a community or region.

Figure 8: Median Household Income by City, 2022



Source: 2022 ACS 1-Year

Figures 7 and 8 show how Lowell compares for both per capita income (lower than the state rate and ranking in the middle when compared to other cities included in the assessment) and household median income (similarly, lower than the state rate) across the 14-cities profiled for this assessment.

Housing

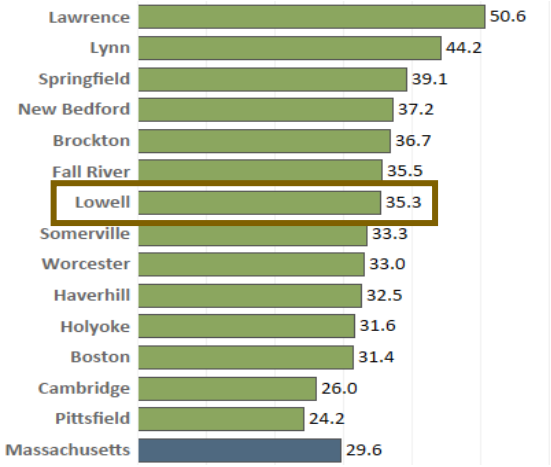
Households are considered cost-burdened when they spend more than 30% of their income on housing-related expenses. These expenses include rent, mortgage payments, utilities, and other housing needs. The 30% threshold is based on the idea that spending beyond this limit on housing can strain household budgets and limit financial flexibility. When a significant portion of income goes towards housing costs, households may have fewer financial resources for other essential expenses such as food, healthcare, and education. This financial strain can lead to difficult trade-offs and compromises, ultimately affecting the overall well-being and quality of life.

Identifying cost-burdened families is crucial in understanding and addressing housing affordability issues. By identifying and assisting cost-burdened households, communities can work towards creating more equitable housing opportunities, reducing poverty, and fostering economic stability. Further, addressing housing affordability challenges is not only crucial for individual households, but also for promoting

broader societal goals, such as reducing inequality, promoting social mobility, and enhancing overall community resilience.

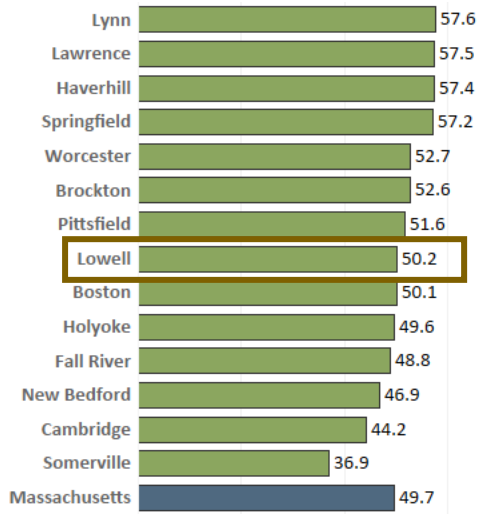
Of 42,944 housing units in Lowell, approximately 95% are occupied, of which 44% are owner-occupied and 56% are renter-occupied. **Figure 9** shows that a lower percentage of renters in Lowell, specifically about one in three (35.3%), allocate 30% or more of their income to housing costs, compared to homeowners, with approximately half, or 50.2%, facing a similar burden.

Figure 9: Renters Experiencing Housing Cost Burden (30%+ of income), 2022



Source: 2022 ACS 1-Year Estimates

Figure 10: Homeowners Experiencing Housing Cost Burden (30%+ of income), 2022



Source: 2022 ACS 1-Year Estimates

Overall, the housing burden for in Lowell is above the state average of renters (29.6%), while for homeowners it is 49.7% (**Figure 10**).

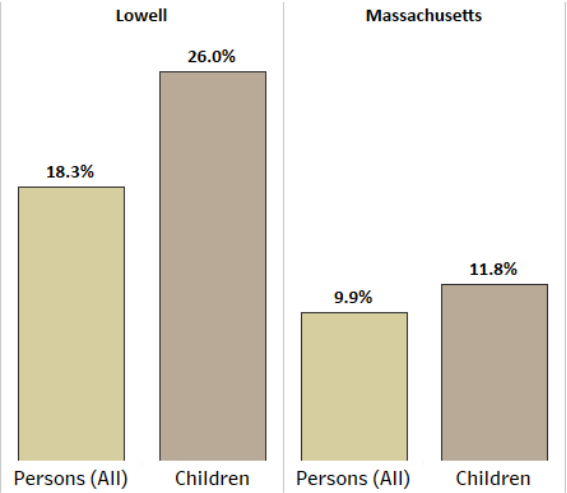
Financial Hardship and Public Assistance

Financial hardship can be considered a state where individuals or communities lack the resources necessary for a minimum standard of living and can often involve a lack of income and an inability to meet basic needs, such as adequate food, shelter, education, and healthcare.

According to the U.S. Census, about 18.3% of all Lowell residents and 26.0% of children (18 years of age and younger) are facing financial hardship, which is higher than the state rates (9.9% and 11.8%, respectively) (**Figure 11**).

Moreover, families with a female householder and households with children under the age of 18 experienced higher rates of financial hardship (21.7%). Also, households with children aged five and younger had a similar rate of hardship, with 26.9% of them struggling financially.

Figure 11: Total Population and Children* Facing Financial Hardship, 2022



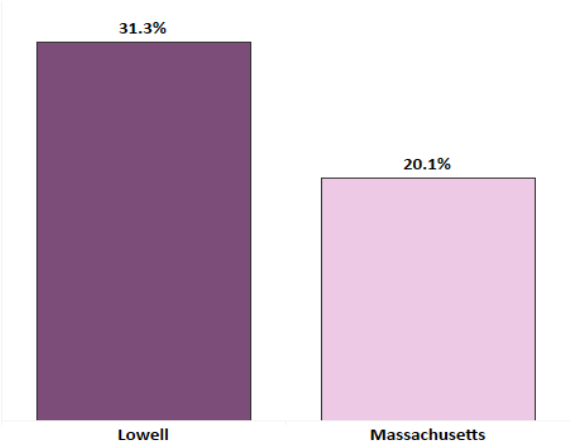
Source: 2022 ACS 1-Year Estimates
*Children are defined as those aged 18 and under

Regarding food assistance, about 24.2% of households in Lowell received food stamp/ Supplemental Nutrition Assistance Program (SNAP) benefits within the past year. The rates for Asian and Hispanic/Latino households were 23.9% and 24.9.0% respectively.

Additionally, households with children under the age of 18 and those led by a female head of household also had higher rates of SNAP benefits, with 46.8% and 24.4% respectively. The determination of SNAP benefits is based on income, household size, and expenses. The purpose of food assistance programs, such as SNAP, is to reduce hunger, improve nutrition, and support individuals and families who are experiencing financial difficulties.

Public Health Insurance

Figure 12: Public Health Insurance Coverage Rates, 2018-2022



Source: 2018-2022 ACS 5-Year Estimates

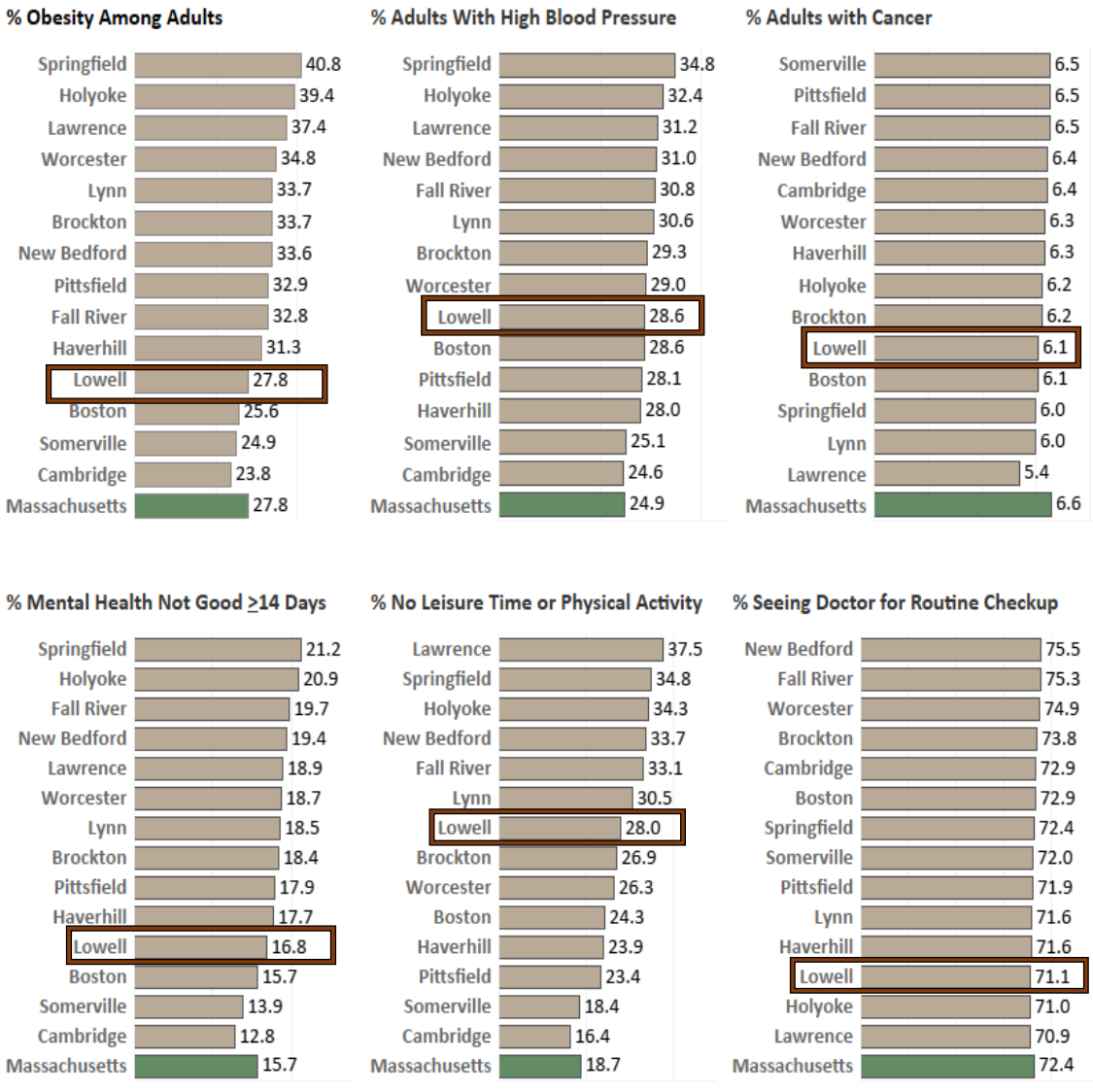
Health insurance coverage is a financial mechanism that covers an individual's healthcare expenses. It provides access to medical services, protects against high costs, and promotes economic stability for individuals and families. Although the majority of Lowell residents have some form of health insurance coverage (95.5%), specific segments of the community are more likely to be uninsured. This includes individuals who identify as Asian (7.1%) or White non-Hispanic (3.5%), those who are not U.S. citizens (10.1%), those without a high school diploma (6.7%), and those experiencing unemployment (40.6%) with the highest uninsured rates.

In the United States, public health insurance refers to government-sponsored health insurance programs such as Medicaid or Medicare that cover specific populations, such as seniors, economically vulnerable individuals, and people with disabilities, as well those requiring access to life-saving medical services and care such as dialysis treatment. It's important to note that public health insurance is distinct from private health insurance, typically provided by employers or purchased by individuals on the private market. **Figure 12** shows that approximately 31.3% of Lowell residents have some form of public health insurance, which is higher than the rate for Massachusetts (20.1%).

Health Outcomes and Status

Health status and health outcomes are two different concepts in the field of healthcare and public health. Health status refers to the overall condition of an individual's or a population's health at a particular point in time. It comprises several dimensions, including mental, physical, and social well-being. Health outcomes, on the other hand, are the specific results or consequences of healthcare or health interventions. **Figure 13** focuses on a subset of indicators that capture health status and health outcomes for Lowell and the other thirteen priority communities.

Figure 13: Self-Reported Health Outcomes and Health Status for Persons Aged 18 and Older by City, 2020-2021



Source: Centers for Disease Control and Prevention, PLACES: Local Data for Better Health; Estimates for each measure are based on 2020 and 2021 Behavioral Risk Factor Surveillance System data.

The obesity rate among adults in Lowell is similar to the state rate of Massachusetts, at 27.8%. However, Lowell has higher rates of adults with high blood pressure (28.6%), poor mental health (16.8%), and no leisure time or physical activity (28.0%) than the state's average. Rates of adults reporting being diagnosed with cancer and having seen a medical provider for a routine check-up are also generally similar to the state rate, at 6.1% and 71.1%, respectively.

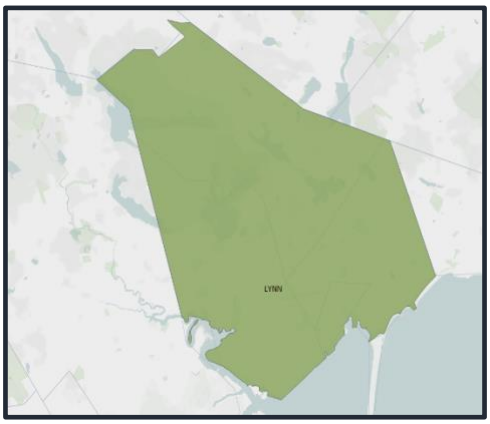
The information provided offers a snapshot of specific health indicators in Lowell but may not capture the full complexity of the city's overall health status. Further, it is important to understand that health outcomes are influenced by various factors, making it a complex issue. While the analysis provides insight into certain health indicators, a comprehensive understanding necessitates consideration of additional factors such as socioeconomic status, access to healthcare, and environmental influences. Moreover, continuous efforts in public health and preventive measures can bring about changes in these indicators over time.

Community Profile: Lynn, Massachusetts

Introduction

The following community profile prepared for Lynn, Massachusetts, provides a high-level overview of the population's composition and characteristics. This brief is not intended as a comprehensive community profile but Instead, it is primarily designed to give context and support informed decision-making. It can also aid policymakers, planners, community leaders, and collaborators to understand and address a community's unique needs and challenges - for the individuals represented by this data have lived their lives in circumstances that are both influenced and constrained by economic factors, social context, and government policies. With this in mind, a significant portion of this report is dedicated to examining the social, economic, and community context in which residents live.

Figure 1: Geographic Boundary for Lynn, Massachusetts



The profile for Lynn also encompassed a review and analysis of secondary data. Secondary data refers to the data that have already been collected for a different purpose. Analyzing secondary data helps us to understand patterns, establish a starting point, and recognize variations in populations and communities.

The social, demographic, economic, and health data sources including, demographic data for this profile is from the U.S. Census Bureau's American Community Survey (ACS) 1 and 5-Year Estimates, 2018-2022; social vulnerability data is from the Agency for Toxic Substances and Disease Registry (ATDSR), and firearm-related incidents are from the Gun Violence Archive for years 2015 to 2023; Population health data is from the online data portal from the Centers for Disease Control and Prevention's online data portal PLACES: Local Data for Better Health based on 2020 and 2021 Behavioral Risk Factor Surveillance System (BRFSS) data. A description of each data source is located at the end of this report.

Data collection has limitations, as different sources use different ways of measuring similar variables. There may be a time lag, and data may not be available by specific population groups or at a more granular geographic level due to small sample sizes. In some cases, data from multiple years may have been aggregated to allow for more stable estimates.

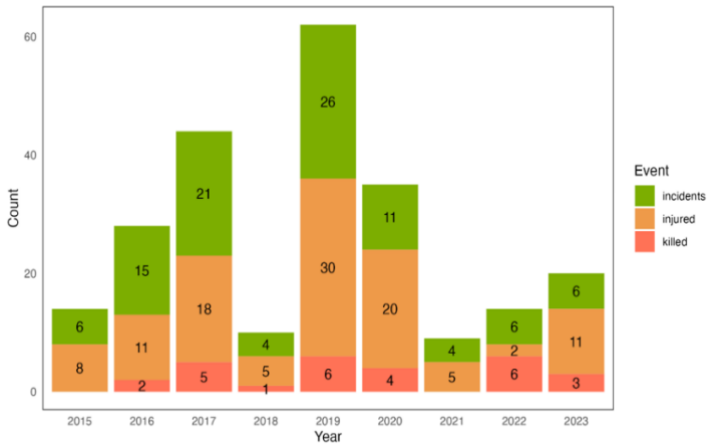
The community profile begins with an overview of firearm-related incidents, followed by the status of social vulnerability and a review of population, housing, and economic characteristics as well selected measures for health status and outcomes.

In conclusion, this community profile is a foundational resource that underscores the significance of considering the broader socio-economic context and the impact of policies on residents' lives, highlighting the importance of data-driven strategies for fostering community well-being and resilience.

Firearm-Related Incidents, Deaths, and Injuries

Firearm deaths continue to be a significant and growing public health problem in communities across the United States. Firearm incidents may include a range of events such as homicides, suicides, accidental discharges, and non-fatal injuries involving firearms.

Figure 2: Firearm-Related Incidents, Injuries and Fatalities, Lynn, MA, 2015-2023*



Source: Gun Violence Archive, 2015 to 2023; *2023 data is only for January 2023 to November 2023; Reported averages have been rounded.

The number of firearm incidents can be influenced by various factors, including gun ownership rates, gun control policies, socioeconomic conditions, and other social factors.

Figure 2 shows the number of shooting incidents for the past eight years. Between January 2015 and November 2023, there were a total of 99 firearm-related incidents in the city of Lynn (an average of 11 per year) that cumulatively resulted in a total of 110 injuries and 7 fatalities. In 2019, Lynn had the highest number of incidents involving firearms, with a total of 26. These incidents resulted in 30 injuries and six fatalities. Although the data for December's firearm incidents in 2023 is still pending, overall trends show a decrease in the number of people injured or killed in firearm-related events in Lynn since 2019.

Social Vulnerability

The Social Vulnerability Index (SVI) is a measure used to assess the vulnerability of communities to natural or human-made disasters and emergencies. It considers various social, economic, and demographic factors affecting a community's ability to prepare for, respond to, and recover from disasters[9].

Emergency management agencies, researchers, and public health officials often use the index to identify and prioritize areas that may need additional support in a crisis. The SVI is also considered an important tool for promoting equity and ensuring that emergency response efforts cater to the different needs of various populations within a region.

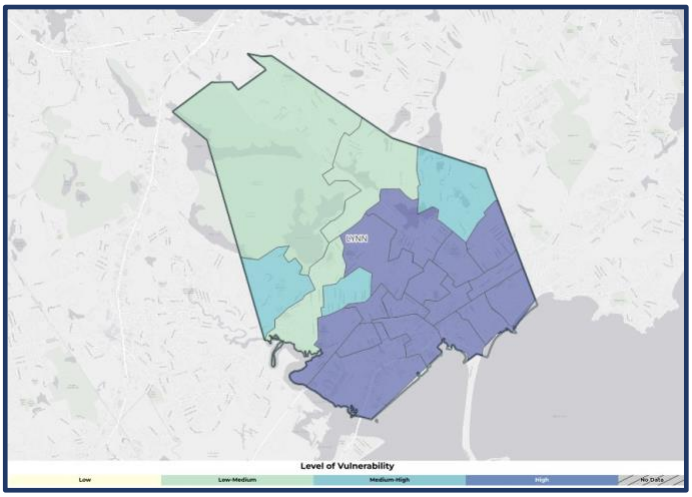
As **Figure 3** shows, SVI is often represented as a map, with different areas shaded or colored to indicate their level of vulnerability. By identifying vulnerable communities, emergency planners can allocate resources more effectively and implement targeted interventions to enhance resilience and reduce the impact of disasters on these communities.

[9] The Social Vulnerability Index - At A Glance

Overall, out of the 22 census tracts that fall within the geographical boundary of Lynn, a majority (19) reflect an SVI ranging from medium-high to high. This suggests that most of the census tracts exhibit characteristics associated with increased vulnerability.

The result is that people residing in these areas may face greater challenges related to poverty, limited access to education and healthcare, social isolation, or other factors that hinder their ability to prepare for, respond to, and recover from adverse events. Furthermore, the overall SVI score for Essex County, which includes the city of Lynn is **0.61** which similarly indicates a medium to high level of vulnerability for this area.

Figure 3: Social Vulnerability Index by Census Tract, Lynn, MA, 2020



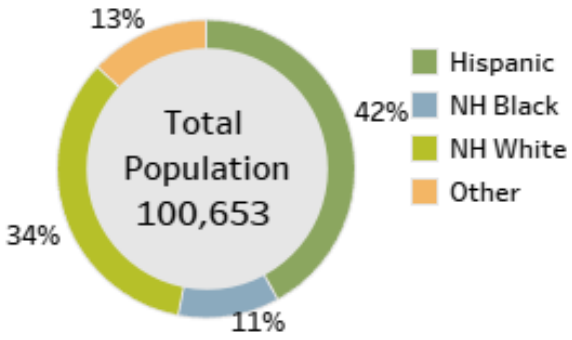
Source: Agency for Toxic Substances and Disease Registry, 2020

Sociodemographic Profile

According to the latest U.S. Census estimates, the population of Lynn is **100,653**. In 2020 U.S. Census recorded a population of 101,253 an increase of just slightly over 12 percent (12.1%) from 2010, up from 90,329. However, since the population has declined at a rate of less than half percent (-0.4%).

Figure 4 shows that in Lynn, almost seven in ten residents (66%) self-identify as a racial or ethnic minority. In fact, Lynn is considered to have a more diverse population when compared to the broader state of Massachusetts.

Figure 4: Race and Ethnicity,



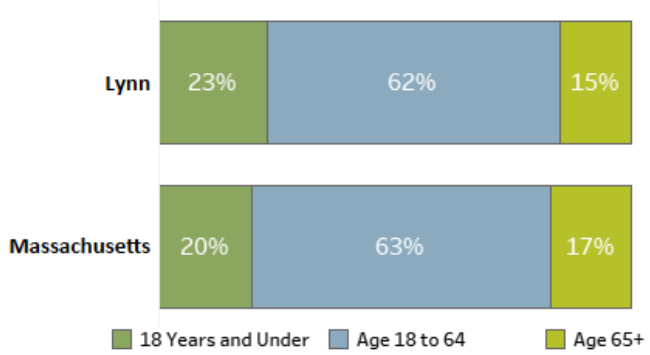
Source: 2022 ACS 1-Year Estimates

For example, approximately 63% of the state's population identifies as non-Hispanic white, while about one in three Lynn residents self-identify as NH White (34%). Additionally, 36.1% of Lynn residents are foreign-born, which is double the rate in Massachusetts (18%).

Age

Age is an important demographic indicator for understanding the age structure of a population, which has various implications for the community, such as healthcare demands, social services, workforce challenges, and other factors that are often associated with certain age groups.

Figure 5: Population by Age Category, 2022



Source: 2022 ACS 1-Year Estimates

Figure 5 shows that Lynn, like Massachusetts, has a similar proportion of working- aged adults (62% versus 63%, respectively).

The working-age group, typically defined as individuals aged 18 to 64, is considered an extremely important segment to society for several reasons, as they play a central role in economic, social, and demographic stability.

For example, within this age group, individuals are expected to be in the labor force, either employed or actively seeking employment. This age range also typically spans the years when individuals complete their education, enter the workforce, and continue working until they approach retirement age.

In summary, adults of working age are crucial to maintaining economic vitality, supporting public services, fostering social cohesion, and shaping demographic trends. Their well-being and productive engagement are essential for the prosperity and stability of communities.

