Socioeconomic Indicators for Massachusetts

May 20, 2026

UMassAmherst
Donahue Institute
Economic and
Public Policy Research

Prepared by the UMass Donahue Institute's
Economic & Public Policy Research Group

This report was prepared by the UMass Donahue Institute and, except where noted, the information in text, tables, charts, and graphs are the most recently available information as of May 6th, 2026.

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Economy

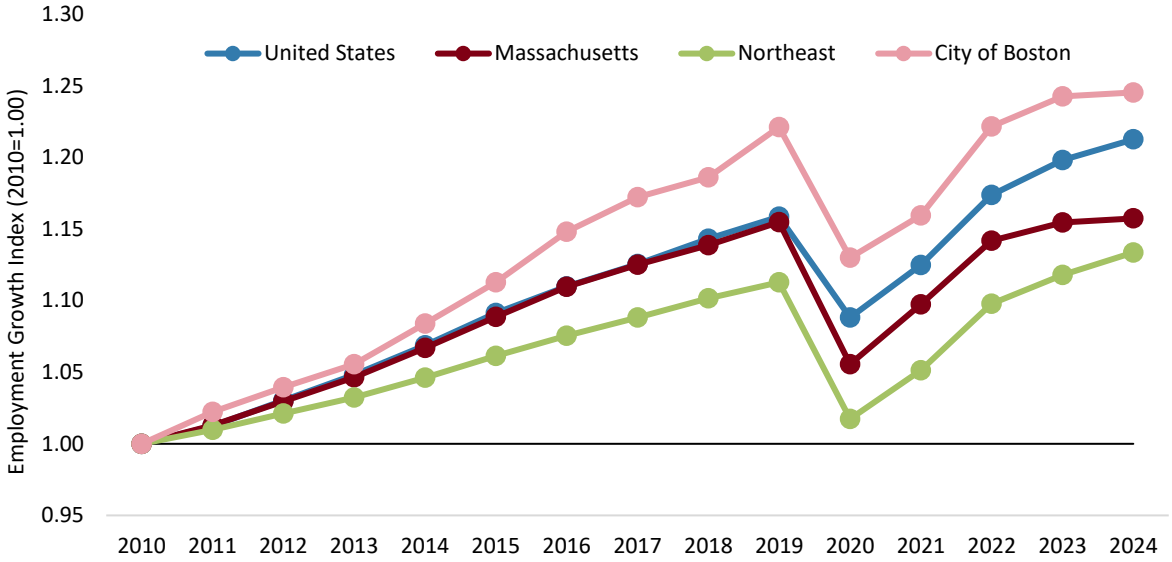
Overall Employment

Over the past decade, Massachusetts has been a leader in job growth in the Northeast, with jobs located in the city of Boston leading the state in both the late 2010s and throughout the post-pandemic recovery (**Figure 1**). This growth has been driven largely by the state's highly-educated workforce, the overall diversity of industries, and strengths in knowledge-based industries, such as health care, education, and professional services (**Figure 2**). Professional, scientific, and technical services have been increasingly important in the state, both as a share of employment and in terms of its contribution to state gross domestic product (GDP). During the pandemic, professional, scientific, and technical services moved from being the fourth to the second highest concentration of jobs by industry, essentially tied with educational services at 10 percent of all jobs in 2024. The industry accounted for 14.4 percent of the state GDP in 2025 as well. While the industry includes everything from legal services to veterinary services, in Massachusetts the two leading subsectors in terms of employees are computer systems design and related services, and scientific research and development services. These subsectors benefit from the Commonwealth's well-established higher education and health care sectors.

The clusters of colleges, universities, and teaching hospitals contribute to Massachusetts being a hub for technology and research. Educational services and health care and social assistance have consistently been among the top industries in the state. Finance and insurance have played an important role in the Massachusetts economy, making up roughly 5 percent of jobs but contributing 8.7 percent to the state GDP. At sixth in terms of employment in 2024, the Commonwealth's share of manufacturing employment remained lower than the share of employment in the United States as a whole, but at higher average pay. Computer and electronic products is the largest subsector of manufacturing in Massachusetts, underscoring the relative importance of advanced manufacturing to the Commonwealth's economy. In comparison, manufacturing in the United States is primarily concentrated in automobiles and food manufacturing.[1]

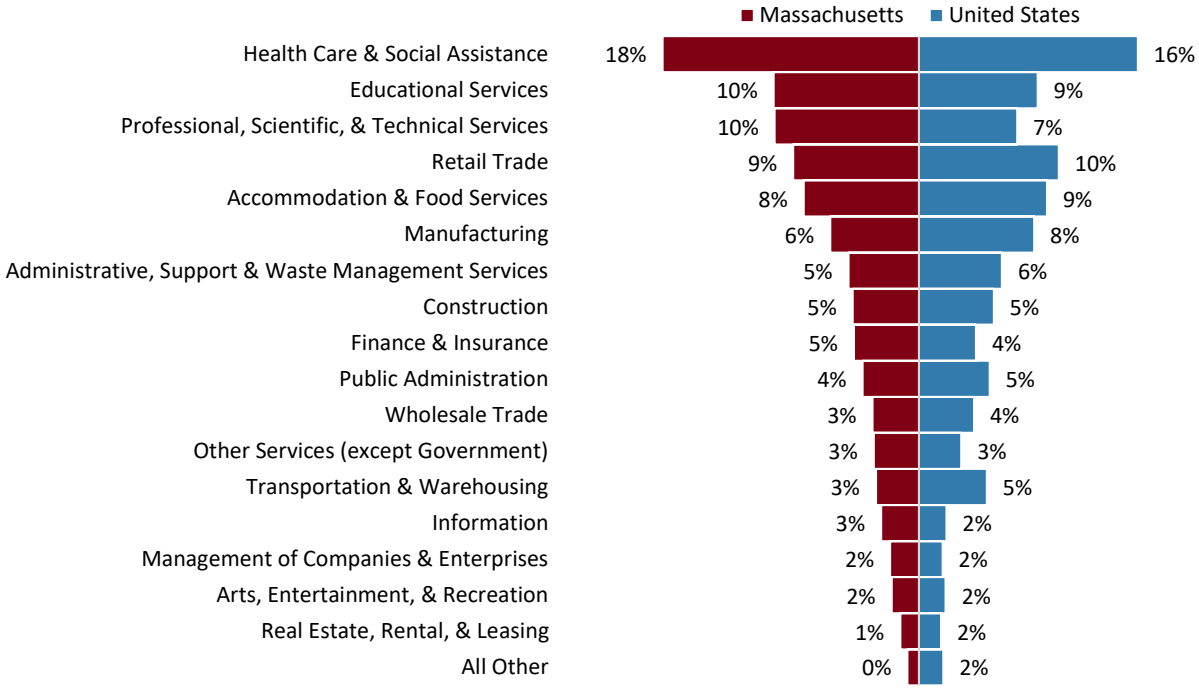
[1] U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2024 annual averages.

Figure 1. Employment Growth Index in Massachusetts, the Northeast, and the United States, 2010-2024 (2010=1.00)



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW); UMDI analysis

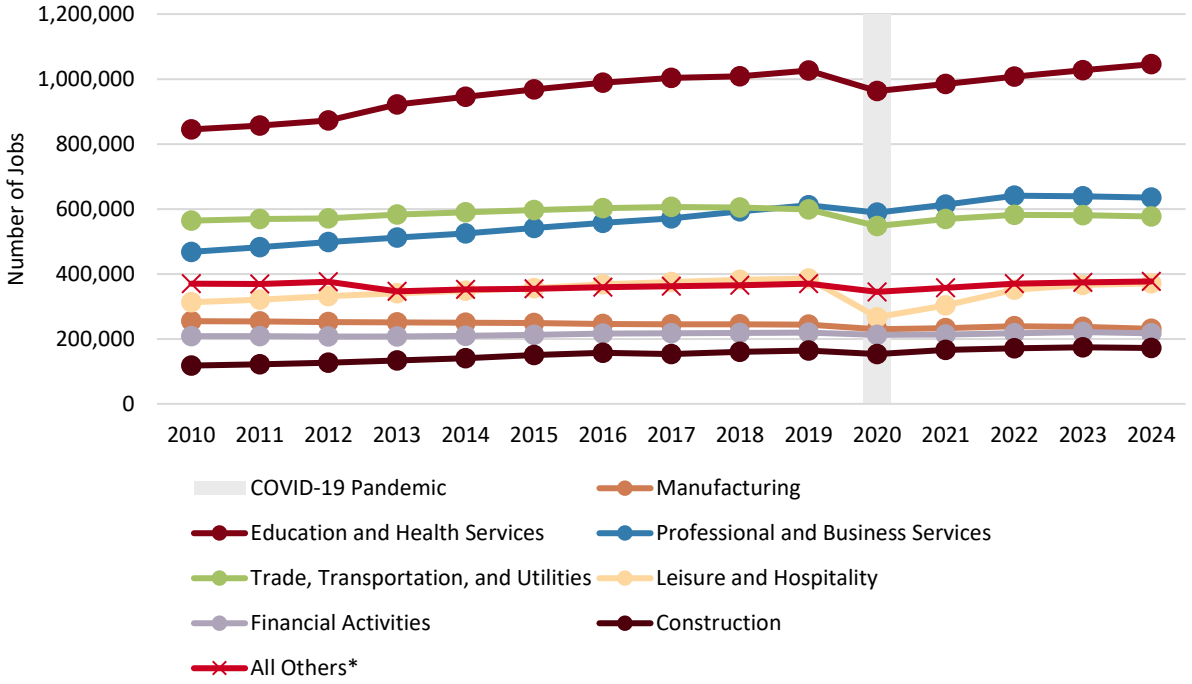
Figure 2. Industry Mix in Massachusetts and the United States, 2024 (Percent of Total Jobs)



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW), UMDI analysis.
Note: All Other includes: Utilities; Agriculture, Forestry, Fishing, & Hunting; and Mining, Quarrying, and Oil & Gas Extraction. QCEW divides government jobs between Public Administration (jobs directly related to public programs and governmental bodies) and all other industries where local, state, and federal employment could be categories, i.e. public school teachers will be categorized as Educational Services. Not seasonally adjusted.

Looking at Bureau of Labor Statistics supersectors, education and health services, professional and business services, and leisure and hospitality continue to drive the Massachusetts economy and account for half of total payroll employment, while financial activities, government, information, and trade, transportation and utilities have remained relatively level or declined in share (**Figure 3**).

Figure 3. Annual Average Employment in Massachusetts by NAICS Supersector, 2010-2024



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW); UMDI analysis. For purposes of analysis, the Bureau of Labor Statistics aggregates NAICS sectors into groupings called supersectors.
*Includes the supersectors: Public Administration, Mining & Natural Resources, Information, and Other Services.

Education Services, Health Care, and Social Assistance

The strength of the education and health services sectors within Massachusetts has historically been an asset. In 2024 employment was up in both sectors. There were over 667,000 employees in the health care and social assistance industry and 378,000 in the educational services sector. With changes to federal policy there is reduced federal funding support to these key industries and the technological and scientific advancement that have benefited residents of the Commonwealth and the nation. Because we use annual data to understand industry trends and the most recent year available is 2024, it is unclear to what extent federal policy changes will negatively impact the trajectory of these industries in Massachusetts and the nation.

The industries often referred to as “Eds and Meds”—education services, health care, and social assistance—consist of many subsectors. Within health care there is significant variation among subsectors in terms of wages and employment (**Figure 4**). Hospitals comprise a slightly higher percentage of education and health services employment at the state level compared to the U.S., while

ambulatory health care services (such as doctor's offices, outpatient care centers, medical and diagnostics laboratories, and home health care services) are slightly less concentrated in the Commonwealth. Massachusetts is home to several prominent teaching hospitals affiliated with medical schools that are home to advanced research. There has been a loss of employment in nursing care facilities and skilled nursing with overall employment in the subsector down 29 percent from 56,313 in 2014 to 40,100 in 2024. Though it is difficult to identify the exact cause of this recent trend, there have been employment shortages at nursing care facilities at the national level as well.[2] Ultimately, demand for these services is anticipated to grow as the population ages. Any reductions in international immigration may further exacerbate this workforce shortage. The MassHealth Personal Care Attendant Program seeks to promote aging in place for seniors and people with disabilities and preserve quality of life for Massachusetts residents.[3]

Within health care, wages vary considerably depending on education requirements and setting. The highest earning occupations in the sector include health care providers such as surgeons, physicians, and pharmacists, which require years of specialized education. In addition, occupations requiring a master's degree, such as nurse practitioners, physician assistants, and occupational therapists earn annual wages above the average for all industries in Massachusetts.

Figure 4: Education and Health Services Subsectors Employment and Wages, 2024

Description	MA % of Total Health Care and Education	US % of Total Health Care and Education	MA Average Weekly Wages	US Average Weekly Wage
Education and Health Services	100%	100%	$1,452	$1,509
Educational services	36%	35%	$1,514	$1,425
Elementary and secondary schools	20%	23%	$1,419	$1,212
Colleges and universities	13%	8%	$1,811	$1,722
Other Educational Services	3%	3%	$984	$1,058
Health Care and Social Assistance	64%	65%	$1,418	$1,601
Ambulatory health care services	19%	24%	$1,676	$1,606
Hospitals	21%	19%	$1,811	$1,766
Nursing and residential care facilities	10%	9%	$1,043	$1,232
Social assistance	14%	13%	$783	$981

Source: Massachusetts Executive Office of Labor and Workforce Development, ES-202; Bureau of Labor Statistics Quarterly Census of Employment and Wages.

[2] Bock, Anna, "Only 1 in 5 US Nursing Homes Have Enough Staff to Meet New Requirements," accessed July 25, 2025. https://jamanetwork.com/journals/jama/fullarticle/2820425

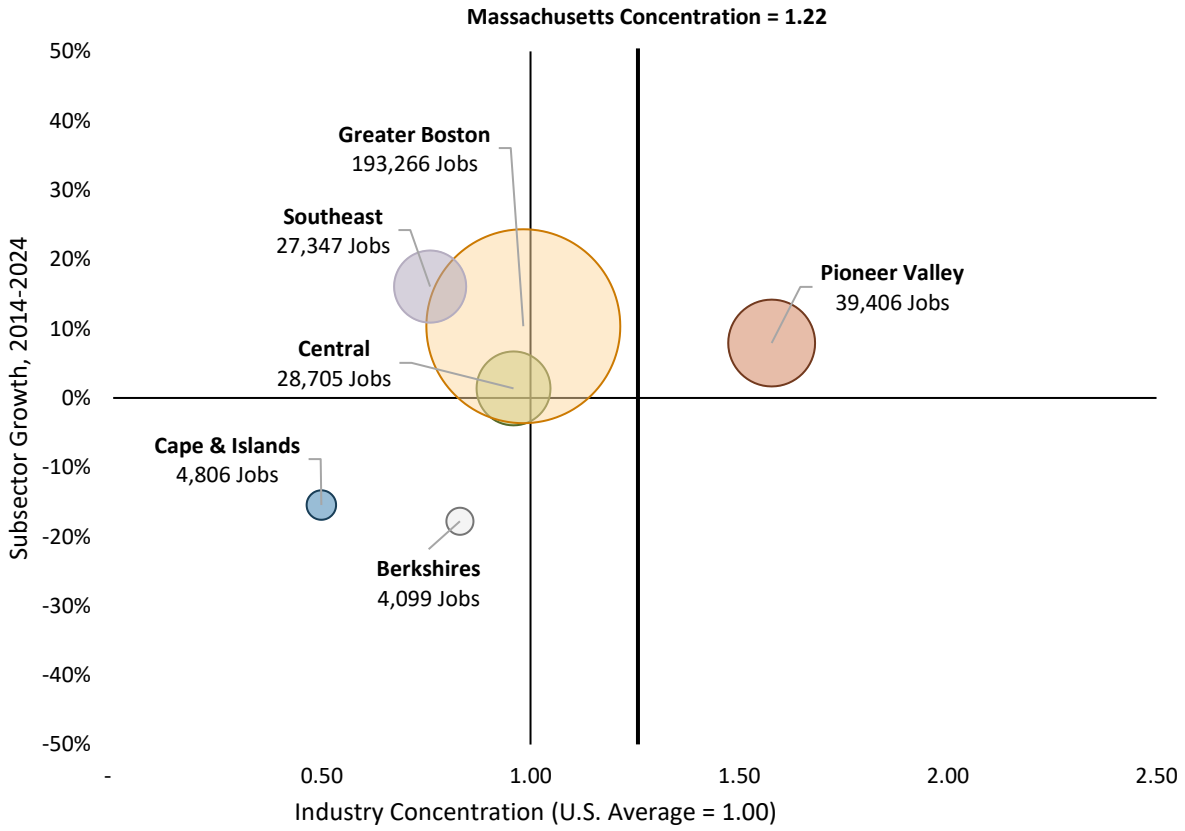
[3] MassHealth, "MassHealth Personal Care Attendant Program", accessed July 7, 2025. https://www.mass.gov/masshealth-personal-care-attendant-program

Employment in educational services grew more quickly than overall job growth in the Commonwealth over the past decade at 9.2 percent; however, wages did not keep pace. Educational services industry inflation-adjusted wages increased only 4.4 percent; in contrast wages across all industries grew by 13.1 percent. The largest subsector is elementary and secondary schools with employment over 214,000 in 2024, which is up slightly (7%) since 2014. The second largest subsector in the industry is colleges and universities, where employment is up 11 percent from 2014 to over 130,000 in 2024. Employment in higher education is more concentrated in the Commonwealth compared to the U.S. overall. Many of the jobs in higher education are supported in part or wholly by federal research grants and recent layoffs and hiring freezes at higher education institutes reflect the impact of funding cuts. For example, one estimate of the impact of canceled and frozen National Institutes of Health grants alone is that Massachusetts could lose roughly 11,000 jobs.[4] Childcare services have also seen growing employment up 20 percent from 24,300 in 2014 to over 29,100 in 2024. Like health care, there is wide variation in wages for the most common occupations in the educational services sector, and much of that variation is tied to education requirements. Most occupations within the industry require a college degree or more, though notable exceptions are school bus drivers, and teaching assistants.

There is regional variation in the strength of each industrial sector across the state. In the educational services industry, the Pioneer Valley region stands out with an exceptionally high employment concentration in this industry, it is the only region where the jobs are more highly concentrated in the industry than the national average, shown by the bubble in the following chart appearing on the far right of the axis.

[4] Harris, Mallory, Alyssa H. Sinclair, Joshua S. Weitz, and Emily Falk. "SCIMaP Website," 2026. https://doi.org/10.17605/OSF.IO/H398E accessed on May 14, 2026.

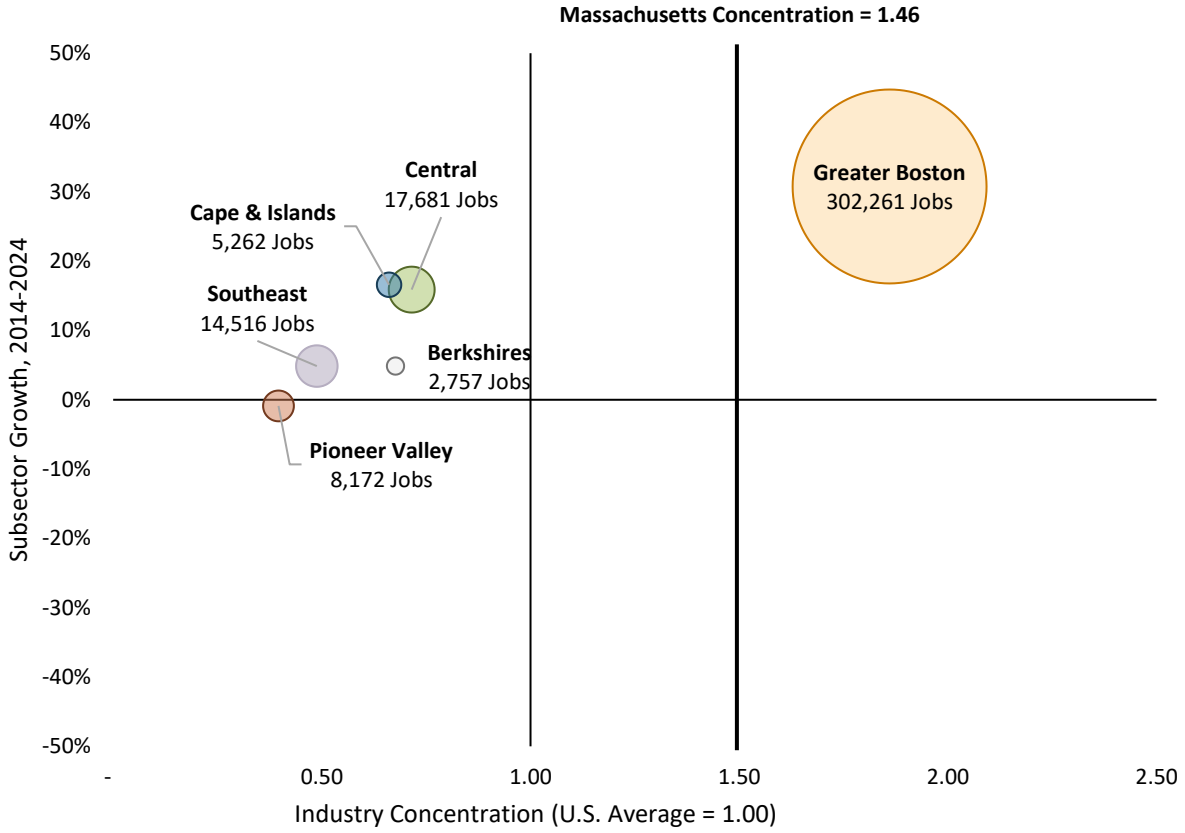
Figure 5: Regional Educational Services Employment Size, Growth, Relative Concentration, 2024



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2014 and 2024
Note: In the chart above, Greater Boston encompasses Essex, Middlesex, Norfolk, and Suffolk counties.

There are other industries critical to the state with similarly strong single-region concentration. Regionally, the professional and technical services industry is almost entirely concentrated in the Greater Boston area, both in terms of job counts, industry concentration, and job growth from 2014 to 2024. This industry includes scientific services, management of companies and enterprises, administrative and support services, and waste management and remediation, the first two sectors being largely more remunerative than the latter two. The Greater Boston area has clear dominance in industry size, concentration, and ten-year growth, as represented by its bubble in the far upper right of the following chart. The other regions are below the national concentration, as they are far to the left of that bar.

Figure 6: Regional Professional & Technical Services Employment Size, Growth, Relative Concentration, 2024



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2014 and 2024
Note: In the chart above, Greater Boston has a different definition encompassing more area, extending north up to the border with NH.

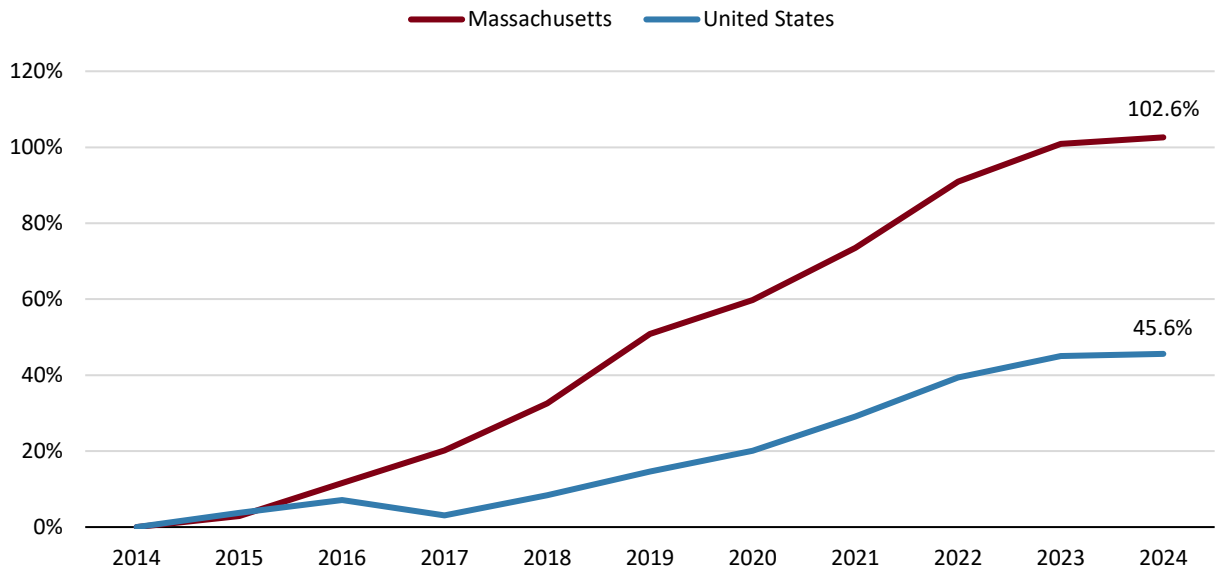
The professional and technical services industry is economically important to Massachusetts, despite its lack of dispersion around the state, and is reliant on several other related industries with strong representation in the state to feed into it. This industry has a key subsector, scientific research and development, which relies heavily on industries which surround it, while drawing outside funding.

Scientific Research and Development

Tied to the concentration of higher education and teaching hospitals in the state, scientific research and development (R&D) is intensely clustered in Massachusetts compared to the U.S. and has become more concentrated over the past decade. This is true when we look at both jobs in the industry and establishments. The concentration of research universities, hospitals, research institutes, and private companies pursuing advances in biomedical research, life sciences, and other areas of research and development has contributed to the competitiveness of this industry. Over the past decade, employment in this area has nearly doubled in the Commonwealth with roughly 105,000 individuals working in scientific R&D (**Figure 7**). While these numbers are meaningfully large, they likely understate

the significance of the industry in the Massachusetts economy, when considering employment in other industries that support research and development. R&D activity here also constitutes a large portion of national scientific activity: in 2024, roughly one out of every nine scientific research and development jobs in the nation were in Massachusetts. This is despite the Commonwealth being home to only one in every 40 jobs overall in the nation (**Figure 8**). Jobs in scientific R&D pay notably higher wages than average for both Massachusetts and the US.

Figure 7: Employment Growth in Scientific Research and Development, 2014-2024

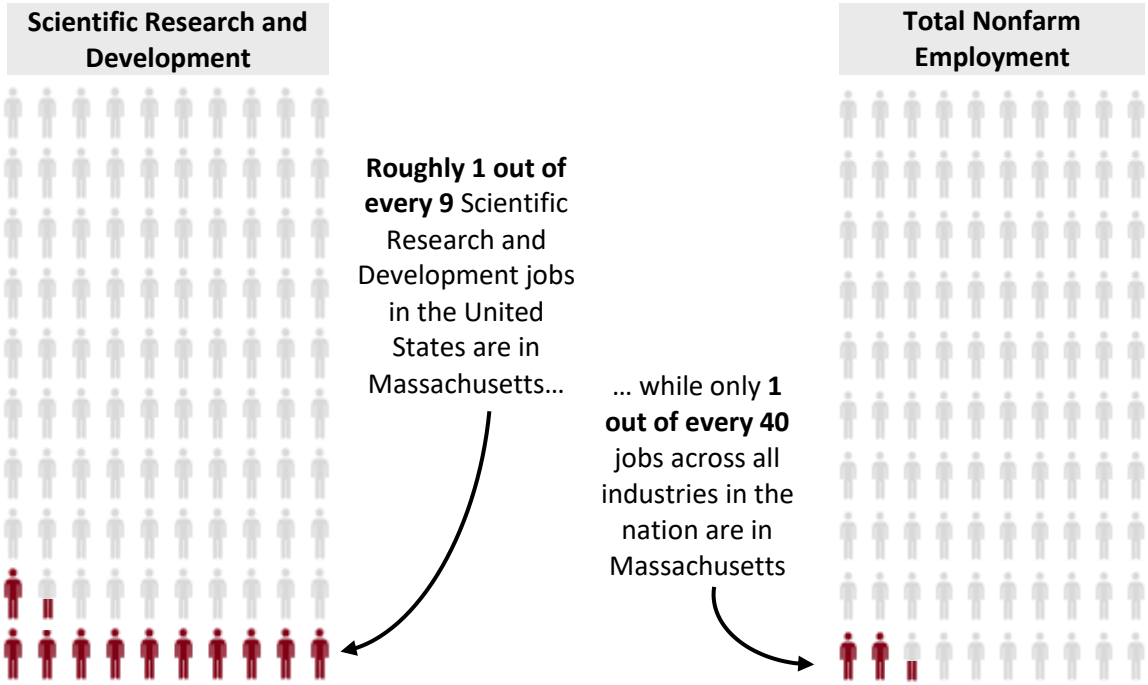


Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages. NAICS Code 5417, Scientific Research and Development Activities

Much of the funding for research and development comes from the federal government, including 54 percent of higher education research funding in Massachusetts in fiscal year 2023.[5] Trends in three prominent sources of this funding, National Institutes of Health, Small Business Administration, and National Science Foundation, illustrate the historic competitiveness of Massachusetts in research and development and the importance of these funding sources to the Massachusetts economy. Federal changes to these funding sources could have significant impacts on the Commonwealth. With the state's concentration of Eds and Meds and R&D employment, coupled with its history of being extremely competitive winning grants to fund federally sponsored research, any changes to federal funding for scientific research will likely have negative ramifications on the state economy and its residents and stifle innovation.

