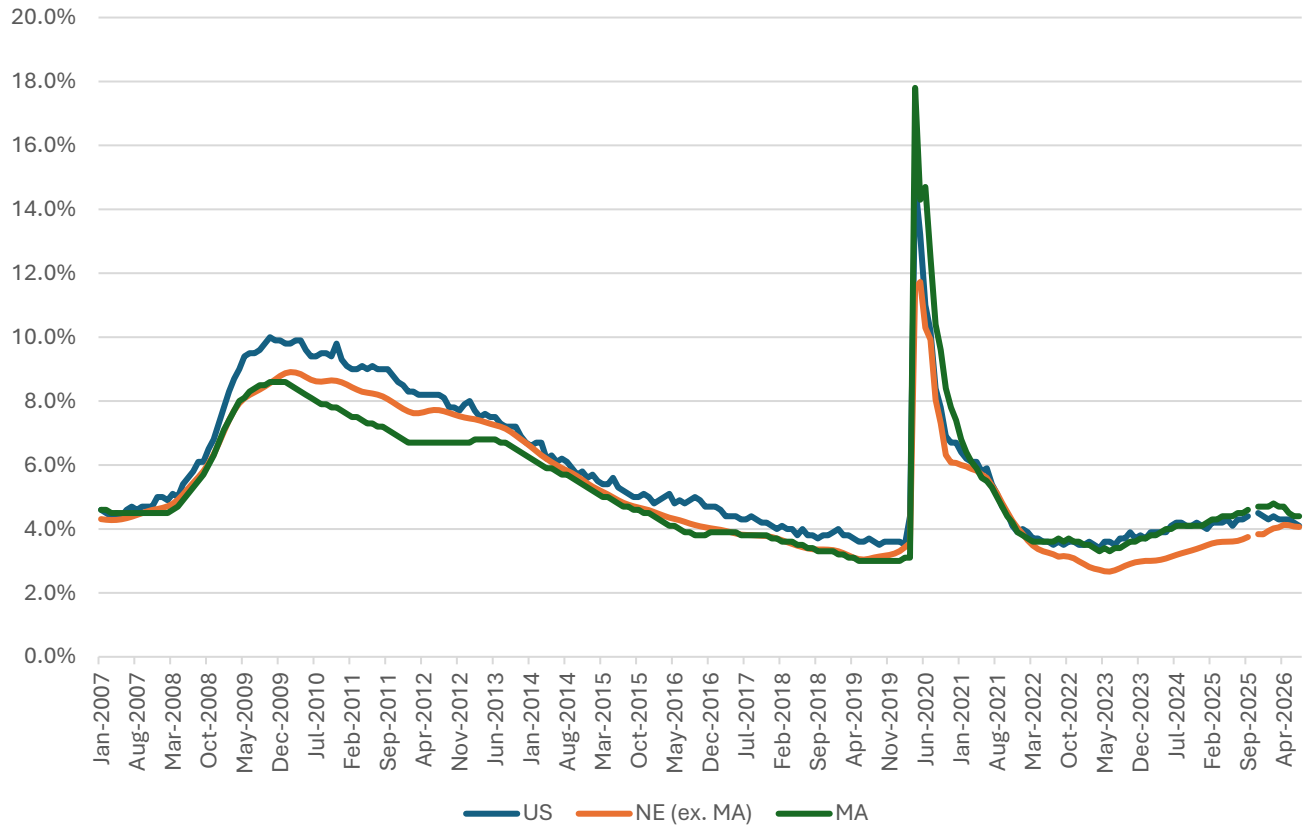


New England Public Policy Center Regional Briefs 26-2 Appendix Exhibits

Figure A1: Unemployment Rate, 2021–2026

United States, New England (excluding Massachusetts), and Massachusetts

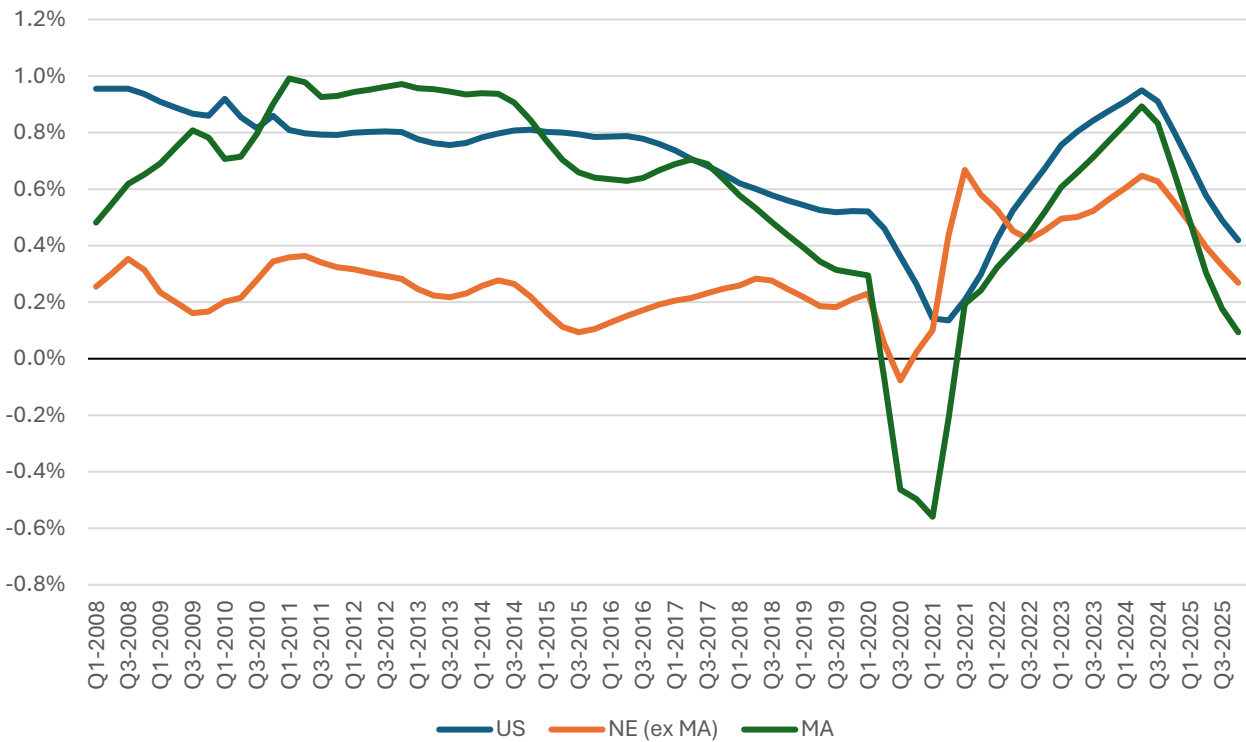


Note(s): The figure shows the unemployment rate for the US, New England (excluding MA), and Massachusetts from January 2007 through July 2026.

Source(s): Authors' calculations using data from the US Bureau of Labor Statistics and Haver Analytics.