Table 1: Median Age by City, 2022

Pittsfield	44.6
Fall River	41.6
Massachusetts	39.8
Brockton	39.5
New Bedford	38.9
Haverhill	37.6
Lynn	37.2
Holyoke	36.5
Lowell	35.6
Springfield	33.9
Boston	33.3
Worcester	32.9
Somerville	31.4
Lawrence	31.0
Cambridge	29.6

Source: 2022 ACS 1-Year Estimates

Table 1 shows that Lynn's median age is **37.2**, slightly younger than the state (Massachusetts, median age **39.8**) and ranks in the middle when compared to the other cities included in the assessment. Further, Lynn's median age reflects a moderately older population, but also indicates distinct demographic dynamics such as its dependency ratio.

The **dependency ratio** is a measure that shows how many people depend on others for financial support, such as children and the elderly. A lower dependency ratio means that a larger percentage of the population can support dependents, which can have positive economic effects. Conversely, a higher dependency ratio indicates that the working population is under greater financial pressure to support dependents.

In the case of Lynn, the age dependency ratio is 62.6%, suggesting a high level of dependency, which means that there are more dependents relative to the working-age population. This figure is also higher than that of Massachusetts, which has a dependency ratio of 59.2%.

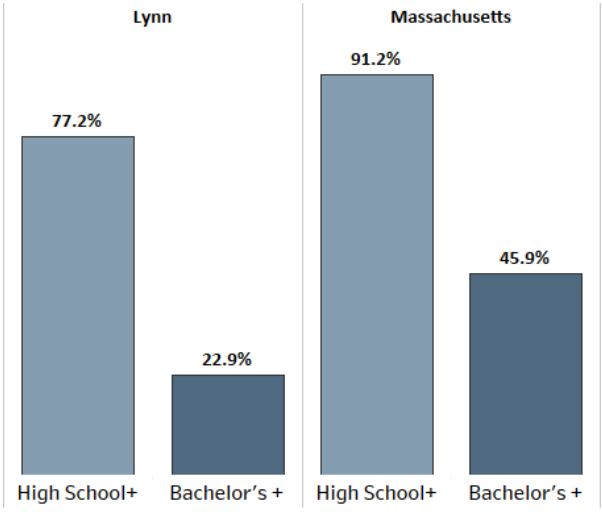
Education

The relationship between education and income is often positive, as individuals with higher levels of education tend to earn higher incomes on average. Additionally, while education can be a significant factor, it is not the sole determinant of income, and various factors can contribute to an individual's overall financial situation.

In terms of education, almost eight in ten residents in Lynn aged 25 and older possess at least a high school diploma or higher (77.2%), with just about one in four obtaining a bachelor's degree or higher (22.9%) (**Figure 6**).

Overall, when compared to the rest of Massachusetts, Lynn's rates for high school and college-degree are generally lower.

Figure 6: Population Aged 25+ with High School & Bachelor's degree or Higher, 2022



Source: 2022 ACS 1-Year Estimates

Income

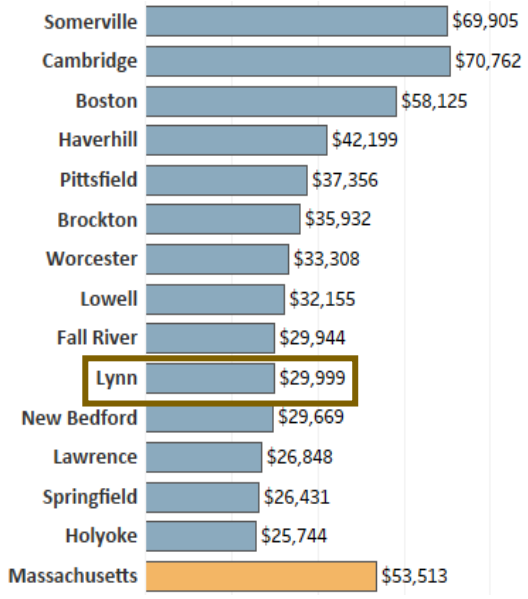
Per capita income and median household income are both important indicators used to measure the economic well-being of individuals and households in a given geographic area. Further, while they provide insights into the overall financial health of a region, they capture different aspects of income distribution. For example, Per capita income is a measure used to assess the average income earned per person in a given area over a specific period, typically a year. It is calculated by dividing the total income generated in the region by the total population. Per capita income reflects the overall income level within a community and the income distribution among its residents.

Disparities in per capita income can highlight inequalities and socioeconomic challenges within a population, guiding efforts to address poverty, improve access to economic opportunities, and promote inclusive growth. Furthermore, per capita income is an essential indicator for assessing living standards, economic development, and the purchasing power of individuals within a community.

The median household income is a measure used to understand the typical income of a household. It identifies the income level that separates the higher-earning half of households from the lower-earning half. Unlike mean income, which extremely high or low values can influence, the median offers a better representation of the income distribution within a community.

This metric can provide valuable insights into the economic well-being of households. Moreover, trends in median household income over time can indicate broader economic shifts and disparities within a community or region.

Figure 7: Per Capita Income by City, 2022

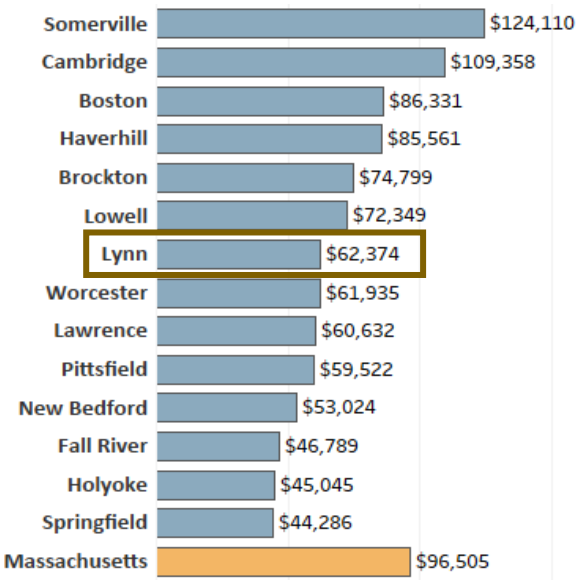


Source: 2022 ACS 1-Year Estimates

similarly, lower than the state rate).

Figures 7 and 8 show how Lynn compares for both per capita income (relatively lower than the state rate) and household median income (also

Figure 8: Median Household Income by City, 2022



Source: 2022 ACS 1-Year Estimates

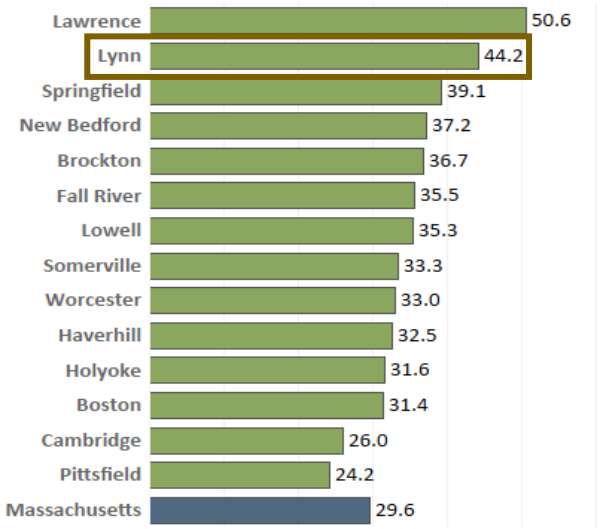
Housing

Households are considered cost-burdened when they spend more than 30% of their income on housing-related expenses. These expenses include rent, mortgage payments, utilities, and other housing needs. The 30% threshold is based on the idea that spending beyond this limit on housing can strain household budgets and limit financial flexibility. When a significant portion of income goes towards housing costs, households may have fewer financial resources for other essential expenses such as food, healthcare, and education. This financial strain can lead to difficult trade-offs and compromises, ultimately affecting the overall well-being and quality of life.

Identifying cost-burdened families is crucial in understanding and addressing housing affordability issues. By identifying and assisting cost-burdened households, communities can work towards creating more equitable housing opportunities, reducing poverty, and fostering economic stability. Further, addressing housing affordability challenges is not only crucial for individual households, but also for promoting broader societal goals, such as reducing inequality, promoting social mobility, and enhancing overall community resilience.

Of 38,202 housing units in Lynn, approximately 96% are occupied, and split evenly between owner-and renter-occupied (50% respectively). In terms of occupied units, **Figure 9** shows that Lynn has the second highest percentage of renters experiencing housing burden (44.2%) with more than half of Lynn homeowners (57.6%), facing a similar burden – in fact, the highest of all cities and townships profiled.

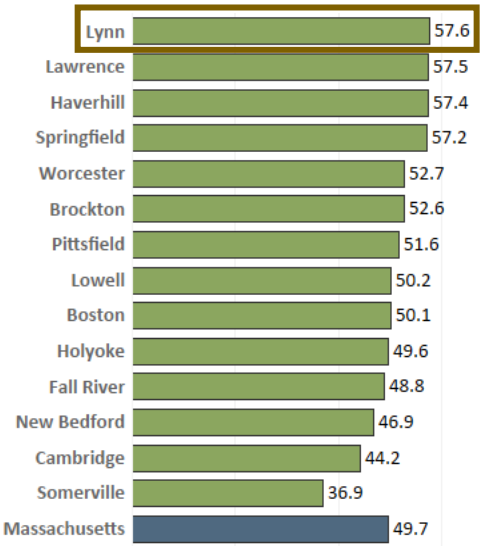
Figure 9: Renters Experiencing Housing Cost Burden (30%+ of income), 2022



Source: 2022 ACS 1-Year Estimates

Overall, across both indicators the housing burden for in Lynn is above the state average of renters (29.6%), and homeowners 49.7% **(Figure 10)**

Figure 10: Homeowners Experiencing Housing Cost Burden (30%+ of income), 2022



Source: 2022 ACS 1-Year Estimates

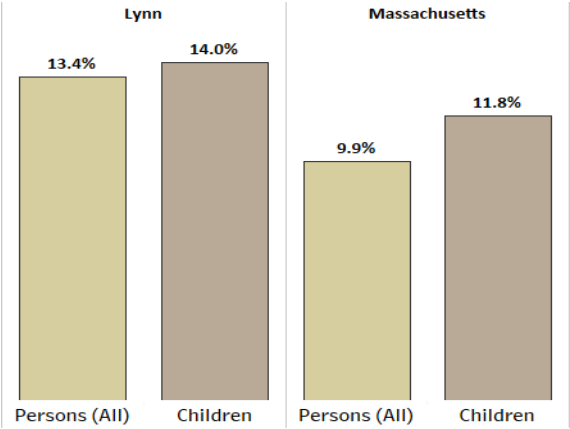
Financial Hardship and Public Assistance

Financial hardship can be considered a state where individuals or communities are unable to afford the resources necessary for a minimum standard of living, often as a result of limited of income and or an inability to meet basic needs, such as adequate food, shelter, education, and healthcare.

According to the U.S. Census, about 13.4% of all Lynn residents and 14% of children (18 years of age and younger) are facing financial hardship, which is higher than the state rates (9.9% and 11.8%, respectively) (**Figure 11**). Moreover, families with a female householder and households with children under the age of 18 experienced higher rates of financial hardship (28.2%). Also, households with children aged five and younger had a similar rate of hardship, with 34.8% of them struggling financially.

With respect to food assistance, the determination of Supplemental Nutrition Assistance Program (SNAP) benefits is based on income, household size, and expenses. The purpose of food assistance programs, such as SNAP, is to reduce hunger, improve nutrition, and support individuals and families who are experiencing financial difficulties.

Figure 11: Total Populationand Children* Facing Financial Hardship, 2022



Source: 2022 ACS 1-Year Estimates
*Children are defined as those aged 18 and under

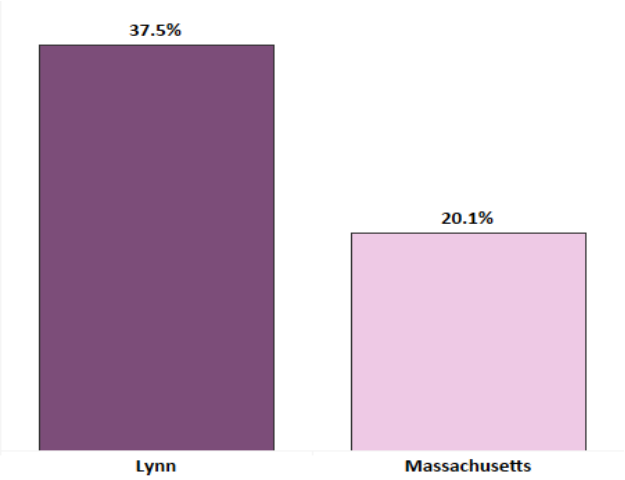
In Lynn, approximately 27.9% of households received food stamp or Supplemental Nutrition Assistance Program (SNAP) benefits in the past year. However, certain groups had a higher rate of receiving these benefits. For instance, households of Hispanic ethnicity (50.4%) and those identifying as some other race (24.2%), as well as households with children under 18 years of age and those headed by a female, had higher rates of SNAP benefits with 47.5% and 31.9% respectively.

Public Health Insurance

Health insurance coverage is a financial mechanism for covering an individual's healthcare expenses. It grants access to medical services, safeguards against high costs, and contributes to economic stability for individuals and families.

While most Lynn residents have some form of health insurance coverage (95.9%), specific segments of the community are more likely to be uninsured. This includes individuals who identify as American Indian or Alaskan Native (14.2%), not a U.S. citizen (10.7%), as well as individuals experiencing unemployment (12.1%).

Figure 12: Public Health Insurance Coverage Rates, 2018-2022



Source: 2018-2022 ACS 5-Year Estimates

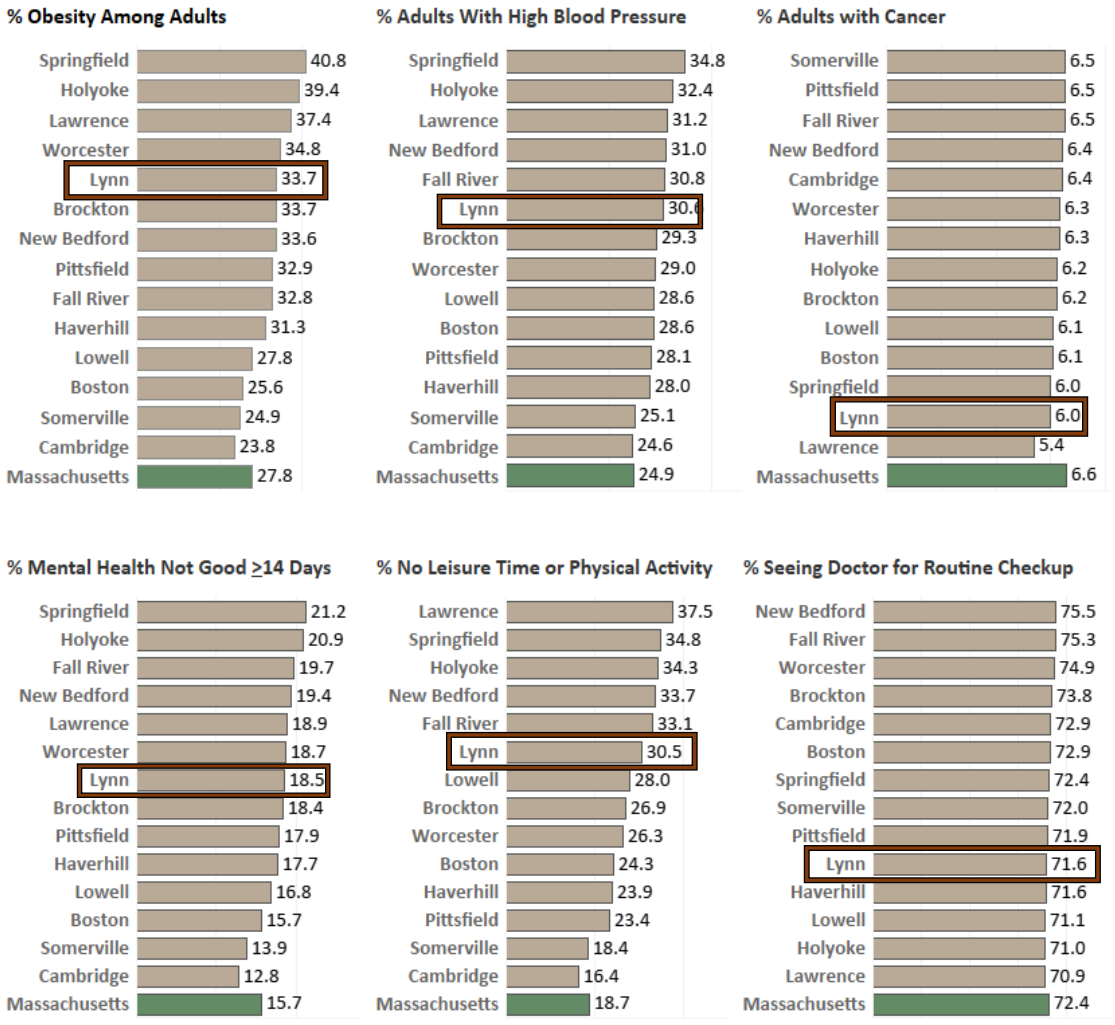
Public health insurance in the United States refers to government-sponsored health insurance programs such as Medicaid or Medicare that cover specific populations. These include seniors, economically vulnerable individuals, people with disabilities, as well as those who require access to life-saving medical services and care, such as dialysis treatment. It's important to note that public health insurance is different from private health

insurance, which is typically provided by employers or purchased by individuals on the private market. According to **Figure 12**, approximately 37.5% of Lynn residents have some form of public health insurance. This percentage is higher than the rate for Massachusetts, which is 20.1%.

Health Outcomes and Status

Health status and health outcomes are two different concepts in the field of healthcare and public health. Health status refers to the overall condition of an individual's or a population's health at a particular point in time. It comprises several dimensions, including mental, physical, and social well-being. Health outcomes, on the other hand, are the specific results or consequences of healthcare or health interventions. **Figure 13** focuses on a subset of indicators that capture health status and health outcomes for Lynn and the other thirteen communities included as part of this profile.

Figure 13: Self-Reported Health Outcomes and Health Status for Persons Aged 18 and Older by City, 2020-2021



Source: Centers for Disease Control and Prevention, PLACES: Local Data for Better Health; Estimates for each measure are based on 2020 and 2021 Behavioral Risk Factor Surveillance System data.

Overall, about one in three Lynn residents is obese (33.7%), while just under one-third of adults report having high blood pressure (30.6%) or report no leisure time or physical activity (30.5%). Compared to the rest of Massachusetts, a higher percentage of adults in Lynn report poor mental health (18.5%). While a similar percentage report having been diagnosed with Cancer (6.0%) and have seen a doctor for a routine medical check-up (71.6%). These health indicators highlight important areas for potential interventions and improvements within the community.

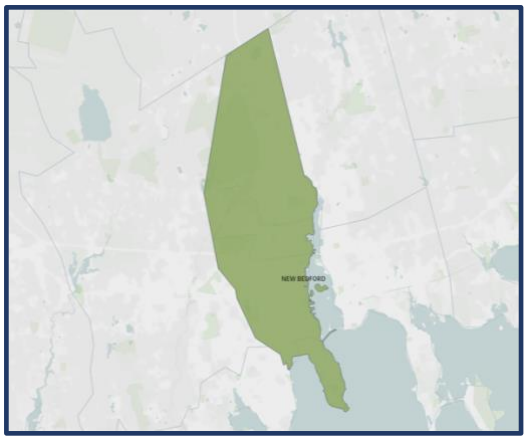
The information provided offers a snapshot of specific health indicators in Lynn but may not capture the full complexity of the city's overall health status. Further, it is important to understand that health outcomes are influenced by various factors, making it a complex issue. While the analysis provides insight into certain health indicators, a comprehensive understanding necessitates consideration of additional factors such as socioeconomic status, access to healthcare, and environmental influences. Moreover, continuous efforts in public health and preventive measures can bring about changes in these indicators over time.

Community Profile: New Bedford, Massachusetts

Introduction

The following community profile prepared for New Bedford, Massachusetts, provides a high-level overview of the population's composition and characteristics. This brief is not intended as a comprehensive community profile but instead it is primarily designed to give context and support informed decision-making. It can also aid policymakers, planners, community leaders, and collaborators to understand and address a community's unique needs and challenges - for the individuals represented by this data have lived their lives in circumstances that are both influenced and constrained by economic factors, social context, and government policies. With this in mind, a significant portion of this report is dedicated to examining the social, economic, and community context in which residents live.

Figure 1: Geographic Boundary for New Bedford, Massachusetts



The profile for New Bedford also encompassed a review and analysis of secondary data. Secondary data refers to the data that has been collected for a different purpose. Analyzing secondary data helps us to understand patterns, establish a starting point, and recognize variations in populations and communities.

The social, demographic, economic, and health data sources including demographic data for this profile is from the U.S. Census Bureau's American Community Survey (ACS) 1 and 5-Year Estimates, 2018-2022; social vulnerability data is from the Agency for Toxic Substances and Disease Registry (ATDSR), and firearm-related incidents are from the Gun Violence Archive for years 2015 to 2023; Population health data is from the online data portal from the Centers for Disease Control and Prevention's online data portal PLACES: Local Data for Better Health based on 2020 and 2021 Behavioral Risk Factor Surveillance System (BRFSS) data. A description of each data source is located at the end of this report.

Data collection has limitations, as different sources use different ways of measuring similar variables. There may be a time lag, and data may not be available by specific population groups or at a more granular geographic level due to small sample sizes. In some cases, data from multiple years may have been aggregated to allow for more stable estimates.

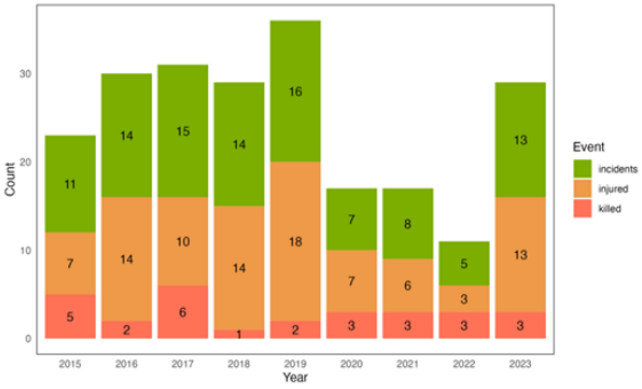
The community profile begins with an overview of firearm-related incidents, followed by the status of social vulnerability and a review of population, housing, and economic characteristics as well selected measures for health status and outcomes.

In conclusion, this community profile is a foundational resource that underscores the significance of considering the broader socio-economic context and the impact of policies on residents' lives, highlighting the importance of data-driven strategies for fostering community well-being and resilience.

Firearm-Related Incidents, Deaths, and Injuries

Firearm deaths continue to be a significant and growing public health problem in communities across the United States. Firearm-related incidents may include a range of events such as homicides, suicides, accidental discharges, and non-fatal injuries involving influenced by various factors, including gun ownership rates, gun control policies, socioeconomic conditions, and other social factors.

Figure 2: Firearm-Related Incidents, Injuries and Fatalities, New Bedford, MA, 2015-2023*,



Source: Gun Violence Archive, 2015 to 2023; *2023 data is only for January 2023 to November 2023; Reported averages have been rounded.

Figure 2 shows the number of shooting incidents for the past eight years, with 2019 having the highest number of firearm incidents (16), resulting in 18 firearm-related injuries and two deaths.

From January 2015 to November 2023, there have been 103 incidents involving firearms in the city of New Bedford, which averages to 11 incidents per year. The cumulative outcome of these incidents was 92 injuries and 28 fatalities, resulting in an average of three fatalities per year. As for the year 2023, the data is incomplete as information regarding incidents for December is still pending, with 13 injuries and three fatalities reported across eleven months.