[5] National Science Foundation, Higher Education Research and Development (HERD) survey. Table 70. https://ncses.nsf.gov/surveys/higher-education-research-development/

Figure 8: Concentration of Scientific Research and Development Employment in Massachusetts, 2024



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages. NAICS Code 5417, Scientific Research and Development Activities

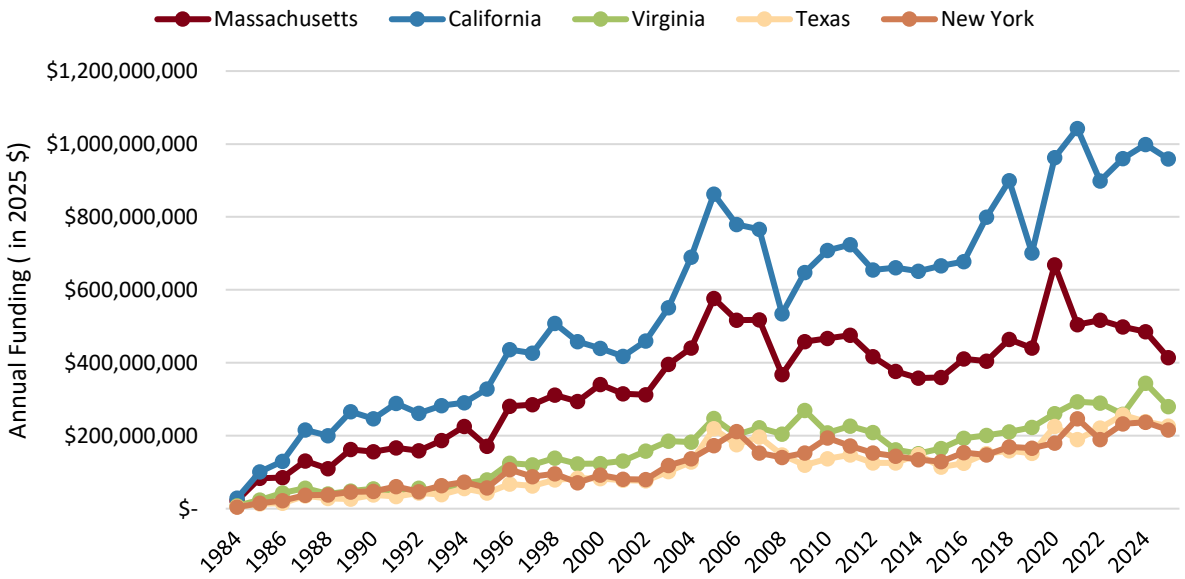
The National Institutes of Health (NIH) has a budget of nearly $48 billion.[6] Over 80 percent of that budget goes towards funding research through competitive grants. Researchers in Massachusetts have been successful at securing NIH awards at consistently high levels. In fiscal year 2025, Massachusetts researchers were awarded over $3.4 billion in funding from the NIH, which was down slightly from the prior year, and behind only New York and California. When considered on a per capita level, Massachusetts has been first in the nation every year for the last decade. Within Massachusetts the majority of the funding is focused in the Greater Boston area, though Worcester (home of UMass Chan Medical School) and Western Massachusetts (home of UMass Amherst) have also received large shares of grants from the NIH.

Similar to NIH funding, Massachusetts also leads in the US Small Business Administration's (SBA) innovation focused programs (**Figure 9**). The Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs, administered by SBA, are highly competitive award programs that encourage American small businesses to engage in federal R&D with the potential for commercialization. Focused on stimulating high-tech innovation, the purpose of the SBIR/STTR program is tech transfer and to bridge the gap between basic science and commercialization of the resulting innovations for small businesses while meeting federal research needs. Businesses must be owned and

[6] National Institutes of Health, www.nih.gov/about-nih/what-we-do/budget. Accessed 10 Oct 2025.

located in the US and have fewer than 500 employees. In addition, for the STTR program, small businesses are required to do at least 40 percent of the research, while formally collaborating with nonprofit research institutions. In FY2025 Massachusetts organizations and businesses received over $414 million in SBIR and STTR funding, behind California in total awards, but first in the nation when considered on a per capita basis.

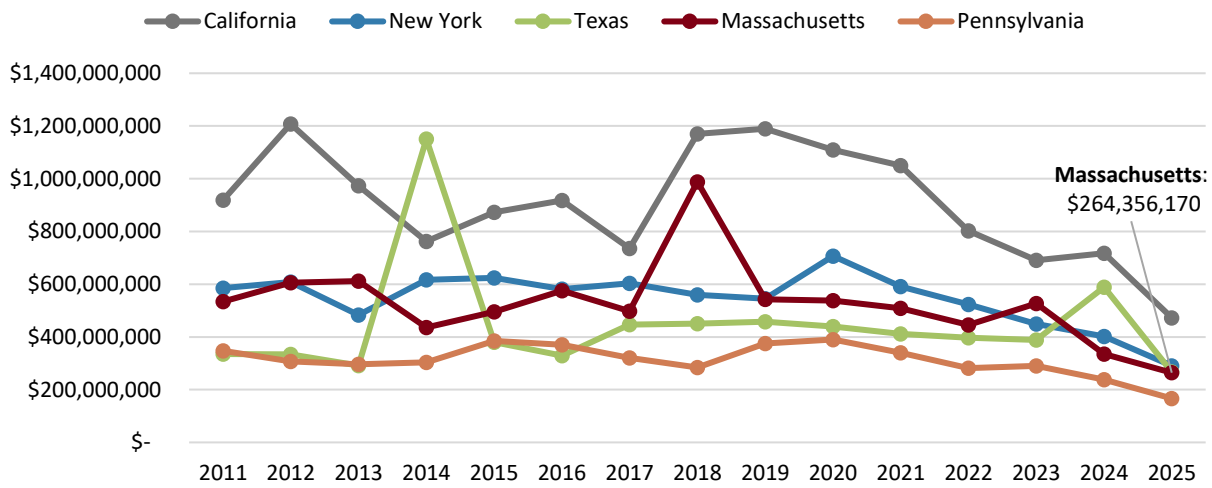
Figure 9: Annual SBIR and STTR Funding for Top 5 States with Highest Funding in 2025



Source: Small Business Administration, Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Programs. Bureau of Labor Statistics Consumer Price Index, All Urban Consumers, U.S. City Average.

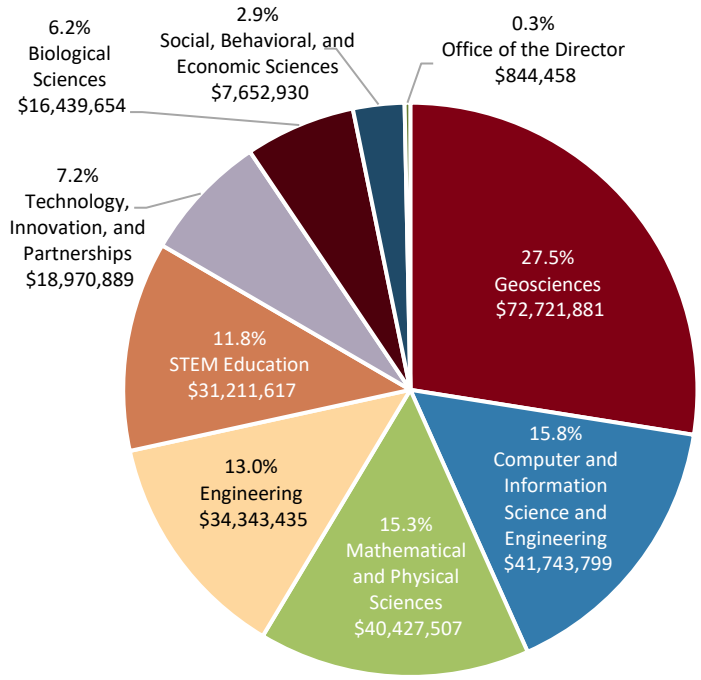
National Science Foundation (NSF) funding is another area where Massachusetts leads, among the top states in terms of overall funding, and first when funding is adjusted to reflect population size. In 2025, Massachusetts researchers were awarded over $264 million in NSF funding (**Figure 10**), placing Massachusetts behind California, New York and Texas in terms of total funding, but ahead of these states on a per capita basis (Massachusetts ranks third out of all states behind Alaska and Rhode Island). Within the state, the majority of funding is directed to universities in the Greater Boston area, though Woods Hole Oceanographic Institution on Cape Cod and University of Massachusetts in Western Massachusetts are consistently among the five top-funded institutions in the Commonwealth. NSF funds research in many disciplines. In the Commonwealth, geosciences, computer and information sciences, and mathematical physical sciences account for more than half of NSF funding (**Figure 11**).

Figure 10: Annual National Science Foundation Funding for Top 5 States with Highest Funding in 2025



Source: National Science Foundation. Bureau of Labor Statistics Consumer Price Index, All Urban Consumers, U.S. City Average.

Figure 11: Percent of State Funding by NSF Directorate for Massachusetts, 2025



Source: National Science Foundation

Research funding has declined during the Trump administration for several reasons.[7] A decline in federal funding for organizations such as the National Science Foundation has resulted in fewer new grant awards for fiscal year 2025. Additionally, grants have been cancelled that had already been awarded. This seems to have retroactively reduced federal funding for Massachusetts for previous years. For instance, the National Science Foundation posted a list of cancelled grants in June 2025 that included upwards of $200 million in funding cuts for institutions in the Commonwealth.[8]

At almost $5.5 billion dollars in university expenditures in 2024, Massachusetts is among the top states in university research and development spending, and the states whose universities outspend Massachusetts have much larger populations, these include California, New York, Texas, and Pennsylvania. The National Center for Science & Engineering Statistics conducts an annual Higher Education R&D survey which solicits responses directly from all universities and colleges that generate at least $150,000 in R&D expenditures in a year. This survey accounts for R&D funding from all sources, including federal, state, and local governments; businesses and non-profit foundations; and the institution's own funding. After adjusting for population size, Maryland and Massachusetts' per capita research spending at universities is noticeably higher than all other states in the U.S. Both states are home to large concentrations of urban research institutions. Fifty four percent of Massachusetts' higher education R&D spending in 2023 was funded from federal government sources; this is roughly the same as the United States overall.

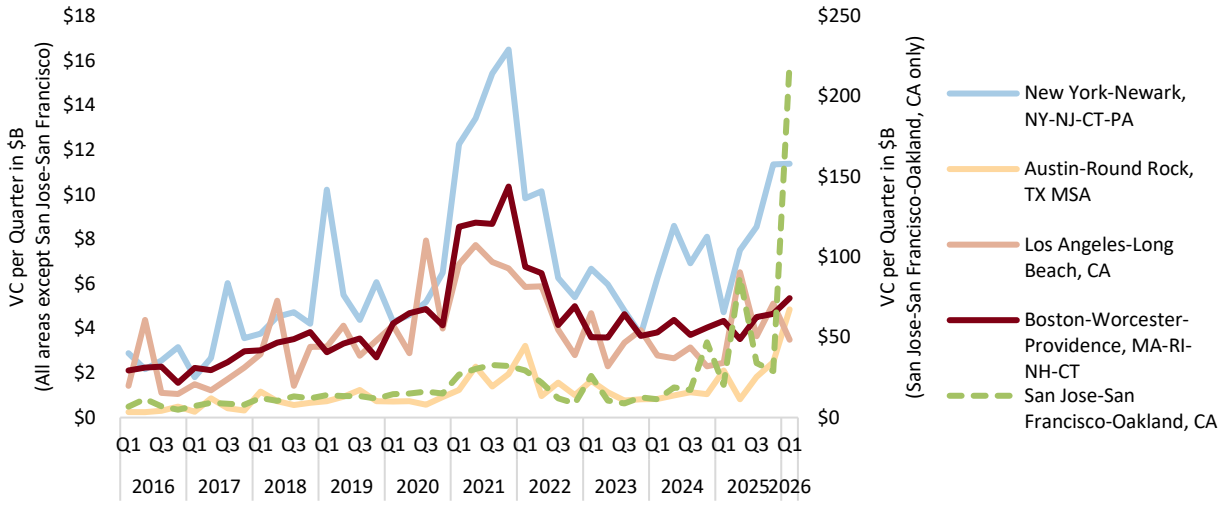
The investment of federal funding for research may be a driving factor in Massachusetts' standing as a leader in terms of patents. According to most recently available data, in 2020, 8,790 patents were awarded in Massachusetts, among the top five states in the country. California by far has the most, but again Massachusetts was nearly on par with California on a per capita basis.

The Commonwealth has also attracted venture capital funding. Silicon Valley has recently attracted record amounts of venture capital, over $200 billion, related to the expansion of artificial intelligence firms in that region and this level of funding dwarfs all other regions. At the same time, Greater Boston has received levels of venture capital funding similar to Los Angeles, despite that metro area being the second most populous region in the country (**Figure 12**). In the first quarter of 2026, Greater Boston's venture capital deals totaled $5.35 billion, compared to $3.49 billion for the Los Angeles metro. Over several periods in the past ten years, Greater Boston has drawn similar levels of venture capital as the New York metro area.

[7] *US science after a year of Trump*, Nature. January 20, 2026. https://www.nature.com/immersive/d41586-026-00088-9/index.html. Accessed May 13, 2026.

[8] *Updates on NSF Priorities*, U.S. National Science Foundation. Page last updated: July 30, 2025. https://www.nsf.gov/updates-on-priorities#termination-list

Figure 12: Venture Capital for Top 4 Metro Areas, 2016-2026



Source: Pitchbook. Note: Not adjusted for inflation.

Investment in research and development has also attracted talent from around the globe. Over the past two decades H-1B approvals in Massachusetts have increased dramatically, peaking in 2019 at almost 20,000 before settling into a range of 15,500 to 18,800 between 2020 and 2025. Boston is dominant in Massachusetts for H-1B visas, and the overall trajectory of visas in the state can be mostly attributed to approvals in Boston, particularly since the COVID-19 Pandemic. From 2009 to 2025, the number of approvals in Cambridge, Waltham, and Somerville more than doubled, though these cities combined account for about half as many H-1B visas as Boston. New fees imposed by the Trump Administration in September 2025 and the Trump administration's immigration policies are likely to reduce the number of workers entering the United States with these visas heading into 2026, which has the potential to limit the supply of labor for the R&D industry in Massachusetts.

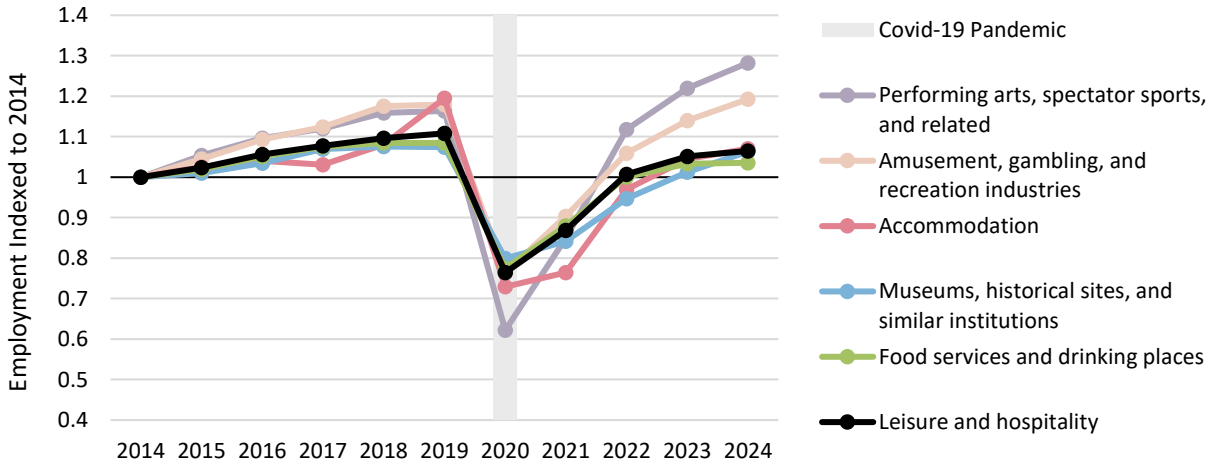
Leisure and Hospitality

The leisure and hospitality supersector is another important part of the Massachusetts economy. The sector is maintained by both the activity of residents, as well as visitors from other states and countries. Residents' use of eating, drinking, lodging, and cultural and entertainment establishments, combined with the tourism of visitors, support the 370,000 jobs and $33 billion of GDP in Massachusetts associated with leisure and hospitality. Local residents and visitors are drawn in part to the wealth of cultural richness here in the Commonwealth, and its importance to the economy and quality of life here was recently acknowledged by Governor Healey in the formation of the Massachusetts Cultural Policy Development Advisory Council in 2024 and its report released in April 2025.[9] Combined with local use of Massachusetts' cultural, natural, and entertainment assets, tourist visitation provides an important

[9] https://www.mass.gov/doc/cultural-policy-development-advisory-council-report/download

boost to the economy because it also draws dollars from outside of the state. Massachusetts 250 is one example of a statewide effort to increase tourism to the Commonwealth. Throughout 2025 and 2026 Massachusetts will commemorate the 250th anniversary of American independence, and the Massachusetts Office of Tourism and Travel has supported local business and non-profits with grants to support related tourism destinations and attractions. In the summer of 2026, seven World Cup matches will be played at Boston Stadium (Gillette Stadium) in Foxborough. The games will attract visitors from around the world to the Greater Boston region. Leisure and hospitality encompass a wide range of activities with varying contributions to employment and economic vitality in Massachusetts. Some subsectors are highly vulnerable to global and national changes. Economic slowdowns and recession tend to disproportionately impact leisure and hospitality because the sector relies heavily on the discretionary income of visitors and patrons. For example, the COVID crisis had a devastating impact on the leisure and hospitality sector, as restricted travel and social distancing guidelines, coupled with job losses in other sectors, led to a significant contraction of the leisure and hospitality industry (**Figure 13**).

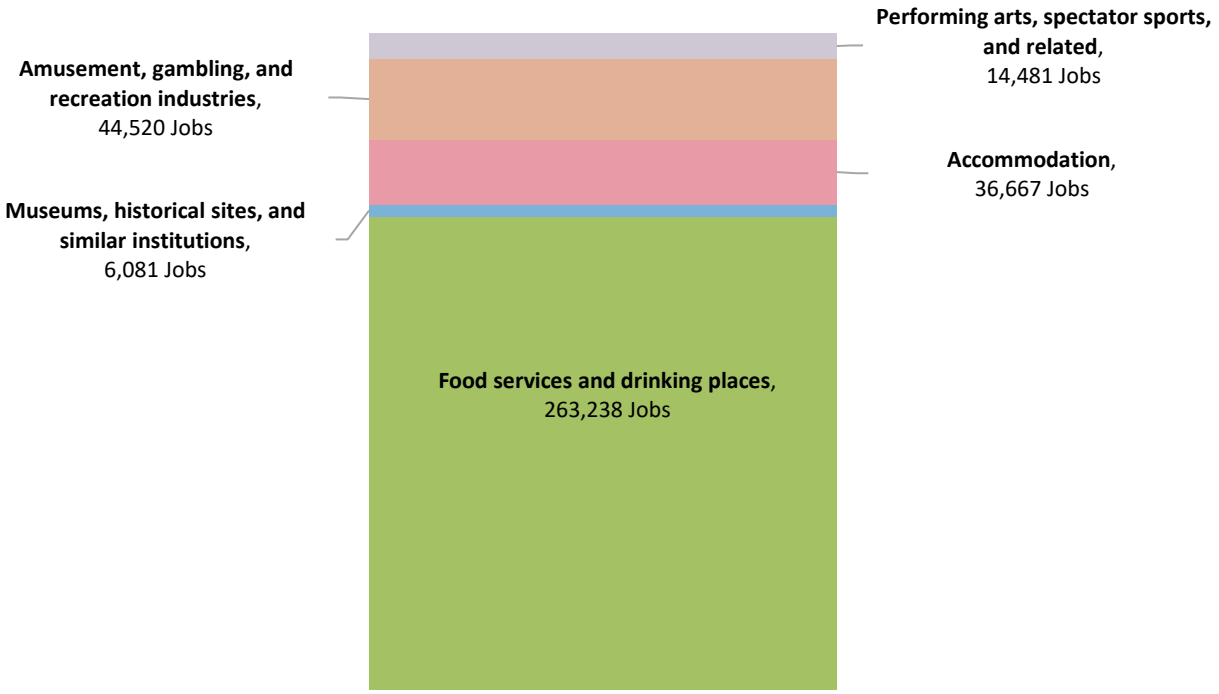
Figure 13: Change in NAICS Subsector Employment, Leisure & Hospitality, 2014-2024



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2014-2024, UMDI Indexed to 2014

The subsectors of the leisure and hospitality industry vary in terms of employment, wages, types of work, and overall contributions to the economy. Restaurants and bars by far employ the most people in the leisure and hospitality supersector, representing over 260,000 Massachusetts jobs in 2024 (food services and drinking places). Many of these jobs have markedly lower wages and benefits. Jobs in amusement, gambling, and recreation establishments were a distant second at just under 45,000 jobs, followed closely by hotel and other related employment, with just over 36,500 jobs. Less than 15,000 jobs across the Commonwealth were in performance and sports spaces, while museums and historical sites employed just over 6,000 workers (Error! Not a valid bookmark self-reference.).

Figure 14: Leisure & Hospitality Subsectors' Employment Contribution to Total Industry, 2024

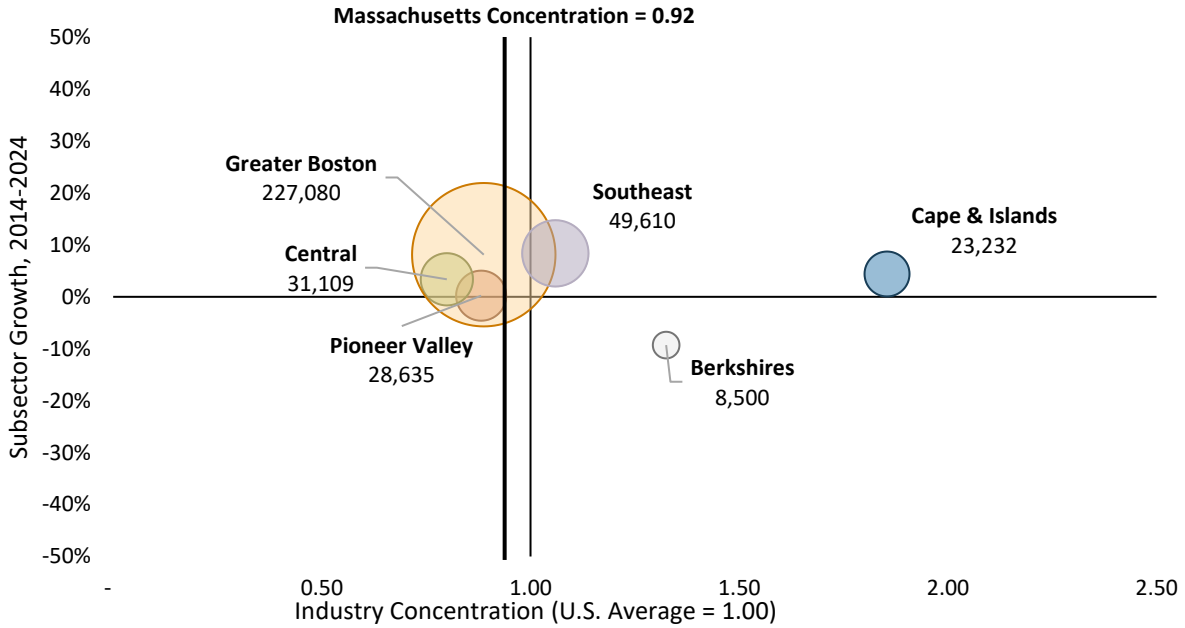


Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2024

A more detailed view of leisure and hospitality employment allows us to see regional differences in growth across the state over time for leisure and hospitality jobs. Moreover, some regions rely more heavily on tourism as a share of their employment and economic activity, which can be seasonal, especially in the Berkshires and Cape Cod and Islands.

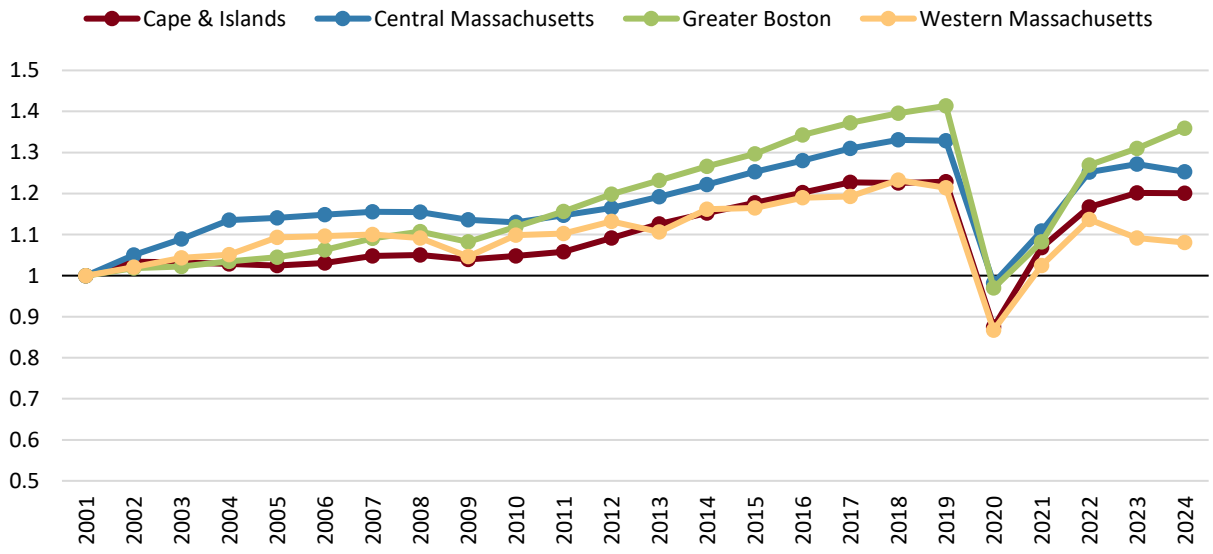
In the bubble chart below, leisure and hospitality employment concentration in the Cape and Islands stands out around double the state average and nearly double the national employment concentration (MA and US rates are shown in the chart as the two vertical bars). The Berkshires also stand out in relative employment in the sector as well, though to a smaller degree, and employment is shrinking there (as represented by being below the horizontal bar demarcating growth or employment loss since 2014) while Cape and Islands has modestly grown in the same 10-year period. Most of the other regions are less reliant on leisure and hospitality jobs, although it is worth noting that the Southeast region also averages a slightly higher proportion of jobs in this industry than the nation and state as well.