Figure A2: Year-over-year Population Change, 2008–2025

United States, New England (excluding Massachusetts), and Massachusetts

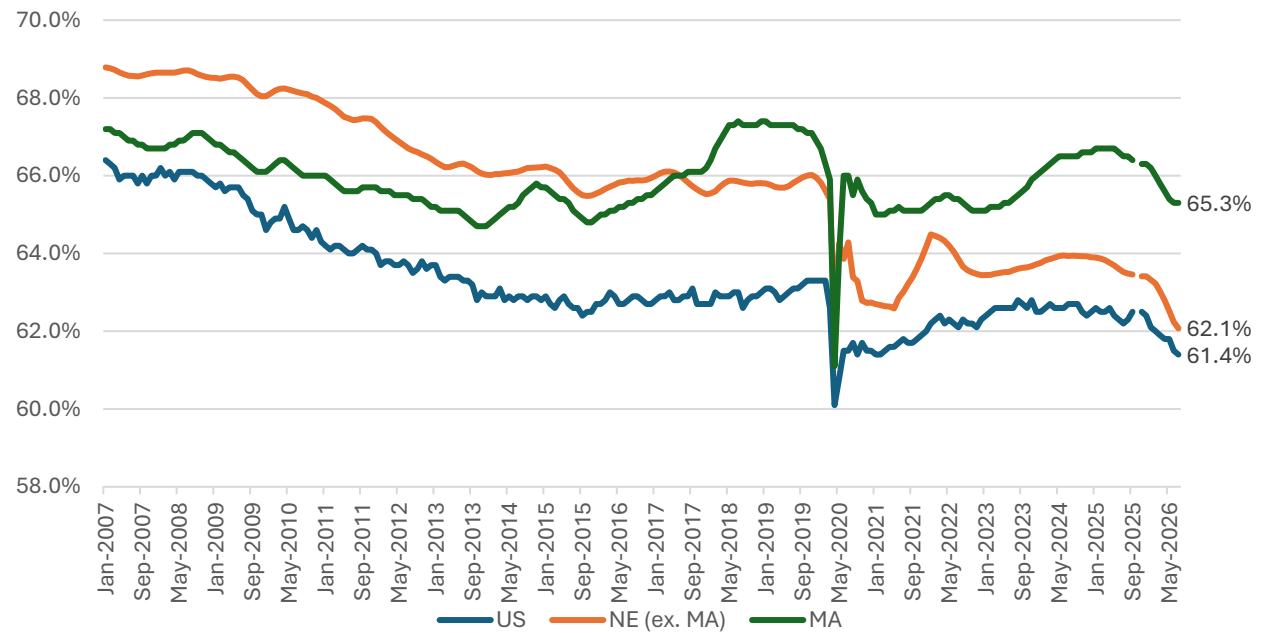


Note(s): The figure shows the year-over-year population change for the United States, New England (excluding Massachusetts), and Massachusetts from 2007:Q1 through 2025:Q4.

Source(s): Authors' calculations using data from the US Census Bureau and Haver Analytics.