Social Vulnerability

The Social Vulnerability Index (SVI) is a measure used to assess the vulnerability of communities to natural or human-made disasters and emergencies. It considers various social, economic, and demographic factors affecting a community's ability to prepare for, respond to, and recover from disasters[10].

Emergency management agencies, researchers, and public health officials often use the index to identify and prioritize areas that may need additional support in a crisis. The SVI is also considered an important tool for promoting equity and ensuring that emergency response efforts cater to the different needs of various populations within a region.

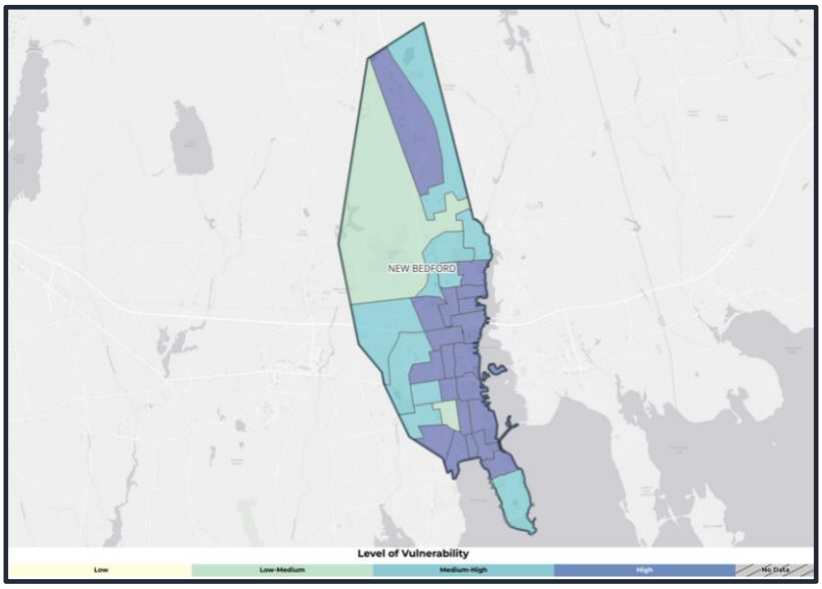
As **Figure 3** shows, SVI is often represented as a map, with different areas shaded or colored to indicate their level of vulnerability. By identifying vulnerable communities, emergency planners can allocate resources more effectively and implement targeted interventions to enhance resilience and reduce the impact of disasters on these communities. Overall, out of the 31 census tracts that fall within the geographical boundary of New Bedford, the vast majority (29)- reflect an SVI ranging from medium-high to high. This suggests that most of the census tracts exhibit characteristics associated with increased vulnerability.

[10] The Social Vulnerability Index - At A Glance

The potential impact of this type of elevated risk is that residents in certain areas may be more vulnerable to adverse events due to challenges related to poverty, limited access to education and healthcare, social isolation, and other factors.

For instance, people residing in these areas may face issues related to poverty, limited access to education and healthcare, social isolation, or other factors that may hinder their ability to prepare for, respond to, and recover from any negative situation.

Figure 3: Social Vulnerability Index by Census Tract, New Bedford, MA



Source: Agency for Toxic Substances and Disease Registry, 2020

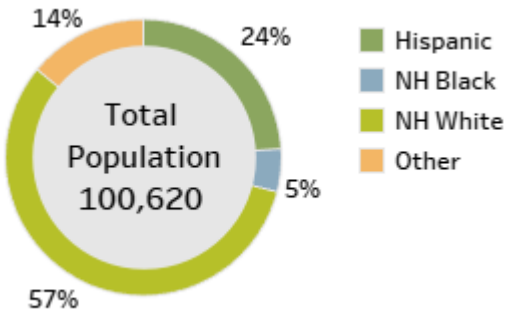
Further, the overall SVI score for Bristol County, which includes the cities of New Bedford, Fall River, Somerset, and Taunton, is **0.59**, similarly indicating a medium to high level of vulnerability for this area.

Sociodemographic Profile

According to the latest U.S. Census estimates, the population of New Bedford is **100,620**. In 2020 U.S. Census recorded a population of 101,079 an increase of almost six percent (**6.3%**) from 2010, up from 95,072. However, since the population has declined at a rate of less than half a percent (**-0.4%**).

Figure 4 illustrates that in New Bedford, about 43% of the population identifies as belonging to a racial or ethnic minority. However, New Bedford still has a more diverse population compared to the rest of Massachusetts, where approximately 63% of the population identify as non-Hispanic white, and almost 37% identify as belonging to a racial or ethnic minority group.

Figure 4: Race and Ethnicity, New Bedford, MA, 2018-2022



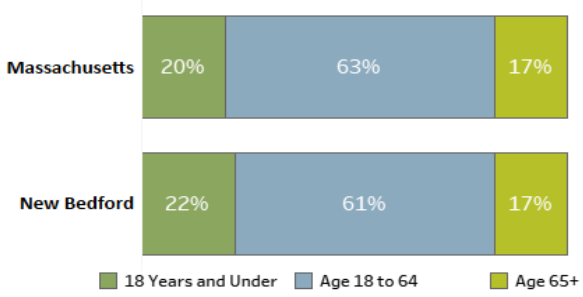
Source: 2022 ACS 1-Year Estimates

Additionally, 22.4% of New Bedford's residents are foreign-born, comparatively higher than the rest of Massachusetts (18%).

Age

Age is an important demographic indicator for understanding the age structure of a population, which has various implications for the community, such as healthcare demands, social services, workforce challenges, and other factors that are often associated with certain age groups.

Figure 5: Population by Age Category, 2022



Source: 2022 ACS 1-Year Estimates

Figure 5 shows that New Bedford has a slightly lower proportion of working-aged (i.e., aged 18 to 64) adults than the rest of the state (61% versus 63% respectively). According to this age distribution, it appears that a smaller percentage of New Bedford residents fall within the working age bracket - the phase in life when people complete their education, enter the workforce, and continue working until they approach retirement age.

Table 1: Median Age by City, 2022

Pittsfield	44.6
Fall River	41.6
Massachusetts	39.8
Brockton	39.5
New Bedford	38.9
Haverhill	37.6
Lynn	37.2
Holyoke	36.5
Lowell	35.6
Springfield	33.9
Boston	33.3
Worcester	32.9
Somerville	31.4
Lawrence	31.0
Cambridge	29.6

Source: 2022 ACS 1-Year Estimates

This demographic is typically expected to participate in the labor market by being employed or actively seeking employment opportunities.

In summary, adults of working age are crucial to maintaining economic vitality, supporting public services, fostering social cohesion, and shaping demographic trends. Their well-being and productive engagement are essential for the prosperity and stability of communities.

Table 1 shows that New Bedford's median age is **38.9**, which is comparatively older than that of most other cities included in this assessment and similar to the state (Massachusetts, median age **39.8**).

Further, New Bedford's median age reflects an older population, but also indicates distinct demographic dynamics such as its dependency ratio.

For example, the **dependency ratio** is a measure that shows how many people depend on others for financial support, such as children and the elderly. A lower dependency ratio means that a larger percentage of the population can support dependents, which can have positive economic effects. Conversely, a higher dependency ratio indicates that the working population is under greater financial pressure to support dependents.

In the case of New Bedford, the age dependency ratio is 63.1%, suggesting a higher level of dependency, which means that there are more dependents relative to the working-age population. This figure is also higher than Massachusetts, which has a dependency ratio of 59.2%.

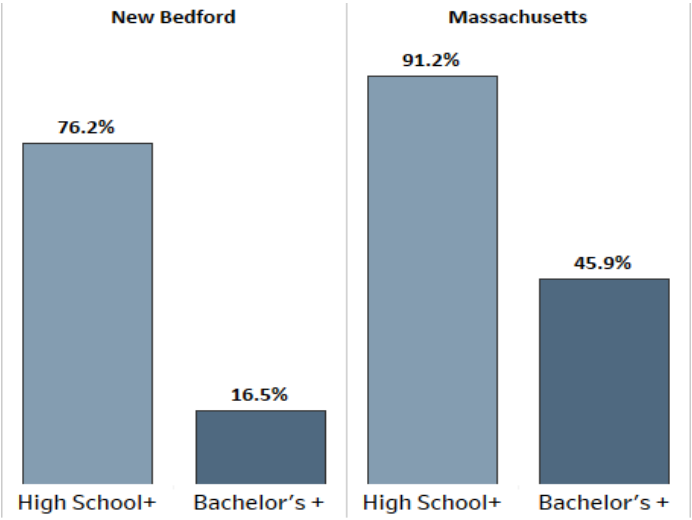
Education

The relationship between education and income is often positive, as individuals with higher levels of education tend to earn higher incomes on average. Additionally, while education can be a significant factor, it is not the sole determinant of income, and various factors contribute to an individual's overall financial situation.

In terms of education, a majority of residents in New Bedford aged 25 and older have at least a high school diploma or higher (76.2%), with a smaller proportion having completed a bachelor's degree or higher (16.5%) (**Figure 6**).

Overall, when compared to the rest of Massachusetts, New Bedford's rates for high school and college-degree completion are generally lower.

Figure 6: Population Aged 25+ with High School & Bachelor's degree or Higher, 2022



Source: 2022 ACS 1-Year Estimates

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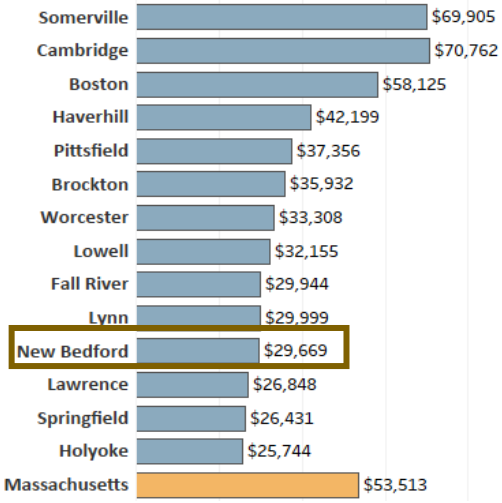
The median household income is a measure used to understand the typical income of a household. It identifies the income level that separates the higher-earning half of households from the lower-earning

Figure 7: Per Capita Income by City, 2022



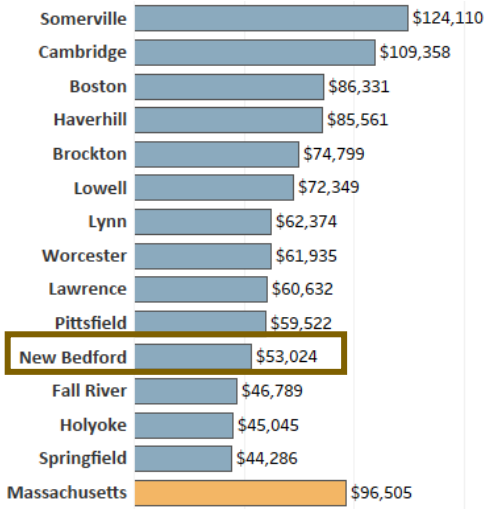
Source: 2022 ACS 1-Year Estimates

lower than the state rate) across the 14-cities profiled for this assessment.

half. Unlike mean income, which extremely high or low values can influence, the median offers a better representation of the income distribution within a community. This metric can provide valuable insights into the economic well-being of households. Moreover, trends in median household income over time can indicate broader economic shifts and disparities within a community or region.

Figures 7 and **8** show how New Bedford compares for both per capita income (lower than the state rate) and household median income (similarly,

Figure 8: Median Household Income by City, 2022



Source: 2022 ACS 1-Year Estimates

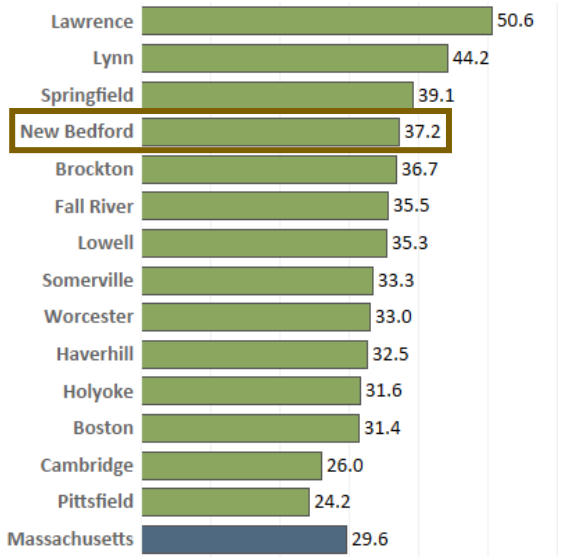
Housing

Households are considered cost-burdened when they spend more than 30% of their income on housing-related expenses. These expenses include rent, mortgage payments, utilities, and other housing needs. The 30% threshold is based on the idea that spending beyond this limit on housing can strain household budgets and limit financial flexibility. When a significant portion of income goes towards housing costs, households may have fewer financial resources for other essential expenses such as food, healthcare, and education. This financial strain can lead to difficult trade-offs and compromises, ultimately affecting the overall well-being and quality of life.

Identifying cost-burdened families is crucial in understanding and addressing housing affordability issues. By identifying and assisting cost-burdened households, communities can work towards creating more equitable housing opportunities, reducing poverty, and fostering economic stability. Further, addressing housing affordability challenges is not only crucial for individual households, but also for promoting broader societal goals, such as reducing inequality, promoting social mobility, and enhancing overall community resilience. Identifying cost-burdened families is vital in understanding and addressing

housing affordability issues. Of 46,956 housing units in New Bedford, approximately 94% are occupied, of which 39% are owner-occupied and 61% are renter-occupied.

Figure 9: Renters Experiencing Housing Cost Burden (30%+ of income), 2022

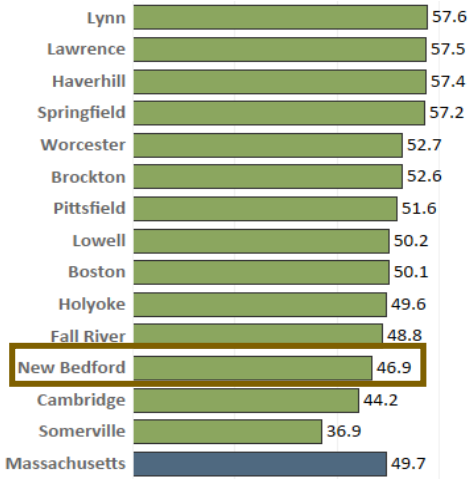


Source: 2022 ACS 1-Year Estimates

Figure 9 shows that a higher percentage of renters in New Bedford, specifically 37.2%, allocate 30% or more of their income to housing costs, compared to homeowners, with just under half, or 46.9%, facing a similar burden.

Overall, the housing burden for in New Bedford is above the state average of renters (29.6%), while for homeowners it is 49.7% (**Figure 10**).

Figure 10: Homeowners Experiencing Housing Cost Burden (30%+ of income), 2022



Source: 2022 ACS 1-Year Estimates

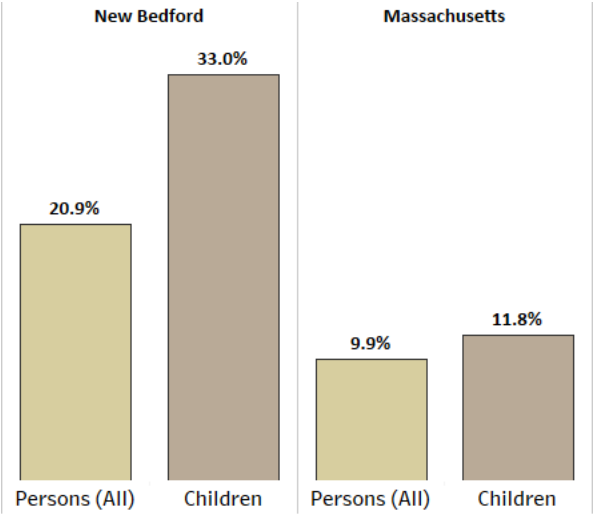
Financial Hardship and Public Assistance

Financial hardship can be considered a state where individuals or communities are unable to afford the resources necessary for a minimum standard of living, often as a result of limited of income and or an inability to meet basic needs, such as adequate food, shelter, education, and healthcare.

According to the U.S. Census, about 20.9% of all New Bedford residents and 33.0% of children (18 years of age and younger) are facing financial hardship, which is higher than the state rates (9.9% and 11.8%, respectively) (**Figure 11**). Moreover, households with children aged five and younger had a relatively high rate of hardship, with 54.6% of them struggling financially.

With respect to food assistance, the determination of Supplemental Nutrition Assistance Program (SNAP) benefits is based on income, household size, and expenses. The purpose of food assistance programs, such as SNAP, is to reduce hunger, improve nutrition, and support individuals and families who are experiencing financial difficulties.

Figure 11: Total Population and Children* Facing Financial Hardship, 2022



Source: 2022 ACS 1-Year Estimates
*Children are defined as those aged 18 and under

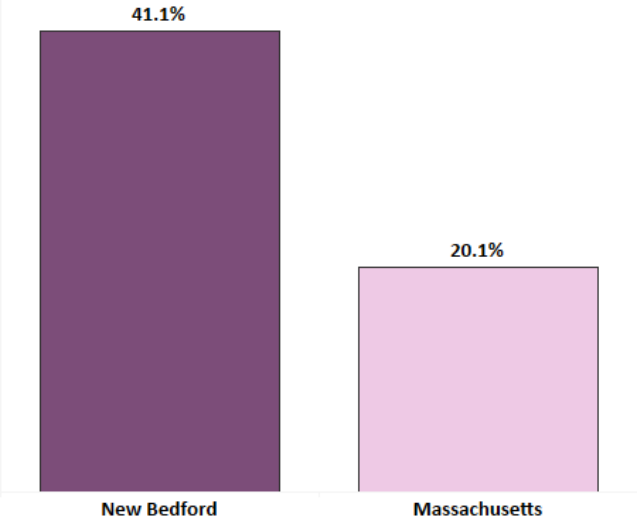
In New Bedford, nearly 29% of households have received food stamp/SNAP benefits within the past year. Among households with children under the age of 18, those with a female head of household, and those with a Black head of household, the rates of SNAP benefits were higher, at 23.1%, 27.0%, and 39.6% respectively.

Public Health Insurance

Health insurance coverage is a financial mechanism for covering an individual's healthcare expenses. It grants access to medical services, safeguards against high costs, and contributes to economic stability for individuals and families.

While most New Bedford residents have some form of health insurance coverage (95.4%), specific segments of the community are more likely to be uninsured. This includes individuals who identify as American Indian and Alaska Native alone (17.9%), not a citizen (15.1%), individuals experiencing unemployment (9.6%) and those without a high school diploma (6.3%).

Figure 12: Public Health Insurance Coverage Rates, 2018-2022



Source: 2018-2022 ACS 5-Year Estimates

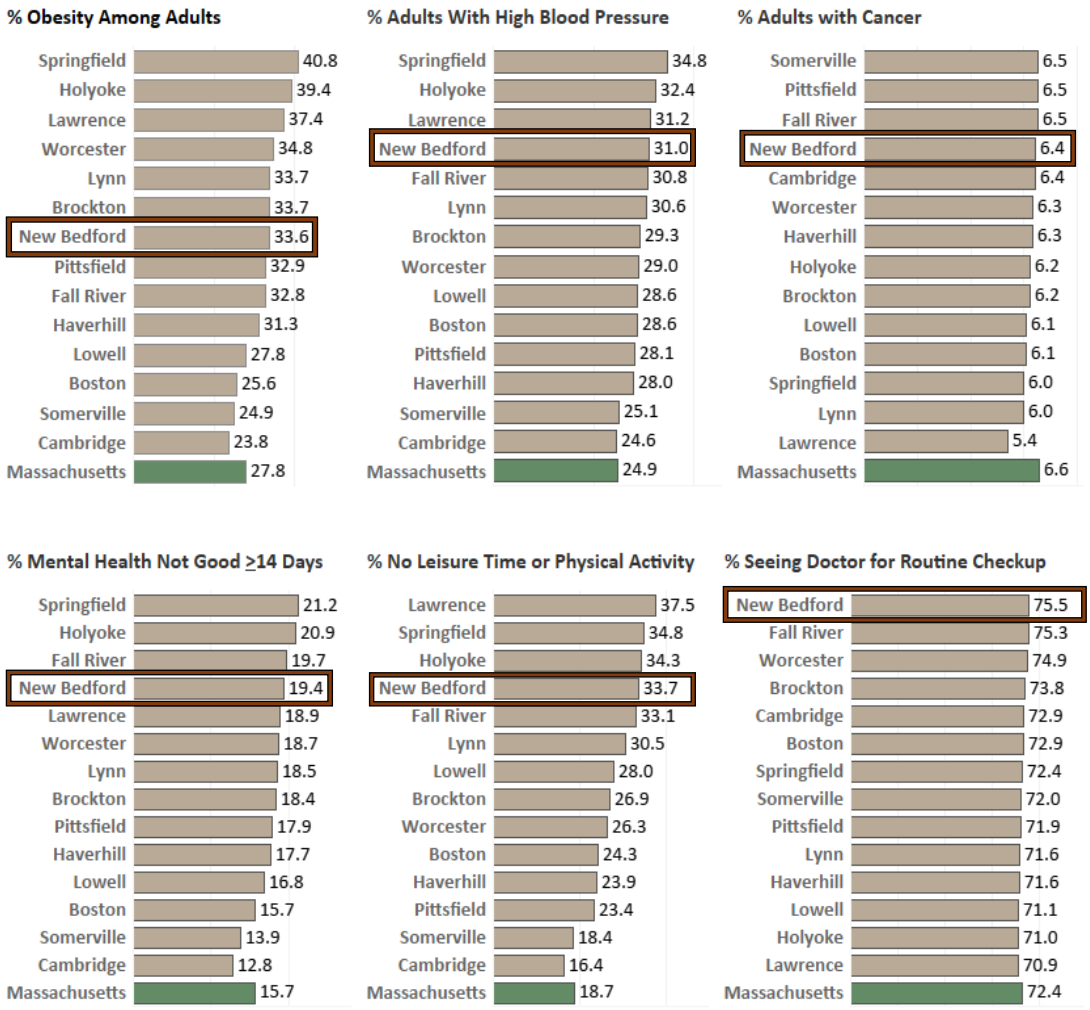
In the United States, public health insurance refers to government-sponsored health insurance programs such as Medicaid or Medicare that cover specific populations, such as seniors, economically vulnerable individuals, and people with disabilities, as well those requiring access to life-saving medical services and care such as dialysis treatment. It's important to note that public health insurance is distinct from private health insurance, typically provided by employers or purchased by individuals on the private market.

Figure 12 shows that approximately 41.1% of New Bedford residents have some form of public health insurance, which is twice as high as the rate for Massachusetts (20.1%).

Health Outcomes and Status

Health status and health outcomes are two different concepts in the field of healthcare and public health. Health status refers to the overall condition of an individual's or a population's health at a

Figure 13: Self-Reported Health Outcomes and Health Status for Persons Aged 18 and Older by City, 2020-2021



Source: Centers for Disease Control and Prevention, PLACES: Local Data for Better Health; Estimates for each measure are based on 2020 and 2021 Behavioral Risk Factor Surveillance System data.

particular point in time. It comprises several dimensions, including mental, physical, and social well-being. Health outcomes, on the other hand, are the specific results or consequences of healthcare or health interventions. **Figure 13** focuses on a subset of indicators that capture health status and health outcomes for New Bedford and the other thirteen priority communities.

For example, New Bedford has higher rates than Massachusetts in terms of adults reporting high blood pressure (31%), obesity (33.6%), poor mental health (19.4%), and reporting no leisure time or physical activity (33.7%). Additionally, a higher percentage of people having seen a medical provider for a routine check-up (75.5%) (compared to the rest of Massachusetts) with a slightly similar percentage of adults in New Bedford report having been given a diagnosis of cancer (6.4%).