Figure 15: Regional Leisure & Hospitality Employment Size, Growth, Relative Concentration, 2024



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2014 and 2024
Note: In the chart above, Greater Boston has a different definition encompassing more area, extending north up to the border with NH.

Figure 16: Leisure and Hospitality Employment over Time, Selected Regions, Indexed to 2001



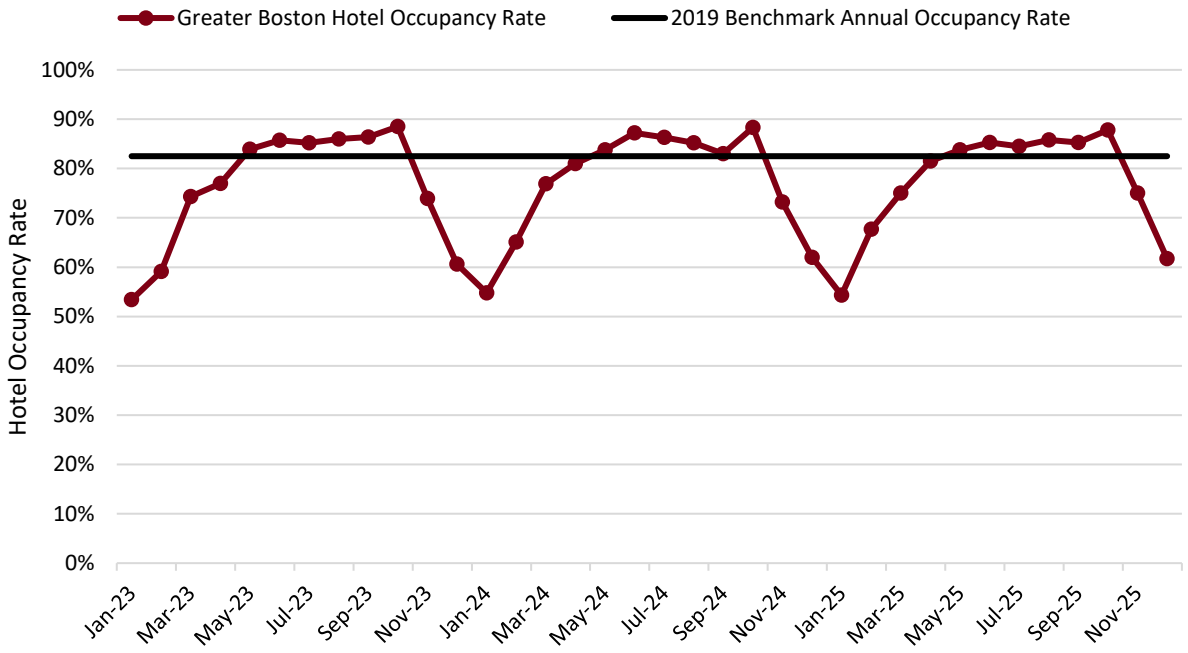
Source: Massachusetts Executive Office of Labor and Workforce Development, ES-202; UMDI Analysis.

In 2001 Massachusetts was in a recession, and Greater Boston and Central Massachusetts' leisure and hospitality employment recovered more quickly, as compared to Western Massachusetts and the Cape

and Islands region of Cape Cod, Nantucket, and Martha's Vinyard. These predominantly rural regions depend on seasonal visitation as an important part of their economies. In 2020 the pandemic impacted this industry everywhere, but even more severely in the Western and Cape areas.

While overall, Greater Boston showed comparatively more strength recovering from the 2020 Covid impacts, the hotel occupancy data in Greater Boston shows tourism may not have bounced all the way back (**Figure 17**), visitors to hotels in the Greater Boston region lag below pre-pandemic levels.

Figure 17: Greater Boston Hotel Quarterly Occupancy Rate, 2023-2025, Benchmarked to 2019 Annual Rate



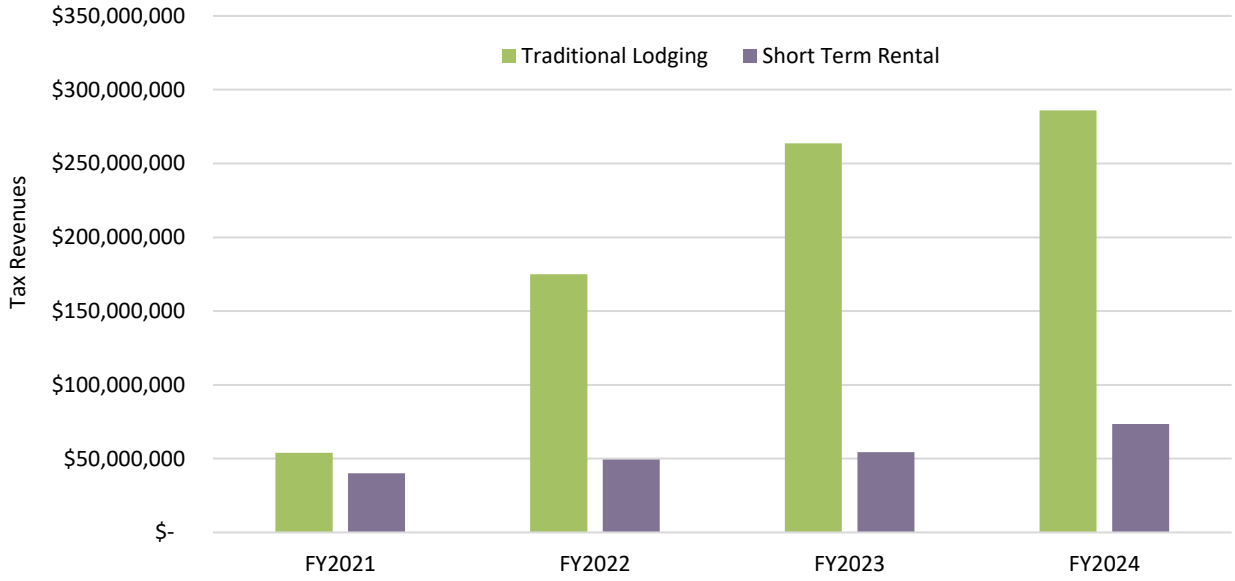
Source: Meet Boston, https://www.meetboston.com/press-room/statistics-and-reports/hotel-openings-and-statistics/ accessed January 2026.

In the Greater Boston hotel occupancy data, recent years show usual seasonality with winter lows but compared to the pre-pandemic year of 2019 (shown in black) when hotel occupancy was, on average, above 80 percent of available hotel rooms, good seasons seem to struggle to exceed this amount, while January dips far below this average. Meanwhile, the Economic Analysis and Planning Report for the Massachusetts Convention Center Authority Facilities reports that while hotels across Massachusetts

have experienced full recovery of their revenue per available room (also known as revPAR), 2024 softened below 2019 rates and the growth is below the overall rate of inflation.[10]

In addition, not all visitors use hotels. Tax revenue data includes both hotels and short-term rental stays, through online platforms like Airbnb and VRBO, provides additional insight into trends for the hospitality sector across the whole state. It shows that across Massachusetts there has been a recovery curve since 2021 in both traditional lodging and short term rentals (which remain a much smaller share of total tax revenue). Traditional lodging tax revenue has regained a larger share of tax contributions in this period (**Figure 18**).

Figure 18: Traditional Lodging & Short Term Rentals, Total Tax Revenue by Hospitality Type, FY2021-2024



Source: Massachusetts Department of Revenue, Total Tax Revenue by Hospitality Type, FY 2021-2024.

Direct visitor spending has come primarily from US-based residents and locals but is also supported by international visitor spending, especially as domestic visitor spending has flattened and even slightly declined from 2022 to 2024 after recovery from 2020, to just under $20 billion a year. Meanwhile the smaller share of international spending has been gently but steadily rising since 2020 to a total of $4.2 billion in 2024. International visitor dollars represented 17 percent of direct visitor spending in the Commonwealth in 2024 as reported to the Massachusetts Office of Travel and Tourism.[11] This

[10] Economic Analysis and Planning Report prepared by Pinnacle Advisory Group for the Massachusetts Convention Center Authority Facilities March 2025, p. 46. https://www.mass.gov/doc/chapter-1-executive-summary-1/download Accessed October 2025.

[11] *The Economic Impact of Travel in Massachusetts,* Prepared for Massachusetts Executive Office of Economic Development by Dean Runyan Associates. August, 2025. https://www.visitma.com/wp-content/uploads/2025/08/2024p_MA_TravelImpacts_8.22.25.pdf

underscores the potential that future federal policy or changes in the national cultural atmosphere may dent international visitation income to the state. While local data for 2025 are not available yet, national data show that the number of overseas international travelers (i.e. not including Canada and Mexico) is down 1.6 percent from this time last year. Industry analysts point to rising travel costs, political uncertainty, tariffs, immigration crackdowns, and other forms of geopolitical tension as presenting downward pressure on international travel to the United States.[12] Massachusetts's special draws include cultural, natural, and intellectual strengths unique to the Commonwealth, and tourism of our residents as well as those coming from other states and countries make up a vital part of our economy and employment picture. The impacts of global and national events show up in our regional and state level data, and as data from the current year are released, we are likely to see changes in visitation important to the state from current events. The question will be to what level.

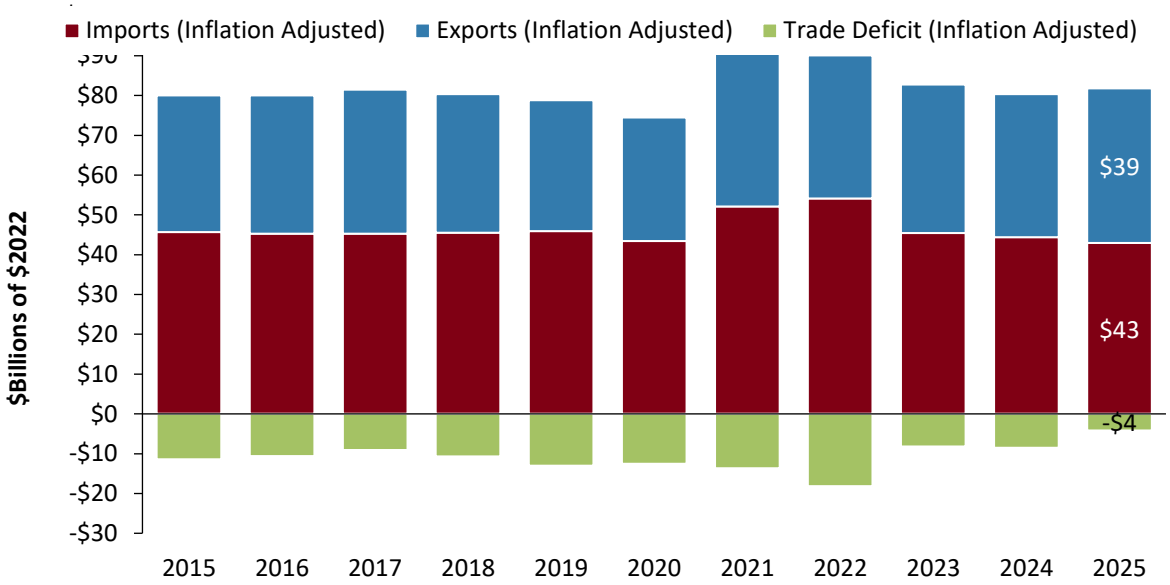
Trade

Keeping track of tariffs under the current administration has been a challenge. On February 20, 2026 the Supreme Court ruled that President Trump could not invoke the International Emergency Economic Powers Act of 1977 to set tariffs on imports. This invalidated tariffs the administration had imposed without congressional approval. In response to this ruling, the administration put into effect a 10 percent tariff globally. However, on May 7, 2026, the Court of International Trade ruled that the global 10 percent tariff was illegal.[13] The new tariffs and the uncertainty around them have impacted trade globally. Despite this uncertainty, in Massachusetts the total trade volume (exports and imports) in goods increased 9.98 percent between 2024 and 2025. The total trade volume was $81.8 billion in 2025 (**Figure 19**). Canada was by far our largest single-country trading partner, with a trade volume of $13.1 billion, 16 percent of total Massachusetts trade. The European Union negotiates trade policy with the United States as a bloc. When considered as a bloc, the European Union becomes Massachusetts's leading trade partner, surpassing Canada with $21.4 billion in trade volume, or 26.2 percent of total Massachusetts trade. Massachusetts trade in goods tends to be dominated by industries related to the state's innovation economy, including medical devices, industrial machinery (which includes computer equipment), electronics, and pharmaceuticals. This discussion focuses on merchandise trade, but Massachusetts with its services-centered economy also has substantial services exports (i.e., exports related to engineering, computer services, consulting, finance, etc.). Services exports, unlike merchandise exports, are only available at the state-level through interpolation from third party sources. Based on these third-party estimates, Massachusetts services exports, $47 billion in 2024, would be substantially higher than the state's goods exports ($36 billion in 2024).

[12] *A downturn in international travel to the U.S. may last beyond summer, experts warn*, PBS News. September 1, 2025. https://www.pbs.org/newshour/politics/a-downturn-in-international-travel-to-the-u-s-may-last-beyond-summer-experts-warn

[13] Romm, Tony, and Ana Swanson. "Trade Court Rules Trump's 10% Global Tariff Is Illegal." Business. *The New York Times*, May 7, 2026. https://www.nytimes.com/2026/05/07/business/economy/trump-global-tariff-ruled-illegal.html.

Figure 19. Massachusetts Imports, Exports, and Trade Deficit, 2013-2025 (in Billions of $2025)

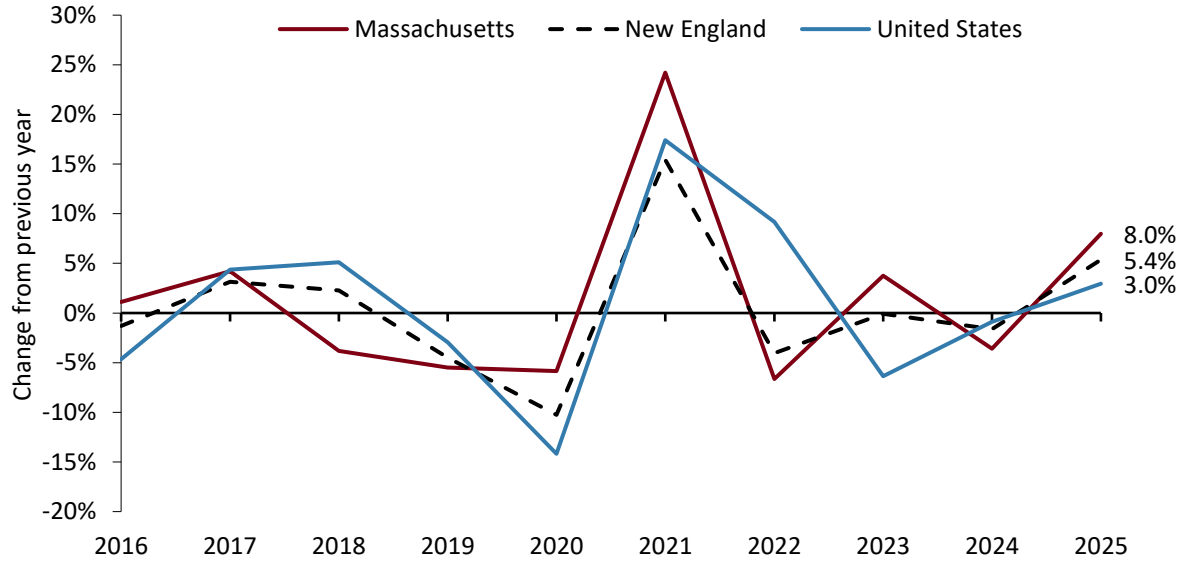


Source: WISERTrade.org; UMDI analysis

With exports valued at $39 billion in 2025, Massachusetts ranked 18th among U.S. states in 2025 and first in New England. This represented a 8 percent increase from the previous year's export value (in inflation adjusted terms), while national exports increased by 3 percent and total exports from New England increased 5.4 percent (**Figure 20**). Massachusetts, in 2025, accounted for 1.8 percent of U.S. exports and 1.3 percent of total U.S. imports. Considering the state in 2025 accounted for about 2.1 percent of the country's population and 2.7 percent of its economy (in terms of gross domestic product), Massachusetts' share of U.S. international trade in goods is relatively low. On the other hand, Massachusetts exports of services (interpolated by Trade Partnership Worldwide) were an estimated $47 billion in 2024 (and substantially higher than the state's $36 billion in merchandise exports that same year) which would account for approximately 3.9 percent of the U.S. total.[14]

[14] Trade Partnership Worldwide as shown in the Coalition of Services Industries "State and District Services Jobs and Export Numbers" publication. https://uscsi.org/service-exports/

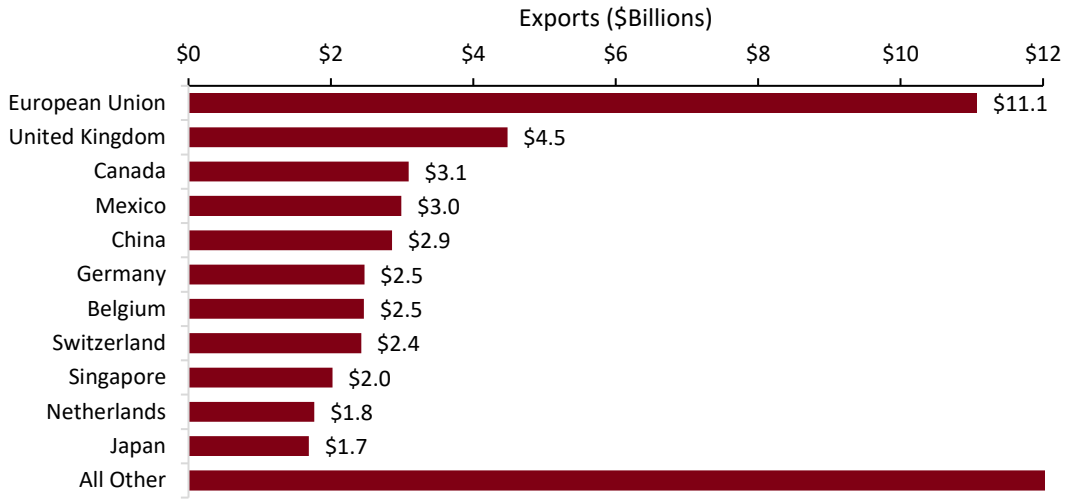
Figure 20. Export Growth for Massachusetts, the United States, and New England, 2016-2025



Source: WISERTrade.org; UMDI analysis

The United Kingdom and Canada were the top two single-country destinations for Massachusetts goods in 2025 with exports valued at $4.5 and $3.1 billion, respectively (**Figure 21**). The E.U. overall, when considered as a bloc, was by far the most common destination for Massachusetts goods, with exports valuing $11.1 billion in 2025. Historically, Canada has been the biggest market for Massachusetts exports. That has only changed in recent years, with China, Mexico, and more recently the U.K. rising to the rankings. Massachusetts exports to both China and Mexico tend to be connected to the state's tech industries, including computers, medical equipment, and machinery. Large economies in Europe, including the United Kingdom as well as Germany and the Netherlands tend to remain among the top ten export destinations on a year-to-year basis. Beyond China, Japan and South Korea (Republic of Korea) are highly ranked for Massachusetts exports. Singapore has recently ranked in the top ten for Massachusetts exports as well, seemingly led by exports of precious metals. Interestingly, a North Attleboro company, Metalor, is the largest gold refiner in the world which results in large volumes of trade in this industry and has material effects on overall Massachusetts international trade in terms of value.

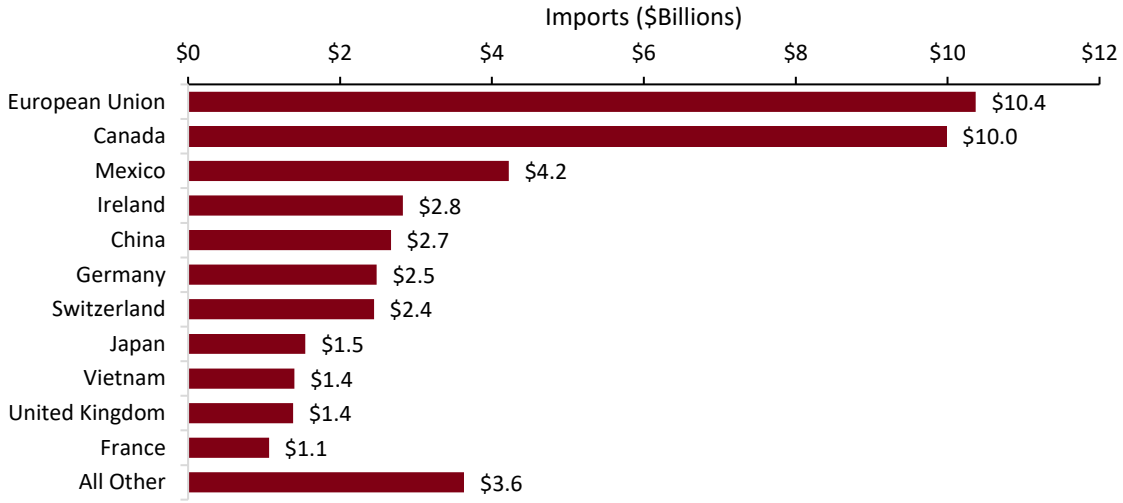
Figure 21: Massachusetts 2025 Top 10 Trade Partners for Exports (in billions of $2025)



Source: WISERTrade.org; UMDI analysis

Imports coming to Massachusetts from other nations decreased to $43 billion in 2025, a drop of 3.3 percent compared to 2024. Canada was by far the largest source for Massachusetts imports in 2025, accounting for almost one-quarter of the state total, almost matching imports from all E.U. countries (**Figure 22**). Canada's status as the top importer to Massachusetts, not surprisingly, is constant year after year. Imports from Canada are led by fuel oils. Refineries in St. John, New Brunswick are suppliers of gasoline and heating oil for Massachusetts. Mexico has remained in either the number two or number three positions for the last decade. China is usually highly ranked for imports into Massachusetts as well. Imports from both countries are heavily linked to technology industries, including medical equipment and industrial machinery (including computers). Ireland has jumped recently to become the third most common single-county importer for Massachusetts in 2025. Imports from Ireland were mainly in optical, photo, medical, or surgical instruments ($2.3 billion for that specific commodity out of $2.8 billion out of all imports from Ireland).

Figure 22: Massachusetts 2025 Top 10 Trade Partners for Imports (in billions of $2025)



Source: WISERTrade.org; UMDI analysis

Massachusetts' top exports are connected to the state's tech industries as well, including industrial machinery (which includes computers), medical equipment, and electronics (**Figure 23**). These three industries, combined, account for more than half of the state's exports. Precious stones and metals generally account for a significant portion of Massachusetts exports by value and tend to be volatile on a yearly basis though have risen in recent years. Pharmaceuticals, a major component of the state's life sciences sector, also represent a substantial share of exports (14.1 percent in 2025). Massachusetts has a substantial plastics industry, with plastics products consistently ranking among the top 10 export industries for the state. Aircraft and aircraft parts exports from Massachusetts also rank highly and include companies like General Electric and its Lynn facility which has global markets for its engines and engine parts.

Figure 23: Massachusetts Top 10 Exporting Industries, 2025

Commodity	Share	Value (in $billions)
Pearls, Precious Stones, Precious Metals, etc.	19.0%	$ 7.36
Industrial Machinery, Including Computers	17.8%	$ 6.92
Optical, Photo, Medical, or Surgical Instruments, etc.	16.3%	$ 6.31
Pharmaceutical Products	14.1%	$ 5.48
Electric Machinery, Sound Equip, Tv Equip and Parts	10.2%	$ 3.98
Plastics and Articles Thereof	4.1%	$ 1.59
Miscellaneous Chemical Products	2.7%	$ 1.05
Aircraft, Spacecraft, and Parts Thereof	1.4%	$ 0.54
Organic Chemicals	1.2%	$ 0.46
Vehicles, Except Railway or Tramway, And Parts etc.	0.9%	$ 0.35
Other	12.3%	$ 4.77
TOTAL	**100%**	**$ 38.80**

Source: WISERTrade.org; UMDI analysis

With some exceptions, the industry mix of Massachusetts top imports is similar to its exports. High-tech-related industries including medical equipment, electronics, and machinery (including computers) lead the state's imports in terms of value (**Figure 24**). These imports can either be finished products for consumers (e.g., computers, imaging equipment, etc.) or be intermediate goods (parts) that Massachusetts companies integrate into their manufacturing production. Crucially, and quite apart from the leading export industries, fuel oils (77.6 percent of which are from Canada in 2025) consistently rank among the state's top imports. The historic and cultural role of seafood in New England is evidenced by the high value of fish brought into the state. Led by shipments from Canada, fish ranks among the top six imports coming into Massachusetts.

Figure 24: Massachusetts Top 10 Imports by Industry, 2025

Commodity	Share	Value (in $billions)
Optical, Photo, Medical, or Surgical Instruments, etc.	15.1%	$ 7.31
Industrial Machinery, Including Computers	12.9%	$ 5.18
Mineral Fuel, Oil, Bitumen, Mineral Wax, etc.	11.3%	$ 4.60
Electric Machinery, Sound Equip, Tv Equip and Parts	11.2%	$ 4.44
Pearls, Precious Stones, Precious Metals, etc.	6.1%	$ 3.15
Fish, Crustaceans & Aquatic Invertebrates	3.7%	$ 2.66
Special Classification Provisions	3.6%	$ 1.91
Footwear, Gaiters Etc. and Parts Thereof	3.5%	$ 1.23
Pharmaceutical Products	3.2%	$ 1.16
Vehicles, Except Railway or Tramway, And Parts etc.	2.8%	$ 10.52
Other	26.6%	$ 10.52
TOTAL	**100%**	**$ 43.27**

Source: WISERTrade.org; UMDI analysis

International trade is critical to the functioning of the Massachusetts economy. The state's exports, $39 billion in 2025, are equivalent to about 6 percent of the Commonwealth's $644 billion economy. The state's businesses, notably in high tech and life sciences-related industries, successfully sell their products globally, creating substantial numbers of jobs in the state. Imports into Massachusetts also skew towards the same technology-intensive industries and are important to consumers and the businesses that use imported parts and machinery to build their own products. Importantly, Massachusetts imports large volumes of fuel oils and gases for transportation, heating, and power. While Massachusetts may not be as dependent on the international trade of goods as a number of other states (states with particular concentrations in industries like oil, gas, chemicals, and manufacturing including Louisiana, Texas, Indiana, and Michigan are more dependent on exports for their economies than Massachusetts), its businesses benefit through their access to global markets and are thus exposed to policy changes and the war in Iran, that may raise pricing levels, transportation costs, and limit the flow of goods both into and out of the state.