Figure A3: Labor Force Participation Rates, 2007–2026

United States, New England (excluding Massachusetts), and Massachusetts

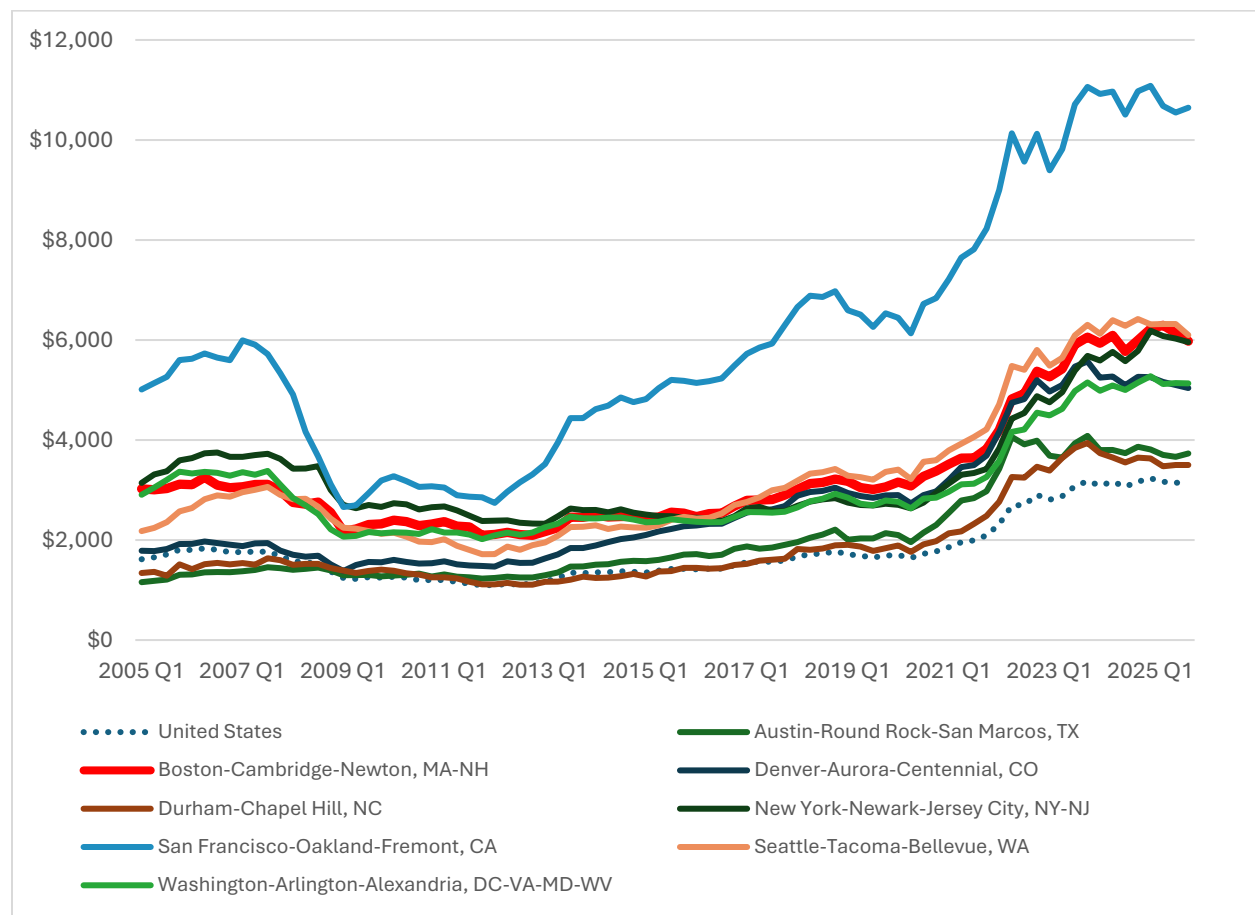


Note(s): The figure shows the labor force participation rate for the US, New England (excluding Massachusetts), and Massachusetts from January 2007 through July 2026.

Source(s): Authors' calculations using data from the US Bureau of Labor Statistics and Haver Analytics.