The information provided offers a snapshot of specific health indicators in New Bedford but may not capture the full complexity of the city's overall health status. Further, it is important to understand that health outcomes are influenced by various factors, making it a complex issue. While the analysis provides insight into certain health indicators, a comprehensive understanding necessitates consideration of additional factors such as socioeconomic status, access to healthcare, and environmental influences. Moreover, continuous efforts in public health and preventive measures can bring about changes in these indicators over time.

Community Profile: Pittsfield, Massachusetts

Introduction

The following community profile prepared for Pittsfield, Massachusetts, provides a high-level overview of the population's composition and characteristics. This brief is not intended as a comprehensive community profile but instead it is primarily designed to give context and support informed decision-making. It can also aid policymakers, planners, community leaders, and collaborators to understand and address a community's unique needs and challenges - for the individuals represented by this data have lived their lives in circumstances that are both influenced and constrained by economic factors, social context, and government policies. With this in mind, a significant portion of this report is dedicated to examining the social, economic, and community context in which residents live.

Figure 1: Geographic Boundary for Pittsfield, Massachusetts

The profile for Pittsfield also encompassed a review and analysis of secondary data. Secondary data refers to the data that has been collected for a different purpose. Analyzing secondary data helps us to understand patterns, establish a starting point, and recognize variations in populations and communities.

The social, demographic, economic, and health data sources including demographic data for this profile is from the U.S. Census Bureau's American Community Survey (ACS) 1 and 5-Year Estimates, 2018-2022; social vulnerability data is from the Agency for Toxic Substances and Disease Registry (ATDSR), and firearm-related incidents are from the Gun Violence Archive for years 2015 to 2023; Population health data is from the online data portal from the Centers for Disease Control and Prevention's online data portal PLACES: Local Data for Better Health based on 2020 and 2021 Behavioral Risk Factor Surveillance System (BRFSS) data. A description of each data source is located at the end of this report.

Data collection has limitations, as different sources use different ways of measuring similar variables. There may be a time lag, and data may not be available by specific population groups or at a more granular geographic level due to small sample sizes. In some cases, data from multiple years may have been aggregated to allow for more stable estimates.

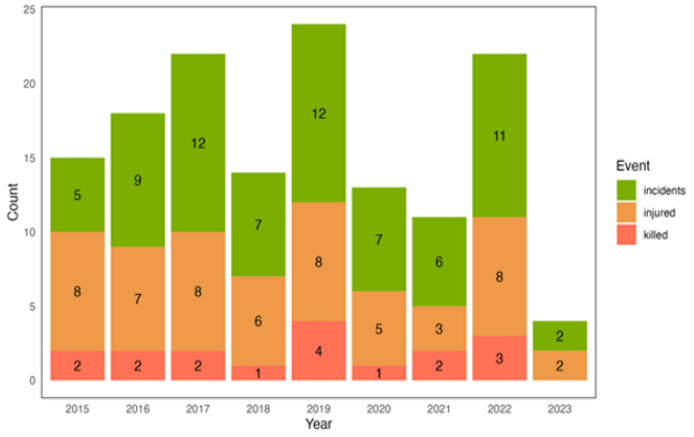
The community profile begins with an overview of firearm-related incidents, followed by the status of social vulnerability and a review of population, housing, and economic characteristics as well selected measures for health status and outcomes.

In conclusion, this community profile is a foundational resource that underscores the significance of considering the broader socio-economic context and the impact of policies on residents' lives, highlighting the importance of data-driven strategies for fostering community well-being and resilience.

Firearm-Related Incidents, Deaths, and Injuries

Firearm deaths continue to be a significant and growing public health problem in communities across the United States. Firearm-related incidents may include a range of events such as homicides, suicides, accidental discharges, and non-fatal injuries involving firearms. The number of firearm incidents can be influenced by various factors, including gun ownership rates, gun control policies, socioeconomic conditions, and other social factors.

Figure 2: Firearm-Related Incidents, Injuries and Fatalities, Pittsfield, MA, 2015 to 2023*



Source: Gun Violence Archive, 2015 to 2023; *2023 data is only for January 2023 to November 2023; Reported averages have been rounded.

Figure 2 shows the number of shooting incidents for the past eight years. The years 2017, 2019, and 2022 had the highest number of firearm incidents, with 12, 12, and 11 cases, respectively; the average number of incidents between 2015 and 2022 was eight. In terms of total fatalities, 2019 experienced the highest number, with four firearm-related deaths. Between 2015 and 2022, the average number of fatalities was two, with an average of seven. As for the year 2023, the data is incomplete as information regarding incidents for December is still pending, with two injuries and two fatalities reported across eleven months.

Social Vulnerability

The Social Vulnerability Index (SVI) is a measure used to assess the vulnerability of communities to natural or human-made disasters and emergencies. It considers various social, economic, and demographic factors affecting a community's ability to prepare for, respond to, and recover from disasters[11].

Emergency management agencies, researchers, and public health officials often use the index to identify and prioritize areas that may need additional support in a crisis. The SVI is also considered an important tool for promoting equity and ensuring that emergency response efforts cater to the different needs of various populations within a region.

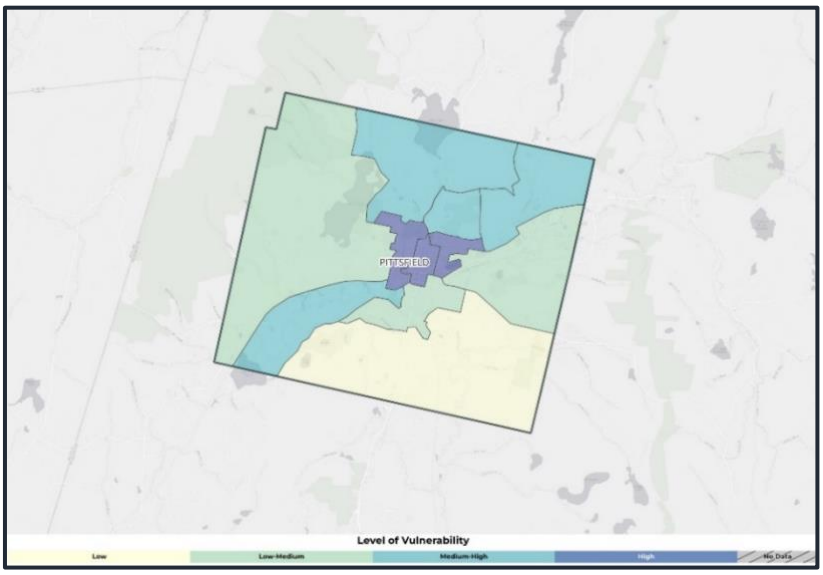
As **Figure 3** shows, SVI is often represented as a map, with different areas shaded or colored to indicate their level of vulnerability. By identifying vulnerable communities, emergency planners can allocate resources more effectively and implement targeted interventions to enhance resilience and reduce the impact of disasters on these communities.

In Pittsfield, more than half (11) of the 16 census tracts in Pittsfield have a medium-high to high Social Vulnerability Index (SVI), indicating socioeconomic risks that can increase residents' vulnerability.

[11] The Social Vulnerability Index - At A Glance

For instance, people residing in these areas may face issues related to poverty, limited access to education and healthcare, social isolation, or other factors that may hinder their ability to prepare for, respond to, and recover from any negative situation.

Figure 3: Social Vulnerability Index by Census Tract, Pittsfield, MA, 2020



Source: Agency for Toxic Substances and Disease Registry, 2020

Furthermore, as shown in **Figure 3** half of Pittsfield's census tracts showing elevated vulnerability is also much higher when compared to Berkshire County's SVI index of 0.37, which indicates a low to medium level of vulnerability. This suggests that Pittsfield faces greater social vulnerability across various dimensions as compared to the county it is located in. Therefore, there is a need for focused attention and targeted interventions to enhance community resilience and well-being.

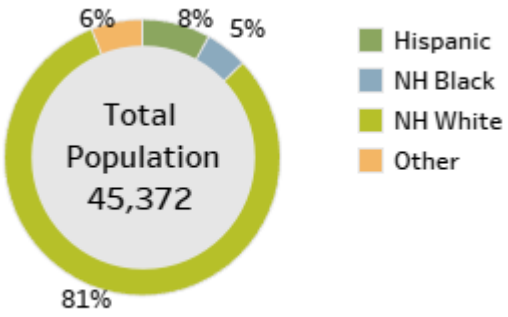
Sociodemographic Profile

According to the latest U.S. Census estimates, the population of Pittsfield is **45,372**. In 2020 U.S. Census recorded a population of 43,927 a decrease of almost two percent (-1.8%) from 2010, down from 44,737. Since then, the population has experienced a decline of just over one and a half percent (-1.4).

Figure 4 shows that in Pittsfield, about one in five residents (19%) identifies as a racial or ethnic minority while a majority identify as non-Hispanic white (81%). This proportion is also significantly higher when compared to Massachusetts where 63% of the state's population identifies as non-Hispanic white.

Additionally, Pittsfield has a lower percentage of foreign-born residents, which is 6.8%, compared to the rest of Massachusetts (18%).

Figure 4: Race and Ethnicity, Pittsfield, MA, 2018-2022

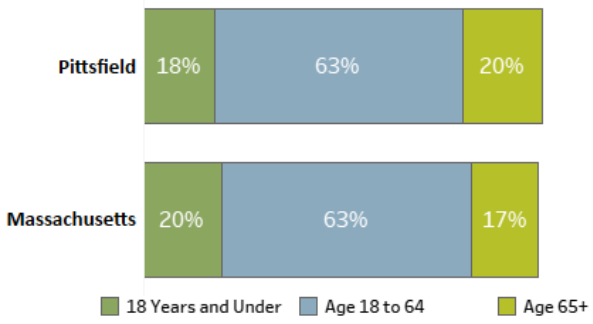


Source: 2018-2022 ACS 5-Year Estimates

Age

Age is an important demographic indicator for understanding the age structure of a population, which has various implications for the community, such as healthcare demands, social services, workforce challenges, and other factors that are often associated with certain age groups.

Figure 5: Population by Age Category, 2018-2022



Source: 2018-2022 ACS 5-Year Estimates

Figure 5 shows that Pittsfield has a similar proportion of working-aged adults (63%) when compared to the rest of the state. The working-age group, typically defined as individuals aged 18 to 64, is considered an extremely important segment to society for several reasons, as they play a central role in economic, social, and demographic stability.

For example, within this age group, individuals are expected to be in the labor force, either employed or actively seeking employment. This age range also typically spans the years when individuals complete their education, enter the workforce, and continue working until they approach retirement age.

In summary, adults of working age are crucial to maintaining economic vitality, supporting public services, fostering social cohesion, and shaping demographic trends. Their well-being and productive engagement are essential for the prosperity and stability of communities.

Table 1: Median Age by City, 2018-2022

Pittsfield	44.6
Fall River	41.6
Massachusetts	39.8
Brockton	39.5
New Bedford	38.9
Haverhill	37.6
Lynn	37.2
Holyoke	36.5
Lowell	35.6
Springfield	33.9
Boston	33.3
Worcester	32.9
Somerville	31.4
Lawrence	31.0
Cambridge	29.6

Source: 2018-2022 ACS 5-Year

According to **Table 1**, Pittsfield has the highest median age of **44.6** compared to all other cities in this assessment, and even the state of Massachusetts with a median age of **39.8**. This suggests that Pittsfield has an older population with distinct demographic dynamics, such as its dependency ratio.

For example, the **dependency ratio** is a measure that shows how many people depend on others for financial support, such as children and the elderly. A lower dependency ratio means that a larger percentage of the population can support dependents, which can have positive economic effects. Conversely, a higher dependency ratio indicates that the working population is under greater financial pressure to support dependents.

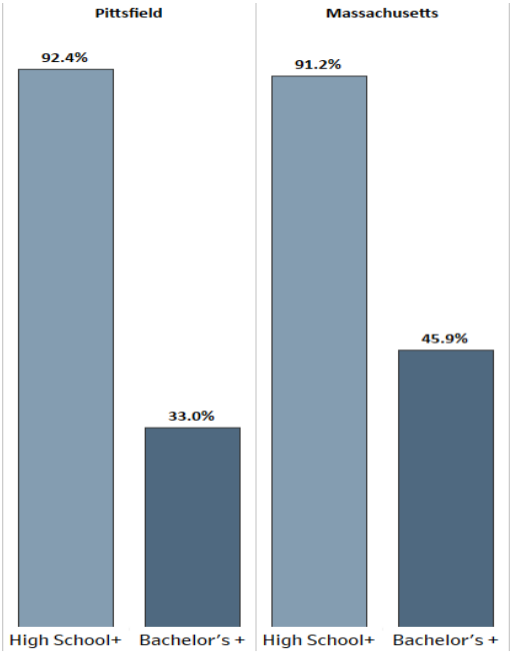
In the case of Pittsfield, the age dependency ratio is 61.0%, suggesting a substantial level of dependency, which means that there are more dependents relative to the working-age population. A higher dependency ratio can be associated with an aging population (in the case of Pittsfield, a higher proportion of older individuals

aged 65 and older often require more support and healthcare services). This dependency ratio for Pittsfield is also slightly higher than that of Massachusetts, which has a dependency ratio of 59.1%.

Education

The relationship between education and income is often positive, as individuals with higher levels of education tend to earn higher incomes on average. Additionally, while education can be a significant factor, it is not the sole determinant of income, and various factors contribute to an individual's overall financial situation.

Figure 6: Population Aged 25+ with High School & Bachelor's Degree or Higher, 2018-2022



Source: 2018-2022 ACS 5-Year Estimates

In Pittsfield, most residents aged 25 and older possess at least a high school diploma (92.4%), with one in three obtaining a bachelor's degree or higher (33.0%) (Figure 6). Overall, Pittsfield residents' high school completion rate is similar to the state rate, while the rate of those completing a four-year college degree or higher is comparatively lower than the state rate.

Income

Per capita income and median household income are both important indicators used to measure the economic well-being of individuals and households in a given geographic area. Further, while they provide insight into the overall financial health of a region, they capture different aspects of income distribution.

For example, Per capita income is a measure used to assess the average income earned per person in a given area over a specific period, typically a year. It is calculated by dividing the total income generated in the region by the total population. Per capita income reflects the overall income level within a community and the income distribution among its residents.

Disparities in per capita income can highlight inequalities and socioeconomic challenges within a population, guiding efforts to address poverty, improve access to economic opportunities, and promote inclusive growth. Furthermore, per capita income is an essential indicator for assessing living standards, economic development, and the purchasing power of individuals within a community.

The median household income is a measure used to understand the typical income of a household. It identifies the income level that separates the higher-earning half of households from the lower-earning half. Unlike mean income, which extremely high or low values can influence, the median offers a better representation of the income distribution within a community. This metric can provide valuable insights

into the economic well-being of households. Moreover, trends in median household income over time can indicate broader economic shifts and disparities within a community or region.

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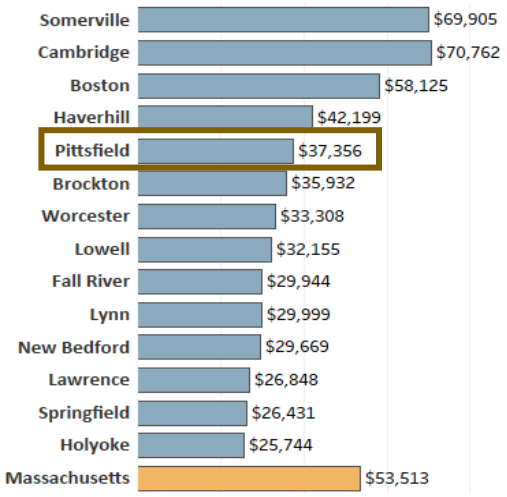

Source: 2018-2022 ACS 5-Year Estimates

Figures 7 and **8** show how Pittsfield compares for both per capita income (lower than the state rate) and household median income across the 14-cities profiled for this assessment (similarly, lower than the state rate).

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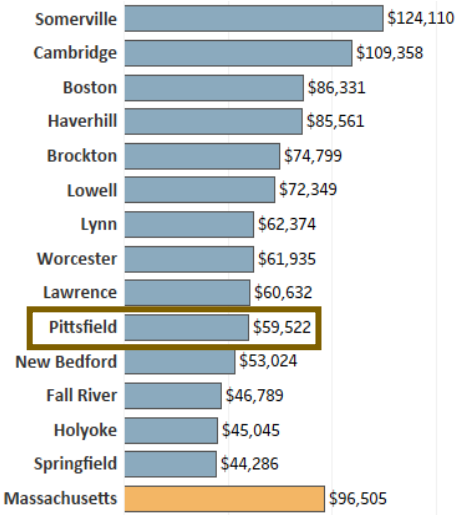


Source: 2018-2022 ACS 5-Year Estimates

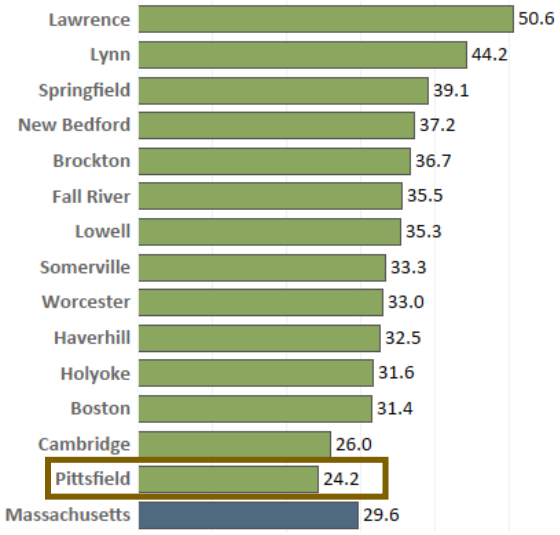
Housing

Households are considered cost-burdened when they spend more than 30% of their income on housing-related expenses. These expenses include rent, mortgage payments, utilities, and other housing needs. The 30% threshold is based on the idea that spending beyond this limit on housing can strain household budgets and limit financial flexibility. When a significant portion of income goes towards housing costs, households may have fewer financial resources for other essential expenses such as food, healthcare, and education. This financial strain can lead to difficult trade-offs and compromises, ultimately affecting the overall well-being and quality of life.

Identifying cost-burdened families is crucial in understanding and addressing housing affordability issues. By identifying and assisting cost-burdened households, communities can work towards creating more equitable housing opportunities, reducing poverty, and fostering economic stability. Further, addressing housing affordability challenges is not only crucial for individual households, but also for promoting broader societal goals, such as reducing inequality, promoting social mobility, and enhancing overall community resilience.

Of the 21,283 housing units in Pittsfield, approximately 90% are occupied, of which 62% are owner-occupied and 38% are renter-occupied.

Figure 9: Renters Experiencing Housing Cost Burden (30%+ of income), 2018-2022



Source: 2018- 2022 ACS 5-Year Estimates

Overall, the housing burden for in Pittsfield is below the state average of renters (29.6%), while comparatively higher to the state rate for homeowners (49.7%) (**Figure 10**).

Figure 9 shows that a lower percentage of renters in Pittsfield, specifically 24.2%, allocate 30% or more of their income to housing costs, compared to homeowners, with slightly over half, or 51.6%, facing a similar burden.

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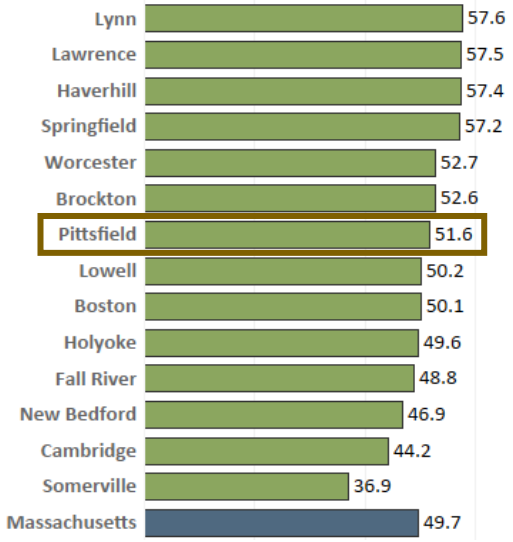


Source: 2018-2022 ACS 5-Year Estimates

Financial Hardship and Public Assistance

Financial hardship can be considered a state where individuals or communities are unable to afford the resources necessary for a minimum standard of living, often as a result of limited of income and or an inability to meet basic needs, such as adequate food, shelter, education, and healthcare.

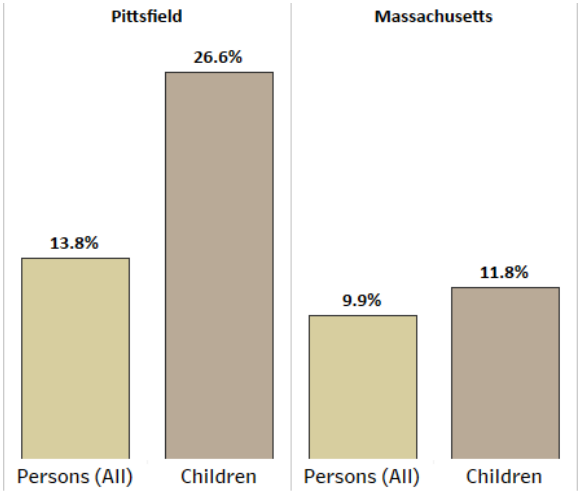
According to the U.S. Census, around 13.8% of Pittsfield's residents and 26.6% of children (under the age of 18) are currently experiencing financial difficulties, which is higher than the state's average rates (9.9% and 11.8%, respectively). Moreover, the percentage of children facing financial hardship in Pittsfield is more than twice the state's average rate, as shown in **Figure 11.**

Moreover, families with a female householder and households with children under the age of 18 experienced higher rates of financial hardship (27.1%). Also, households with children aged five and younger had a similar rate of hardship, with almost one-third (or 31.5%) of them struggling financially.

With respect to food assistance, the determination of Supplemental Nutrition Assistance Program (SNAP) benefits is based on income, household size, and expenses. The purpose of food assistance programs, such as SNAP, is to reduce hunger, improve nutrition, and support individuals and families who are experiencing financial difficulties.

In Pittsfield, around 20.2% of households have received benefits from the food stamp/Supplemental Nutrition Assistance Program (SNAP) in the past year. However, the rate of receiving these benefits was generally higher among certain groups. For example, households with children under the age of 18 and those led by a female head of household also had higher rates of SNAP benefits, at 30.6% and 39.9% respectively.

Figure 11: Total Population and Children* Facing Financial Hardship, 2018-2022



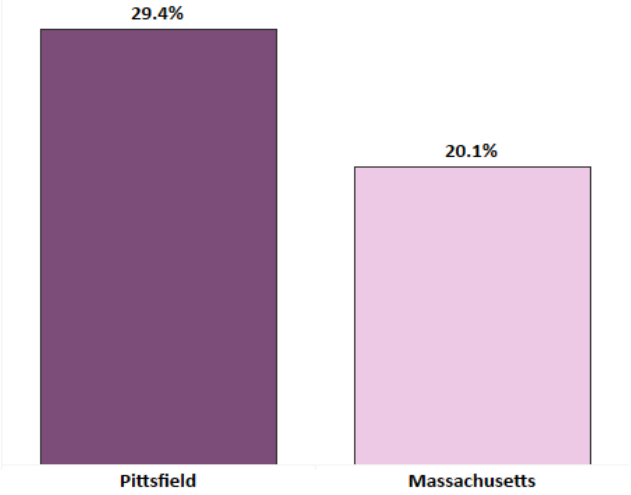
Source: 2018-2022 ACS 5-Year Estimates
*Children are defined as those aged 18 and under

Public Health Insurance

Health insurance coverage is a financial mechanism for covering an individual's healthcare expenses. It grants access to medical services, safeguards against high costs, and contributes to economic stability for individuals and families.