MassBenchmarks Index

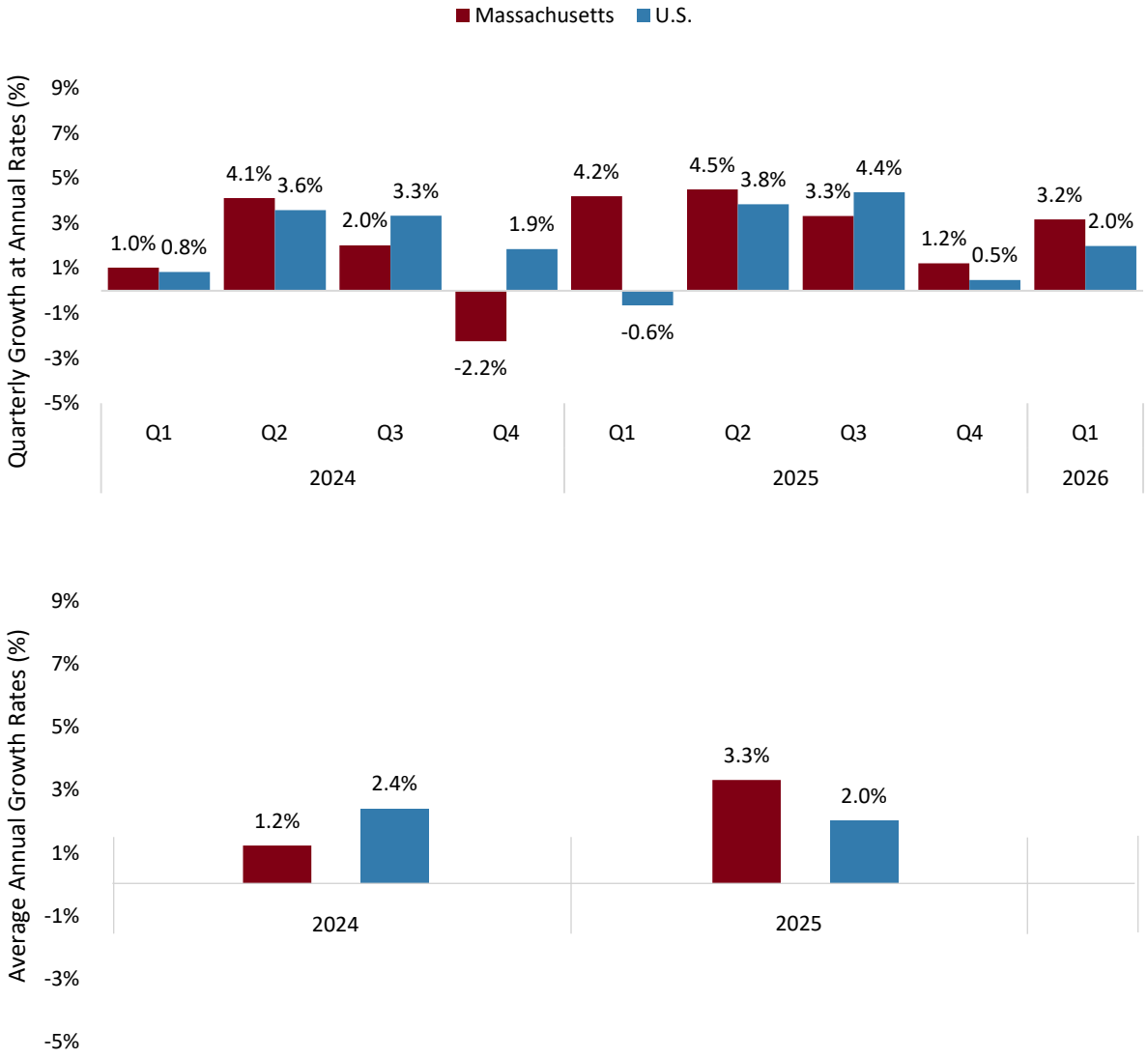
According to *MassBenchmarks*, the journal of the Massachusetts economy produced by the University of Massachusetts Donahue Institute (UMDI), in the first quarter of 2026, Massachusetts real gross state domestic product (GDP) increased at an annual rate 3.2 percent[15], while U.S. GDP increased at an annual rate of 2.0 percent, according to the U.S. Bureau of Economic Analysis (BEA). This is up from the fourth quarter of last 2025 when these rates of growth were 1.2 percent for Massachusetts and 0.5 percent for the U.S., according to the BEA.

The federal government shutdown in the fourth quarter of last year accounted for the slower growth in the fourth quarter of 2025. The war with Iran began at the end of February and so had little effect on growth in the first quarter of this year. Analysts expect the war will have a negative impact on growth due to supply disruptions. The magnitude of these effects will depend on how long the Strait of Hormuz is closed, which is uncertain. The projections in this report, which were made in Spring of 2026, reflect a scenario in which shipments through the Strait return to normal quickly this quarter. Even before the war the economy was expected to grow more slowly this year due to a drop in labor force growth related to an aging working-age population and sharp reductions in net international migration.

Payroll employment barely increased in the first quarter, with a 0.3 percent annualized increase in Massachusetts, and a 0.3 percent increase in the U.S. Employment was also stagnant in the fourth quarter of last year. In Massachusetts, employment in the first quarter was 0.4 percent *less* than in the first quarter of last year; in the U.S., it was up only 0.2 percent over the same period. This low-to-no growth in employment situation is expected to continue. The mean U.S. employment projection over the next four quarters by the economists surveyed by the Wall Street Journal is only a third of one percent for the U.S. In Massachusetts, Bureau of Labor Statistics' (BLS') revised estimates of Massachusetts labor force and resident employment have been declining at a slow rate since early 2025, and the BLS's population projections for Massachusetts residents 16 years and older – the working age population – appear to be flat.

[15] The current and historic quarterly estimates for state domestic product growth include adjustments for changes in productivity growth. These adjustments are estimates of the quarterly deviations from the 1978-2025 trend in the growth of the ratio of output to employment. In the first quarter of 2026, these adjustments added 0.0 percentage points to growth. In the fourth quarter of 2025, these adjustments subtracted 0.9 percentage points from growth. In the second and third quarters of 2026, these adjustments are expected to subtract 0.1 percentage points from growth in each quarter. The current and historical quarterly estimates also include "cyclical" adjustments, as the relationship between the growth in the current indicators and that of gross domestic product changes over the course of the business cycle. In the first quarter of 2026, these adjustments subtracted 0.1 percentage points from growth. In fourth quarter of 2025, these adjustments added 0.5 percentage points to growth. In the second and third quarters of 2026, these adjustments are expected to add 0.5 and 0.2 percentage points to growth respectively.

Figure 25. Growth in Real Product, Massachusetts and the United States, 2026 Q1



Source: U.S. Bureau of Economic Analysis, MassBenchmarks calculations by Dr. Alan Clayton-Matthews. U.S. projections from Wall Street Journal. Note: average annual growth is calculated by averaging the four quarters of annual growth rates for the calendar year. 2026 annual averages are omitted as there is only one quarter of data.

This means that all or almost all economic growth now reflects increases due to productivity gains. A rough but good proxy for this is growth in real GDP per payroll worker. For Massachusetts this productivity measure grew 3 percent in 2025 over 2024, and in recent quarters this measure of productivity growth is trending half a percentage point higher than the corresponding measure for the U.S.

Wage and salary income in Massachusetts in the first quarter, as estimated by MassBenchmarks from state personal income withholding tax revenues, grew at a 31.1 percent annual rate. Withholding tax

revenues have tended to be quite volatile from month to month and quarter to quarter, but the trend has also been strong. The BEA estimates that wage and salary income grew at 6.5 percent annualized rate in Massachusetts in the last quarter of last year, and this withholding tax-based measure for Massachusetts is up 6.4 percent from the first quarter of last year. In contrast, the BEA estimates that wage and salary income for the U.S. was up 4.1 percent in the first quarter of this year, and up 4.3 percent from the first quarter of last year. The very strong growth for Massachusetts in the first quarter is due most likely to a better-than-average bonus season and may also reflect in part growth in high-earners' salaries subject to the state's surtax on incomes over a million dollars.

Spending on items subject to the Massachusetts regular sales tax and motor vehicle sales tax was down 9.2 percent on an annualized basis in the first quarter, and down 1.1 percent from the first quarter of last year. This measures seasonally-adjusted nominal, i.e., not inflation-adjusted, spending on non-exempt goods by Massachusetts households and businesses, roughly $127 billion in 2025. (Exempt goods include groceries, most clothing, home fuels and energy, and gasoline and other motor vehicle fuels.) This reflects weak spending on goods and was particularly weak for motor vehicles, which was down $1.5 billion in the first quarter on an annual basis from the fourth quarter of last year and down $2.1 billion from the first quarter of last year.

Inflation in the first quarter and year-over-year from the first quarter of 2025 was lower in the Boston metropolitan area than in the U.S. The CPI-U consumer price index rose at an annual rate of 1.2 percent in Boston in the first quarter versus 3.6 percent in the U.S. The core rate which excludes food and energy was also lower in Massachusetts in the first quarter, at an annual rate of 1.0 percent in Boston versus 2.8 percent in the U.S. From the first quarter of 2025 to the first quarter of this year, the Boston CPI rose 1.7 percent versus 2.7 percent for the U.S., and the core CPI rose 1.6 percent in Boston versus 2.5 percent in the U.S. The low rise in Boston area prices over the past year was broad based, including food, housing/shelter, new and used vehicles, and medical care. Gasoline prices were an exception for both Boston and the U.S. In March gasoline prices were up 19.9 percent in Boston from January, and up 18.3 percent from March of 2025.

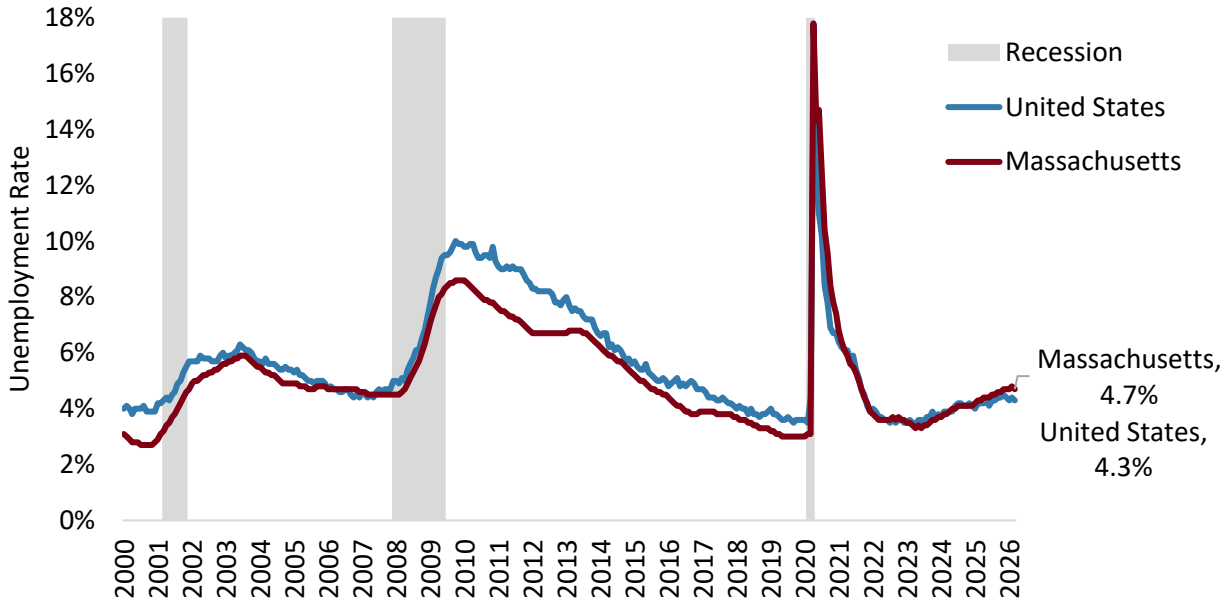
The MassBenchmarks leading index in the current scenario, that is, with the quick opening of the Strait of Hormuz, is projecting moderate annualized growth of Massachusetts GDP of 2.1 percent in the second quarter, and 2.5 percent in the third quarter. The Wall Street Survey of economists' mean projection for U.S. GDP is 1.7 percent in the second quarter and 1.8 percent in the third quarter. A continuation of the stalemate in the Middle East would likely result in slower growth than this scenario.

Workforce

Labor Market Indicators

The unemployment rate in Massachusetts continues to be more elevated than that of the U.S., at 4.7 percent in March for Massachusetts versus 4.3 percent for the U.S. (**Figure 26**). This differential between the state and the nation is the reverse of the typical relationship, where Massachusetts has a lower unemployment rate due to a higher proportion of college educated adults, and could suggest some weakness in the state's labor market relative to the nation. Nevertheless, initial unemployment claims continue to be at low levels and consistent with the low level of unemployment claims nationally. The broader U-6 unemployment measure, which counts as unemployed part-time workers who want full-time work and persons who want a job but have not looked in the last four weeks, is at 7.8 percent in March for Massachusetts, on par with 8.0 percent for the U.S. in March. In Massachusetts, the U-6 rate was 7.4 percent in March 2025. The 0.4 percentage point rise over the year reflects primarily the corresponding rise the headline U-3 rate, from 4.3 percent in March 2025 to 4.7 percent in March 2026.

Figure 26. Unemployment Rates in Massachusetts and the United States as March 2026 of (Seasonally Adjusted)

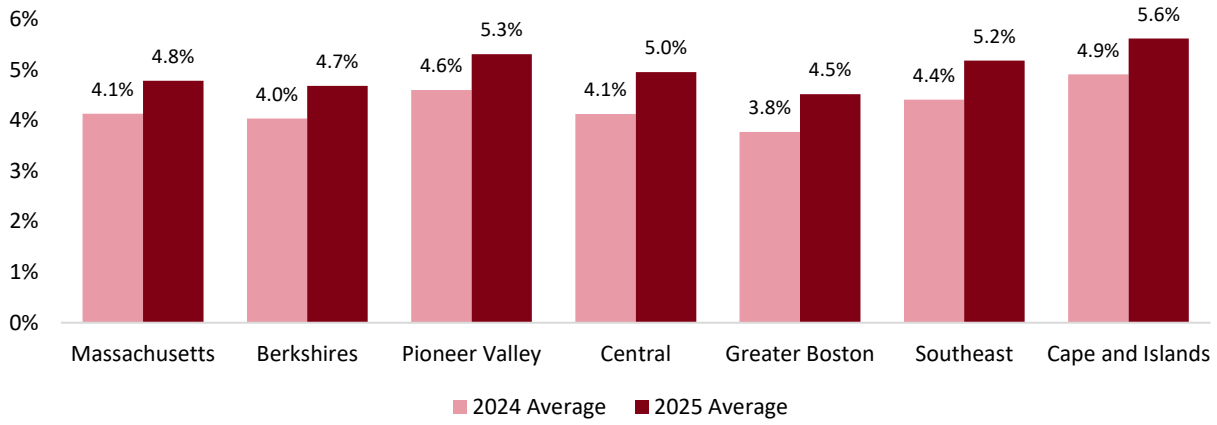


Source: Massachusetts Executive Office of Labor and Workforce Development, Local Area Unemployment (LAU) Statistics; UMDI analysis

The unemployment picture for regions across Massachusetts is uneven, with some parts of the state frequently experiencing more heightened unemployment rates than others. Unemployment has risen everywhere in Massachusetts. However, it is felt unevenly, and in 2024 and 2025 was highest on the

Cape, followed by the Pioneer Valley, closely followed by the Southeast, then Central. The largest annual unemployment increases were in Central and Southeast.

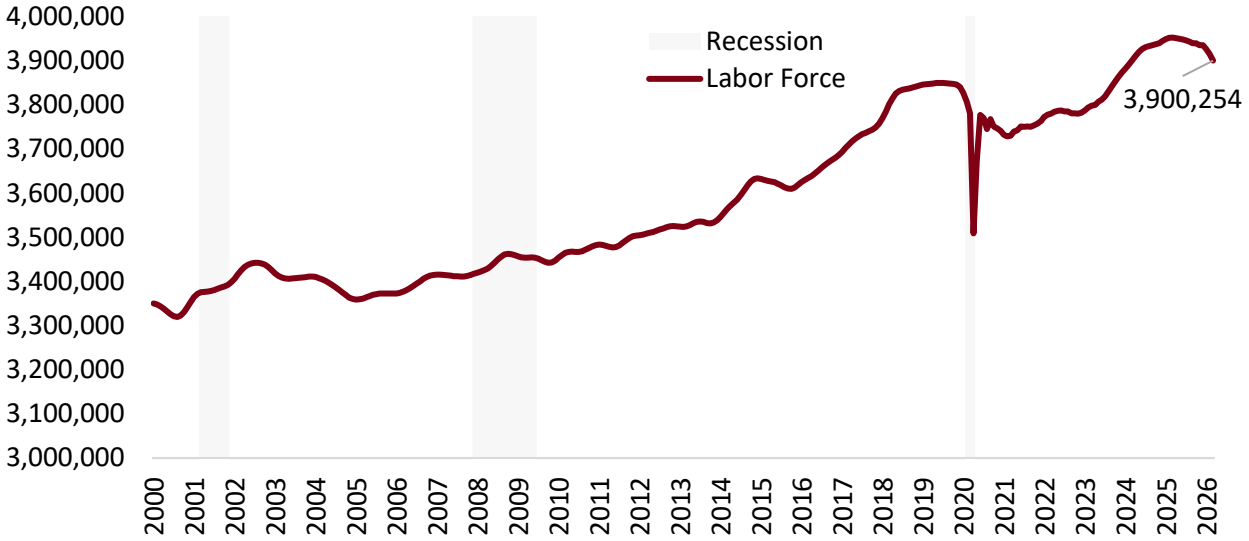
Figure 27: Average Annual Unemployment, Massachusetts and Regions, 2024 and 2025



Source: Massachusetts Executive Office of Labor and Workforce Development, Labor Force and Unemployment Data, 2024-25

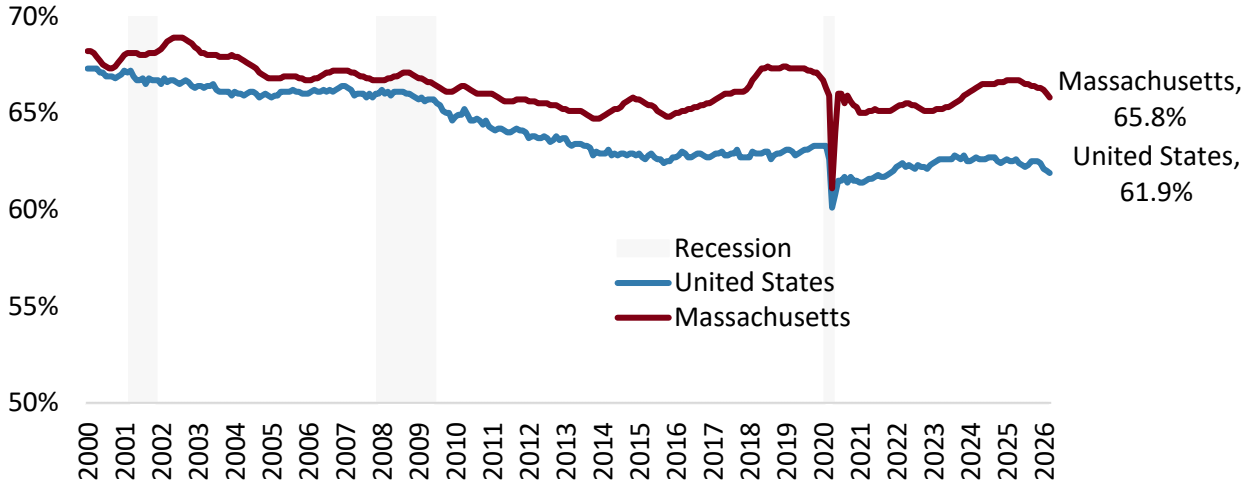
A longer view of the labor force puts the post-pandemic gains—then slowdown—in perspective (**Figure 28**). Since March 2025, the labor force has decreased by 50,000 or 1.3 percent, effectively reducing the gains that happened over the course of 2023 and 2024. Pre-pandemic, the labor force grew from March 2018 to March 2019, by roughly 33,000, or 0.6 percent. At the same time, Massachusetts has consistently maintained higher rates of labor force participation than the U.S.; the difference had narrowed after the pandemic until 2023, when the Massachusetts labor force started increasing rapidly. Over the past year, participation rates in the state and the nation have both declined modestly. The labor force participation rate declined from 66.7 percent in March 2025 to 65.8 percent in March 2026. (**Figure 29**). The rate is below the pre-pandemic level of 67.3 percent in March 2019. As of March 2026, jobs in Massachusetts have mostly recovered to their pre-pandemic levels, but the recovery has slowed in the past few years and has been slower than in most states. Overall in the United States, employment across all non-farm industries is 4.2 percent above February 2020 levels, whereas in Massachusetts overall employment hovers just below pre-pandemic levels.

Figure 28. Massachusetts Labor Force, January 2000-March 2026 (Seasonally Adjusted)



Source: Massachusetts Executive Office of Labor and Workforce Development, Local Area Unemployment (LAU) Statistics; UMDI analysis

Figure 29. Labor Force Participation Rates in Massachusetts and the United States, January 2000-March 2026 (Seasonally Adjusted)

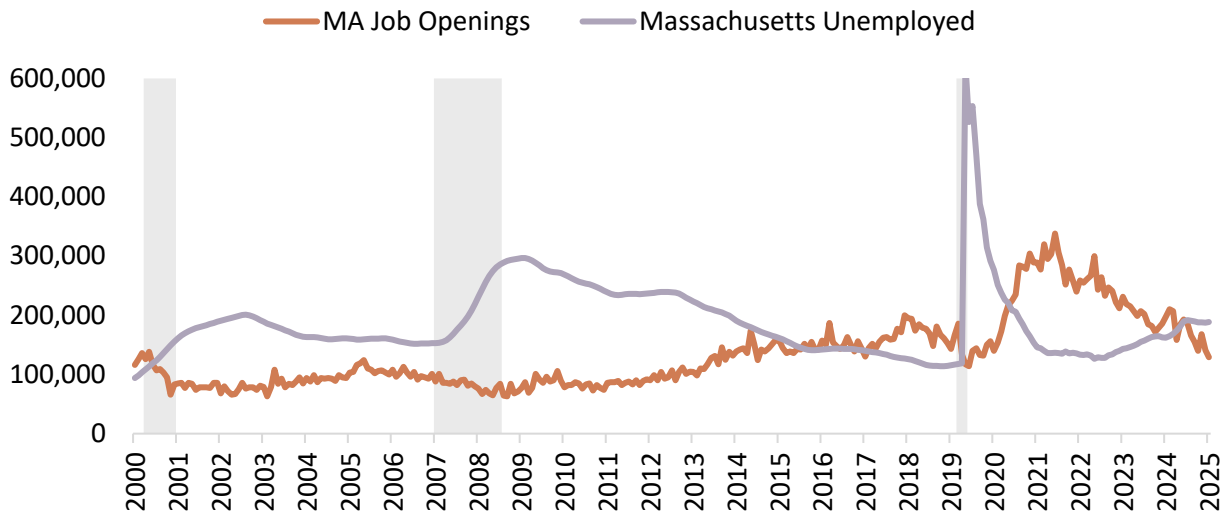


Source: Massachusetts Executive Office of Labor and Workforce Development, Local Area Unemployment (LAU) Statistics; UMDI analysis

The labor market has changed from the era of post-pandemic "Big Quit" to an era of "job hugging" where employees are staying in jobs due to the perception that finding a new job is increasingly

difficult.[16] Labor market data supports the job huggers perception. The gap between Massachusetts job openings and unemployed workers has shrunk considerably from the immediate boom post-pandemic when multiple job opportunities were available per job seeker (**Figure 30**). The measures have moved closer together as the number of unemployed has risen and job openings have consistently declined. Since mid-2025, for the first time since the pandemic, there are more unemployed workers than job opportunities in Massachusetts, and the number of job openings continued to decline through the end of 2025 while unemployment has plateaued. This suggests that the employers are regaining power in the labor market and that potential workers looking for work may have more difficulties.

Figure 30. Job openings and Unemployed in Massachusetts, 2000-2025 (Seasonally adjusted)

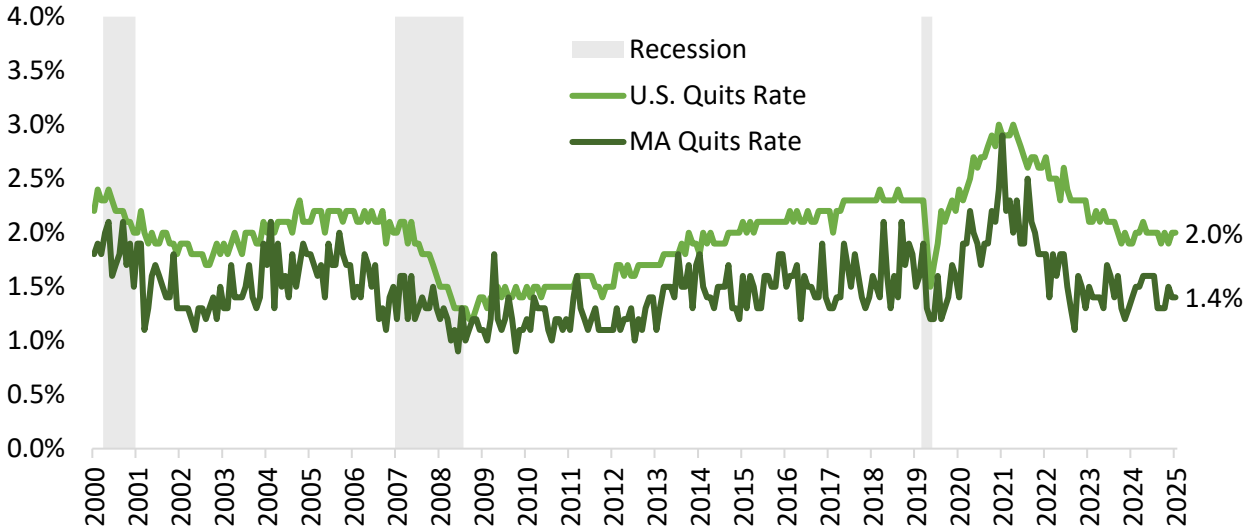


Source: U.S. Bureau of Labor Statistics, Job Openings and Labor Turnover Survey (JOLTS); UMDI analysis

Another indicator of the "job hugging" trend is that voluntary job changes have declined significantly (**Figure 31**). The monthly job quit rate for Massachusetts and the U.S. have returned to pre-pandemic rates. As one would expect, quits tend to go down during recessionary periods in the economy and increase when labor demand is stronger. The quit rate for the U.S. tends to be a bit higher than Massachusetts historically. This is likely due to the high educational attainment of Massachusetts workers coupled with the state's industry mix. State-level estimates of quits can be volatile month-to-month.

[16] Lora Kelley, "Have You Hugged Your Job Today?," Business, *The New York Times*, October 10, 2025, https://www.nytimes.com/2025/10/10/business/job-hugging-labor-market.html.

Figure 31. Job quits rate in Massachusetts and the United States, 2000-2025 (Seasonally adjusted)



Source: U.S. Bureau of Labor Statistics, Job Openings and Labor Turnover Survey (JOLTS); UMDI analysis

Competition for workers in a tight labor market led to wage increases across the Massachusetts economy. According to the BLS, year-over-year wages increased 11 percent from 2019 to 2020 and 4.8 percent from 2020 to 2021. Wage growth then moderated to 2.3 percent from 2021 to 2022 and to only 1.9 percent between 2022 to 2023. However, wage growth accelerated again to 5.0 percent from 2023 to 2024 and a further 4.8 percent from the third quarter in 2024 to the third quarter in 2025. Despite the wage gains experienced by many workers in the economic recovery period, those gains have largely failed to keep up with the rate of inflation, leading to households having reduced spending power, despite any wage gains experienced over the economic recovery period.

AI and Workforce

New uses of large language models, commonly known today as AI, shorthand for 'generative artificial intelligence', have been front and center in the press and public policy discussions on the future of the economy. There has been an explosion of venture capital and business capital investment, albeit highly concentrated in California's Bay Area. Firms are rapidly adopting AI for business implementation, even though AI tools inherently lack discernment and create outputs that require revision and correction. The embrace of AI by businesses has also driven up prices for computer chips and energy and led to massive projects to build data centers nationwide. The effects of adopting AI on work and the labor market has become an important question. In Massachusetts, the Commonwealth has been working on investing in and fostering AI in public-private partnerships to bolster activity in the state. In addition, private groups of businesses supporting implementation of applied AI in the state have formed. As with the prior tech boom, this nascent technology is likely to cause economic changes. Although it trails far behind California's Bay Area, Massachusetts is currently highly competitive at a second-tier level in its attraction of AI venture capital investment and AI-related job offerings, with Boston on par with New York. Although Massachusetts has industries and jobs with high AI exposure, data does not currently show economy-wide employment loss. Some economists predict that jobs will ultimately change in function

more than they are eliminated, with some limited exceptions where jobs are exposed and workers are unable to adapt.