Figure A4.i: Total Monthly Housing Costs on Median-priced Home, 2005–2025

Top US High-tech Hubs

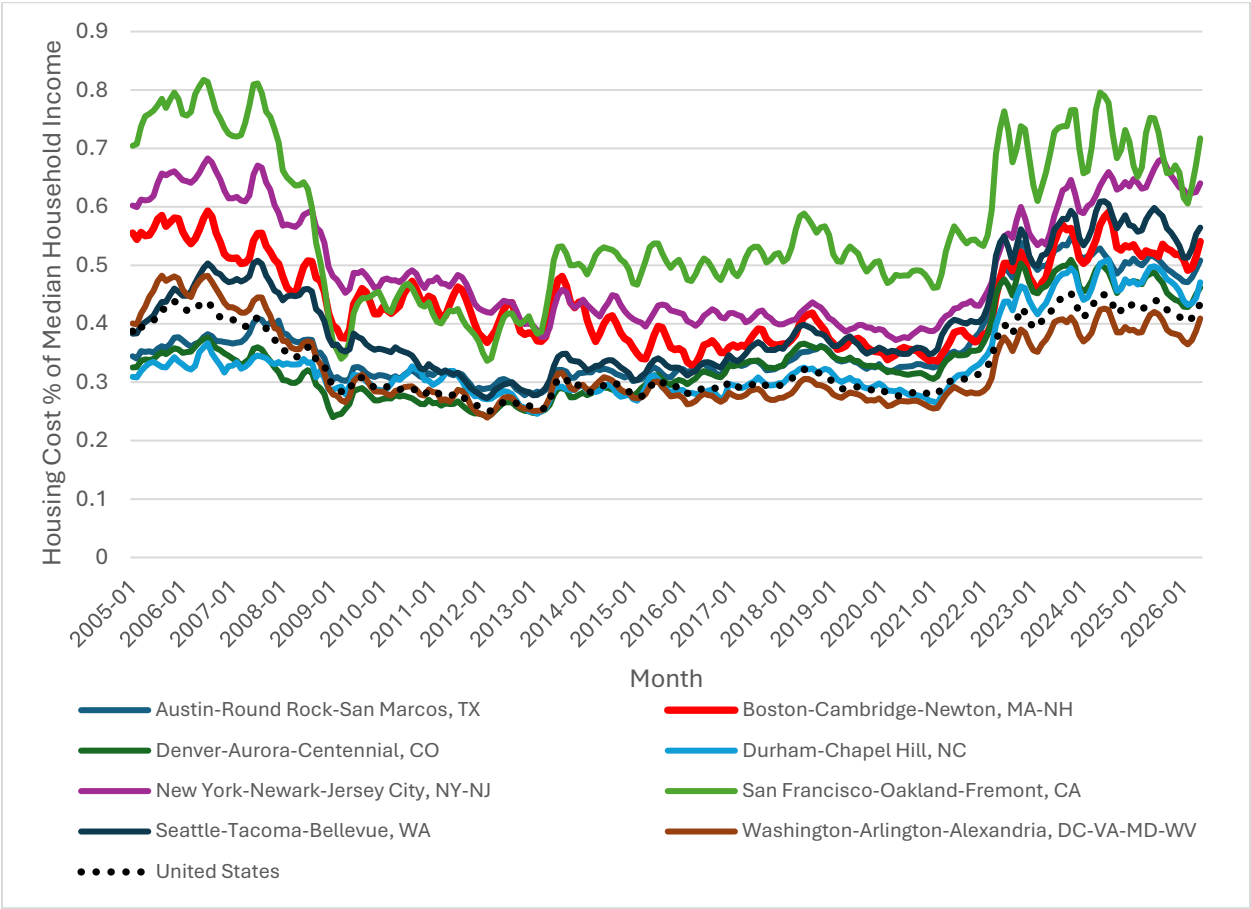


Note(s): Monthly payments are on the median priced home and assume a 3.5 percent downpayment on a 30-year fixed-rate loan and 0.55 percent mortgage insurance, 0.35 percent property insurance, and 1.15 percent property tax rates.

Source(s): Harvard Joint Center for Housing Studies tabulations of Freddie Mac, Primary Mortgage Market Surveys; National Association of Realtors, Existing Home Sales; Moody's Analytics estimates.