While most Pittsfield residents have some form of health insurance coverage (97.4%), specific segments of the community are more likely to be **uninsured**. This includes individuals who identify as Black (8.6%), some other race (7.2%), foreign born (9.8%), those who are non-citizens (11.1%), individuals experiencing unemployment (13.8%) and those without a high school diploma (4.5%).

Figure 12: Public Health Insurance Coverage Rates. 2018-2022



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In the United States, public health insurance refers to government-sponsored health insurance programs such as Medicaid or Medicare that cover specific populations, such as seniors, economically vulnerable individuals, and people with disabilities, as well those requiring access to life-saving medical services and care such as dialysis treatment. It's important to note that public health insurance is distinct from private health insurance, typically provided by employers or purchased by individuals on

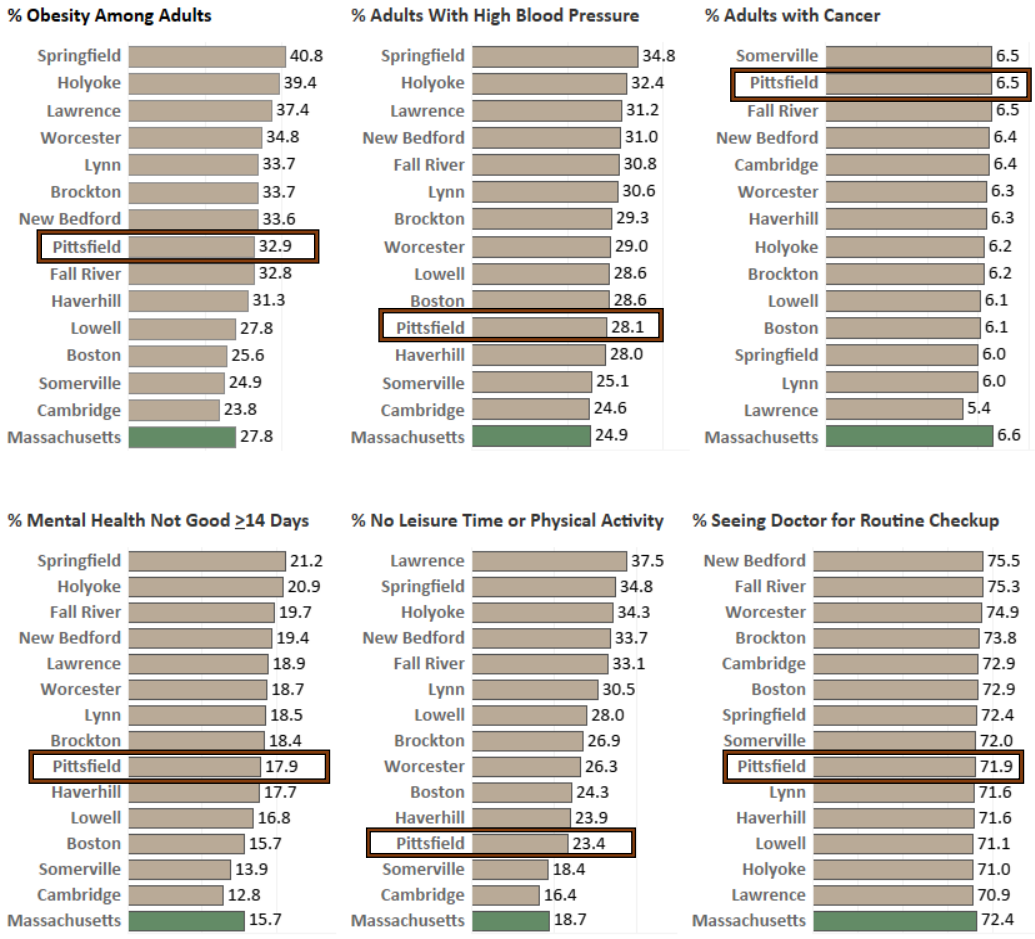
the private market. **Figure 12** shows that approximately 29.4% of Pittsfield residents have some form of public health insurance, higher than for Massachusetts (20.1%).

Health Outcomes and Status

Health status and health outcomes are two different concepts in the field of healthcare and public health. Health status refers to the overall condition of an individual's or a population's health at a particular point in time. It comprises several dimensions, including mental, physical, and social well-being. Health outcomes, on the other hand, are the specific results or consequences of healthcare or health interventions. **Figure 13** focuses on a subset of indicators that capture health status and health outcomes for Pittsfield and the other thirteen priority communities.

For example, Pittsfield has a higher percentage of adults who are obese (32.9%), suffer from high blood pressure (28.1%), have poor mental health (17.9%), and report no leisure time or physical activity (23.4%) compared to the state average. However, the percentage of adults diagnosed with cancer (6.5%)

Figure 13: Self-Reported Health Outcomes and Health Status for Persons Aged 18 and Older by City, 2020-2021



Source: Centers for Disease Control and Prevention, PLACES: Local Data for Better Health; Estimates for each measure are based on 2020 and 2021 Behavioral Risk Factor Surveillance System data.

and those who have visited a medical provider for a routine check-up (71.9%) is similar to that of the rest of Massachusetts.

The information provided offers a snapshot of specific health indicators in Pittsfield but may not capture the full complexity of the city's overall health status. Further, it is important to understand that health outcomes are influenced by various factors, making it a complex issue. While the analysis provides insight into certain health indicators, a comprehensive understanding necessitates consideration of additional factors such as socioeconomic status, access to healthcare, and environmental influences. Moreover, continuous efforts in public health and preventive measures can bring about changes in these indicators over time.

Community Profile: Somerville, Massachusetts

Introduction

The following community profile prepared for Somerville, Massachusetts, provides a high-level overview of the population's composition and characteristics. This brief is not intended as a comprehensive community profile but instead it is primarily designed to give context and support informed decision-making. It can also aid policymakers, planners, community leaders, and collaborators to understand and address a community's unique needs and challenges - for the individuals represented by this data have lived their lives in circumstances that are both influenced and constrained by economic factors, social context, and government policies. With this in mind, a significant portion of this report is dedicated to examining the social, economic, and community context in which residents live.

Figure 1: Geographic Boundary for Somerville, Massachusetts

The profile for Somerville also encompassed a review and analysis of secondary data. Secondary data refers to the data that has been collected for a different purpose. Analyzing secondary data helps us to understand patterns, establish a starting point, and recognize variations in populations and communities.

The social, demographic, economic, and health data sources including demographic data for this profile is from the U.S. Census Bureau's American Community Survey (ACS) 1 and 5-Year Estimates, 2018-2022; social vulnerability data is from the Agency for Toxic Substances and Disease Registry (ATDSR), and firearm-related incidents are from the Gun Violence Archive for years 2015 to 2023; Population health data is from the online data portal from the Centers for Disease Control and Prevention's online data portal PLACES: Local Data for Better Health based on 2020 and 2021 Behavioral Risk Factor Surveillance System (BRFSS) data. A description of each data source is located at the end of this report.

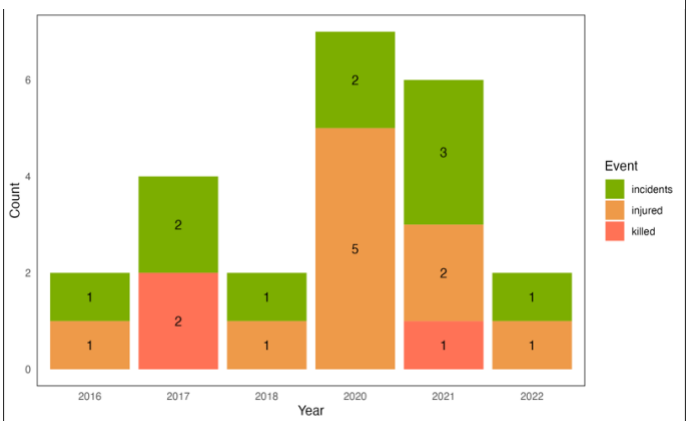
Data collection has limitations, as different sources use different ways of measuring similar variables. There may be a time lag, and data may not be available by specific population groups or at a more granular geographic level due to small sample sizes. In some cases, data from multiple years may have been aggregated to allow for more stable estimates.

The community profile begins with an overview of firearm-related incidents, followed by the status of social vulnerability and a review of population, housing, and economic characteristics as well selected measures for health status and outcomes.

In conclusion, this community profile is a foundational resource that underscores the significance of considering the broader socio-economic context and the impact of policies on residents' lives, highlighting the importance of data-driven strategies for fostering community well-being and resilience.

Firearm-Related Incidents, Deaths, and Injuries

Figure 2: Firearm-Related Incidents, Injuries and Fatalities, Somerville, MA, 2015-2023*



Source: Gun Violence Archive, 2015 to 2023; *2023 data is only for January 2023 to November 2023. Reported averages have been

Firearm incidents may include a range of events such as homicides, suicides, accidental discharges, and non-fatal injuries involving firearms. The number of firearm incidents is influenced by various factors, including gun ownership rates, gun control policies, socioeconomic conditions, and other social factors.

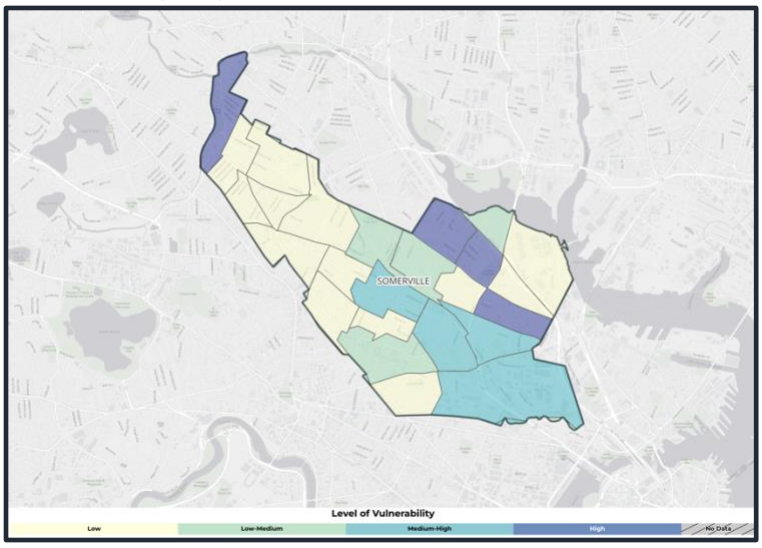
Firearm deaths continue to be a significant and growing public health problem in communities across the United States. Overall, between January 2015 and November 2023, there were 10 firearm-related incidents in the city of Somerville (an average of 1.7 per year) that cumulatively resulted in a total of 10 injuries and 3 fatalities.

Figure 2 shows the number of shooting incidents was the highest in 2021 (3 cases), resulting in 2 firearm-related injuries and 1 deaths. As for the year 2023, the data is incomplete as information regarding incidents for December is still pending, with the occurrence of one injury and no fatalities reported across eleven months.

Social Vulnerability

The Social Vulnerability Index (SVI) is a measure used to assess the vulnerability of communities to natural or human-made disasters and emergencies. It considers various social, economic, and demographic factors affecting a community's ability to prepare for, respond to, and recover from disasters[12]. Emergency management agencies, researchers, and public health officials often use the index to identify and prioritize areas that may need additional support in a crisis.

Figure 3: Social Vulnerability Index by Census Tract, Somerville, MA, 2020



Source: Agency for Toxic Substances and Disease Registry, 2020

[12] The Social Vulnerability Index - At A Glance

As **Figure 3** shows, SVI is often represented as a map, with different areas shaded or colored to indicate their level of vulnerability. By identifying vulnerable communities, emergency planners can allocate resources more effectively and implement targeted interventions to enhance resilience and reduce the impact of disasters on these communities.

Overall, out of the 25 census tracts within Somerville's geographical boundary Somerville, about one-third (8) reflect an SVI ranging from medium-high to high. This suggests that most of the census tracts exhibit characteristics associated with decreased vulnerability.

People residing in these areas may face less challenges related to poverty, limited access to education and healthcare, social isolation, or other factors that hinder their ability to prepare for, respond to, and recover from adverse events. Furthermore, the overall SVI score for Middlesex County, which includes the cities of Somerville, Cambridge, Arlington, and Medford is 0.26 which similarly indicates a low to medium level of vulnerability for this area.

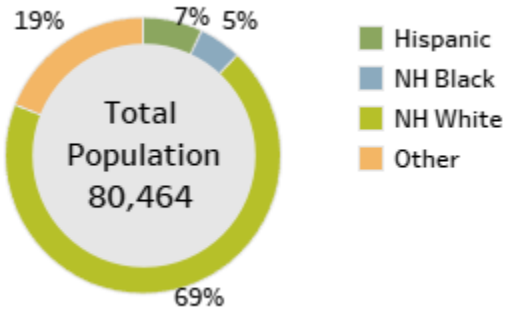
Sociodemographic Profile

According to the latest U.S. Census estimates, the population of Somerville is **80,464**. In 2020 U.S. Census recorded a population of 81,045 an increase of almost seven percent (**6.9%**) from 2010, up from 75,764. However, since the population has declined at a rate of almost two percent (-1.6%).

Figure 4 shows that in Somerville, less than a half – 31% – of the population identifies as a racial or ethnic minority. Somerville has a less diverse population compared to the broader state of Massachusetts.

Approximately 63% of the state's population identifies as non-Hispanic white while nearly 37% self-identify as belonging to a racial or ethnic minority group. However, 20.6% Somerville residents are foreign born which is comparatively higher than the rest of Massachusetts (18%).

Figure 4: Race and Ethnicity, Somerville, MA, 2018-2020



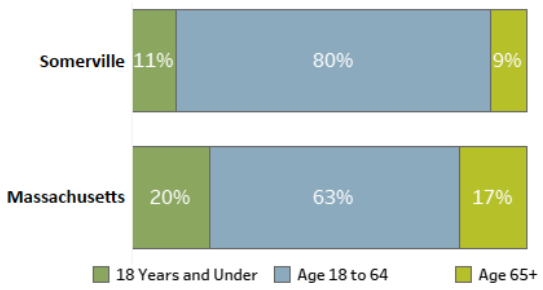
Source: 2022 ACS 1-Year Estimates

Age

Age is an important demographic indicator for understanding the age structure of a population, which has various implications for the community, such as healthcare demands, social services, workforce challenges, and other factors that are often associated with certain age groups. **Figure 5** shows that Somerville has a higher proportion of working- aged adults than the rest of the state (63%).

This age distribution suggests that a greater percentage of Somerville residents

Figure 5: Population by Age Category, 2022



Source: 2022 ACS 1-Year Estimates

are of working age, i.e., between 18 and 64 years old, which is the age range during which individuals typically finish their education, enter the workforce, and continue working until they approach retirement age. Within this age group, individuals are expected to be in the labor force, either employed or actively seeking employment. generally expected to be in the labor force, either employed or actively seeking employment. This age range is chosen because it typically spans the years when individuals complete their education, enter the workforce, and continue working until they approach retirement age.

Table 1 shows that Somerville's median age is 31.4, comparatively younger than most other cities included in this assessment and the state (Massachusetts, median age 39.8). This indicates a higher proportion of younger adults and children than older adults. A younger population may also have a lower dependency ratio, as fewer elderly individuals may require care and support from the working-age population.

For example, the dependency ratio measures how many people, such as children and the elderly, depend on others for financial support. A lower dependency ratio means that a larger percentage of the population can support dependents, which can have positive economic effects. Conversely, a higher dependency ratio indicates the working population is under greater financial pressure to support dependents.

In the case of Somerville, the age dependency ratio is **24.8%**, suggesting a relatively low level of dependency, which means there are fewer dependents relative to the working-age population. This figure is also relatively lower than Massachusetts, which has a dependency ratio of **59.2%.**

Table 1: Median Age by City, 2022

Pittsfield	44.6
Fall River	41.6
Massachusetts	39.8
Brockton	39.5
New Bedford	38.9
Haverhill	37.6
Lynn	37.2
Holyoke	36.5
Lowell	35.6
Springfield	33.9
Boston	33.3
Worcester	32.9
Somerville	31.4
Lawrence	31.0
Cambridge	29.6

Source: 2022 ACS 1-Year Estimates

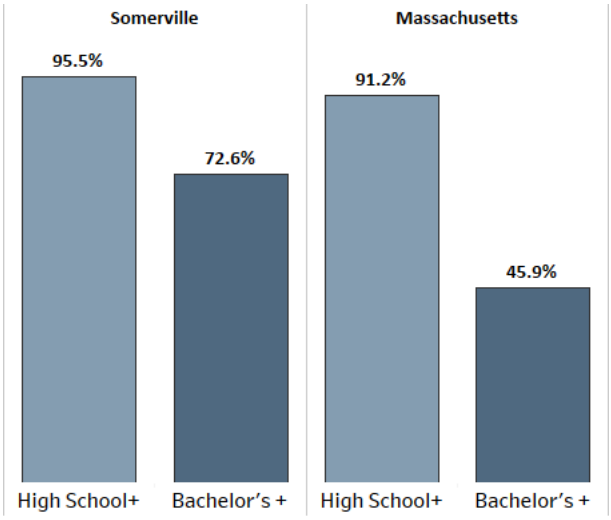
Education

The relationship between education and income is often positive, as individuals with higher levels of education tend to earn higher incomes on average. Additionally, while education can be a significant factor, it is not the sole determinant of income, and various factors contribute to an individual's overall financial situation.

In terms of education, most residents in Somerville aged 25 and older possess at least a high school diploma or higher (95.5%), with 7 in 10 obtaining bachelor's degree or higher (72.6%) (**Figure 6**).

Overall, compared to the rest of Massachusetts, Somerville high school completion rates are higher, while the rate for completing a four- year college degree or higher is almost twice as high as the state rate.

Figure 6: Population Aged 25+ with High School & Bachelor's Degree or Higher, 2022



Source: 2022 ACS 1-Year Estimates

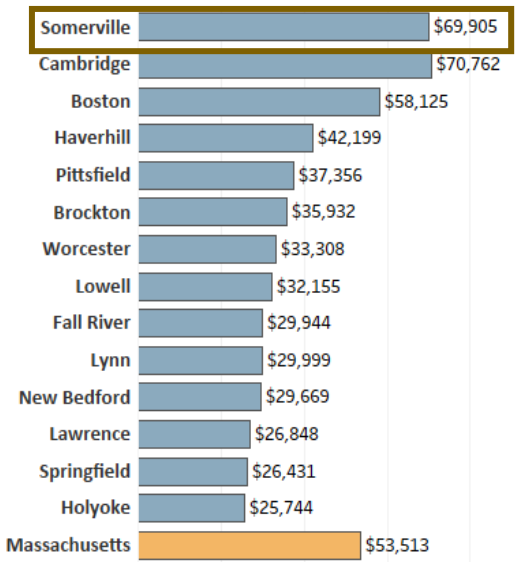
Income

Per capita income and median household income are both important indicators used to measure the economic well-being of individuals and households in a given geographic area. Further, while they provide insights into the overall financial health of a region, they capture different aspects of income distribution.

For example, Per capita income is a measure used to assess the average income earned per person in a given area over a specific period, typically a year. It is calculated by dividing the total income generated in the region by the total population. Per capita income reflects the overall income level within a community and the income distribution among its residents.

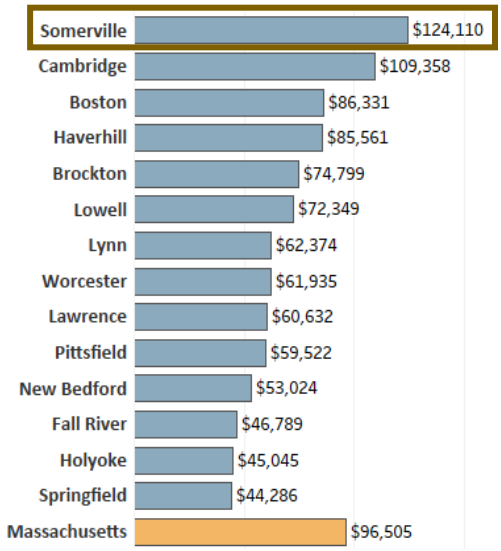
Disparities in per capita income can highlight inequalities and socioeconomic challenges within a population, guiding efforts to address poverty, improve access to economic opportunities, and promote inclusive growth. Furthermore, per capita income is an essential indicator for assessing living standards, economic development, and the purchasing power of individuals within a community.

Figure 7: Per Capita Income by City, 2022



Source: 2022 ACS 1-Year Estimates

Figure 8: Median Household Income by City, 2022



Source: 2022 ACS 1-Year Estimates

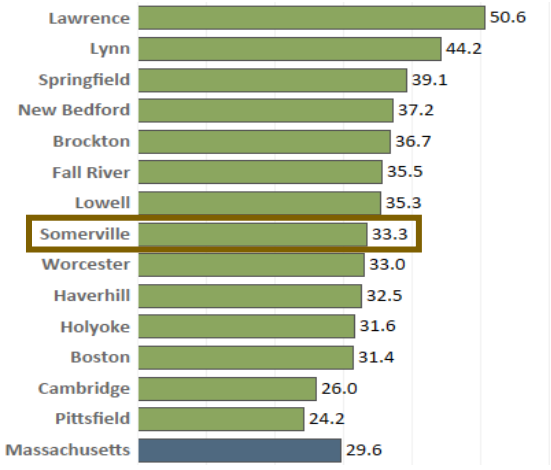
The median household income is a measure used to understand the typical income of a household. It identifies the income level that separates the higher-earning half of households from the lower-earning half. Unlike mean income, which extremely high or low values can influence, the median offers a better into the economic well-being of households. Moreover, trends in median household income over time can indicate broader economic shifts and disparities within a community or region.

Figures 7 and **8** show how Somerville compares in both per capita income (higher than the state rate) and median household income (similarly, higher than the state rate and the highest compared to the other cities included in the assessment) across the 14 cities profiled for this assessment.

Housing

Households are generally considered cost-burdened when they spend more than 30% of their income on housing-related expenses. These expenses include rent, mortgage payments, utilities, and other housing needs. The 30% threshold is based on the idea that spending beyond this limit on housing can strain household budgets and limit financial flexibility. When a significant portion of income goes towards housing costs, households may have fewer financial resources for other essential expenses such as food, healthcare, and education. This financial strain can lead to difficult trade-offs and compromises, ultimately affecting the overall well-being and quality of life.

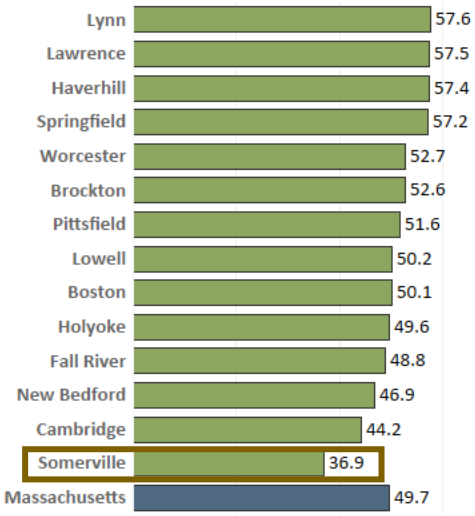
Figure 9: Renters Experiencing Housing Cost Burden (30%+ of income), 2022



Source: 2022 ACS 1-Year Estimates

Identifying cost-burdened families is crucial in understanding and addressing housing affordability issues. By identifying and assisting cost-burdened households, communities can work towards creating more equitable housing opportunities, reducing poverty, and fostering economic stability. Further, addressing housing affordability challenges is not only crucial for individual households, but also for promoting broader

Figure 10: Homeowners Experiencing Housing Cost Burden (30%+ of income), 2022



Source: 2022 ACS 1-Year Estimates

societal goals, such as reducing inequality, promoting social mobility, and enhancing overall community resilience.