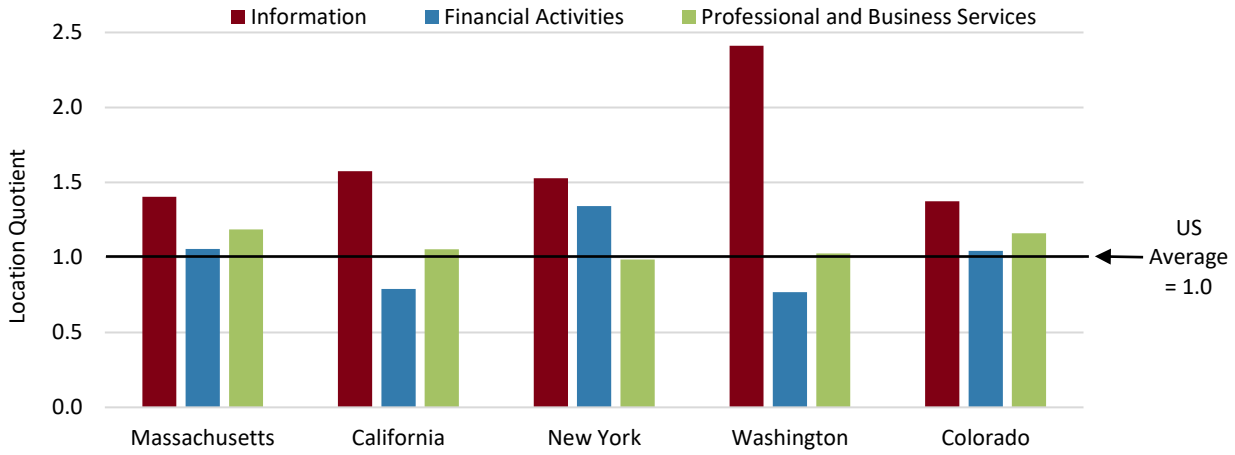
AI is not currently affecting jobs as much as it may in the future. The Budget Lab at Yale (measuring occupational exposure) and the New York Federal Reserve (measuring trends in recent graduate employment) published data and analysis in reports concluding that the labor market is relatively unaffected, though this could change. [17,18] Economists predict AI will likely reshape job tasks and required skills more than total employment levels, although technology adoption can reduce workforce needs and slow hiring as productivity gains shift business investments toward capital. The industries and jobs most likely to be affected either by changes or reduction (or both) are deemed more "exposed" to AI. These industries include professional and technical services, finance, and information (which includes both news, and tech, which as the developers of AI, is already changing to some degree).

Massachusetts' strengths in the life sciences sector and others position it to be highly AI-involved, given the significant AI implementation already underway in that sector. Massachusetts has above-average concentration in AI-exposed industries. For example, Massachusetts ranks 4th in information supersector job concentration, 14th for financial activities, and 3rd for professional & business services (**Figure 32**).

[17] Martha Gimbel , Molly Kinder , Joshua Kendall and Maddie Lee, "Evaluating the Impact of AI on the Labor Market: Current State of Affairs," *The Budget Lab at Yale,* October 1, 2025, https://budgetlab.yale.edu/research/evaluating-impact-ai-labor-market-current-state-affairs and https://budgetlab.yale.edu/research/evaluating-impact-ai-labor-market-novemberdecember-cps-update updated January 28, 2026, accessed October 7, 2025 and January 30, 2026. They continue to monitor using a deep analysis combining national occupational and employment data combined with usage and exposure information from released AI companies' data (Anthropic and OpenAI, admittedly just a subset of the companies developing the current versions of AI).

[18] Federal Reserve Bank of New York, "The Labor Market for Recent College Graduates," https://nyfed.org/collegelabor, accessed December, 2025.

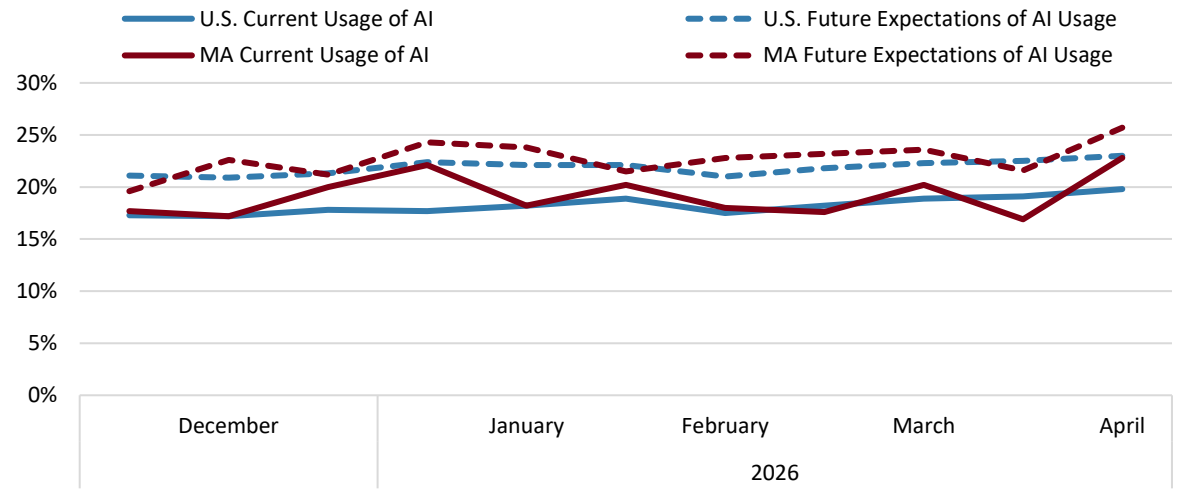
Figure 32: Location Quotients: Job Concentrations in Information; Financial Activities; and Professional & Business Services, Massachusetts & Competitor States, 2024



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, State Job Location Quotients, Annual

AI usage among U.S. businesses is low but increasing. In 2023 U.S. Census Bureau started asking businesses if they currently use AI to produce goods or services, or if they expect to in the next 6 months, use has been increasing in recent years: rising from about 4 percent in 2023 to about 10 percent in 2025. These same patterns hold in Massachusetts as well. After being shut down in October 2025, the Census changed the AI use question to be more expansive. In December 2025, the question was revised to ask firms whether they were using AI in *any* of their business functions. This results in estimates closer to one fourth of U.S. firms using AI (**Figure 33**).

Figure 33: Current Usage and Future Expectations of AI Use to Produce Goods or Services in US and MA Businesses



Source: U.S. Census Bureau, Business Trends and Outlook Survey, Items 7 and 24. Note: past data discontinuous.

Massachusetts tracks closely with national trends in business uptake and future expectations of AI use ranking 12th and 13th respectively in 2025. Colorado, Utah, Florida, and Washington report the highest rates of both current and expected future use.

Despite predictions of broader adoption, overall U.S. business AI uptake remains below 10 percent as of 2025, and economy-wide employment effects thus far have been minimal. Tracking occupational exposure and industry-specific adoption patterns is key to understanding future labor market impacts.

Exploration of occupational exposure paints a national picture of how many, and which, workers are most likely to be at risk. Recent research from Brookings and NBER estimate the number of U.S. workers with high AI exposure to be over 35 million, but more than 70 percent of the workers in those jobs likely have the flexibility and skills to adapt to their job functions changing. The 4 percent of workers most likely to be left behind, however, are concentrated in sales, retail, clerical and routine office roles and are predominantly women.[19] Across Massachusetts' micropolitan and metropolitan regions, this percentage of most vulnerable workers was estimated to range from 3.1 to 3.75 percent.[20] Displacement for the vulnerable is likely but not a foregone conclusion. In some instances, layoffs in favor of AI have resulted in reversals or subsequent further reorganization when the technology fails to deliver desired results, as with errors in customer service or medicine. This suggests occupational exposure may have potential as a measure of other AI-related business shocks, as eliminating and rehiring can be costly to firms.

Brookings Institution developed a typology to assess regional readiness for AI using data from multiple sources. Boston metro area was ranked as a "Star Hub", their 2nd tier designation, with Seattle, Austin, and Washington, D.C., following only the "Superstars" of the San Jose and San Francisco areas. The Springfield, Massachusetts area was classified within "Focused Movers" (their 4th tier of six tiers).[21]

The state of Massachusetts is working to ensure it maintains or elevates its status as a leader in AI. Currently there are several areas of investment happening across the country in AI development and application. While the prospective boom in establishing many new data centers is unlikely to be a part of the strategy here, due to energy costs and land availability, the nature of cloud computing means data centers do not need to be co-located with AI use or development. Furthermore, thanks to state investment, the current Massachusetts Green High Performance Computing Center (MGHPCC), and existing strengths in workforce and research, key factors are already present to apply ethical and equitable AI and accelerate its use. The State's report from the Strategic Task Force on AI in November 2024 identified targeted fields for AI investment: health care, life sciences, financial services, robotics,

[19] Sam Manning, Tomás Aguirre, "How Adaptable Are American Workers to AI-Induced Job Displacement?" NBER, January 9, 2026, accessed February 4, 2026.

[20] Sam Manning, Tomás Aguirre, Mark Muro, and Shriya Methkupally, "Measuring US workers' capacity to adapt to AI-driven job displacement," January 21, 2026 https://www.brookings.edu/articles/measuring-us-workers-capacity-to-adapt-to-ai-driven-job-displacement/, accessed February 2, 2026.

[19] Sources used in the Brooking regional readiness assessment included: job listings, AI-related degrees and skills, venture capital funding, R&D and patent density, high performance computing resources, and firms' adoption of AI.

advanced manufacturing, climate tech, education.[22] These fields are well-established in Massachusetts and likely to be changed by AI. Likewise, Massachusetts' research and innovation talent may be able to advance the future development of computer-driven intelligence beyond AI in these and other fields.

In alignment with the AI Strategic Task Force's guidance, the Governor launched the Massachusetts AI Hub on December 19th, 2024, focused on making Massachusetts a global leader in innovation in applied AI, in other words, to encourage the development of AI use.[23] For example, to advance leadership in the application of AI in the state, Governor Healey announced funding for AI projects for businesses in Boston and Western Massachusetts and appointed a new director for Massachusetts AI Hub. In partnership with MGHPCC's six member universities, the Commonwealth made a five-year, $120 million investment to create the Artificial Intelligence Compute Resources (AICR) environment at MGHPCC that will support computing and data capacity for AI innovation. AICR will give higher education institutions, startups and businesses, and the residents of Massachusetts access to AI-ready infrastructure. In addition, this initiative establishes an incubator for AI in partnership with IBM and Red Hat.[24] The relationship between the research and applied communities could become a foundation for making Massachusetts a leader in generalized, rather than generative, artificial intelligence and further revolutionize AI. A leap beyond large language models may be needed for accurate, intelligent machine-led activity.

The AI ecosystem is also developing within the private Massachusetts business community. Private firms have formed independent AI groups, with participation and coordination from the economic development state officials, such as the industry group Mass AI Coalition.

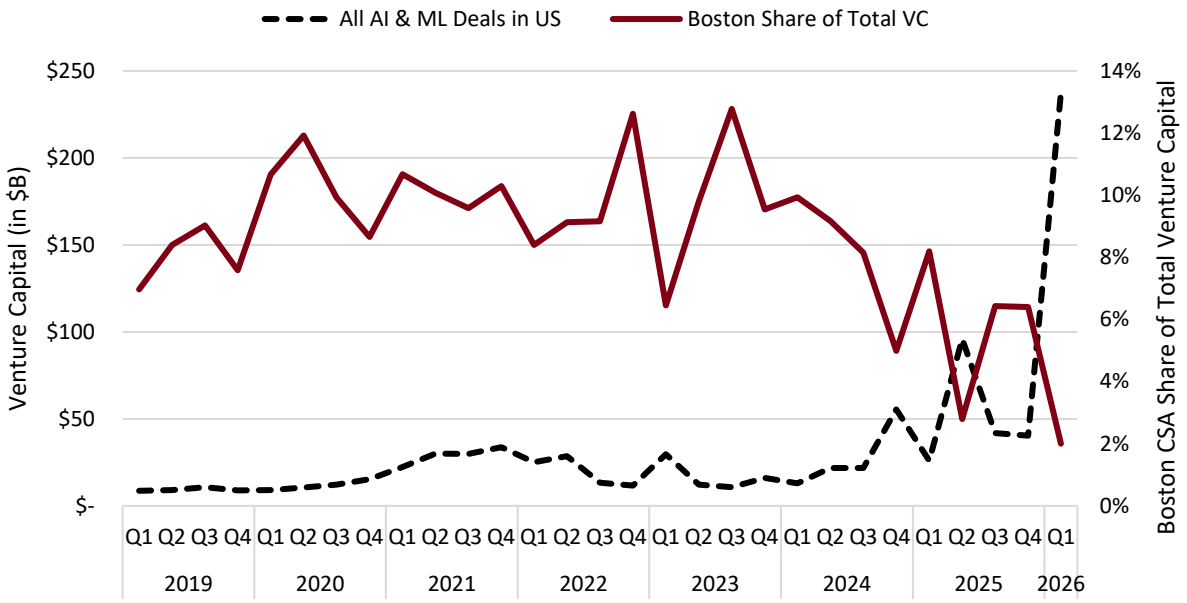
Competition for prominence in the AI space, as measured by venture capital investment (VC), is dominated by California's Bay Area with nearly all of AI and machine learning VC landing there resulting in surging investments in recent quarters (**Figure 12**). The Boston region is a distant third place for total venture capital behind New York as well. While investments in Boston have been stable in dollar value, the share of total venture capital has declined as investments specifically for artificial intelligence have risen (**Figure 34**).

[22] Yvonne Hao, Jason Synder, Michael Milligan, Santiago Garces, co-chairs, "Massachusetts AI Strategic Task Force, 2024 Report to the Governor", February 2024, https://www.mass.gov/doc/massachusetts-ai-strategic-task-force-2024-report-to-the-governor/download, accessed January 5, 2026.

[23] https://www.mass.gov/news/governor-healey-announces-massachusetts-ai-hub-to-make-state-global-leader-in-applied-ai-innovation Commonwealth of Massachusetts, "Governor Healey Announces Massachusetts AI Hub to Make State Global Leader in Applied AI Innovation", December 19, 2024,https://www.mass.gov/news/governor-healey-announces-massachusetts-ai-hub-to-make-state-global-leader-in-applied-ai-innovation, accessed January 5, 2026.

[24] https://www.mass.gov/news/governor-healey-advances-states-ai-leadership-with-major-investments-in-massachusetts-ai-hub Commonwealth of Massachusetts, "Governor Healey Advances State's AI Leadership with Major Investments in Massachusetts AI Hub", May 5, 2025, https://www.mass.gov/news/governor-healey-advances-states-ai-leadership-with-major-investments-in-massachusetts-ai-hub, accessed January 6, 2026.

Figure 34: All Artificial Intelligence and Machine Learning VC in the United States Vs Boston, MA CSA VC (Share of Total VC), 2019-2026



Source: Pitchbook, All Venture Capital by CSA, State, and Total AI and ML Venture Capital, 2019-2026

AI has the potential to be highly disruptive and could reshape the landscape of work and investment. The dot-com boom and bust resulted in a business environment, economy, and internet ready to utilize the successful survivors of a generative and destructive process of software and networking innovation. Similarly, investors in AI are working to position themselves. Massachusetts is well positioned to advance the technology. The current AI boom poses immediate opportunities and challenges to overcome. Even though Massachusetts boasts a highly skilled workforce, workers are still likely to experience the growing pains as jobs change and some may be lost. There is also the potential for new jobs to emerge, requiring worker training in new skills. Firms may also need support as they experience AI-related changes.

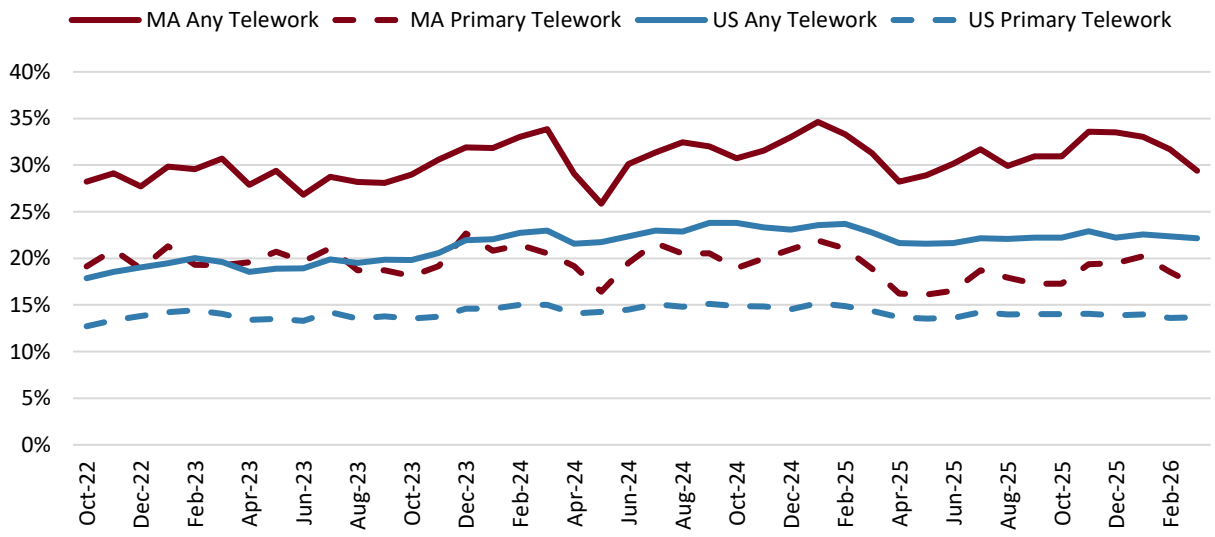
Commuting and Transportation

One way the pandemic appears to have permanently altered the workforce is by increasing the prevalence of teleworking. Prior to the pandemic the technology to work remotely existed, however uptake among firms was limited. Then, nearly overnight in March 2020, employers and employees across industries and occupations were forced to adopt new ways of doing business and working. Analysis of American Community Survey data on commuting patterns estimate that, in 2019, less than 6 percent of working adults worked from home in the week prior to responding to the survey. In contrast in 2024, 14.8 percent of respondents in Massachusetts reported working from home, more than twice the rate prior to the pandemic, but down from relatively high rates in 2021 and 2022. While the share of workers primarily working from home has declined since 2020, telework, remote work, hybrid work, and flexible schedules are unlikely to return to pre-pandemic levels. Nearly one in three employees in Massachusetts reported working remotely at least some of the time since the U.S. Census Current

Population Survey incorporated remote work into their questionnaire in October 2022 (**Figure 35**). The embrace of remote and hybrid work has implications for employers, employees, businesses that cater to commuters in downtowns, and regions centered on dense urban cores.

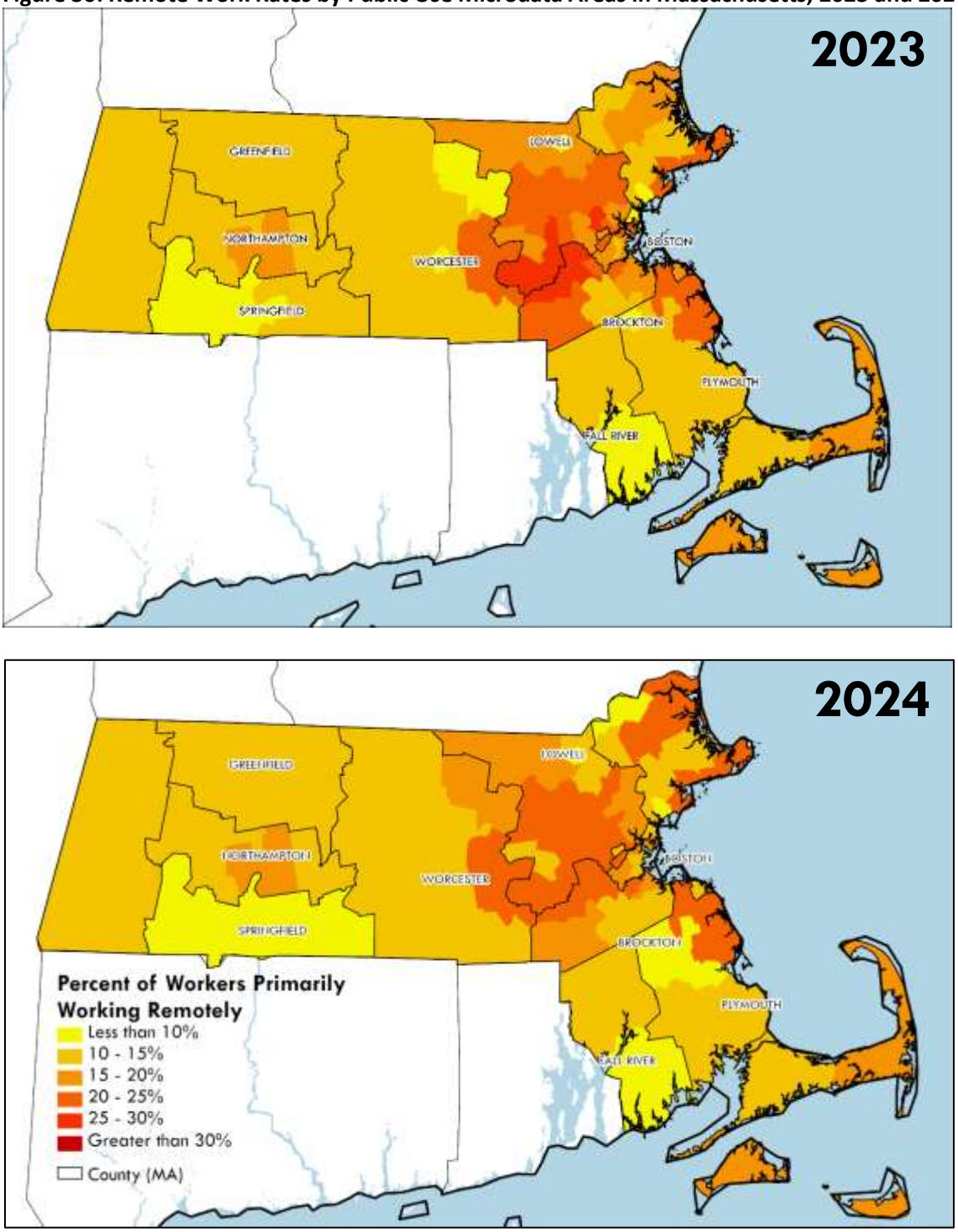
Throughout the nation and the Commonwealth, rates of telework vary geographically. Massachusetts has higher rates of teleworking than the nation. Roughly 30 to 35 percent of workers in Massachusetts are working remotely at least part of the time and 20 percent are working from home primarily (**Figure 35**). While rates of remote work have declined somewhat since 2021 in the state, teleworking remains concentrated in the suburbs just west of Boston (**Figure 36**).

Figure 35: Rate of Telework (all teleworkers and primary teleworkers) in Massachusetts and United States, 2022-2026



Source: U.S. Census Bureau, Current Population Survey Microdata Massachusetts

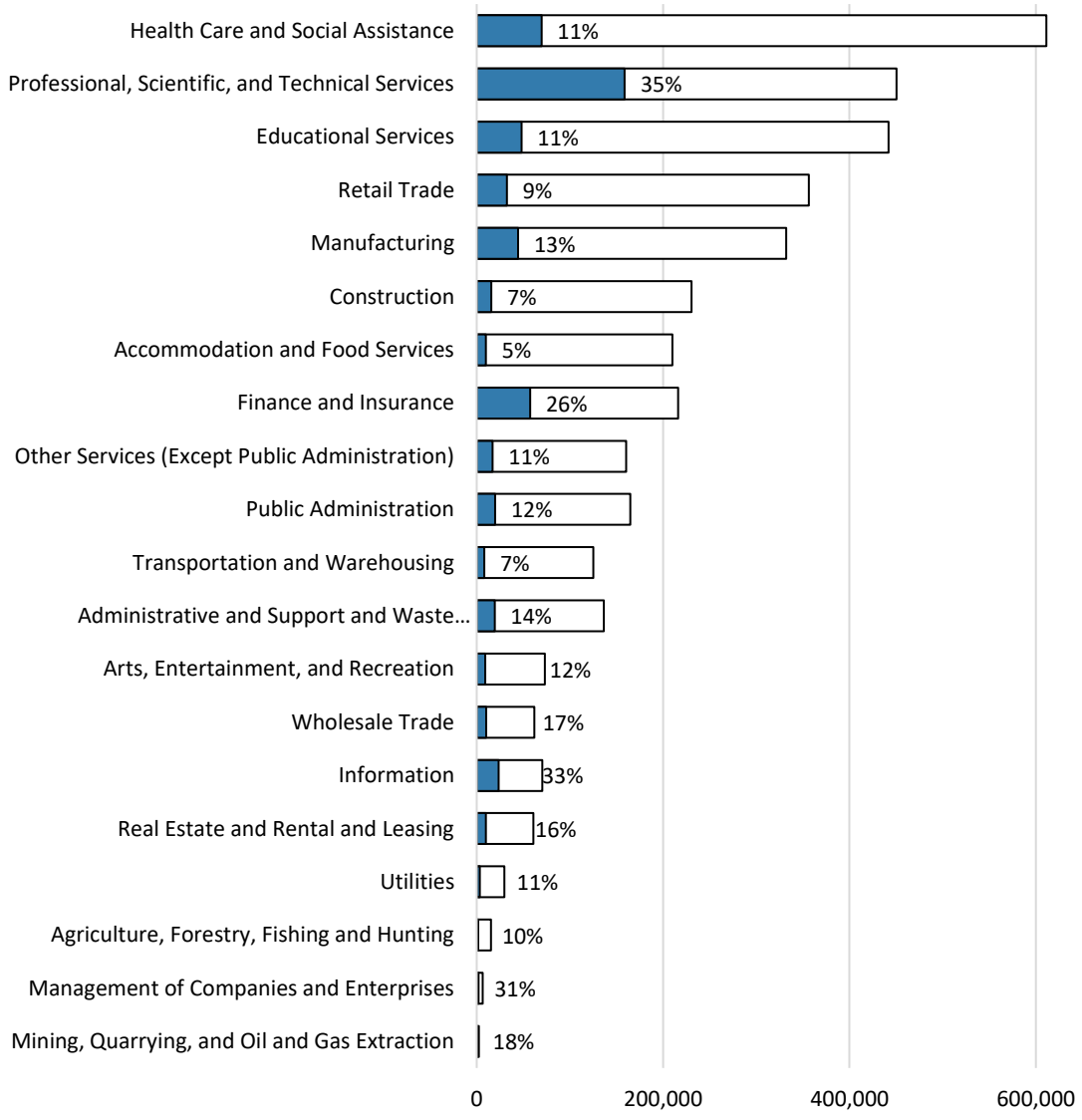
Figure 36: Remote Work Rates by Public Use Microdata Areas in Massachusetts, 2023 and 2024



Source: U.S. Census American Community Survey Microdata via IPUMS. Calculations by UMDI.

Teleworking is also concentrated in certain industries: information, professional, scientific and technical services, finance and insurance, and management are all above the state average in terms of telework (**Figure 37**). Related to the industries where remote work is concentrated, it is not surprising that the advantages of flexible work arrangements are disproportionately accruing to workers who are relatively well-off. Remote workers are more likely to be college educated; more likely to be white or AAPI; and more likely to be high-wage earners. They are slightly more likely to be native born, to have children under the age of 18 in their household, and 35-54 years old. While changes in federal policy may reduce rates of teleworking among federal workers in the future, it is uncertain whether other employers will follow the federal government's lead.