Figure A4.ii: Housing Cost as a Percentage of Median Household Income, 2005–2026

Top US High-tech Hubs

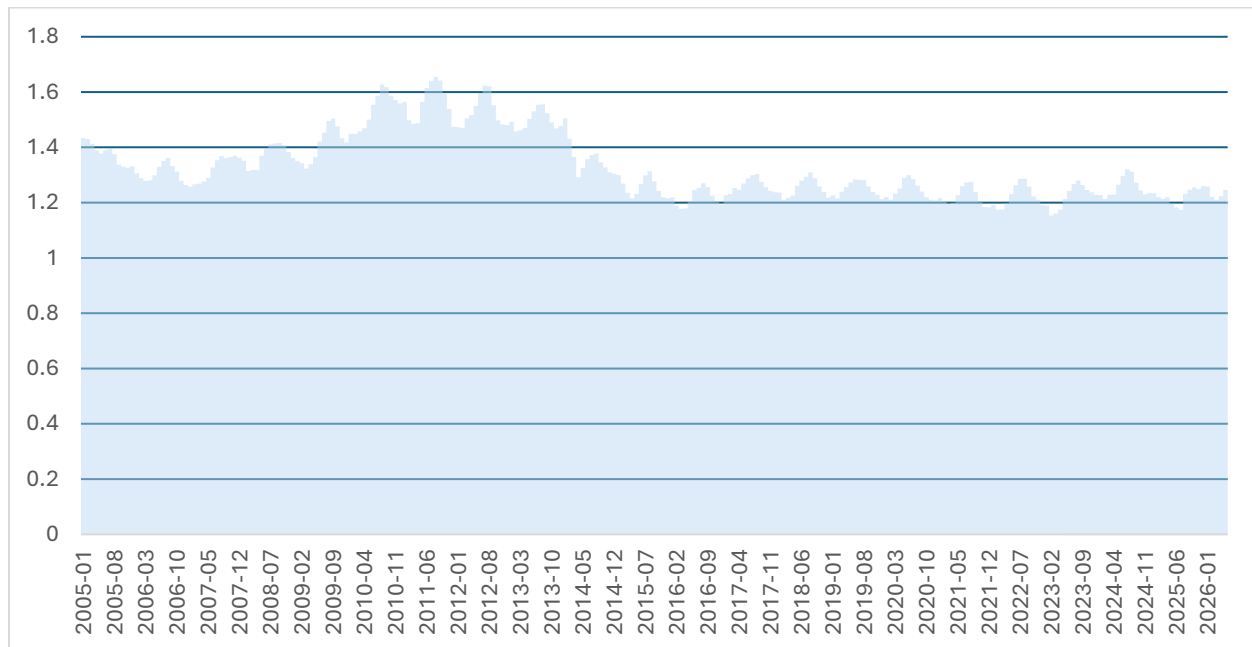


Note(s): Housing costs used in the Federal Reserve Bank of Atlanta Home Ownership affordability Monitor (HOAM) take into consideration the monthly principal and interest cost, given the current mortgage interest rates, as well as the costs associated with taxes, property insurance, and private mortgage insurance.

Source(s): Federal Reserve Bank of Atlanta Home Ownership affordability Monitor (HOAM).

Figure A4.iii: Housing Cost as a Percentage of Median Household Income Relative to US Average, 2005–2026