Of 37,836 housing units in Somerville, approximately 95% are occupied, of which 31% are owner-occupied and 69% are renter-occupied. **Figure 9** shows that a higher percentage of renters in Somerville, specifically 33.3%, allocate 30% or more of their income to housing costs, compared to homeowners with 36.9% facing a similar burden. Overall, the housing burden in Somerville is above the state average of renters (29.6%), while for homeowners it is 49.7% (**Figure 10**).

Financial Hardship and Public Assistance

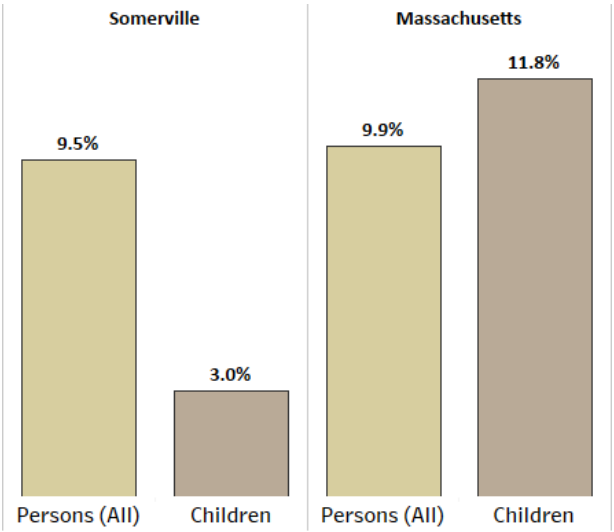
Financial hardship can be considered a state where individuals or communities lack the resources necessary for a minimum standard of living and can often involve a lack of income and an inability to meet basic needs, such as adequate food, shelter, education, and healthcare.

According to the U.S. Census, about 9.5% of all Somerville residents and 3% of children (18 years of age and younger) are facing financial hardship, which is lower than the state rates (9.9% and 11.8%, respectively) (**Figure 11**). Moreover, families with a female householder and households with children under the age of 18 experienced higher rates of financial hardship (39.3 %).

Regarding food assistance, about 8.2 % of households in Somerville received food stamp/ Supplemental Nutrition Assistance Program (SNAP) benefits within the past year. The rates for Black and Hispanic/Latino households were 12.3% and 13.0% respectively.

Additionally, households with children under the age of 18 and those led by a female head of household also had higher rates of SNAP benefits, with 23.1% and 17.8% respectively. The determination of SNAP benefits is based on

Figure 11: Total Population and Children* Facing Financial Hardship, 2022



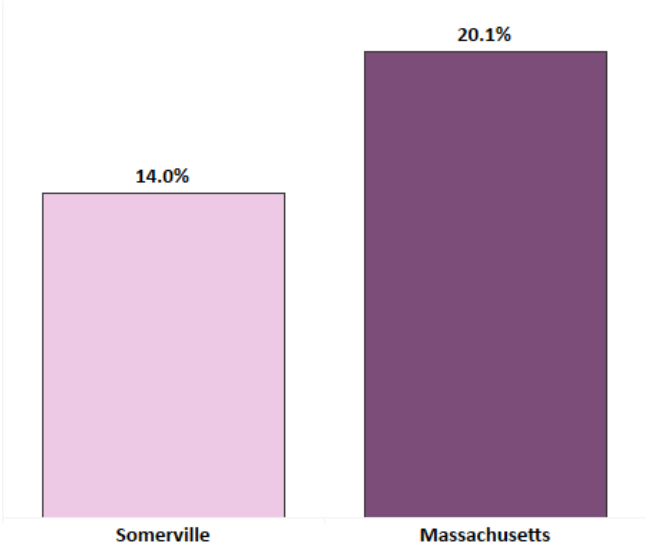
Source: 2022 ACS 1-Year Estimates
*Children are defined as those aged 18 and under

income, household size, and expenses. The purpose of food assistance programs, such as SNAP, is to reduce hunger, improve nutrition, and support individuals and families who are experiencing financial difficulties.

Public Health Insurance

Health insurance coverage is a financial mechanism for covering an individual's healthcare expenses. It grants access to medical services, safeguards against high costs, and contributes to economic stability for individuals and families. While most Somerville residents have some form of health insurance coverage (97.9%), specific segments of the community are more likely to be uninsured. This includes individuals who identify as Black/African American (5.8%), not a citizen (4.2%), individuals that are not in labor force (4.8%) and those without a high school diploma (6.4%).

Figure 12: Public Health Insurance Coverage Rates, 2018-2022



Source: 2018-2022 ACS 5-Year Estimates

In the United States, public health insurance refers to government-sponsored health insurance programs that cover specific populations, such as seniors, economically vulnerable individuals, and people with disabilities, as well those requiring access to life-saving medical services and care such as dialysis treatment. It's important to note that public health insurance is distinct from private health insurance, typically provided by employers or purchased by individuals on the private market. **Figure 12** shows that approximately 14% of Somerville residents have some form of public health insurance, which is lower than for Massachusetts (20.1%).

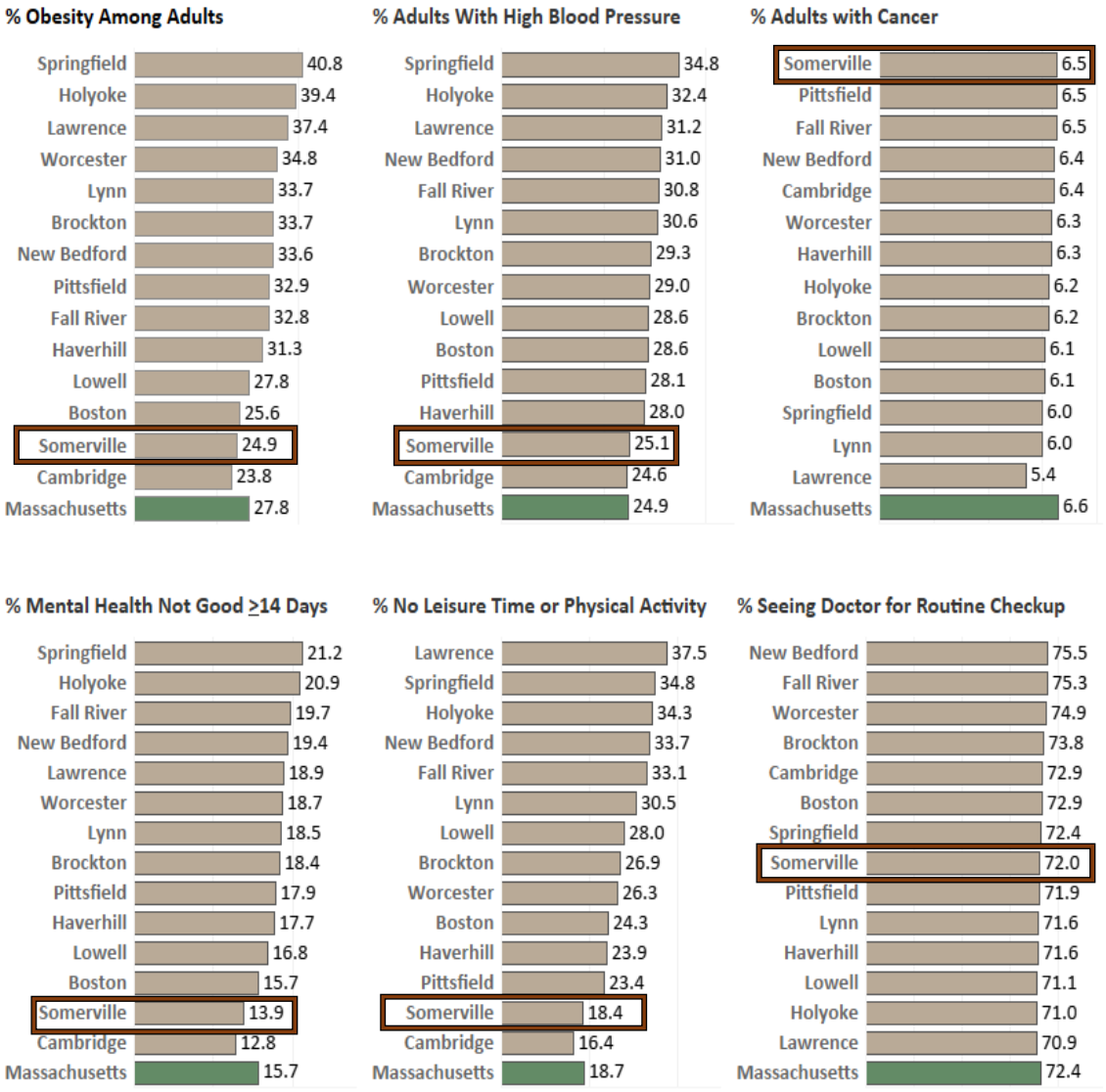
Health Outcomes and Status

Health status and health outcomes are two different concepts in the field of healthcare and public health. Health status refers to the overall condition of an individual's or a population's health at a particular point in time. It comprises several dimensions, including mental, physical, and social well-being. Health outcomes, on the other hand, are the specific results or consequences of healthcare or health interventions. **Figure 13** focuses on a subset of indicators that capture health status and health outcomes for Somerville and the other thirteen priority communities.

The overall health status of Somerville can be characterized by a mix of positive and negative indicators compared to the rest of Massachusetts. For example, Somerville has lower rates than Massachusetts in terms of adults reporting obesity (24.9%), poor mental health (13.9%), lower percentage of adults with a diagnosis of cancer (6.5%) and reporting no leisure time or physical activity (18.4%). However, a higher

percentage of people reporting high blood pressure (25.1%), and lower percentage of people having seen a medical provider for a routine check-up (72%) (compared to the rest of Massachusetts).

Figure 13: Self-Reported Health Outcomes and Health Status for Persons Aged 18 and Older by City, 2020-2021



Source: Centers for Disease Control and Prevention, PLACES: Local Data for Better Health; Estimates for each measure are based on 2020 and 2021 Behavioral Risk Factor Surveillance System data.

The information provided offers a snapshot of specific health indicators in Somerville but may not capture the full complexity of the city's overall health status. Further, it is important to understand that health outcomes are influenced by various factors, making it a complex issue. While the analysis provides insight into certain health indicators, a comprehensive understanding necessitates

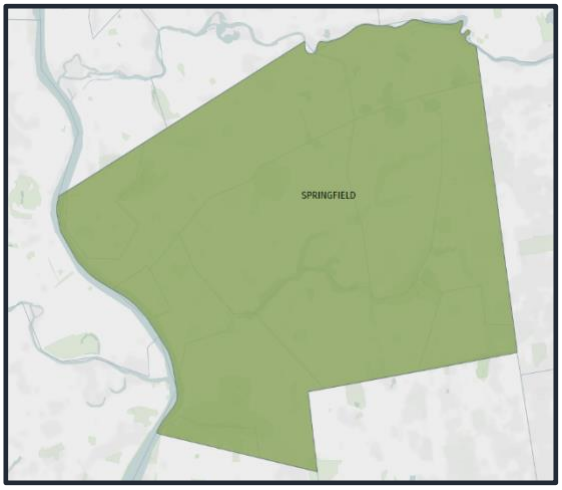
consideration of additional factors such as socioeconomic status, access to healthcare, and environmental influences. Moreover, continuous efforts in public health and preventive measures can bring about changes in these indicators over time.

Community Profile: Springfield, Massachusetts

Introduction

The following community profile prepared for Sprinfield, Massachusetts, provides a high-level overview of the population's composition and characteristics. This brief is not intended as a comprehensive community profile but instead it is primarily designed to give context and support informed decision-making. It can also aid policymakers, planners, community leaders, and collaborators to understand and address a community's unique needs and challenges - for the individuals represented by this data have lived their lives in circumstances that are both influenced and constrained by economic factors, social context, and government policies. With this in mind, a significant portion of this report is dedicated to examining the social, economic, and community context in which residents live.

Figure 1: Geographic Boundary for Springfield, Massachusetts



The profile for Springfield also encompassed a review and analysis of secondary data. Secondary data refers to the data that has been collected for a different purpose. Analyzing secondary data helps us to understand patterns, establish a starting point, and recognize variations in populations and communities.

The social, demographic, economic, and health data sources including demographic data for this profile is from the U.S. Census Bureau's American Community Survey (ACS) 1 and 5-Year Estimates, 2018-2022; social vulnerability data is from the Agency for Toxic Substances and Disease Registry (ATDSR), and firearm-related incidents are from the Gun Violence Archive for years 2015 to 2023; Population health data is from the online data portal from the Centers for Disease Control and Prevention's online data portal PLACES: Local Data for Better Health based on 2020 and 2021 Behavioral Risk Factor Surveillance System (BRFSS) data. A description of each data source is located at the end of this report.

Data collection has limitations, as different sources use different ways of measuring similar variables. There may be a time lag, and data may not be available by specific population groups or at a more granular geographic level due to small sample sizes. In some cases, data from multiple years may have been aggregated to allow for more stable estimates.

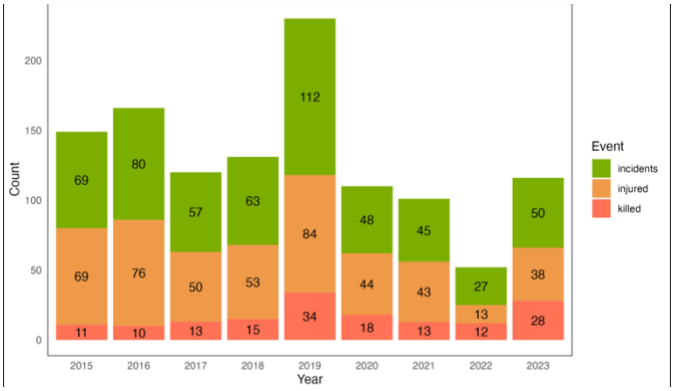
The community profile begins with an overview of firearm-related incidents, followed by the status of social vulnerability and a review of population, housing, and economic characteristics as well selected measures for health status and outcomes.

In conclusion, this community profile is a foundational resource that underscores the significance of considering the broader socio-economic context and the impact of policies on residents' lives, highlighting the importance of data-driven strategies for fostering community well-being and resilience.

Firearm-Related Incidents, Deaths, and Injuries

Firearm deaths continue to be a significant and growing public health problem in communities across the United States. Firearm incidents may include a range of events such as homicides, suicides, accidental discharges, and non-fatal injuries involving firearms. The number of firearm incidents is influenced by various factors, including gun ownership rates, gun control policies, socioeconomic conditions, and other social factors.

Figure 2: Firearm-Related Incidents, Injuries and Fatalities, Springfield, MA, 2015-2023*



Source: Gun Violence Archive, 2015 to 2023; *2023 data is only for January 2023 to November 2023.

Overall, between January 2015 and November 2023, there were a total of 551 firearm-related incidents in the city of Springfield (an average of 61 per year) that cumulatively resulted in a total of 470 injuries and 154 fatalities.

The data presented in **Figure 2** highlights the frequency of shooting incidents, which has varied greatly in the given period, and the year 2019 recorded the highest number of firearm incidents, with a total of 112. Regarding fatalities, 2019 also had the highest number, with 34. Throughout the period, Springfield had an average of 17 deaths and 52 injuries per year. As for the year 2023, the data is incomplete as information regarding incidents for December is still pending, with 38 injuries and 28 fatalities reported across eleven months.

Social Vulnerability

The Social Vulnerability Index (SVI) is a measure used to assess the vulnerability of communities to natural or human-made disasters and emergencies. It considers various social, economic, and demographic factors affecting a community's ability to prepare for, respond to, and recover from disasters[13].

Emergency management agencies, researchers, and public health officials often use the index to identify and prioritize areas that may need additional support in a crisis. The SVI is also considered an important tool for promoting equity and ensuring that emergency response efforts cater to the different needs of various populations within a region.

As **Figure 3** shows, SVI is often represented as a map, with different areas shaded or colored to indicate their level of vulnerability. By identifying vulnerable communities, emergency planners can allocate resources more effectively and implement targeted interventions to enhance resilience and reduce the impact of disasters on these communities.

[13] The Social Vulnerability Index - At A Glance

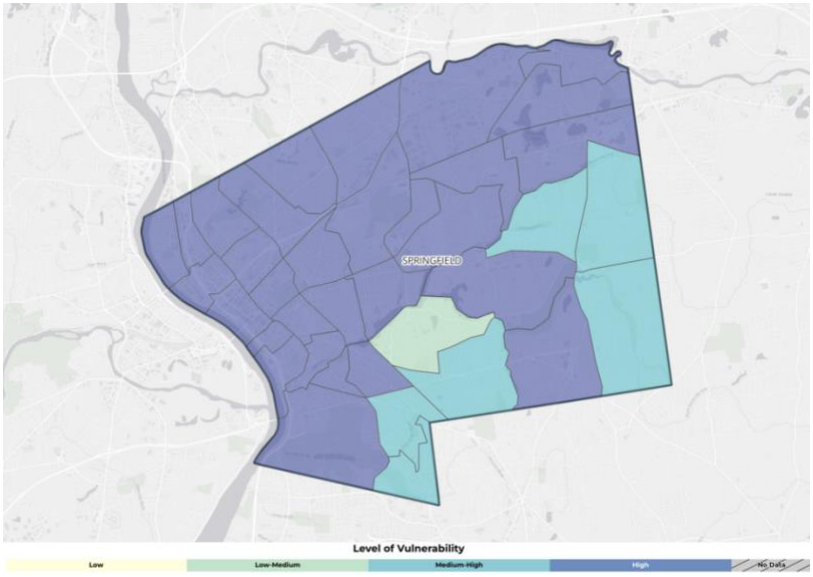
Overall, out of the 37 census tracts located within Springfield's geographical boundary, a majority (36) display a Social Vulnerability Index (SVI) ranging from medium-high to high.

This indicates that the populations living in these areas have characteristics that make them more vulnerable to adverse events.

For instance, residents in certain areas may experience poverty-related difficulties, limited access to education and healthcare, social isolation, or other factors that impede their ability to prepare for, respond to, and recover from adverse situations.

Additionally, Springfield's heightened vulnerability is comparable to Hampden County, which has a social vulnerability index (SVI) of 0.82. This also implies that Springfield's region faces greater social vulnerability, requiring focused attention and targeted interventions to enhance community resilience and well-being.

Figure 3: Social Vulnerability Index by Census Tract, Springfield, MA, 2020



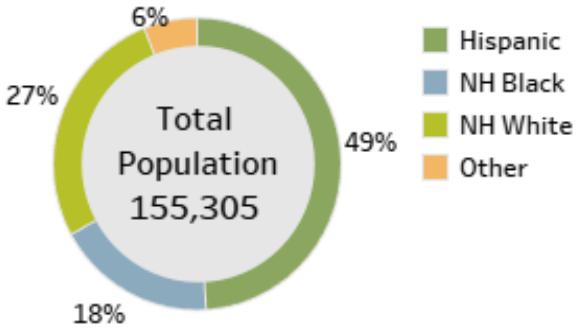
Source: Agency for Toxic Substances and Disease Registry, 2020

Sociodemographic Profile

According to the latest U.S. Census estimates, the population of Springfield is **155,305**. In 2020 U.S. Census recorded a population of 155,929 an increase of close to two percent (**1.9%**) from 2010, up from 153,060. However, since then the population has been experiencing a rate of decline of just over one percent (**-1.2%**).

Figure 4 illustrates that in Springfield, 73% of the residents identify as a racial or ethnic minority, with half of them identifying as Hispanic or Latino (49%) and less than one-third identifying as non-Hispanic white (27%). This proportion is relatively lower compared to Massachusetts, where 63% of the population identifies as non-Hispanic white. Moreover, about 12% of Springfield's residents identify as foreign-born,

Figure 4: Race and Ethnicity, Springfield, MA, 2018-2022



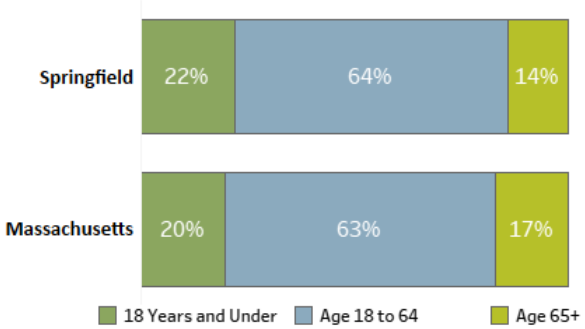
Source: 2022 ACS 1-Year Estimates

which is lower than the state rate of 18%. Additionally, approximately 9.4% of the population who moved to Springfield in the past year is slightly lower than the rest of Massachusetts, which is 12.3%.

Age

Age is an important demographic indicator for understanding the age structure of a population, which has various implications for the community, such as healthcare demands, social services, workforce challenges, and other factors that are often associated with certain age groups.

Figure 5: Population by Age Category, 2022



Source: 2022 ACS 1-Year Estimates

Figure 5 shows that Springfield has a similar proportion of working-aged adults (64%) when compared to the rest of the state. The working-age group, typically defined as individuals aged 18 to 64, is considered an extremely important segment to society for several reasons, as they play a central role in economic, social, and demographic stability.

For example, within this age group, individuals are expected to be in the labor force, either employed or actively seeking employment. This age range also typically spans the years when individuals complete their education, enter the workforce, and continue working until they approach retirement age.

In summary, adults of working age are crucial to maintaining economic vitality, supporting public services, fostering social cohesion, and shaping demographic trends. Their well-being and productive engagement are essential for the prosperity and stability of communities.

Table 1: Median Age by City, 2022

Pittsfield	44.6
Fall River	41.6
Massachusetts	39.8
Brockton	39.5
New Bedford	38.9
Haverhill	37.6
Lynn	37.2
Holyoke	36.5
Lowell	35.6
Springfield	33.9
Boston	33.3
Worcester	32.9
Somerville	31.4
Lawrence	31.0
Cambridge	29.6

Source: 2022 ACS 1-Year

Table 1 shows that Springfield's median age is **33.9**, which is comparatively younger than the state (Massachusetts, median age 39.8) as well as to several other cities included in the assessment. With Springfield leaning towards a more youthful population, we can also look at its dependency ratio, which is a measure that shows how many people depend on others for financial support, such as children and the elderly. A lower dependency ratio means that a larger percentage of the population can support dependents, which can have positive economic effects. Conversely, a higher dependency ratio indicates that the working population is under greater financial pressure to support dependents.

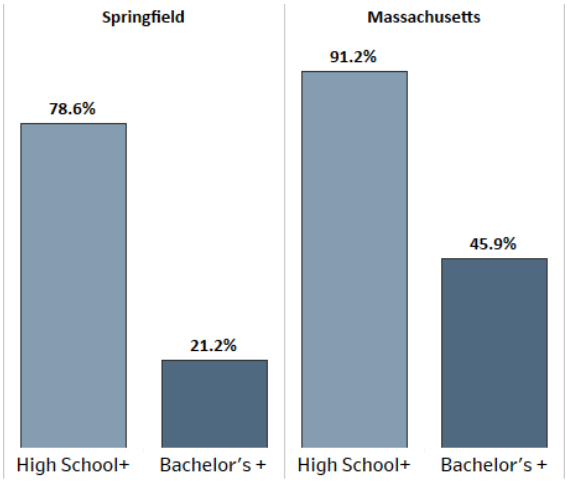
In the case of Springfield, the age dependency ratio is **56.5%,** suggesting a moderate level of dependency, which means there

are more dependents relative to the working-age population. This figure is also slightly lower than Massachusetts, which has a dependency ratio of **59.2%.**

Education

The relationship between education and income is often positive, as individuals with higher levels of education tend to earn higher incomes on average. Additionally, while education can be a significant factor, it is not the sole determinant of income, and various factors contribute to an individual's overall financial situation.