Figure 37: Remote Work Rates by Industry in Massachusetts, 2024



Source: U.S. Census American Community Survey Microdata via IPUMS. Calculations by UMDI.

In addition to upending the labor market, the pandemic has had lasting impacts on transportation in the Commonwealth. Transportation and mobility are essential to the economy and workforce. On one side, the industry sectors – transportation, warehousing, and wholesale trade – are indicative of the activities related to the movement of people and freight in Massachusetts and can be measured by jobs and contribution to the state's GDP. On the other side, indicators like congestion levels, vehicle miles traveled (VMT), public transit ridership, and air passengers have traditionally served as proxy measures of how the economy is performing.

For many workers, the transition to remote or hybrid work has been beneficial as it reduced or eliminated commuting. Leading up to the pandemic, the delays that Massachusetts drivers faced for their commutes had risen dramatically. The typical driver in Boston sat in traffic for nearly 90 hours per year as compared to just over 30 in the early 1980s. Nationally, the Boston urban area has consistently ranked among the highest in the nation in terms of annual hours of delay and Boston's traffic congestion has outpaced other areas of the Commonwealth for this period, at times, more than doubling the hours of delay incurred by Worcester or Springfield area drivers.

Freeway daily vehicle miles traveled (VMT) throughout the three most populous regions of the state thoroughly outpaced population growth for the period of 1982-2019, increasing roughly 120 percent for the Boston, Springfield, and Worcester urban areas, regardless of the varying changes in population growth that each area experienced. This points potentially to statewide changes in driving behavior (e.g., more cars taking more and longer-distance trips) independent of population growth as well as land use patterns potentially favoring vehicle-focused types of development. Traffic volumes across the state have largely reversed and almost fully recovered from the significant dip in VMT that occurred in 2020 due to the pandemic, with average traffic volumes in March 2025 closely tracking those from March 2019.[25]

In contrast to daily VMT, total public transit ridership has lagged economic recovery in Massachusetts following the beginning of the COVID-19 pandemic in spring 2020 (**Figure 38**). Immediately following the emergence of COVID-19 and subsequent "stay at home" orders, transit authorities uniformly experienced a sharp decline in ridership. Total public transit ridership across the state has started recovering, showing signs of seasonal variation with dips in the winters and relative peaks in summers.

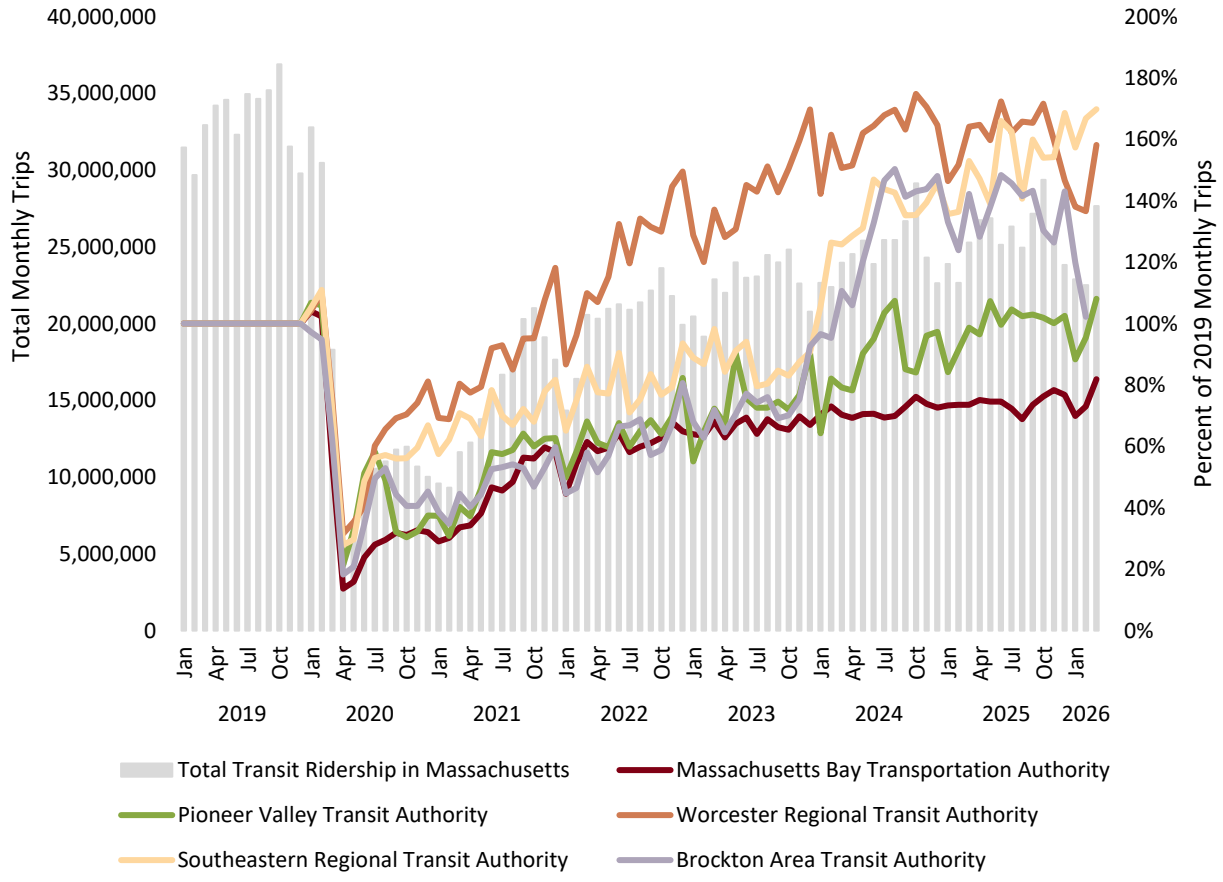
The Massachusetts Bay Transportation Authority (MBTA) and the Commonwealth's regional transit authorities (RTAs) have seen highly variable rates of recovery. Among the top five largest transit authorities in the state measured by February 2020 ridership, the four RTAs have exceeded pre-pandemic ridership and are experiencing strong ridership growth especially over the course of 2024 and 2025. The Worcester RTA was among the first RTAs to suspend fare collection on its buses since the beginning of the pandemic, and this is one possible explanation for why the region has consistently had the state's best ridership recovery overall. Various funding was made available through 2023 and 2024 to extend fare free transit in Worcester and other regions of the state. The Fiscal Year 2026 state budget

[25] Massachusetts Department of Transportation Mobility Dashboard, Weekday Average Hourly Roadway Volume by Month. https://geodot-massdot.hub.arcgis.com/pages/massdot-mobility-dashboard

includes funding to allow all of Massachusetts's Regional Transit Authorities to continue to offer fare-free services, and the Governor's Fiscal Year 2027 budget proposal renews these funds. The MBTA, however, has experienced relatively slow ridership growth over the past several years. The rising price of gasoline may push more residents to use public transit.

Industry mix may explain some variation in ridership recovery across the Commonwealth as well. Worcester, with its emphasis on health care jobs, likely has many commuters who must still travel to their place of work. Boston, on the other hand, has a greater share of financial, tech, and professional services jobs - employees who are much more likely to work from home at least part of the time, and industries which have grown slowly or even shed jobs in recent years. Income may play a role as well. Low-income residents of Worcester may still rely on buses, whereas the MBTA serves different income groups across its commuter rail, rapid transit rail lines, and bus network. High-income workers may be less likely to return to transit if they have easier access to a personal vehicle.

Figure 38. Monthly Transit Ridership, 2019-2026



Source: National Transit Database. Note: total ridership is the sum of MBTA and Regional Transit Authority ridership per month. Top five transit authority by February 2020 ridership are shown as a share of their monthly ridership relative to the comparable month in 2019, e.g. September 2020 / September 2019.

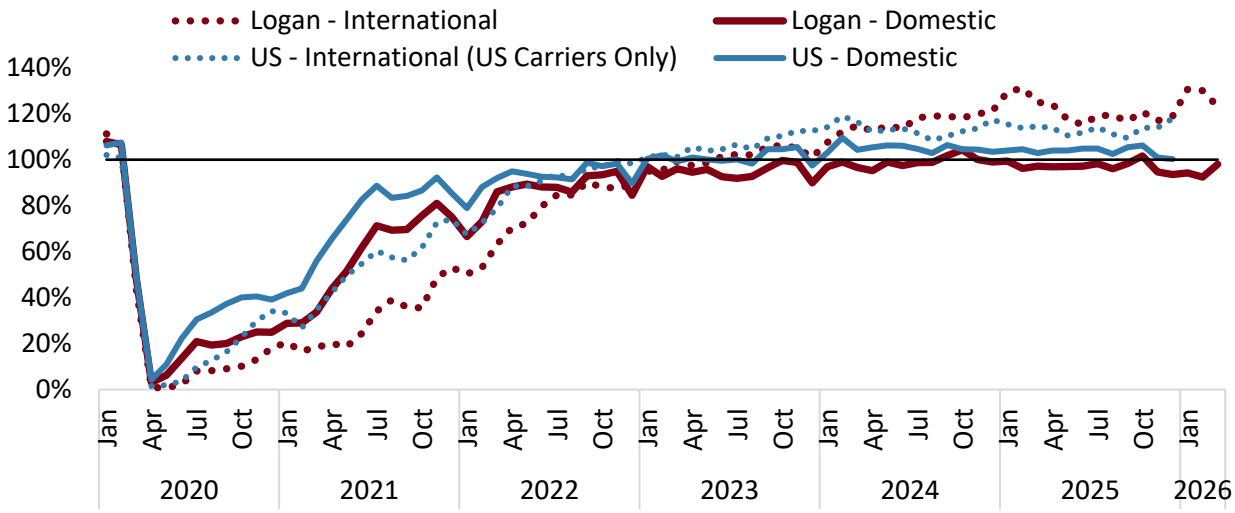
Public transportation continues to make progress in Massachusetts but still faces delays and headwinds. Through its Track Improvement Program, the MBTA removed all slow zones from the rail system by the end of 2024. Other modernization efforts at the MBTA include installing new signals and purchasing new subways trains throughout 2025 and 2026. After several delays, Commuter Rail service to New Bedford and Fall River, both Gateway Cities, through the South Coast Rail project officially opened to passengers on March 24, 2025. In September 2025, the Massachusetts Department of Transportation released an update on Compass Rail, an initiative that combines East-West Rail, a plan to connect Boston, Worcester, Springfield, and Pittsfield by passenger rail, with improvements in other rail routes particularly in Western Mass.[26] Design work is ongoing for the rail upgrades with a tentative start date for construction in 2027. After construction is completed between 2029 and 2030, MassDOT plans for Amtrak to begin operating two initial round-trips between Boston-Springfield and New Haven, CT.

Logan International Airport, like the state's transit agencies, logged a significant decline in passenger volume in 2020 and 2021 below record-high numbers seen in 2019 (**Figure 39**). After reaching over 42 million domestic and international passengers in the calendar year before the COVID-19 pandemic, passenger volumes collapsed to less than 13 million in 2020. Many air carriers expanded service to Asian, European, Middle Eastern, South American, and African destinations from Logan during the 2010s, but with the onset of COVID-19 and its travel restrictions, international passenger volumes were still only a fraction of the 2019 peak.

Logan initially lagged the U.S. overall in passenger recovery throughout 2020 and 2021 for both domestic flights and international flights carried out by U.S. carriers. Throughout 2022, resumption in overseas service and resurgent domestic travel helped passenger levels at Logan and across the country to continue their recovery. By October 2025, domestic passenger recovery had matched that of the U.S. and international passenger growth at Logan exceeded that of the US compared to pre-pandemic levels. As a global hub of education, technology, finance, medicine, and tourism, Massachusetts benefits from higher service levels and the passengers they bring into the state via Logan Airport.

[26] Compass Rail: Inland Route intercity passenger rail service. Accessed 10/15/2025. https://www.mass.gov/info-details/inland-route-intercity-passenger-rail-service

Figure 39. Logan Airport and U.S. Monthly Passenger Volumes as a Percent of 2019



Source: MassPort; Bureau of Transportation Statistics, T-100 Domestic & International Market Note: U.S. International passenger data are from U.S. carriers only.

In June 2025, the Healey-Driscoll Administration released the FY26 – FY30 Capital Investment Plan (CIP).[27] This document, in addition to the MassDOT and MBTA CIPs, as well as those from Massachusetts Municipal Planning Organizations (MPOs) steer significant funding toward transportation priorities in the Commonwealth. The Commonwealth's CIP includes a commitment to replacing the aging Cape Cod Bridges and advancing the I-90 Allston Multimodal project; supporting local pedestrian and bike infrastructure; funding repair and modernization efforts at the MBTA and electric buses for the regional transit authorities; some early projects related to Compass Rail; and building out electric vehicle charging facilities across the state. In addition, much of the FY26-30 CIP is focused on state-of-good-repair for the state's roadways and bridges. The CIP states: "at an average year of construction of 1960, the Massachusetts bridge inventory is 15 years older than the national mean."[28]

Much of this planned work relies on millions of dollars in federal funding that the Trump administration is actively moving to cut. For example, in summer 2025, Trump signed a spending bill that cuts federal funds for projects that are intended to connect communities divided by interstate highways. Massachusetts had planned on $335 million in federal funding for the $2 billion Allston Multimodal Project however, $327 of these funds will now need to be found elsewhere because the bill cut any unobligated funds from the Neighborhood Access and Equity program.[29] The future of the project is

[27] *Five-Year Capital Investment Plan FY2026–FY2030*. (2025). Commonwealth of Massachusetts Executive Office for Administration and Finance. https://www.mass.gov/doc/2026-2030-capital-investment-plan-final. Released Jun 30, 2025.

[28] Massachusetts Department of Transportation, "Current Capital Investment Plan (CIP)." Accessed July 7, 2025. https://www.mass.gov/info-details/current-capital-investment-plan-cip. Released June 30, 2025.

[29] Jaime Moore-Carrillo, "Transit Plans in Mass. Hit by Cuts from Trump: Projects in Allston and Roxbury among Those Now in Need of Funding," Metro, *Boston Globe* (Boston, Mass., United States), September 24, 2025.

uncertain. This federal program was also slated to support projects in Haverhill, Lynn, Everett, and Cambridge.

Environment

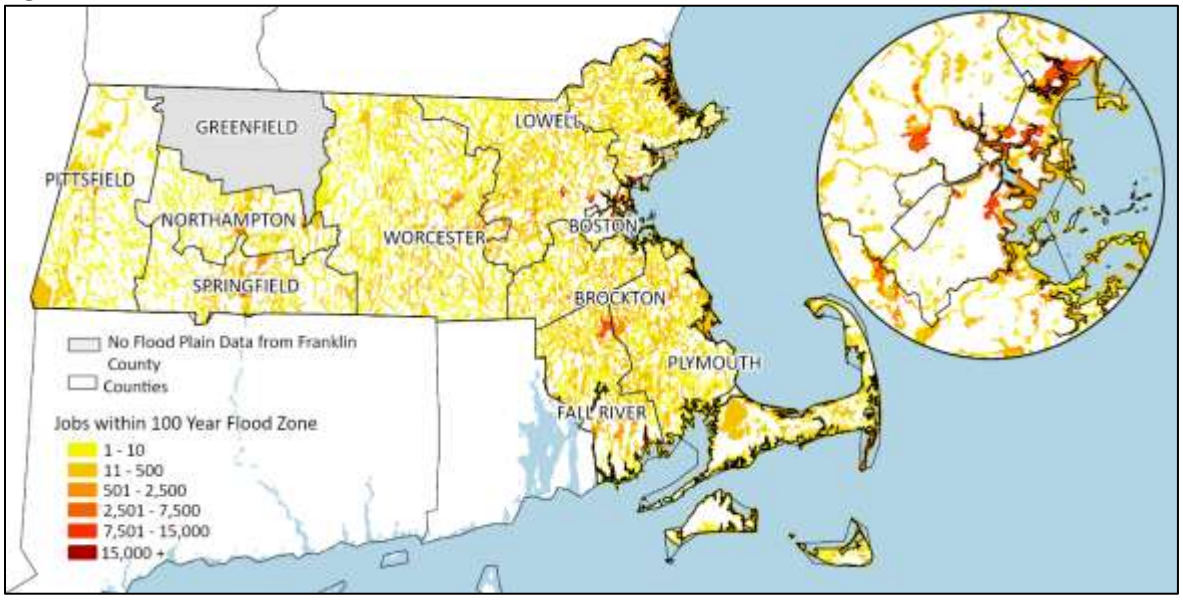
Climate Risks

Massachusetts faces diverse risks related to climate change that will have broad economic impacts, depending on the extent to which adaptive measures are taken, at the state, national, and global levels. The threat posed by sea-level rise is of particular concern in Massachusetts because so much of the state's economic activity is concentrated along the coast, where the effects of climate change are already being felt. For example, in Boston the average number of flood days per year has increased from 2.8 days during the 1950s and 1960s to 13.8 days from 2010 through 2020. Furthermore, the 2022 Sea Level Rise Technical Report released by the National Oceanic and Atmospheric Administration estimated that sea levels along the East Coast will rise by 10-14 inches by 2050. The impact of coastal alteration, larger storm surges, and greater storm damage may be acutely felt where economic activity and residents are clustered. In 2022, approximately 1,100,000 jobs in Massachusetts were located in 100-year flood plains (**Figure 40**).[30] Considering the economic recovery that has since occurred of jobs lost during the pandemic, the number of jobs in flood zones in 2025 is most certainly greater than this. With rising sea levels, flooding in these areas is likely to be more frequent and intense. The summer of 2023 illustrated that flooding can occur far from the coast, as Central and Western Massachusetts experienced flooding that endangered residents and resulted in the loss of crops. Hurricanes are expected to threaten the East Coast more frequently.[31] The number of jobs potentially affected by hurricanes is significant in Massachusetts. There are almost 800,000 jobs in areas designated by the Army Corps of engineers as being in hurricane inundation zones (**Figure 41**).

[30] This estimate excludes jobs located in Franklin County because flood maps for Franklin County were not available.

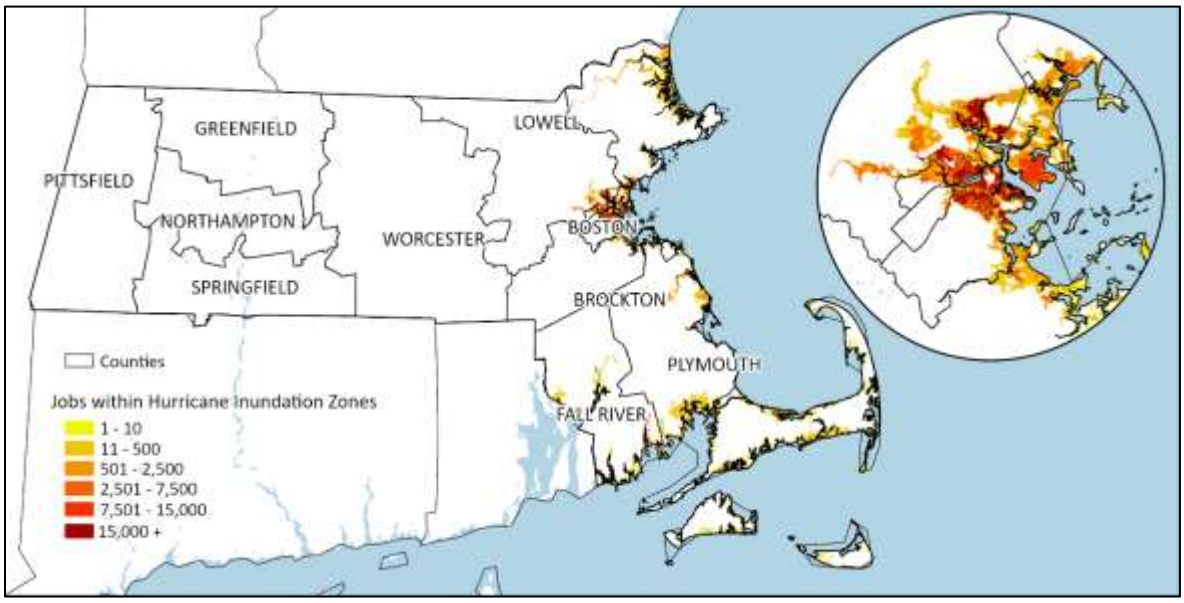
[31] Gori, A., Lin, N., Xi, D. *et al.* Tropical cyclone climatology change greatly exacerbates U.S. extreme rainfall–surge hazard. *Nat. Clim. Chang.* 12, 171–178 (2022). https://doi.org/10.1038/s41558-021-01272-7

Figure 40. Jobs Located in 100-Year Flood Zones, 2023



Source: FEMA National Flood Hazard Layer via MA GIS, U.S. Census Bureau 2023 LODES data on Total Jobs; UMDI analysis
Note: Counts of jobs in this table represent jobs in Census Blocks or parts of blocks that intersect or are fully contained within areas designated as 100 Year Flood Zones by FEMA and assumes an even distribution of jobs in those blocks. FEMA's current national flood hazard layer does not contain finalized flood data for Berkshire, Franklin or Hampshire counties; data from the previous flood map was used for Berkshire and Hampshire counties. Data for Franklin County was not available.

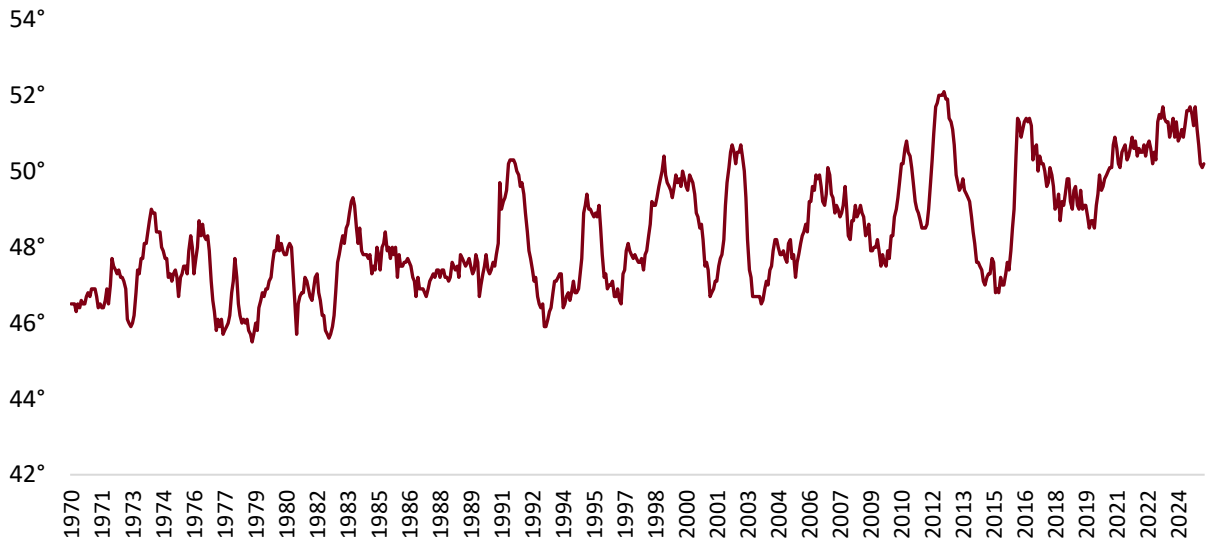
Figure 41. Jobs Located in Hurricane Inundation Zones, 2023



Source: U.S. Army Corps of Engineers Hurricane Surge Inundation Zones via MA GIS, U.S. Census Bureau 2023 LODES data on Total Jobs, Analysis by the Donahue Institute

There are also risks associated with rising temperatures. According to the 2022 National Oceanic and Atmospheric Administration National Centers for Environmental Information State Climate Summaries, temperatures in Massachusetts have risen by 3.5 degrees Fahrenheit since the beginning of the 20th century and are predicted to continue to rise to historically unprecedented levels (**Figure 42**).

Figure 42: Massachusetts Average (12-Month) Temperature (Fahrenheit), 1970-2025



Source: National Oceanic and Atmospheric Administration

While the full effects of climate change are hard to predict at this time, it is certain that some industries will bear more of the burden than others. Furthermore, while the magnitude of these impacts on the overall economy may be small, for those businesses and communities impacted the effects could be intense. For example, the winter tourism industry will likely be affected as there are more than a dozen ski areas in the Commonwealth that will face challenges as precipitation is expected to shift from snow to rain with warmer winter temperatures. Agriculture will be impacted by changes to the growing season and increased risk of both drought and flooding. For example, as of April 1, 2026, all regions of Massachusetts experienced mild or significant drought. Fisheries will be impacted as increasing temperatures change the habitats of ocean species. The health of residents may be impacted by climate change. For example, changes in temperature will likely increase the risk or incidence of acute respiratory diseases, such as asthma, and increase the presence of ticks that carry Lyme disease and mosquitoes carrying West Nile Virus. The risks vary across the state, within communities, and from resident to resident. Vulnerability to climate change is a function of exposure, sensitivity, and adaptive capacity. The most vulnerable are often the young, old and medically vulnerable; those who live in areas with higher risk of extreme events and those without the resources to adapt.

Changes to the environment, such as extreme weather events, do not respect political boundaries, therefore, policy makers have limited ability to mitigate the course of environmental change. However, local officials can prepare for natural disasters and plan for predicted changes in the environment, such as rising temperatures and sea-levels. To this end, in 2017 Massachusetts established the Municipal

Vulnerability Preparedness (MVP) grant program. Funded through the state Capital Improvement Plan (CIP), the program supports city and towns through grants and technical assistance that fund and support local assessments of vulnerability to climate change and adaptation projects. Since its inception with an initial $1 million in funding, the MVP has awarded $125 million to 341 communities across the state. The program has grown each year, funding a wide-variety of projects that support different stages of adaptation, from the development of local climate action plans to construction projects related to river restoration. Today, over 97 percent of municipalities in the state have enrolled in the program. The Commonwealth's FY2026 5-year CIP allocates nearly $130 million for the Municipal Vulnerability Preparedness (MVP) program, to help communities plan for and improve local infrastructure. Additionally, nearly $120 million is allocated to implement the ResilientMass Plan, which includes over 125 actions from various state agencies to reduce the impacts that changing weather and climate have on our communities and infrastructure.