Cambridge-Boston-Newton MSA

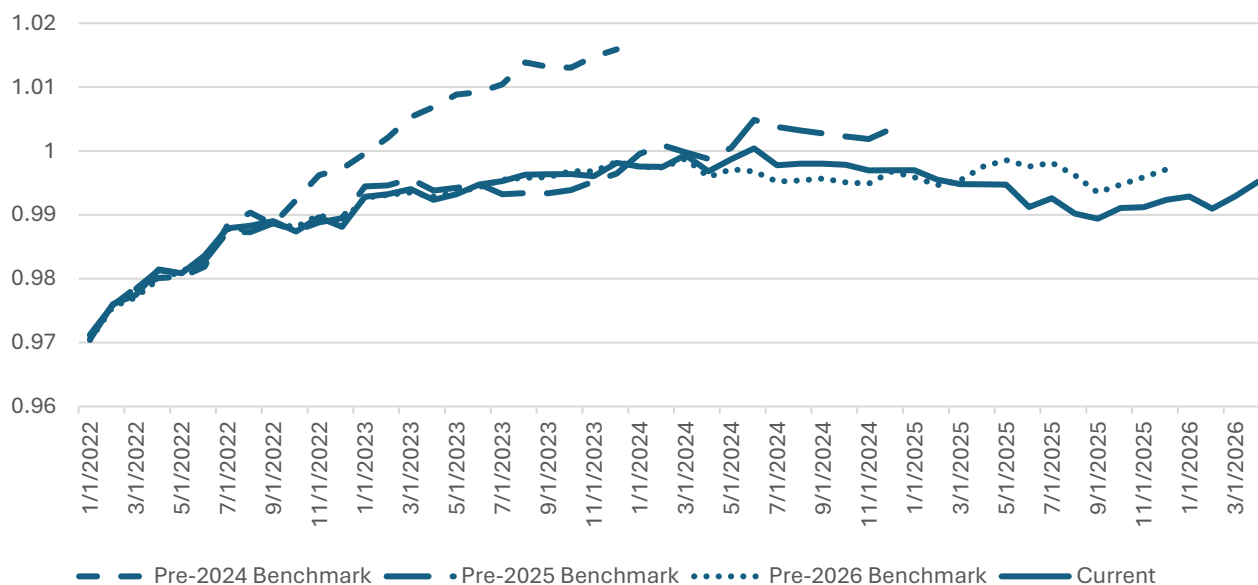


Note(s): The values in Figure A4.iii are a ratio of the values for Cambridge-Boston-Newton MSA and that of the US average shown in Figure A4.ii.

Source(s): Authors' analysis of Federal Reserve Bank of Atlanta Home Ownership affordability Monitor (HOAM).

Figure A5: Employment including Benchmark Revisions (March 2024, March 2025, April 2026, and current), 2022–2026

Panel A: Massachusetts Indexed to January 2020 Levels



Panel B: Percentage Difference in Employment of each Benchmark Revisions, (March 2023, March 2024, March 2025, and April 2026)

	Sep. 2022 Change	Sep. 2023 Change	Sep. 2024 Change	Sep. 2025 Change	Cumulative Final Revision Change	Cumulative Rank
CT	0.2	0	-0.1	0	0.1	40
ME	-0.1	0.1	0.2	0.9	1.1	45
MA	-0.4	-1.8	-0.9	-0.4	-3.5	3
NH	0.9	-0.1	-1.5	-1.5	-2.2	7
RI	-0.1	1.8	-0.2	-0.2	1.3	46
VT	0.5	0.5	-1.4	-1.5	-1.9	11

Note(s): Panel A shows the published payroll employment levels in Massachusetts benchmarked to the current January 2020 estimates. Revisions each spring are benchmarked through the end of the third quarter of the preceding year, and as a result, September is the most reliable comparison point for revisions. Panel B shows the percentage difference in employment levels after each benchmark revision. Through the 2025 release, Massachusetts had the largest cumulative downward revision, but large negative revisions in April 2026 in Missouri and Oregon landed those states as first and second, respectively.

Source(s): Authors' calculations using data from the US Bureau of Labor Statistics and ALFRED.

Appendix Table A1: Productivity and Labor Costs for Massachusetts Technology and Health Care Sectors

Panel A: Productivity (GDP Per Worker)

MA output per worker (\$)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Private Industries Total	148,561	150,732	152,997	159,524	165,641	184,089	194,724	200,808	210,882	222,383
Health care and social assistance	80,194	81,532	82,648	83,830	86,303	91,696	95,688	99,677	105,838	110,902
Professional, scientific, and technical services	202,435	206,362	213,853	223,033	229,715	242,534	269,189	269,674	283,409	304,681

MA Relative to US Average

Private Industries Total	110%	111%	109%	110%	111%	116%	114%	112%	112%	113%
Professional, scientific, and technical services	129%	131%	132%	133%	133%	137%	141%	138%	137%	139%
Health care and social assistance	110%	109%	109%	108%	108%	111%	110%	109%	110%	112%

MA Productivity Rank (output per worker among 50 states + DC)

Private Industries Total	10	9	10	10	8	7	8	9	8	7
Health care and social assistance	6	8	9	8	7	7	7	7	7	6
Professional, scientific, and technical services*	2	2	2	2	2	2	2	2	2	2

*DC is #1 every year

Panel B: Labor Costs (Total Compensation Relative to GDP)

MA Compensation to GDP Ratio

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Private Industries Total	0.55	0.55	0.56	0.56	0.56	0.56	0.55	0.55	0.53	0.53
Professional, scientific, and technical services	0.67	0.67	0.69	0.69	0.70	0.71	0.70	0.70	0.68	0.68
Health care and social assistance	0.82	0.82	0.82	0.82	0.82	0.84	0.82	0.83	0.81	0.80