Figure 6: Population Aged 25+ with High School & Bachelor's Degree or Higher, 2022



Source: 2022 ACS 1-Year Estimates

In Springfield, just over three quarters of residents aged 25 and older possess at least a high school diploma or higher (78.6%), with one in five obtaining a bachelor's degree or higher (21.2%) (**Figure 6**). Overall, when compared to the rest of Massachusetts, Springfield's rates for high school completion and for completing a four-year college degree are lower.

Income

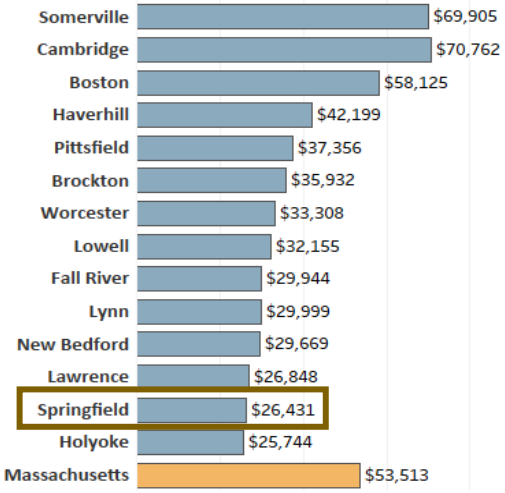
Per capita income and median household income are both important indicators used to measure the economic well-being of individuals and households in a given geographic area. Further, while they provide insight into the overall financial health of a region, they capture different aspects of income distribution.

For example, Per capita income is a measure used to assess the average income earned per person in a given area over a specific period, typically a year. It is calculated by dividing the total income generated in the region by the total population. Per capita income reflects the overall income level within a community and the income distribution among its residents.

Disparities in per capita income can highlight inequalities and socioeconomic challenges within a population, guiding efforts to address poverty, improve access to economic opportunities, and promote inclusive growth. Furthermore, per capita income is an essential indicator for assessing living standards, economic development, and the purchasing power of individuals within a community.

The median household income is a measure used to understand the typical income of a household. It identifies the income level that separates the higher-earning half of households from the lower-earning half. Unlike mean income, which extremely high or low values can influence, the median offers a better representation of the income distribution within a community. This metric can provide valuable insights into the economic well-being of households. Moreover, trends in median household income over time can indicate broader economic shifts and disparities within a community or region.

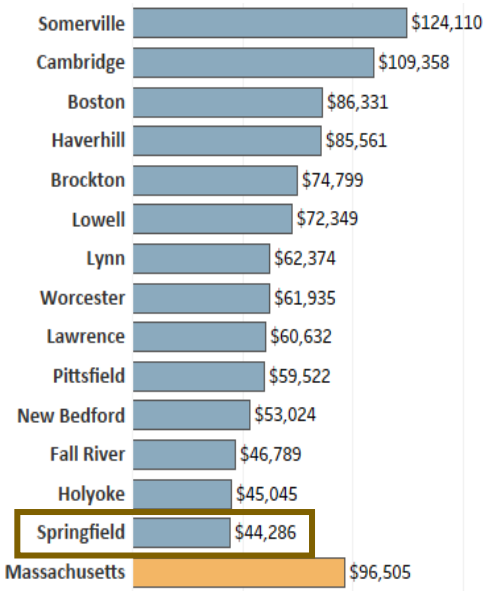
Figure 7: Per Capita Income by City, 2022



Source: 2022 ACS 1-Year Estimates

Median household income is intended to measure and understand the typical income of a household. **Figures 7 and 8** show how Springfield compares for both per capita income (relatively lower, and about half the state rate) and household median income across the 14-cities profiled for this assessment (similarly, lower and less than half than the state rate).

Figure 8: Median Household Income by City, 2022



Source: 2022 ACS 1-Year Estimates

Housing

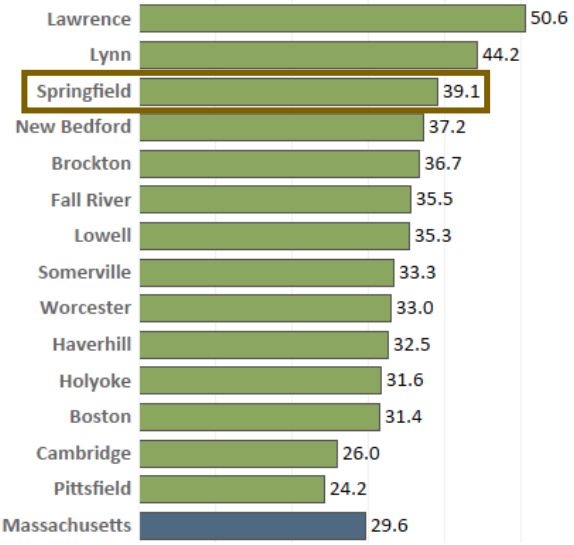
Households are considered cost-burdened when they spend more than 30% of their income on housing-related expenses. These expenses include rent, mortgage payments, utilities, and other housing needs. The 30% threshold is based on the idea that spending beyond this limit on housing can strain household budgets and limit financial flexibility. When a significant portion of income goes towards housing costs, households may have fewer financial resources for other essential expenses such as food, healthcare, and education. This financial strain can lead to difficult trade-offs and compromises, ultimately affecting the overall well-being and quality of life.

Identifying cost-burdened families is crucial in understanding and addressing housing affordability issues. By identifying and assisting cost-burdened households, communities can work towards creating more equitable housing opportunities, reducing poverty, and fostering economic stability. Further, addressing

housing affordability challenges is not only crucial for individual households, but also for promoting broader societal goals, such as reducing inequality, promoting social mobility, and enhancing overall community resilience.

Of 64,878 housing units in Springfield, approximately 93% are occupied, of which 53% are renter-occupied and 47% are owner-occupied.

Figure 9: Renters Experiencing Housing Cost Burden (30%+ of income), 2022

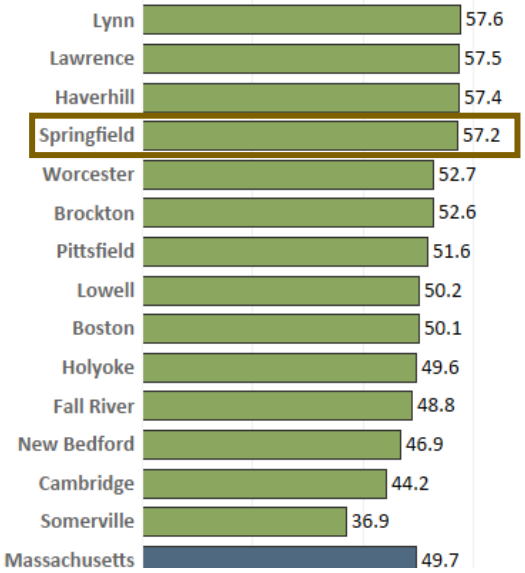


Source: 2022 ACS 1-Year Estimates

Overall, the housing burden in Springfield is comparatively higher than the state average for both renters (29.6%), and homeowners (49.7%) (**Figure 10**).

Figure 9 shows that a higher percentage of renters in Springfield, specifically 39.1%, allocate 30% or more of their income to housing costs, while almost six in ten homeowners (57.2%), are facing a similar burden.

Figure 10: Homeowners Experiencing Housing Cost Burden (30%+ of income), 2022



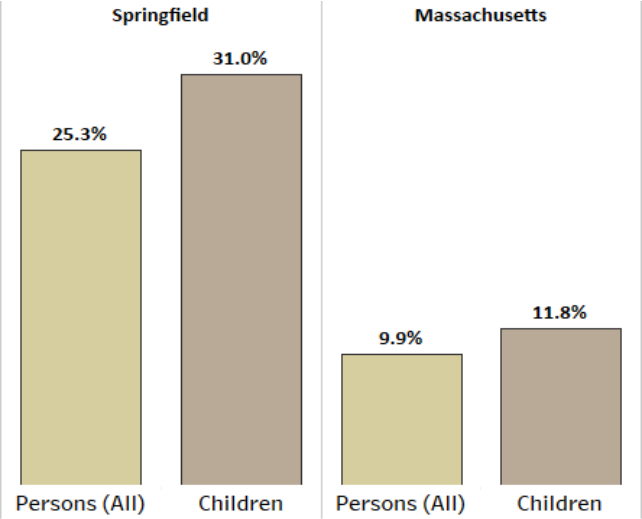
Source: 2022 ACS 1-Year Estimates

Financial Hardship and Public Assistance

Financial hardship can be considered a state where individuals or communities are unable to afford the resources necessary for a minimum standard of living, often as a result of limited of income and or an inability to meet basic needs, such as adequate food, shelter, education, and healthcare.

According to the U.S. Census, around 25.3% of Springfield's residents and 31.0% of children (under the age of 18) are currently experiencing financial difficulties, which is higher than the state's average rates (9.9% and 11.8%, respectively). Moreover, the percentage of financially struggling children in Springfield is more than twice the state's average rate, as shown in **Figure 11**.

Figure 11: Total Population and Children* Facing Financial Hardship, 2022



Source: 2022 ACS 1-Year Estimates
*Children are defined as those aged 18 and under

Moreover, families with a female householder and no spouse present and with children under the age of 18 experienced higher rates of financial hardship (41.3%) and households with children aged five and younger had a similar rate of hardship, with 40.2% of them struggling financially.

With respect to food assistance, the determination of Supplemental Nutrition Assistance Program (SNAP) benefits is based on income, household size, and expenses. The purpose of food assistance programs, such as SNAP, is to reduce hunger, improve nutrition, and support individuals and families who are experiencing financial difficulties.

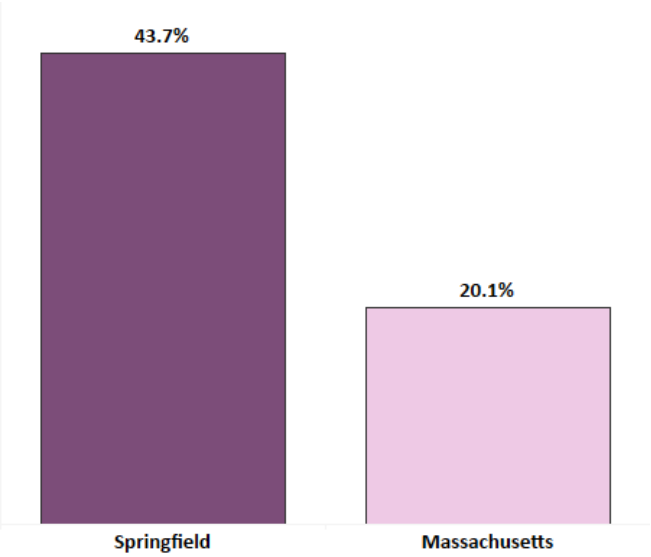
Approximately one in three households in Springfield received food stamp/Supplemental Nutrition Assistance Program (SNAP) benefits in the past year, which is 33.9% of the total households. However, the rate of receiving these benefits was generally higher among female heads of households (38.5%). Households identified as Hispanic (65.9%) and multiracial (24.1%) also had the highest rates of receiving SNAP benefits.

Public Health Insurance

Health insurance coverage is a financial mechanism for covering an individual's healthcare expenses. It grants access to medical services, safeguards against high costs, and contributes to economic stability for individuals and families. While most Springfield residents have some form of health insurance coverage (96.4%), specific segments of the community are more likely to be **uninsured**. This includes individuals who identify as another race (6.2%), Asian (5.0%) and American Indian or Alaskan Native (4.5%), foreign born (6.7%), those who are non-citizens (9.4%), individuals experiencing unemployment (7.6%) and those with a high school diploma (4.2%).

In the United States, public health insurance refers to government-sponsored health insurance programs such as Medicaid or Medicare that cover specific populations, such as seniors, economically vulnerable individuals,

Figure 12: Public Health Insurance Coverage Rates, 2018-2022



Source: 2022 ACS 5-Year Estimates

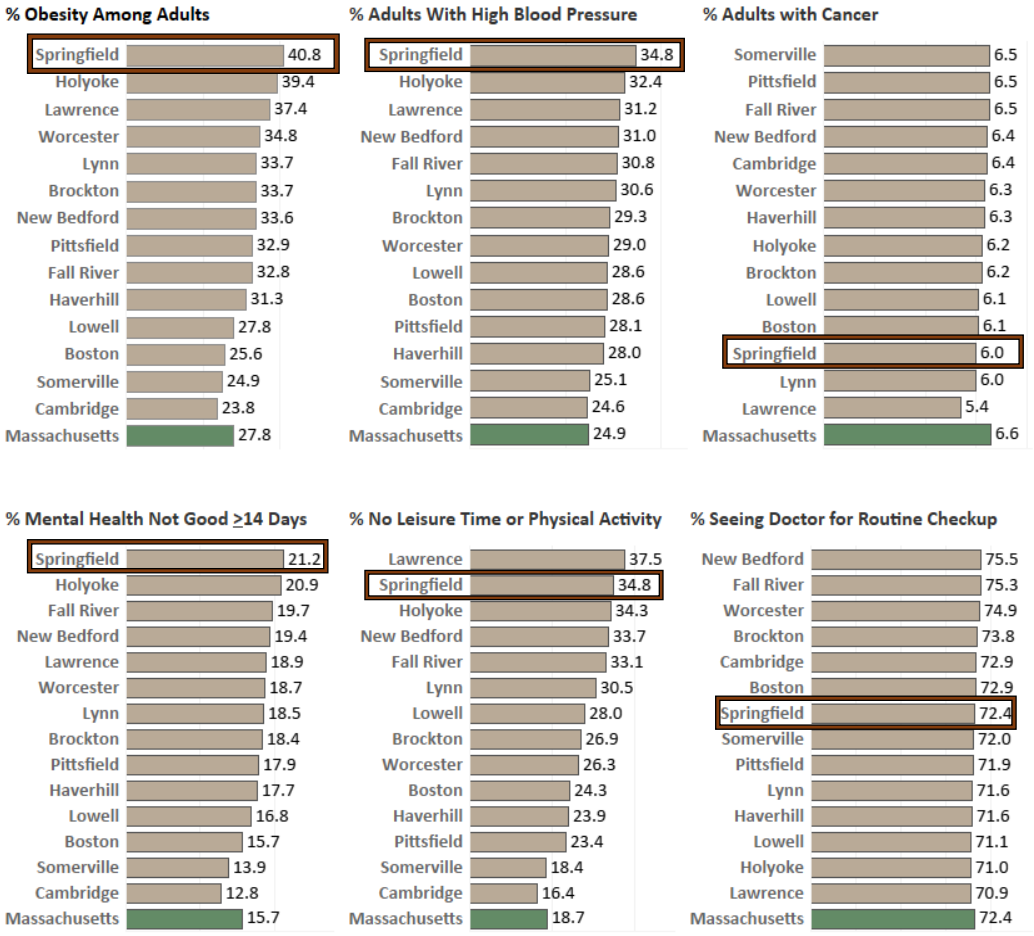
and people with disabilities, as well those requiring access to life-saving medical services and care such as dialysis treatment.

It's important to note that public health insurance is distinct from private health insurance, typically provided by employers or purchased by individuals on the private market. **Figure 12** shows that approximately 43.7% of Springfield residents have some form of public health insurance, which is twice the rate for Massachusetts (43.7%).

Health Outcomes and Status

Health status and health outcomes are two different concepts in the field of healthcare and public health. Health status refers to the overall condition of an individual's or a population's health at a particular point in time. It comprises several dimensions, including mental, physical, and social well-being. Health outcomes, on the other hand, are the specific results or consequences of healthcare or

Figure 13: Self-Reported Health Outcomes and Health Status for Persons Aged 18 and Older by City, 2020-2021



Source: Centers for Disease Control and Prevention, PLACES: Local Data for Better Health; Estimates for each measure are based on 2020 and 2021 Behavioral Risk Factor Surveillance System data.

health interventions. **Figure 13** focuses on a specific group of indicators that measure health status and outcomes in Springfield and thirteen other priority communities.

In general, Springfield has some of the highest percentages of adults who suffer from health problems such as obesity (40.8%), high blood pressure (34.8%), and poor mental health (21.2%). Additionally, many adults in Springfield report having no leisure time or physical activity (34.8%), which is higher than the state rate. The percentage of adults diagnosed with cancer (6.0%) is similar to the state rate, as well as the percentage of those who have visited a medical provider for a routine check-up (72.4%).

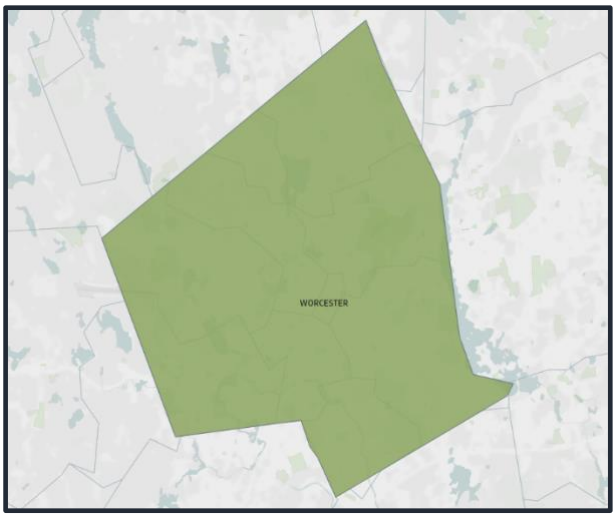
The information provided offers a snapshot of specific health indicators in Springfield but may not capture the full complexity of the city's overall health status. Further, it is important to understand that health outcomes are influenced by various factors, making it a complex issue. While the analysis provides insight into certain health indicators, a comprehensive understanding necessitates consideration of additional factors such as socioeconomic status, access to healthcare, and environmental influences. Moreover, continuous efforts in public health and preventive measures can bring about changes in these indicators over time.

Community Profile: Worcester, Massachusetts

Introduction

The following community profile prepared for Worcester, Massachusetts, provides a high-level overview of the population's composition and characteristics. This brief is not intended as a comprehensive community profile but instead it is primarily designed to give context and support informed decision-making. It can also aid policymakers, planners, community leaders, and collaborators to understand and address a community's unique needs and challenges - for the individuals represented by this data have lived their lives in circumstances that are both influenced and constrained by economic factors, social context, and government policies. With this in mind, a significant portion of this report is dedicated to examining the social, economic, and community context in which residents live.

Figure 1: Geographic Boundary for Worcester, Massachusetts



The profile for Worcester also encompassed a review and analysis of secondary data. Secondary data refers to the data that has been collected for a different purpose. Analyzing secondary data helps us to understand patterns, establish a starting point, and recognize variations in populations and communities.

The social, demographic, economic, and health data sources including demographic data for this profile is from the U.S. Census Bureau's American Community Survey (ACS) 1 and 5-Year Estimates, 2018-2022; social vulnerability data is from the Agency for Toxic Substances and Disease Registry (ATDSR), and firearm-related incidents are from the Gun Violence Archive for years 2015 to 2023; Population health data is from the online data portal from the Centers for Disease Control and Prevention's online data portal PLACES: Local Data for Better Health based on 2020 and 2021 Behavioral Risk Factor Surveillance System (BRFSS) data. A description of each data source is located at the end of this report.

Data collection has limitations, as different sources use different ways of measuring similar variables. There may be a time lag, and data may not be available by specific population groups or at a more granular geographic level due to small sample sizes. In some cases, data from multiple years may have been aggregated to allow for more stable estimates.

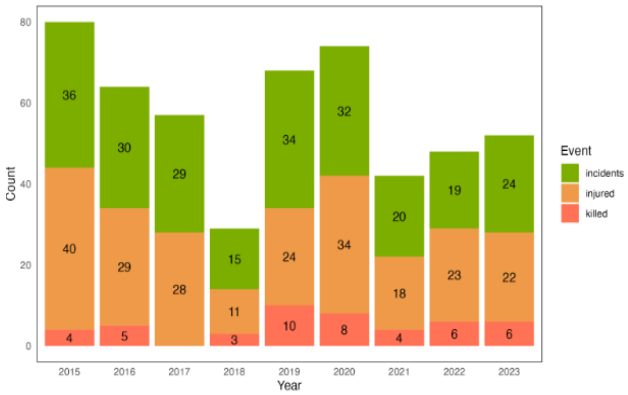
The community profile begins with an overview of firearm-related incidents, followed by the status of social vulnerability and a review of population, housing, and economic characteristics as well selected measures for health status and outcomes.

In conclusion, this community profile is a foundational resource that underscores the significance of considering the broader socio-economic context and the impact of policies on residents' lives, highlighting the importance of data-driven strategies for fostering community well-being and resilience.

Firearm-Related Incidents, Deaths, and Injuries

Firearm incidents may include a range of events such as homicides, suicides, accidental discharges, and non-fatal injuries involving firearms. The number of firearm incidents is influenced by various factors, including gun ownership rates, gun control policies, socioeconomic conditions, and other social factors.

Figure 2: Firearm-Related Incidents, Injuries and Fatalities, Worcester, MA, 2015 to 2023*



Source: Gun Violence Archive, 2015 to 2023; *2023 data is only for January 2023 to November 2023; Reported averages have been rounded.

Firearm deaths continue to be a significant and growing public health problem in communities across the United States. Overall, between January 2015 and November 2023, there were a total of 239 firearm-related incidents in the city of Worcester (an average of 25 per year) that cumulatively resulted in a total of 229 injuriesand 46 fatalities.

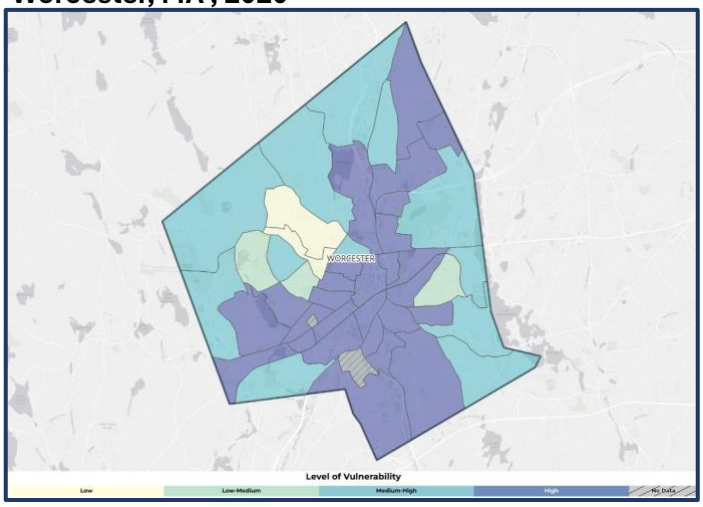
According to Figure 2, the highest number of shooting incidents occurred in 2015 (36), resulting in 40 firearm-related injuries and four deaths. On the other hand, the lowest number of incidents happened in 2018 (15). As for the year 2023, the data is incomplete as information regarding incidents for December is still pending, with 22 injuries and two fatalities reported across eleven months.

Social Vulnerability

The Social Vulnerability Index (SVI) is a measure used to assess the vulnerability of communities to natural or human-made disasters and emergencies. It considers various social, economic, and demographic factors affecting a community's ability to prepare for, respond to, and recover from disasters[14].

Emergency management agencies, researchers, and public health officials often use the index to identify and prioritize areas that may need additional support in a crisis.

Figure 3: Social Vulnerability Index by Census Tract, Worcester, MA , 2020



Source: Agency for Toxic Substances and Disease Registry, 2020

[14] The Social Vulnerability Index - At A Glance

As **Figure 3** shows, SVI is often represented as a map, with different areas shaded or colored to indicate their level of vulnerability. By identifying vulnerable communities, emergency planners can allocate resources more effectively and implement targeted interventions to enhance resilience and reduce the impact of disasters on these communities.