There have been significant legislative efforts to address the environmental risks of climate change. In August 2022, legislation was passed and signed that, among other provisions focused on creating a local clean energy economy and modernizing the grid, requires that all new vehicles in the state be zero-emission beginning in 2035. This builds on the March 2021 net-zero emissions law that set the goal of Massachusetts achieving net-zero emissions by 2050. In addition, the law sets interim emission targets and sets targets for six sectors: electricity, transportation, commercial and industrial buildings, residential buildings, industrial processes, and natural gas distribution. In October 2023, the state's new Climate Chief released a set of recommendations to outline how the Commonwealth will meet its goals related to climate change. The Governor's 2023 Economic Development Plan also includes a strategy to support the growth of "climatetech" in the Commonwealth. Despite these efforts, federal policy changes and increasing construction costs have limited the progress made so far in achieving climate goals in Massachusetts.[32]

Energy

In 2022, Massachusetts consumed twice as much electricity as the state produced. Overall, Massachusetts consumes about 22 times more energy than it produces and relies on the regional grid to meet demand. However, Massachusetts is among the five states in the nation that use the least amount of energy to produce a dollar of GDP. Furthermore, according to the U.S. Energy Information Administration, Massachusetts used less energy per capita than all but four other states in 2023.[33]

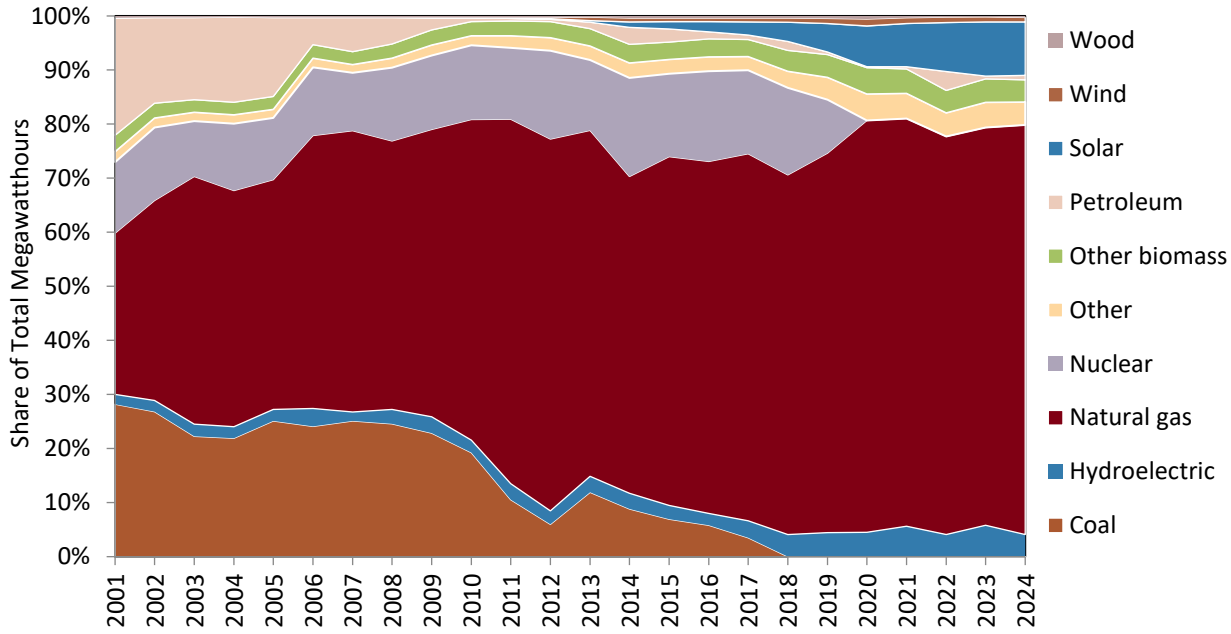
Over the past 20 years, Massachusetts has increasingly been reliant on natural gas for electric power generation, with the share of electric power from natural gas more than doubling from 2001 to 2020; (**Figure 43**). The state receives most of its natural gas through pipelines that bring in natural gas from sources in Appalachia and offshore Nova Scotia in Canada. In addition, natural gas arrives in the state through liquefied natural gas import terminals in Everett and offshore in Massachusetts Bay. There is

[32] "2025 Massachusetts Climate Report Card," Massachusetts Executive Office of Energy and Environmental Affairs, accessed March 5, 2026, https://www.mass.gov/report/2025-massachusetts-climate-report-card

[33] "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis," Massachusetts State Profile and Energy Estimates, accessed October 20, 2025, https://www.eia.gov/state/analysis.php?sid=MA.

uncertainty as to whether potential changes in national tariff policies could lead to higher costs for consumers. The Commonwealth is generating less energy from coal, petroleum and nuclear; the last nuclear power plant in the state closed in 2019. Solar energy has steadily increased. Electricity prices in Massachusetts are higher than in the nation as a whole. As of October 2025, Massachusetts consumers faced the third highest electricity prices in the nation.[34]

Figure 43. Electric Power Generation by Primary Energy Source, 2001-2024



Source: U.S. Dept. of Energy, http://www.eia.doe.gov/; state electricity profiles.
Note: Other includes batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, tire-derived fuels and misc. technologies. Pumped storage is omitted from the graph because it represents the storage of power generated elsewhere rather than newly generated power.

The state Capital Investment Plan (CIP)[35] for the five years of FY26 – FY30 plans to invest in decarbonization by promoting electric vehicles and making school buildings, housing, and public transportation more efficient. In addition, the Highway Resiliency Improvements Program is included in the CIP to prepare the state for future extreme weather events. In November 2024, the Massachusetts legislature passed, and Governor Healey signed into law an act promoting clean energy grid, advancing equity, and protecting ratepayers. This new legislation is intended to accelerate clean energy development by shifting energy generation to sources like wind and solar electrifying transportation systems, heating, and cooling in buildings. This advances the state's goals of net zero gas emissions by

[34] U.S. Department of Energy, Rankings: Average Retail Price of Electricity to Residential Sector, Accessed 10/20/2025. https://www.eia.gov/state/rankings/?sid=US#/series/31

[35] *Five-Year Capital Investment Plan FY2026–FY2030.* (2025). Commonwealth of Massachusetts Executive Office for Administration and Finance. https://www.mass.gov/doc/2026-2030-capital-investment-plan-final. Released Jun 30, 2025.

2050. The bill requires distributors to provide discounts to low-income residents and eligible middle-income residents, allows multistate energy procurements, promotes non-gas heating, expands the electric vehicle charging network, and incentivizes battery storage. The legislation also includes environmental justice requirements for cumulative impact analysis for clean energy projects, establishing a site-suitable methodology to minimize or mitigate the social or environmental impacts of clean energy projects. The legislation also establishes a fund for under-resourced organizations to engage in the siting process. The Commonwealth's focus on addressing climate change and promoting clean energy development stands in sharp contrast to federal policy initiatives that may hamper efforts by the state to move away from fossil fuels.

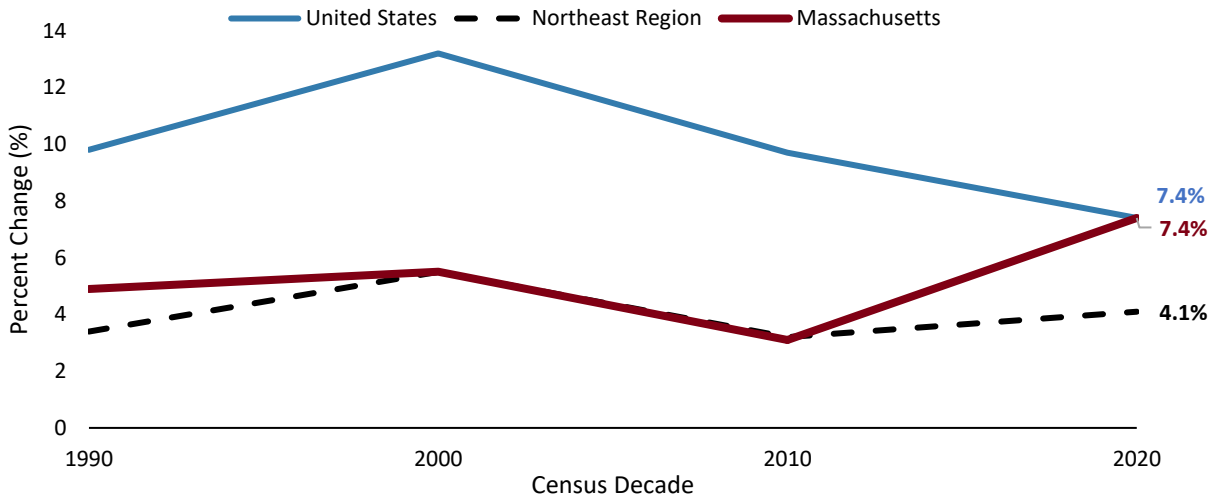
The One Big Beautiful Bill Act, signed into law on July 4th, 2025, will have significant impacts on the renewable energy industry and will make it harder to finance renewable energy projects at every scale. Massachusetts' efforts to encourage the adoption of renewable energy technologies by individuals and firms will be hampered by the elimination of federal tax incentives to adopt renewable energy technologies, like rooftop solar. The imposition of tariffs may further increase the cost of these technologies and drive up the cost of construction. While state and local governments remain committed to addressing climate change, changes in policy at the federal level will likely create significant headwinds to the implementation of new technologies in the clean energy space.

Residents

Population Trends

From 2010 through 2020, Massachusetts enjoyed a sustained period of population growth, driven largely by significant growth in the foreign-born population, that was followed by slower growth in the total population that occurred during the pandemic and due to increased domestic out migration, that alarmed economists and public policy makers alike (**Figure 44**). However, the latest population estimates from the U.S. Census Bureau, also known as the Vintage 2025 population estimates (V2025), show that population growth has slowed for both the U.S. and the Commonwealth. According to the V2025 estimates, the U.S. population grew by only 0.5 percent since 2024 and Massachusetts grew at slightly slower rate.[36] The state population increased by 15,524 over the year, from 7,138,560 to 7,154,084, representing a percentage increase of 0.2 percent. This increase represents a slowdown in population growth for the state compared to the previous year, when the Census Bureau estimated a 1.0 percent increase in the state population in its Vintage 2024 series for the 2023-to-2024 period.

Figure 44. Change in Resident Population by Decade



Source: U.S. Census Bureau; UMDI analysis

[36] *U.S. Census Bureau, "U.S. Population Growth Slows Due to Historic Decline in Net International Migration," Press Release no. CB26-20, January 27, 2026, https://www.census.gov/newsroom/press-releases/2026/population-growth-slows.html*

While New England has been a slow growth region for much of the last several decades, as higher numbers of people move to the southeast and western parts of the U.S., Massachusetts stands out as maintaining relatively strong population growth decade-to-decade among the New England states. Between the 2000 and 2010 census decennial enumerations, Massachusetts resident population grew at the same rate as the Northeast region. From 2010-2020, Massachusetts experienced considerable resident population growth, from approximately 6.5 million to 7.0 million residents, placing it well above the average population change throughout the Northeast region (**Figure 44**). [37] This marked a 7.4 percent increase in the state's population, in line with the U.S. overall growth and making the Bay State the fastest growing state in the Northeast. In contrast, the average population growth in the Northeast was 4.1 percent.

According to the new county-level population estimates released by the U.S. Census Bureau in March 2026, the greatest population increases in Massachusetts counties from July 1, 2024 to July 1, 2025 were seen in Middlesex County at 6,050 net persons gained; Worcester at 4,780; and Bristol at 2,775. In terms of percentage change, the largest net gains were in Worcester County and Bristol County both with 0.5% increases, from 2024 to 2025.

These modest population increases are attributed primarily to a positive natural increase and total migration figure in Worcester County, and positive international and domestic migration in Bristol County. The slowest growing counties in the 2024-2025 period by population count include Suffolk, with an estimated 1,644-person net loss; Berkshire, with an 825-person net loss; and Hampshire, with an estimated loss of 614 persons. The largest percentage decreases were in Berkshire (-0.6%), Dukes (-0.6%) and Hampshire Counties (-0.4%). Population loss in Berkshire, Dukes, and Hampshire is driven by more deaths than births and net negative migration while in Suffolk County domestic outmigration is the primary cause, exacerbated by declining immigration.

Cumulatively since the 2020 Census, Massachusetts has gained population along with seven other Northeast States, with New York being the only state to have lost population since 2020. According to the latest estimates, while the Massachusetts population increased by 0.2 percent over the past year, since the last Census count on April 1, 2020 the state population increased by 120,972, up from 7,033,132. This 1.7 percent cumulative increase is more substantial than some other Northeast states, including Rhode Island (1.6%), Vermont (0.2%), Pennsylvania (0.4%), and New York (-1.0%) over the same period.

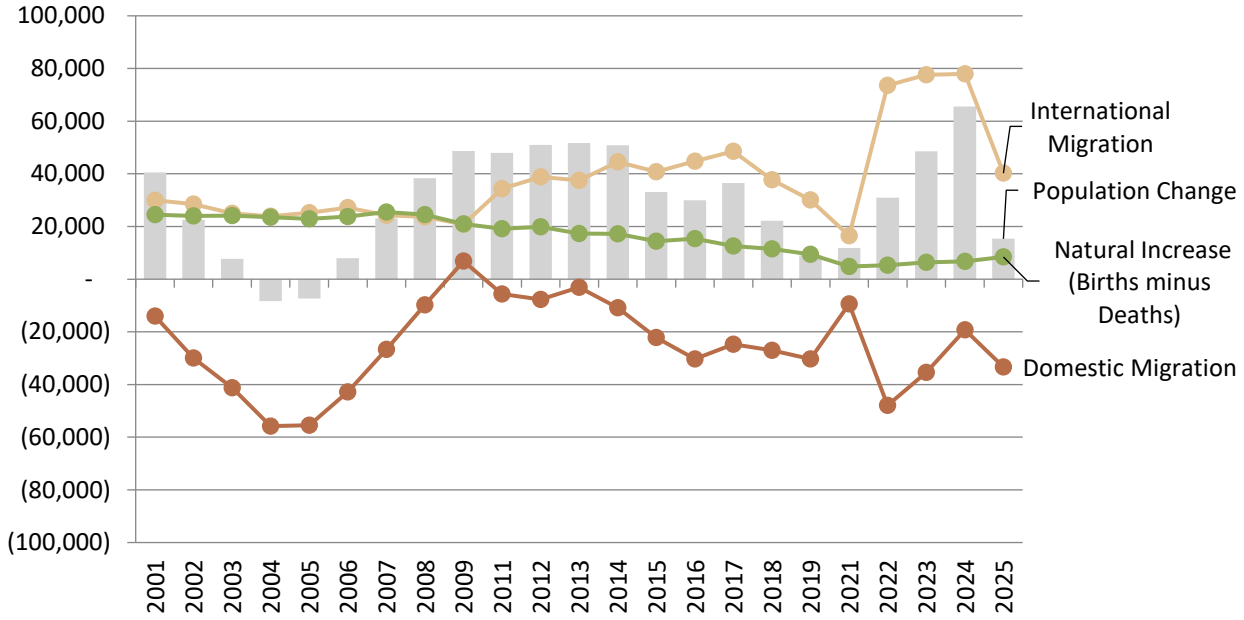
[37] The Northeast includes: Maine, New Hampshire, Vermont, Massachusetts, New York, Connecticut, Rhode Island, Pennsylvania, and New Jersey.

Within Massachusetts there is variation in population growth. When we consider population change since 2020, Nantucket County has been growing the fastest, in terms of percentage growth, since Census 2020 at 3.6%, followed by Worcester at 3.1% and Dukes at 3.0%. The increases in Dukes and Nantucket County were initially fueled by COVID era moves, but the population levels have remained elevated when compared to 2020. By total population change, the large Middlesex, Worcester, and Essex Counties have seen the largest population growth at 38,067, 26,409, and 16,710 people, respectively.

The Northeast Region increased by 0.7 percent since the 2020 Census count, compared to the 1.7 percent increase estimated in Massachusetts. Meanwhile, the Midwest (1.1%), South (6.0%), and the West (1.9%) have all increased in population since 2020 at faster rates than the Northeast, as has been the trend for many years, as the U.S. population gradually moves south and west over time. Annual population estimates from the Census Bureau build on the enumerations generated by the decennial census. The Census Bureau compiles data on the various components of population change (i.e., birth, death, in-and-out migration) each year to estimate an annual population. These components of change offer insights into broad demographic patterns. For example, during the 2000s, population growth in Massachusetts has largely been driven by significant gains in international migration and that continued to be the case through 2025 (**Figure 45**).

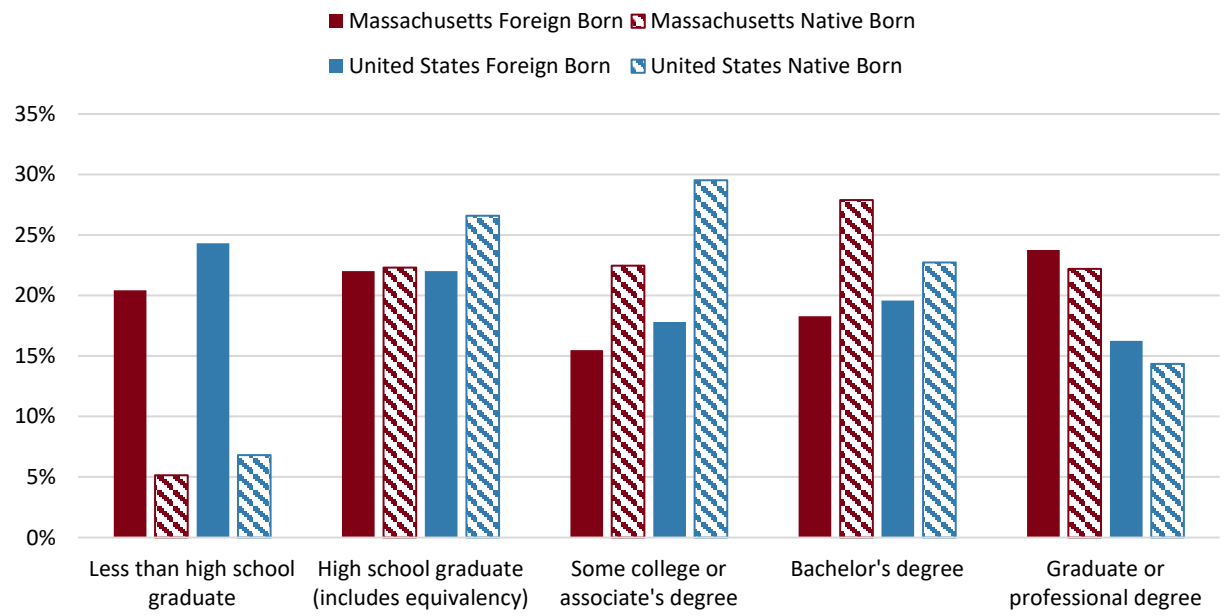
Massachusetts' combination of higher education institutions and knowledge-based industries appears to be an important factor in attracting and retaining foreign-born residents. The foreign-born population in Massachusetts has a bimodal education distribution with a high concentration with less than a high school education (20.4% in 2024) and a significant concentration with college degree or more (42.1%). A similar proportion of immigrants in the state hold a graduate degree as native-born residents (23.8% and 22.2%, respectively) (**Figure 46**).

Figure 45. Massachusetts Estimated Components of Population Change, 2001-2009, 2011-2019, 2021-2025



UMass Donahue Institute. Source Data: ST-2000-7; CO-EST2010-ALLDATA; and NST-EST2025-ALLDATA, U.S. Census Bureau Population Division. Components of population change data for decennial Census years (2010 and 2020) are based on only three months of data, and so are excluded.

Figure 46. Educational Attainment by Nativity in Massachusetts and the United States, 2024



Source: U.S. Census Bureau, 2024 1-Year American Community Survey; UMDI analysis.

These gains in international migration have offset typical losses in domestic outmigration (i.e. people moving from Massachusetts to another state). The decline in natural population change (i.e. the difference between births and deaths) is notable as well (**Figure 45**). Massachusetts has an extremely well-educated population, with high labor force participation from women. This often equates to later family formation and smaller household sizes. Couple this with an aging population and a global pandemic reducing birth rates and increasing death rates, the natural increase in Massachusetts has declined precipitously over the last several years.

Outmigration from Massachusetts has been a focus of policy makers in recent years as 2022 showed a dramatic increase in the state's domestic outmigration rate, essentially doubling from the typical outmigration seen in the state over the last several years (**Figure 45**). Though domestic migration has rebounded since, suggesting that the 2022 period may have been related to a short-term shock effect potentially influenced by work-from-home trends or urban-to-rural movement following the COVID-19 pandemic, the general trend over the past 15 years has been increased outmigration. By 2024, net domestic outmigration decreased to just -19,195 and in 2025 it is estimated at -33,340.

At the same time, estimated net international migration for the state fell off sharply between 2017, when it peaked at 48,583, and 2021, when it hit a low point of just 16,475. A downward trend in immigration continued through 2021 and then reversed again in 2022 with the national surge in humanitarian immigration boosting immigration. The surge continued through 2024 at an estimated 77,957 before falling off to 40,240 in 2025. The sharp drop off in immigration is driven by new federal immigration policies under the Trump Administration.

Massachusetts' relatively slow population growth in recent years is driven in part by outmigration. The outmigration rate in Massachusetts increased between 2020-2022 compared to other states in the Northeast region who experienced net increases in domestic migration. The one state in the Northeast that has experienced a higher rate of out-migration than Massachusetts is New York, which experienced an outmigration rate of -1.6 percent in 2021 compared to -0.9 percent in 2019. Starting in 2023, migration trends appear to be reverting to pre-pandemic rates; though recent annual estimates have been volatile, Massachusetts's outmigration rate has trended downward since 2008, improving from -0.8 percent in 2022 to -0.4 percent in 2024, only to decrease again to -0.5 percent in 2025. Many other states in the Northeast that were benefitting from outmigration from Massachusetts and New York reversed as well and saw declining in-migration in 2023, 2024, and 2025 compared to 2022. In 2025, of all the Northeast states, only Maine and New Hampshire experienced positive domestic migration. There is empirical evidence that the dramatic spike in out-migration following 2020 can largely be attributed to the fact that Massachusetts has some of the highest rates of remote work in the nation due to the state's industry mix.[38] With the embrace of work from home arrangements many workers in Massachusetts were newly able to live further from their employer and chose to move out of state.

[38] Bick, Alexander, Hannah Rubinton, Adam Blandin, and Karel Mertens. "Work from Home and Interstate Migration," 2024. https://doi.org/10.20955/wp.2024.012.

Across the country, young adults are the most mobile and this is true in Massachusetts as well. According to microdata from the 2024 U.S. Census Bureau's American Community Survey, there were roughly 45,000 in-movers to Massachusetts who were between 18 to 24 years old. Many of the young adults in this age group migrate to Massachusetts for their college education. However, 50,000 of this age group moved out of Massachusetts in 2024, as well, indicating that many Massachusetts residents leave the state as well for their college education. Many in the 25–34-year-old age group migrate between states, as well. This group contains post graduate professionals, many of whom are at a point in their life where personal priorities include focusing on home ownership and starting families. Among this group, 56,000 left Massachusetts in 2024. It is likely that this group finds the cost of living, particularly housing costs, challenging, and so are moving to states where the cost of living is lower. However, 44,000 25–34-year-olds moved to Massachusetts in 2024, resulting in the lowest out-migration of this age cohort since 2019. It is possible that job opportunities or graduate school education were draws for this age group despite the affordability challenges. The most popular destinations for those leaving Massachusetts were other New England states, as well as Florida, New York, and Texas. New Jersey, sent more residents to Massachusetts than it received, while California and Pennsylvania were net-beneficiaries of Massachusetts movers.

Figure 47: Net Migration to Massachusetts, 2023-2024

Rank	State	In-Migration	Out-Migration	Net Migration	Total Migration
1	New York	18,697	17,862	835	36,559
2	Florida	10,580	21,834	-11,254	32,414
3	New Hampshire	11,286	20,310	-9,024	31,596
4	California	13,810	15,720	-1,910	29,530
5	Rhode Island	15,235	11,568	3,667	26,803
6	Connecticut	9,936	11,612	-1,676	21,548
7	Texas	6,191	9,454	-3,263	15,645
8	Maine	6,746	6,723	23	13,469
9	Pennsylvania	5,490	5,948	-458	11,438
10	New Jersey	6,536	4,041	2,495	10,577
	All Other States and D.C.	47,255	57,243	-9,988	104,498
	Total	**151,762**	**182,315**	**-30,553**	**334,077**

Source: U.S. Census Bureau, American Community Survey State-to-State Migration Flows, 2024

Looking at the out-migration trend during the pandemic raises understandable concern over the increase in the rate of former residents moving out of the state. It is important to note that the COVID crisis upended residential patterns and migration trends. At this point, it is unclear which of these patterns are short-term reactions to the pandemic and which ones may be more durable. Indeed, the U.S. Census Population Estimates data for 2023, 2024, and 2025 has signaled the start of a return to pre-pandemic trends, albeit with more volatile swings in annual data.

Immigration

Changes to federal policy under the Trump administration may have significant impacts on the levels of immigration to the U.S. and Massachusetts. Reductions in immigration may be challenging for Massachusetts as the region faces population headwinds due to the aging of the population and domestic out migration. Historically, immigration has buoyed the Commonwealth's population in part because fertility rates among foreign-born women are generally higher, though like native-born women, rates have declined in recent years. Most importantly though, international migration has been essential to ensure that the state has enough prime-age workers to support an aging population both in terms of providing health care and other essential services and generating economic activity to ensure that the state economy and public services remain strong. Opportunities for employment, access to services, and participation in civic life are often tied to citizenship. According to American Community Survey data in 2024, 52 percent of foreign-born residents in Massachusetts were naturalized citizens and the remaining 48 percent did not hold citizenship. International immigrants live throughout the Commonwealth, though immigrant communities are clustered in Boston and the Gateway Cities.

From 1990 through 2024, foreign-born workers accounted for 76 percent of the growth in the state's labor force, with the native-born population accounting for only 24 percent. This is driven largely by the aging of the population. In 2024, foreign born workers made up 22 percent of the Massachusetts labor

force, up from 10 percent in 1990. This shift is also driven by the fact that labor force participation rates are slightly higher among foreign-born residents.

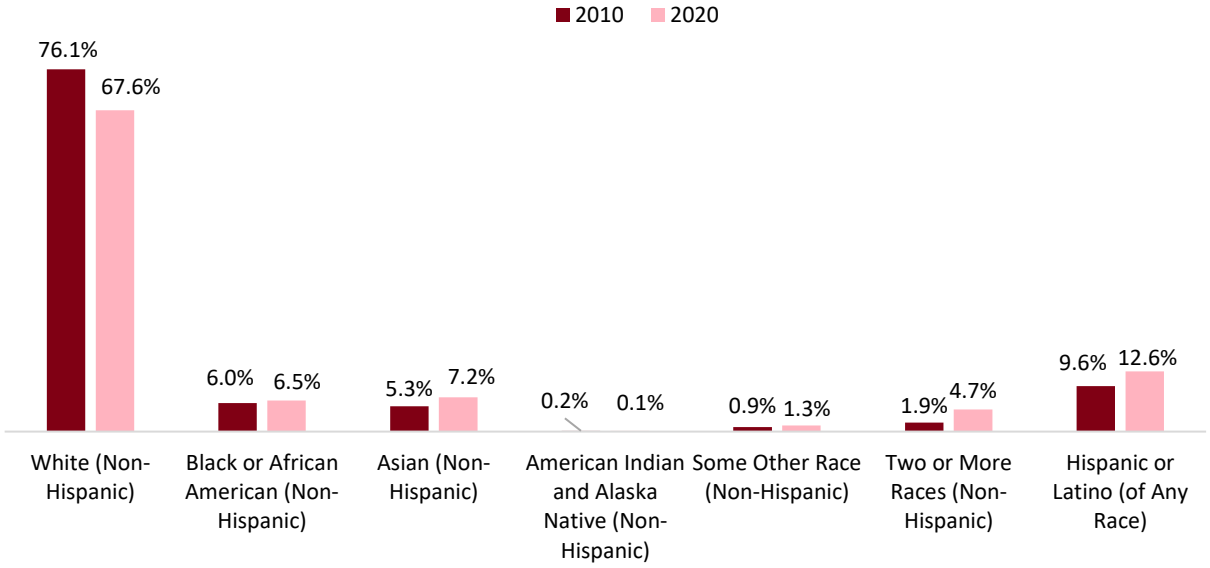
Immigration to Massachusetts is diverse. Forty-two percent of the state's foreign-born population are originally from Latin America, just under a third are from Asia, 16 percent are from Europe, and 10 percent are from Africa. Reflecting the regions of origin Spanish, Portuguese, Chinese and Haitian Creole are the most common languages other than English spoken in Massachusetts. As noted before, the educational attainment of foreign-born residents represents the diversity in the population. While foreign-born residents are more likely not to have a high school diploma, they are also just as likely to have a graduate degree as native-born residents. Furthermore, the foreign-born population in Massachusetts has higher levels of education as the Commonwealth attracts a higher share of immigrants with advanced degrees (**Figure 46**).

Reflecting the importance of foreign-born workers to the health care industry, in Massachusetts 27 percent of foreign-born workers are employed in Educational Services and Health Care and Social Assistance. The second most common industry is Professional, Scientific, and Management, and Administrative and Waste Management Services, in which 17 percent of foreign-born workers are employed.