MA Compensation to GDP ratio Relative to US

Private Industries Total	112%	111%	113%	113%	113%	110%	112%	113%	111%	111%
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Professional, scientific, and technical services	100%	99%	101%	102%	103%	101%	101%	101%	100%	99%
Health care and social assistance	101%	101%	102%	101%	101%	100%	99%	100%	100%	100%
MA Labor Cost Rank (among 50 states + DC)										
Private Industries Total	2	2	2	2	2	2	2	3	2	3
Professional, scientific, and technical services	23	24	16	15	12	16	16	14	16	23
Health care and social assistance	23	21	17	15	18	35	35	35	30	28

Source(s): Authors' calculations using data from the Bureau of Economic Analysis.

Appendix Table A2: Expanded Table 2

	Composition (%), July 2026			Average annual wages (\$), 2024		Compound Annual Growth Rate (%) January 1990 to January 2020			Compound Annual Growth Rate (%) January 2020 to July 2026			Difference in jobs (in thousands) if Region and MA Grew at pace of US	
	US	NE (ex. MA)	MA	US	MA	US	NE (ex. MA)	MA	US	NE (ex. MA)	MA	NE (ex. MA)	MA
Total				78,722	96,109	1.1	0.4	0.7	0.7	0.3	-0.1	114.8	215.5
Construction	5.3	4.4	4.6	84,818	99,956	1.1	-0.1	1.4	1.5	1.7	0.4	-2.1	12.1
Manufacturing	7.9	8.7	6.1	89,491	105,649	-1.1	-2.0	-2.3	-0.2	-0.5	-1.0	8.7	12.5
TTU	18.1	17.4	15.1	64,524	70,677	0.7	0.0	0.0	0.5	0.0	-0.7	22.7	46.8
Information	1.7	1.5	2.4	190,890	193,162	0.3	-0.9	0.3	-0.7	-0.8	-1.5	0.7	4.9
Financial Activities	5.7	5.8	6.0	132,924	179,851	1.0	-0.2	0.3	0.4	-0.8	-0.5	18.4	13.2
Prof and Bus Svcs	14.2	12.8	16.4	108,495	147,783	2.3	1.5	1.8	0.7	0.9	0.1	-5.7	25.3
Priv Education	2.5	4.3	5.3	65,892	84,224	2.8	2.0	1.4	1.0	0.9	1.5	2.0	-6.1
Health Care & SA	15.1	17.0	17.7	66,520	73,042	2.8	2.1	2.2	2.2	1.1	0.5	49.6	79.3
Leisure & Hospitality	10.7	10.2	9.8	34,176	39,327	2.0	1.3	1.5	0.1	0.0	-0.9	3.1	23.8
Other Services	3.8	3.8	3.7	54,432	54,049	1.1	0.7	1.2	0.3	0.1	-0.3	1.2	5.0
Govt	14.6	14.0	12.8	76,511	84,080	0.8	0.4	0.4	0.3	-0.1	0.4	16.3	-1.3

*

Note(s): The expected growth for New England (excluding Massachusetts) would be 4.8 percent, and it would be 5.2 percent for Massachusetts from January 2020 to July 2026 if the sectors grew at the same pace as the national rate given the composition of employment in January 2020. Annual wages for all private covered employment, QCEW Annual Averages 2024 except for government employment.

Source(s): Authors' calculations using data from the US Bureau of Labor Statistics and Haver Analytics.

Appendix Table A3: Subsectors within the Health Care and Social Assistance Sector

	US		MA	
	Indexed Value, Jan-2020	Change in Jobs (in thousands)	Indexed Value, Jan-2020	Change in Jobs (in thousands)
Hospitals	1.10	530.9	1.00	0.0
Nursing/Residential Care	1.03	106.6	1.02	1.7
Ambulatory Care	1.17	1,362.3	1.07	12.6
Social Assistance	1.26	1,090.2	0.98	-2.0

Source: Authors' calculations using Bureau of Labor Statistics/Haver Analytics.