Overall, out of the 46 census tracts that fall within the geographical boundary of Worcester, approximately 39 reflect an SVI ranging from medium-high to high. This suggests that most of the census tracts exhibit characteristics associated with increased vulnerability.

People residing in these areas may face less challenges related to poverty, limited access to education and healthcare, social isolation, or other factors that hinder their ability to prepare for, respond to, and recover from adverse events. In contrast, Worcester County has an SVI score of **0.43**, which indicates a low to medium level of vulnerability.

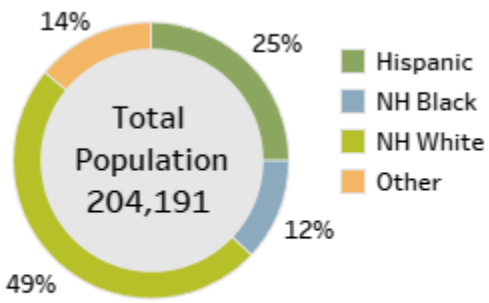
Sociodemographic Profile

According to the latest U.S. Census estimates, the population of Worcester is **204,191**. In 2020 U.S. Census recorded a population of 206,518 an increase of approximately 14 percent (**14.1%)** from 2010, up from 181,045. However, since the population has declined at a rate of just over half a percent (**-0.6%**).

Figure 4 shows that in Worcester, about half of residents identify as a racial or ethnic minority (51%). Worcester has a more diverse population than the broader state of Massachusetts, where 63% of the population identifies as non-Hispanic white while nearly 37% self-identify as belonging to a racial or ethnic minority group.

Additionally, about a quarter of Worcester residents are foreign born (24.8%), which is also comparatively higher than the rest of Massachusetts (18%), with about 18% of residents having moved to Worcester within the past year.

Figure 4: Race and Ethnicity, Worcester, MA, 2018-2022



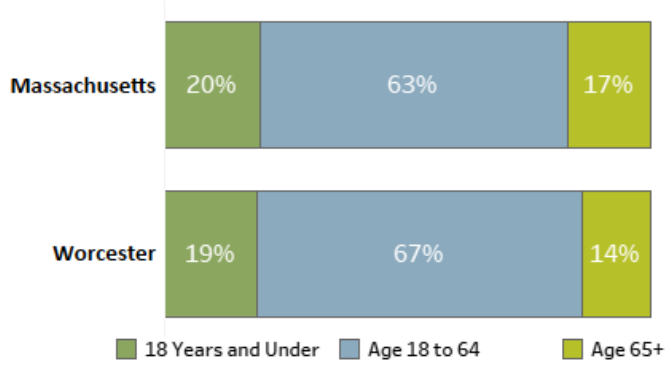
Source: 2022 ACS 1-Year Estimates

Age

Age is an important demographic indicator for understanding the age structure of a population, which has various implications for the community, such as healthcare demands, social services, workforce challenges, and other factors that are often associated with certain age groups.

Figure 5 shows that Worcester has a relatively greater proportion of working- aged adults than the rest of the state (67%).

Figure 5: Population by Age Category, 2022



Source: 2022 ACS 1-Year Estimates

This age distribution suggests that a larger percentage of Worcester residents are of working age, i.e., between 18 and 64 years old, which is the age range during which individuals typically finish their education, enter the workforce, and continue working until they approach retirement age.

Within this age group, individuals are expected to be in the labor force, either employed or actively seeking employment. generally expected to be in the labor force, either employed or actively seeking employment. This age range is chosen because it typically spans the years when individuals complete their education, enter the workforce, and continue working until they approach retirement age.

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Lowell	35.6
Springfield	33.9
Boston	33.3
Worcester	32.9
Somerville	31.4
Lawrence	31.0
Cambridge	29.6

Source: 2022 ACS 1-Year Estimates

Table 1 shows that Worcester's median age is 32.9, which is comparatively younger than the state (Massachusetts, median age 39.8) as well when compared to several other cities included in the assessment. Further, while Worcester's median age reflects a generally younger population, additional demographic indicators also highlight how these factors can impact the social and economic profile of a community.

For example, the **dependency ratio** is a measure that shows how many people depend on others for financial support, such as children and the elderly. A lower dependency ratio means that a larger percentage of the population can support dependents, which can have positive economic effects. Conversely, a higher dependency ratio indicates that the working population is under greater financial pressure to support dependents. For example, high dependency ratios can strain resources such as healthcare, pensions, and social welfare systems, while low dependency ratios may indicate a larger proportion of the population in the workforce, potentially supporting economic growth.

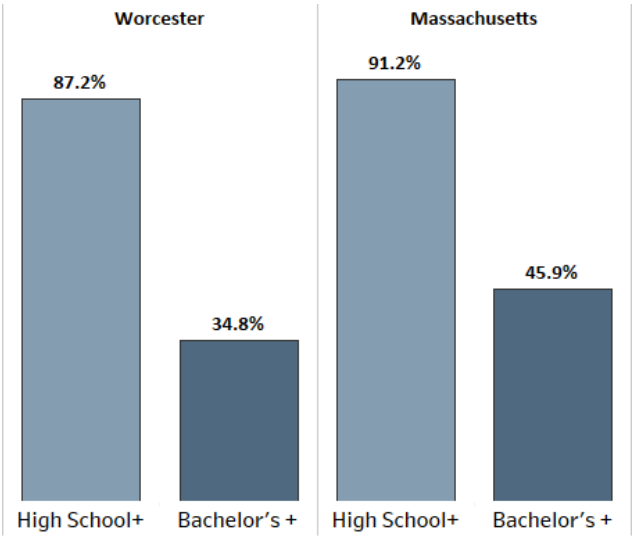
In the case of Worcester, the age dependency ratio is 49.4%, suggesting a low level of dependency, which means that there are less dependents relative to the working-age population. This figure is also much lower than that of Massachusetts, which has a dependency ratio of 59.2%.

Education

The relationship between education and income is often positive, as individuals with higher levels of education tend to earn higher incomes on average. Additionally, while education can be a significant factor, it is not the sole determinant of income, and various factors contribute to an individual's overall financial situation.

In Worcester, most people aged 25 and above have completed high school or higher education (87.2%), and approximately one-third of people have completed a four-year degree, which is 34.8% (as shown in **Figure 6**). Compared to the rest of Massachusetts, Worcester's high school completion rate is slightly lower than the state's average. Meanwhile, fewer people in Worcester have completed a four-year college degree as compared to the rest of Massachusetts.

Figure 6: Population Aged 25+ with High School & Bachelor's Degree or Higher, 2022



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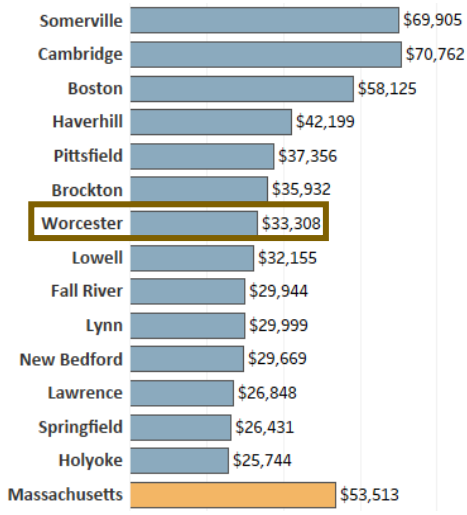

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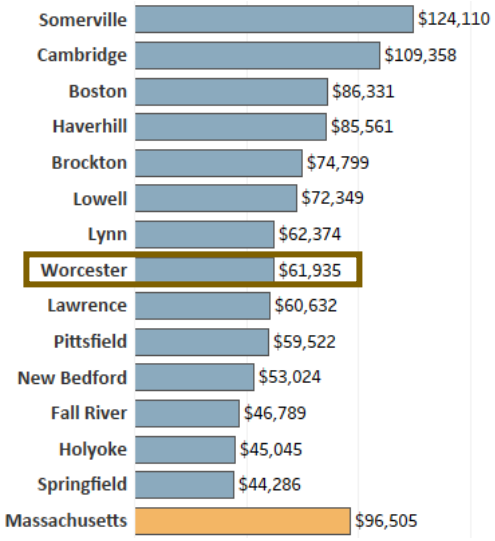
Median household income is intended to measure and understand the typical income of a household. **Figures 7 and 8** show how Worcester compares for both per capita income (lower than the state rate and ranking in the middle when compared to other cities included in the assessment) and household median income (similarly, lower than the state rate) across the 14-cities profiled for this assessment.

Figure 8: Median Household Income by City, 2022

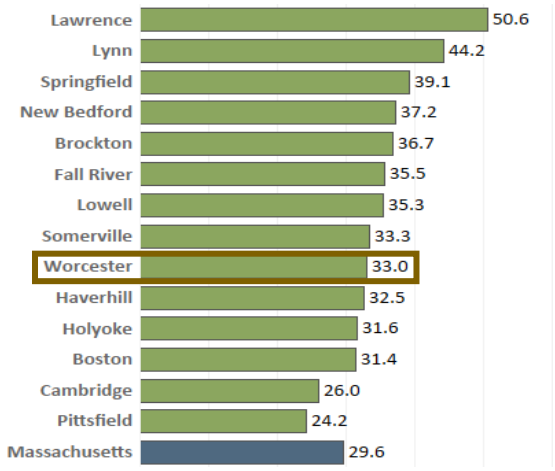


Source: 2022 ACS 1-Year Estimates

Housing

Households are considered cost-burdened when they spend more than 30% of their income on housing-related expenses. These expenses include rent, mortgage payments, utilities, and other housing needs. The 30% threshold is based on the idea that spending beyond this limit on housing can strain household budgets and limit financial flexibility. When a significant portion of income goes towards housing costs, households may have fewer financial resources for other essential expenses such as food, healthcare, and education. This financial strain can lead to difficult trade-offs and compromises, ultimately affecting the overall well-being and quality of life.

Figure 9: Renters Experiencing Housing Cost Burden (30%+ of income), 2022



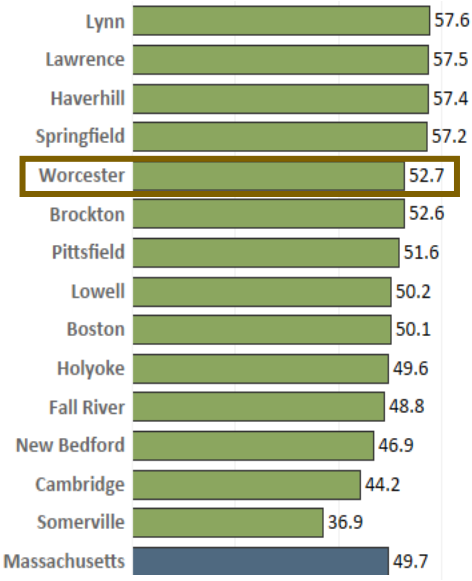
Source: 2022 ACS 1-Year Estimates

Identifying cost-burdened families is crucial in understanding and addressing housing affordability issues. By identifying and assisting cost-burdened households, communities can work towards creating more equitable housing opportunities, reducing poverty, and fostering economic stability. Further, addressing housing affordability challenges is not only crucial for individual households, but also for promoting

broader societal goals, such as reducing inequality, promoting social mobility, and enhancing overall community resilience.

Of 85,298 housing units in Worcester, approximately 94% are occupied, of which 62% are renter-occupied and 44% are owner-occupied. **Figure 9** shows that a lower percentage of renters in Worcester, specifically about one in three (33.0%), allocate 30% or more of their income to housing costs, compared to homeowners, with just over half, or 52.7%, facing a similar burden. Overall, the housing burden for Worcester is above the state average for renters (29.6%), and homeowners (49.7%) (**Figure 10**).

Figure 10: Homeowners Experiencing Housing Cost Burden (30%+ of income), 2022



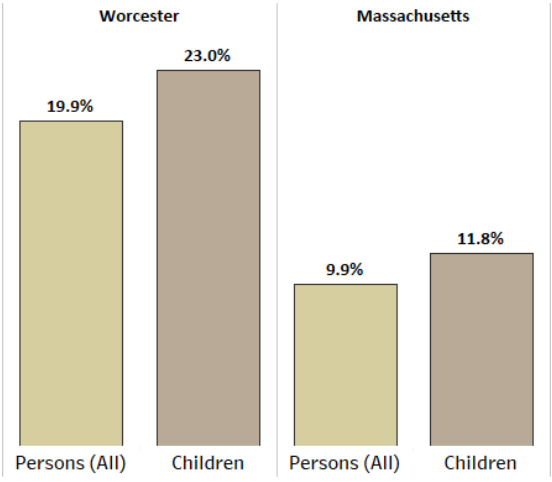
Source: 2022 ACS 1-Year Estimates

Financial Hardship and Public Assistance

Financial hardship can be considered a state where individuals or communities are unable to afford the resources necessary for a minimum standard of living, often as a result of limited of income and or an inability to meet basic needs, such as adequate food, shelter, education, and healthcare.

According to the U.S. Census, about one in five of all Worcester residents (19.9%) and about one in four children (18 years of age and younger) (23.0%) are facing financial hardship, which is higher than the state rates (9.9% and 11.8%, respectively) (**Figure 11**).

Figure 11: Total Population and Children* Facing Financial Hardship, 2022



Source: 2022 ACS 1-Year Estimates
*Children are defined as those aged 18 and under

Moreover, families with a female householder and households with children under the age of 18 experienced higher rates of financial hardship (33.6%). Also, households with children aged five and younger had a similar rate of hardship, with 36.2% of them struggling financially.

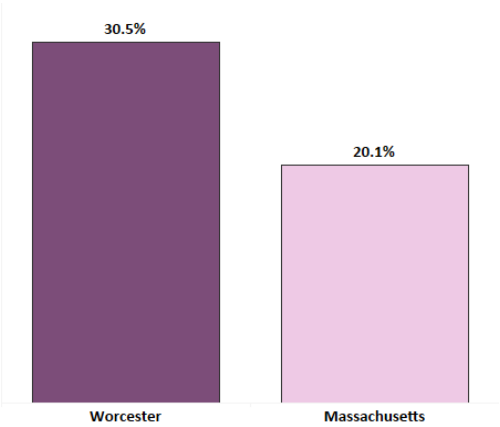
Regarding food assistance, the determination of SNAP benefits is based on income, household size, and expenses. The purpose of food assistance programs, such as SNAP, is to reduce hunger, improve nutrition, and support individuals and families who are experiencing financial difficulties. In Worcester, about 25.2% of households received food stamp/ Supplemental Nutrition Assistance Program (SNAP) benefits within

the past year. Additionally, households with children under the age of 18 and those led by a female head of household with no spouse present also had higher rates of SNAP benefits, 41.9% and 24.2% respectively.

Public Health Insurance

Health insurance coverage is a financial mechanism that covers an individual's healthcare expenses. It provides access to medical services, protects against high costs, and promotes economic stability for individuals and families. Although the majority of Worcester residents have some form of health insurance coverage (96.6%), specific segments of the community are more likely to be uninsured. This includes individuals who identify as Native Hawaiian and Other Pacific Islander (19.4%), Hispanic or Latino (4.5%), those who are not U.S. citizens (11.0%), those without a high school diploma (8.1%), and those experiencing unemployment (11.2%) with the highest uninsured rates.

Figure 12: Public Health Insurance Coverage Rates, 2018-2022



Source: 2018-2022 ACS 5-Year Estimates

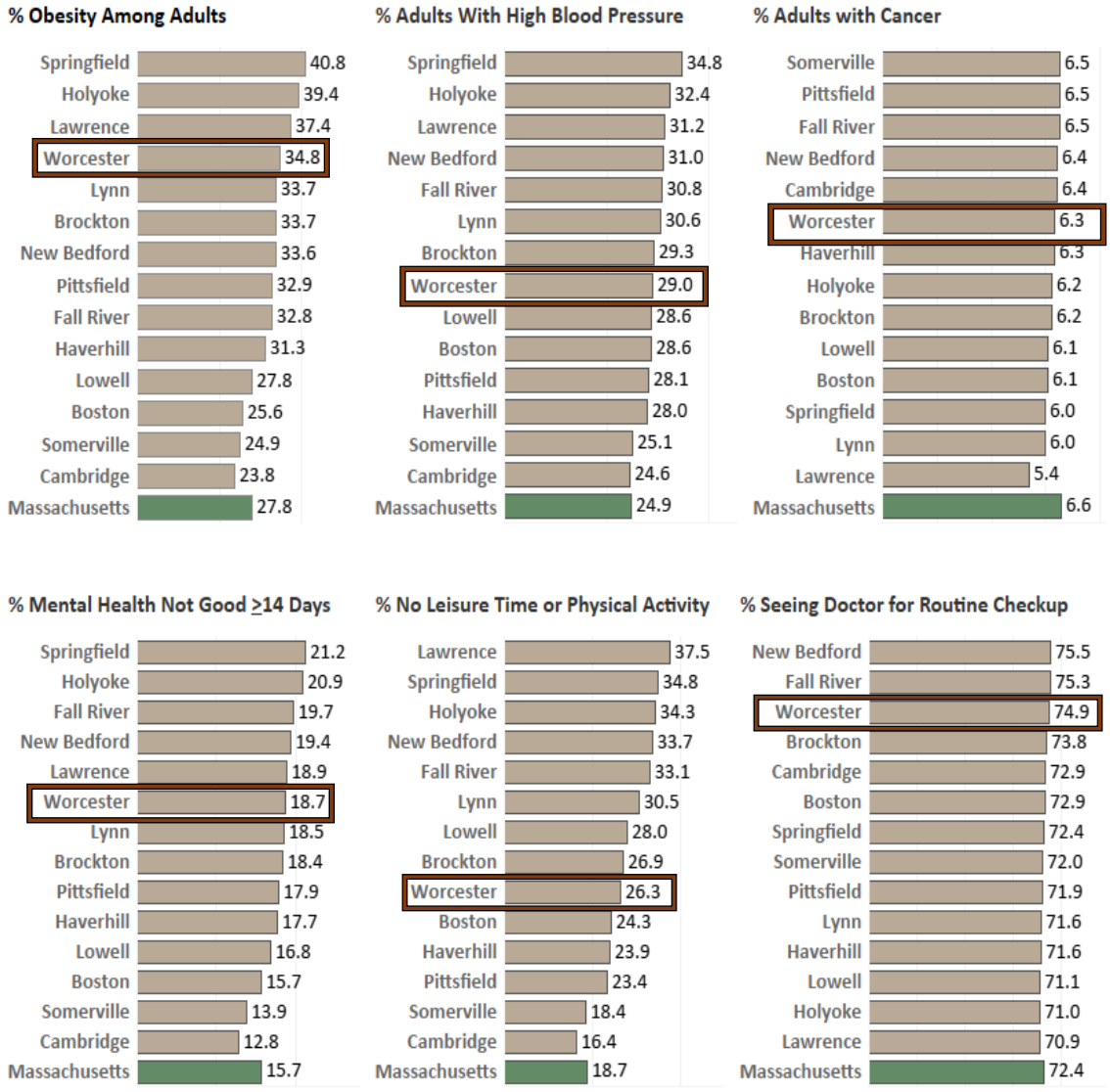
In the United States, public health insurance refers to government-sponsored health insurance programs such as Medicaid or Medicare that cover specific populations, such as seniors, economically vulnerable individuals, and people with disabilities, as well those requiring access to life-saving medical services and care such as dialysis treatment. It's important to note that public health insurance is distinct from private health insurance, typically provided by employers or purchased by individuals on the private market. **Figure 12** shows that approximately 30.5% of Worcester residents have some form of public health insurance, which is higher than the rate for Massachusetts (20.1%).

Health Outcomes and Status

Health status and health outcomes are two different concepts in the field of healthcare and public health. Health status refers to the overall condition of an individual's or a population's health at a particular point in time. It comprises several dimensions, including mental, physical, and social well-being. Health outcomes, on the other hand, are the specific results or consequences of healthcare or health interventions. **Figure 13** focuses on a subset of indicators that capture health status and health outcomes for Worcester and the other thirteen priority communities.

The obesity rate among adults in Worcester is 34.8%, which is higher than the state rate of Massachusetts. Furthermore, Worcester has higher rates than Massachusetts for adults with high blood pressure (29.0%), poor mental health (18.7%), and no leisure time or physical activity (26.3%). However, these rates are lower than other cities included in the assessment. Rates of adults reporting being diagnosed with cancer are also generally similar to the state rate, at 6.3%, with a slightly higher proportion of Worcester adults reporting seeing a doctor for a routine check-up, at 74.9%.

Figure 13: Self-Reported Health Outcomes and Health Status for Persons Aged 18 and Older by City, 2020-2021



Source: Centers for Disease Control and Prevention, PLACES: Local Data for Better Health; Estimates for each measure are based on 2020 and 2021 Behavioral Risk Factor Surveillance System data.

The information provided offers a snapshot of specific health indicators in Worcester but may not capture the full complexity of the city's overall health status. Further, it is important to understand that health outcomes are influenced by various factors, making it a complex issue. While the analysis provides insight into certain health indicators, a comprehensive understanding necessitates consideration of additional factors such as socioeconomic status, access to healthcare, and environmental influences. Moreover, continuous efforts in public health and preventive measures can bring about changes in these indicators over time.

Measures and Data Sources

The American Community Survey (ACS) is a survey carried out by the U.S. Census Bureau to collect comprehensive information on demographic, social, economic, and housing aspects of communities in the United States. Unlike the traditional census, which is conducted every ten years, the ACS is conducted continuously, producing updated data annually. This enables the collection of more current and detailed information as compared to the decennial census.

Census Tracts are small, relatively stable geographic subdivisions within a county that are used by the United States Census Bureau for statistical purposes. They are designed to provide a more detailed and localized view of demographic and socioeconomic characteristics within a larger area. Census tracts are geographic units that typically represent neighborhoods or communities within a county. Census tracts vary in population size but generally have populations ranging from 1,200 to 8,000 people. The goal is to create units that are small enough to capture local variations but large enough to maintain statistical reliability.

CDC PLACES: Local Data for Better Health data refers to a collection of geospatial datasets maintained by the Centers for Disease Control and Prevention (CDC). These datasets are designed to provide information about various places and their attributes, allowing researchers, public health professionals, and policymakers to better understand the context of health-related data. The CDC often integrates Places data with health-related information to facilitate spatial analysis and research. By linking health outcomes or behaviors with specific geographic areas, researchers can explore spatial patterns, disparities, and potential determinants of health.

The Gun Violence Archive (GVA) is a non-profit organization and an online repository that tracks and documents incidents of gun violence in the United States. The Gun Violence Archive aims to provide accurate and up-to-date information on gun-related incidents, including shootings, injuries, and deaths, to raise awareness and facilitate informed discussions about gun violence in the country. The GVA categorizes gun violence incidents based on different criteria, such as the type of incident (e.g., mass shooting, domestic violence, unintentional shooting) and the number of people injured or killed. This classification helps provide a nuanced understanding of the various aspects of gun violence.

The Social Vulnerability Index (SVI) is a useful tool that has been developed by the U.S. Centers for Disease Control and Prevention (CDC) and the **Agency for Toxic Substances and Disease Registry (ATSDR)**. The primary objective of this tool is to evaluate and quantify the degree of vulnerability of different communities to environmental hazards and disasters. The SVI is particularly helpful for public health officials, emergency planners, and researchers as it enables them to identify and prioritize areas that may be more susceptible to negative impacts during emergencies. The SVI is calculated using a combination of various indicators, which are assigned scores based on their relationship to social vulnerability. Higher scores indicate a higher degree of vulnerability. The overall SVI score helps rank and compare different communities based on their relative vulnerability.