For those with graduate degrees, many come to the U.S. with visas sponsored by their employers or education visas and can put their high-level of training to good use. However, there are also many immigrants and refugees to the Commonwealth who struggle to find employment that matches their skill sets due to language barriers or challenges obtaining the necessary certifications and licenses to work in the U.S. In Massachusetts, roughly one in ten residents speak English less than very well or has low English proficiency and one in 20 live in a linguistically isolated household; many of these residents are immigrants. To enhance the productivity of foreign-born workers with low levels of English language proficiency the Commonwealth invests in English for Speakers of Other Languages (ESOL) services. The state's investment, however, has not kept pace with growth in the population.

As with the nation, immigration and other factors are leading to Massachusetts becoming more racially and ethnically diverse. The share of the population that identifies as white non-Hispanic decreased from 76 percent to 68 percent from 2010 to 2020, while the shares that identify as Black non-Hispanic, Asian non-Hispanic, and Hispanic increased to 6.5 percent, 7.2 percent, and 12.6 percent respectively. The share that identifies as two or more races (non-Hispanic) more than doubled to 4.7 percent (**Figure 48**). The state's population is older than the nation as a whole, with a median age of 40.1 compared to 39.2 for the nation in 2024. The Commonwealth has the lowest median age in New England, primarily due to the presence of higher education institutions.

Figure 48. Share of Total Massachusetts Population by Race and Ethnicity in 2010 and 2020

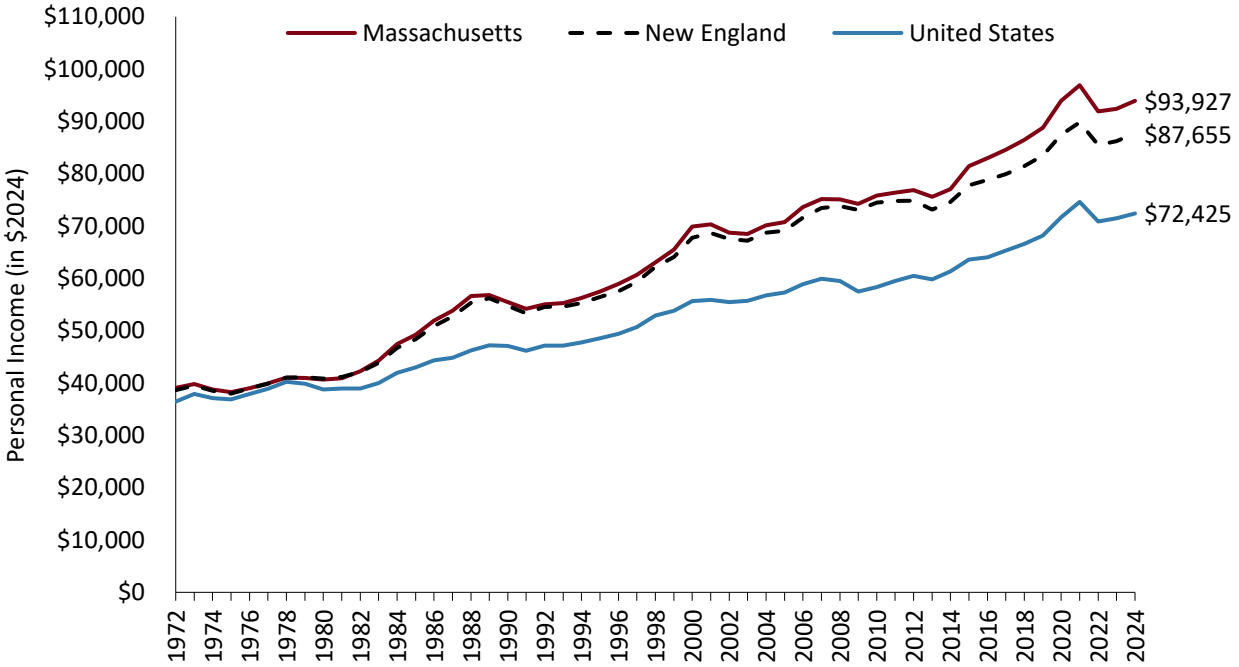


Source: 2010 Source Data: Census 2010 Summary File 1; 2020 Source Data: Census 2020 PL-91-171; UMDI analysis

Income

Massachusetts' residents earn some of the highest incomes in the nation. Real per capita income has consistently exceeded incomes in the New England and the U.S. and in 2024, Massachusetts had the highest real per capita personal income in the nation, excluding the District of Columbia. In 2024, the Commonwealth's real per capita income was almost $94,000 compared to approximately $88,000 in New England and just over $72,000 in the U.S. (**Figure 49**). High inflation in 2021-2022 eroded some purchasing power for consumers nationwide, and so inflation adjusted incomes in 2022 were lower than in 2020 or 2021 but bounced back in 2023 and 2024 as inflation eased. The relatively high-income levels reflect the high level of education and the concentration of high-wage industries such as health care, professional services, and finance and insurance. The poverty rate is lower in Massachusetts than in the nation at 9.7 percent compared to 12.2 percent according to the 2024 One-Year American Community Survey. However, in several cities, the poverty rate exceeds the state average. For example, in the Gateway cities of Springfield and Worcester poverty rates were 23.8 percent and 17.6 percent, respectively. Boston is also above the state average with a rate of 16.5 percent. Higher rates of poverty in these Gateway Cities and Boston are particularly concerning because Gateway Cities are home to a large share of the state's communities of color and immigrant communities.

Figure 49. Real Per Capita Personal Income in Massachusetts, the United States, and New England, 1971-2024 (in $2024)



Source: U.S. Department of Commerce, Bureau of Economic Analysis

Education

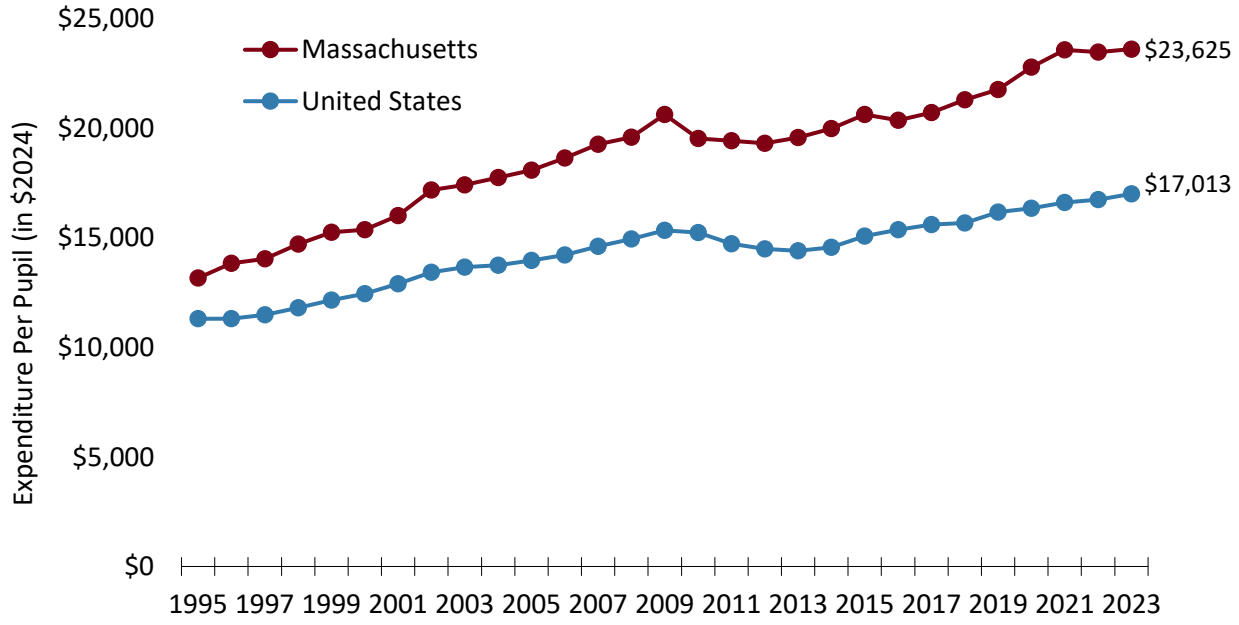
The presence of a skilled and well-educated population is an important resource for the Commonwealth. At the primary and secondary level, the state invests more than the national average in its public schools (**Figure 50**). Furthermore, students in Massachusetts's K-12 public schools consistently outperform their peers in the U.S. on national assessments. The state has the most well-educated population in the country, with over 48.3 percent of all residents 25 years of age or older earning a bachelor's degree or more. However, educational attainment varies significantly across racial groups: Black and Hispanic residents are less likely to have a bachelor's degree than the state average, at 32 percent and 23 percent respectively. Fifty-two percent of white residents and 66 percent of Asian residents hold a bachelor's degree or higher. That said, across all racial groups, educational attainment rates are higher than the national average (**Figure 51**). For adults without a high school diploma and/or low English proficiency, the state has recently increased investment in adult basic education and English for speakers of other languages services through its Department of Elementary and Secondary Education. For adults with a high school diploma but no college degree (associates or bachelor's), the state launched a program in fiscal year 2024 called MassReconnect which offers free tuition at Massachusetts's 15 public community colleges.[39] Implementation of this program started in Fall 2023,

[39] https://www.mass.edu/osfa/programs/massreconnect.asp

and the effects of which will start being seen in the coming years as the first cohorts of students complete their degrees.

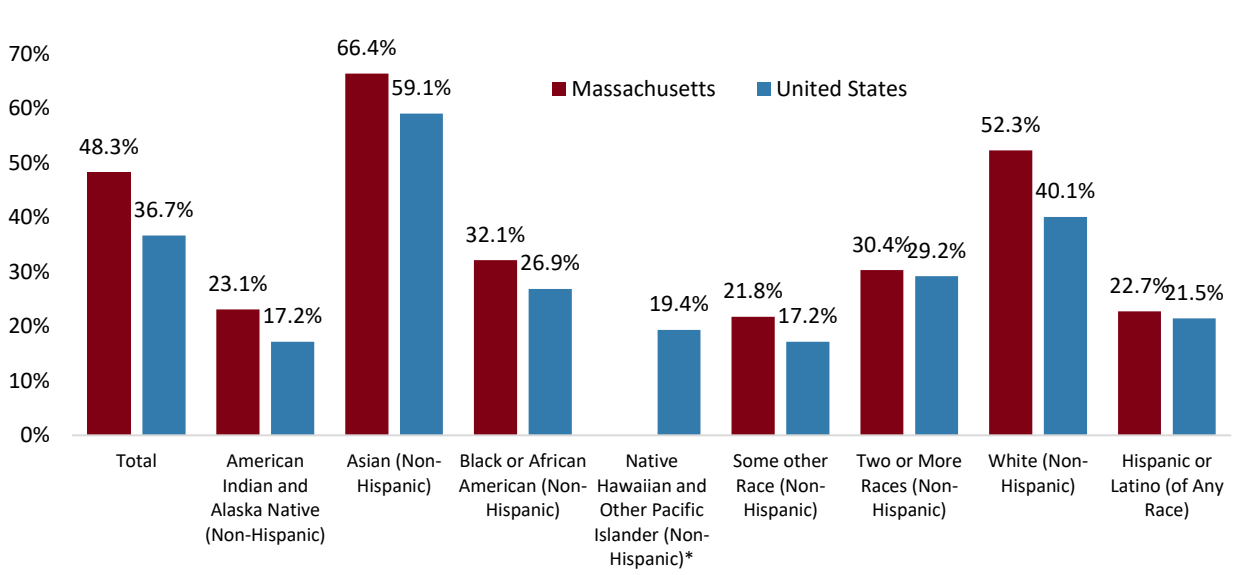
The well-educated population supports and is a product of the concentration of elite public and private colleges and universities in the state. Educational services is the third largest industry in Massachusetts in terms of jobs. Nearly half a million students are enrolled in higher education in the state. The number of international students has rebounded from pandemic-era lows of 66,000 in the 2020/2021 academic year to an all-time high of 84,097 international students in the 2024/2025 academic year. Recent actions by the Trump administration to limit or terminate student visas are likely to have a negative impact on higher education institutions in the Commonwealth, as Massachusetts attracts a significant number of foreign students. Aside from contributing to academic research, the educational, and eventually the labor market, international students are also more likely to pay full tuition at Massachusetts colleges and universities.

Figure 50: Per Pupil Expenditure in Public Elementary and Secondary Schools (in $2024)



Source: U.S. Census Bureau, Public Elementary–Secondary Education Finance Data.

Figure 51. Persons in Massachusetts and the United States 25 Years and Older with a Bachelor's Degree or Higher by Race and Ethnicity in 2024



Source: U.S. Census Bureau, 2024 1-Year American Community Survey via Social Explorer; UMDI analysis.
*Note: The estimate for Native Hawaiian and Other Pacific Islander (Non-Hispanic) in Massachusetts cannot be displayed because there were an insufficient number of sample cases in the selected geographic area.

Housing

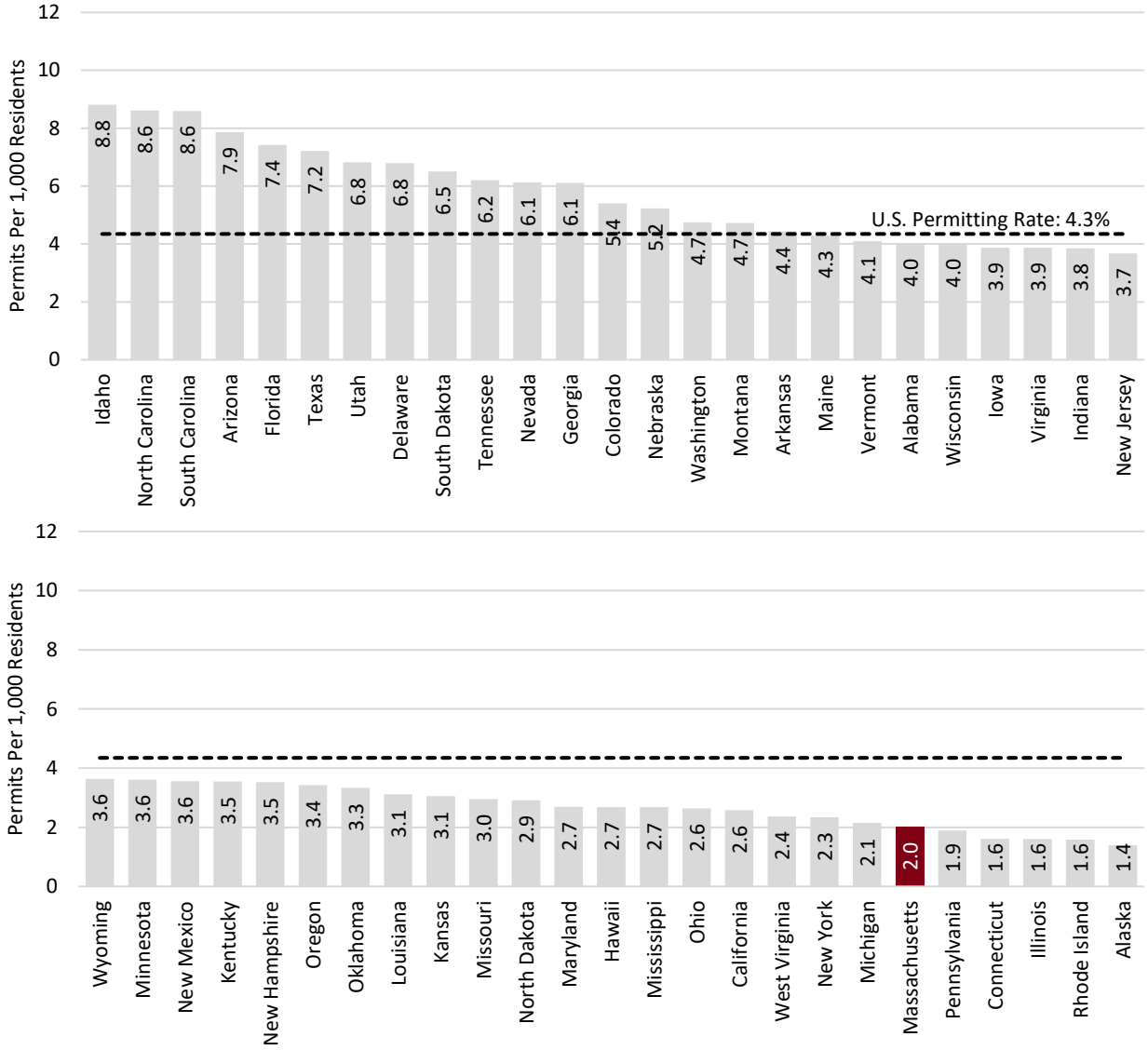
While residents enjoy higher incomes than most other states, the cost of housing in Massachusetts is a burden for many, especially for Black and Hispanic households. Housing costs remain high across the Commonwealth, driven in part by population and economic growth and inadequate housing production over the last couple of decades. The sales price of existing homes continued to increase, but at a slower rate. In 2025, median single-family home prices increased to $665,000 from $640,000 in 2024, a 3.9 percent increase.[40] Prices have remained well above the national median of existing homes, which according to the National Association of Realtors was $405,000 in 2025.[41] Construction is not keeping up with demand. Nationally, the number of building permits decreased 2.2 percent from 2023 to 2024. In Massachusetts, permits decreased 25 percent between 2022 and 2023 before rebounding by 8.5 percent the next year.[42] Massachusetts ranks sixth lowest in the nation when building permits are adjusted for population (**Figure 52**).

[40] Massachusetts Association of Realtors, December 2025 Closed Sales Report. https://www.marealtor.com/market-data

[41] National Association of Realtors, Existing-Home Sales. https://www.nar.realtor/research-and-statistics/housing-statistics/existing-home-sales

[42] U.S. Census Bureau, Building Permits Survey. https://www.census.gov/construction/bps/index.html

Figure 52. Building Permits Per 1,000 Residents by State, 2024

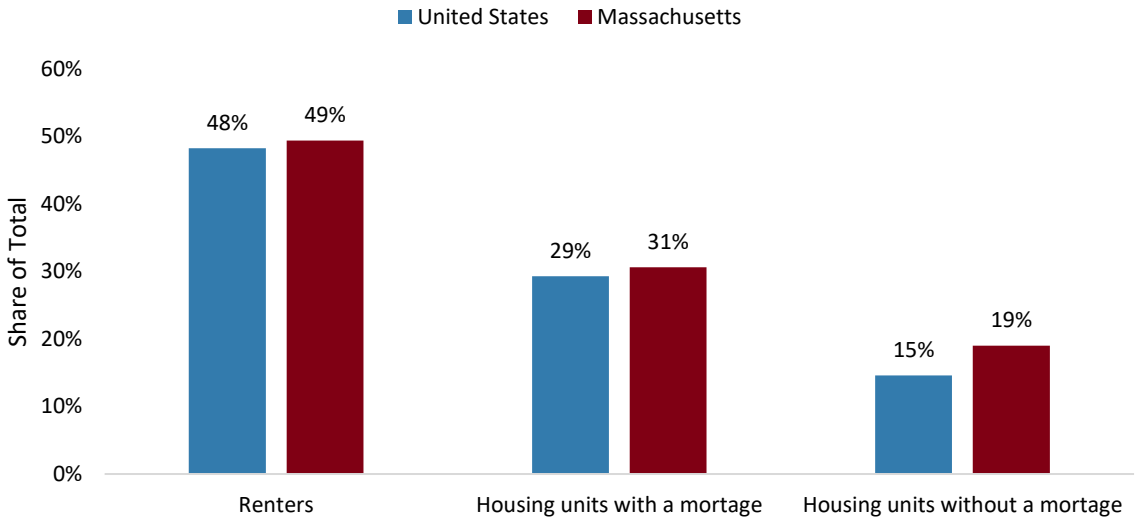


Source: U.S. Census Bureau Building Permits Survey; U.S. Census Bureau Population Estimates Program.

The increase in sale prices and the low supply of homes for sale has translated into high rental costs. In addition, low vacancy rates have contributed to higher costs. Mirroring rates in the U.S., nearly half of renters are cost burdened, meaning they spend over 30 percent of their income on housing costs (**Figure 53**). In contrast, 29 percent of owners with a mortgage are cost burdened. The rates of cost burden are highest among low-income residents, as well as Black and Hispanic households. It is important to note that rates of housing cost burden depend on both the income of residents and housing costs. Due to a history of discriminatory housing policies, rates of homeownership vary by race and ethnicity. Among the most detrimental federal policies that originated in the 1930's was "redlining," which meant that

racial and ethnic identity were a primary factor in the determination of loan risk, leading to the racist assignment of lower ratings to communities of color than neighboring and similar white communities. This system kept people of color from buying their own homes, one of the most important forms of intergenerational wealth. The harmful impact of this system is still felt today in the disproportionate rate that people of color rent, where they live, and their substantially lower levels of wealth than their white peers.

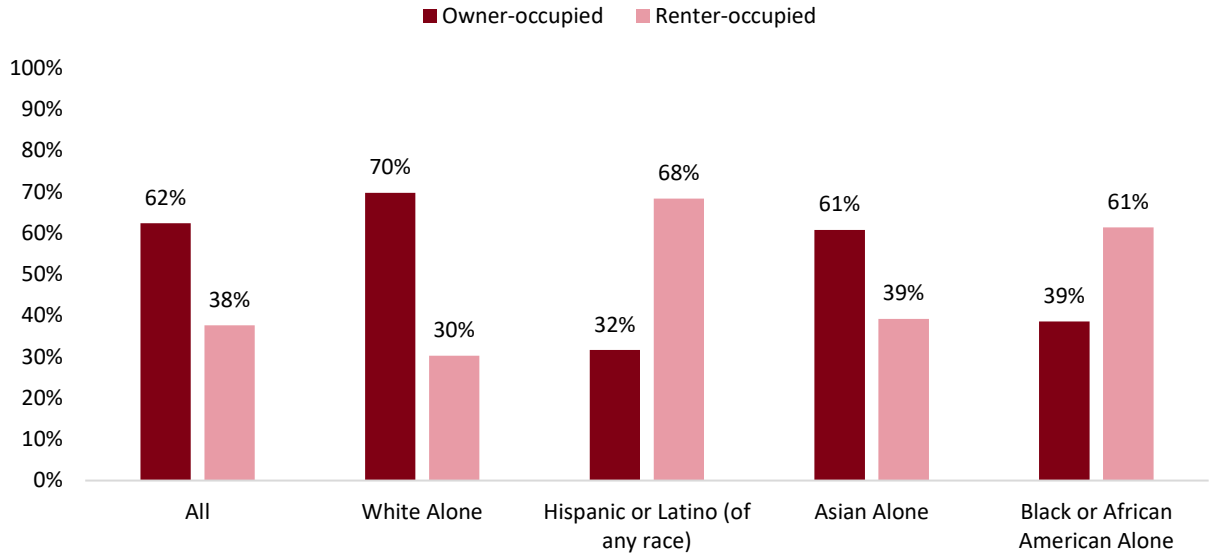
Figure 53. Housing-Cost-Burdened Households by Housing Tenure in Massachusetts and the United States (Spending 30 Percent or More of Income on Housing Costs)



Source: ACS 2024 1-Year Estimate, via Social Explorer.

Overall, 62 percent of households in Massachusetts are owner-occupied and 38 percent are renter-occupied. The majority of white and Asian households own their homes and Black and Latino households are more likely to rent (**Figure 54**). The disparity in homeownership rates matters because homeownership is a fundamental mechanism for building wealth in the U.S. and homeowners are far less likely to experience severe housing cost burden.

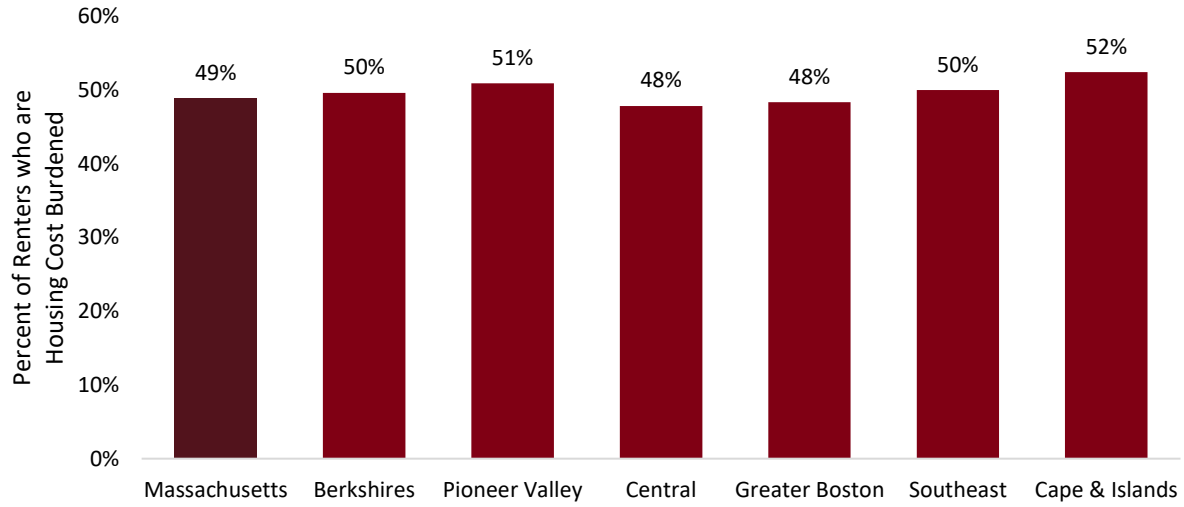
Figure 54. Housing Tenure in Massachusetts in 2024 by Race and Ethnicity



Source: ACS 2024 1-Year Estimate, Table B25003, A through I. Via Social Explorer.

Renters face higher rates of housing cost burden than owners do. In Massachusetts overall, the housing cost burden is slightly higher than nationwide. Almost half of all renters in Massachusetts pay 30 percent or more of the household income for their housing. In some regions, this is even higher (**Figure 55**). Differences in both earnings and rents across the state mean that some of the highest incidences of burden are in some of the lowest wage regions: the Pioneer Valley, Southeast, and the Berkshires. Surprisingly, given high prices in the region, the rate of renter cost burden in Greater Boston (which in this analysis, includes the counties north of Suffolk as well) is slightly lower than the state average, as is Central, where wages and rents are comparatively lower. Unsurprisingly, the Cape and Islands region, where high housing costs reflect the tourism and housing demand, has the highest incidence of housing cost burden for its renters, some of whom face lower wages given the industry mix and wages in the occupations available.

Figure 55: Renter Housing Cost Burden in Massachusetts Regions, 2024



Source: U.S. Census Bureau, 2024 1-Year American Community Survey, Table B25070

In recent years the state has taken steps to address the housing crisis. With the goal of increasing housing production, particularly near transit hubs, the Commonwealth passed legislation to amend the state Zoning Act. The Massachusetts Bay Transportation Authority (MBTA) communities law includes several provisions to remove zoning-related barriers to housing production. The law changed voting standards for local city councils or town meetings to adopt or change zoning ordinances and bylaws from two-thirds to a simple majority. Among other measures, the Act requires "by right", multi-family zoning in 177 MBTA communities. Communities that fail to comply with the law shall not be eligible for certain funds from the State. As of April 10, 2026, 166 communities have submitted and/or adopted zoning to comply with the law and 154 have been determined to be compliant by the Executive Office of Housing and Livable Communities.[43] Governor Healey's Affordable Homes Act was signed into law in August 2024. The bill authorized $5.2 billion in spending and numerous policy changes to support the construction of housing and address the housing crisis in the state. Notably, it legalizes accessory dwelling units statewide in single-family zoning districts effective February 2025. In February 2025, Governor Healey also released the first statewide housing plan for Massachusetts and set a goal to increase the number of homes in Massachusetts by 222,200 units by 2035.

[43] "Multi-Family Zoning Requirement for MBTA Communities," accessed February 3, 2026, https://www.mass.gov/info-details/multi-family-zoning-requirement-for-mbta-communities.