

Why New England's Labor Force Participation Has Been Recovering So Slowly since the COVID-19 Pandemic

By Mary A. Burke and Nathaniel R. Nelson

RESEARCH REPORT 25-1





New England Public Policy Center

www.bostonfed.org/neppc

Staff

Mary A. Burke
Alejandra Guadarrama-Mojica
Nick Hall
Annie Liu
Nathaniel R. Nelson
Sam Shampine
Riley Sullivan
Jeffrey P. Thomspson
Pinghui Wu
Bo Zhao

The views expressed in this report are solely those of the authors and should not be reported as representing the views of the Federal Reserve Bank of Boston, the principals of the Board of Governors, or the Federal Reserve System.

Table of Contents

| | |
|---|----|
| I. Introduction | 4 |
| II. Recent and Longer-run Movements in Labor Force Participation in the United States and New England | 7 |
| III. Why Has New England Had a Weaker Recovery in Labor Force Participation?..... | 9 |
| IV. Projections and Policy Considerations..... | 31 |
| References..... | 38 |

EXECUTIVE SUMMARY

New England’s labor force participation rate—the share of the population that is either working or actively looking for work—fell a net 2.3 percentage points from 2019 to 2023 (comparing yearly averages) despite having rebounded considerably from a steep decline in 2020, during the COVID-19 pandemic recession. Across those same years, the US labor force participation rate declined just 0.5 percentage point, leaving a “participation recovery gap” of 1.8 percentage points for New England. The region’s edge over the country as a whole regarding labor force participation—always positive, if variable, since 1976—narrowed in 2023 compared with 2019. Because falling labor force participation restrains economic growth and magnifies fiscal stress, these recent developments raise concerns for New England’s economic outlook. Furthermore, the region’s currently low unemployment rate presents an incomplete picture of the health of its labor market, as low unemployment can be consistent with either a high or low labor force participation rate.

This report investigates a variety of factors that may explain why New England experienced a participation recovery gap from 2019 through 2023 and discusses the resulting policy implications. The analysis reveals that population aging and excess retirements accounted for more than one-half of the region’s recovery gap. Other contributing factors included weak participation trends among prime-age individuals and an upswing in domestic out-migration from Massachusetts, although at the regional level, the negative effect of domestic migration on participation was small. The relative weakness in the participation recovery among New England’s prime-age population was concentrated among less educated men and residents of nonmetropolitan areas. Contrary to speculation, rising childcare costs did not hold back the participation recovery in the region relative to the country as a whole, even though such costs did exert a modest drag both regionally and nationally. Cyclical shifts in labor demand captured only a very small portion of the recovery gap.

The policy implications of the results vary, as no single factor explains the overall recovery gap. Given the role of population aging, policies might seek to promote flexible work options enabling older people to stay in the workforce longer if they desire. Regarding the downward trends in prime-age participation, policies are needed to address the underlying issues holding back participation among that age group, such as a lack of opportunities in the region’s nonmetropolitan areas and elevated rates of substance use disorders. Policies might also aim to reinforce the labor force attachment of women, minorities, and foreign-born individuals, as these groups have strengthened the region’s participation recovery and comprise growing shares of the region’s workforce. Deterring domestic out-migration from New England will require addressing pervasive cost-of-living concerns. Finally, supporting further public and private investment in education and workforce training will be critical, as the region’s skilled workforce has long been recognized as key to its economic vitality.

I. Introduction

The COVID-19 pandemic wreaked havoc on labor markets throughout the United States, creating prolonged worker shortages and contributing to durable increases in hybrid and remote work arrangements. New England's labor force participation rate, despite rebounding substantially from its steep drop during the pandemic recession of 2020, remains considerably lower than its average 2019 level, according to recent data, and by a larger-than-average margin in relation to US participation rate trends. A stagnant or declining participation rate does not bode well for the region's economic growth potential or its fiscal outlook (see, for example, Dotsey, Fujita, and Rukanko 2017). Small towns in Maine and throughout New England are feeling tangible implications of declining labor force participation as older employees retire with no successors, making it difficult in some places to sustain critical public services, including local law enforcement.¹

Remote and hybrid work arrangements put in place during the pandemic lasted much longer than expected and, in many cases, became permanent. Such workplace policies that enable people to live and work in separate places likely contributed to increased migration flows into and/or out of certain New England states in 2021 and 2022 (Wu 2024). Separately, rates of migration into the United States and New England from other countries rebounded in 2021 and later after plummeting in 2020. The aging of the US population—a demographic trend that began well before the pandemic—likely would have exerted a drag on participation in recent years in any event, but the pandemic accelerated the effects, contributing to a wave of excess retirements in the country starting in 2020 (Montes, Smith, and Dajon 2022). Any of these trends and disruptions would likely have had implications for the region's labor force participation that were different from the implications for the rest of the country's participation.

This report provides insights into why the labor force participation rate in New England has declined since 2019, both in absolute terms and relative to the overall decline in the United States, and discusses the potential policy implications. The report describes developments in New England as a whole and in the region's individual states. It investigates population aging and other demographic changes, excess retirements precipitated by the pandemic, migration patterns, constraints on the availability of childcare, and opportunities for remote work. In addition, the report describes participation rate trends along dimensions such as age, race, ethnicity, gender, education, place of birth, and place of residence to reveal which groups have seen the most and least favorable participation trends in recent years and how the composition of the labor force has changed.

This report uses the term “labor force participation” or simply “participation” as shorthand for the labor force participation rate. The term “labor force” refers to the absolute number of individuals in the labor force. See Box 1 for a description of how the US Bureau of Labor Statistics (BLS) and the US Census Bureau, through the Current Population Survey (CPS), measure labor force participation rates.

Changes in population age composition—including, but not limited to, population aging—and excess retirements have been two of the most important contributors to declining labor force participation in recent years, both in New England and in the United States. Each of these developments has exerted a greater drag on participation in New England than in the United States, on average, and together they account for more than half of the region's weaker recovery. Other factors that have disadvantaged the region include relatively weak participation trends among prime-age individuals (aged 25 to 54) and domestic out-migration that has primarily affected Massachusetts. The relative weakness in the participation recovery among the region's prime-age

1 See Jon Kamp, “Rural Towns Are Aging, Cash-strapped and in Desperate Need of Workers,” *Wall Street Journal*, July 28, 2024.

Box 1

Defining the Labor Force Participation Rate and Individual Labor Force Status

The US Bureau of Labor Statistics (BLS) defines the labor force participation rate as the “percentage of the [civilian noninstitutional] population that is either working or actively looking for work.”^a The civilian noninstitutional population consists of all US residents aged 16 or older except for active-duty US military members, people who are incarcerated, people living in residential care facilities, and foreign citizens living on the premises of an embassy.

This statistic is estimated using the Current Population Survey (CPS)—a monthly survey of about 60,000 households across the 50 states and the District of Columbia that is administered by the US Census Bureau. The BLS uses individual responses to the CPS to determine labor force status according to the following criteria:

- An individual is considered *in the labor force* if, in the preceding week, they were either working or actively looking for work. The labor force is divided into those who are *employed* and those who are *unemployed*.
- Someone is *employed* if, in the preceding week, they did any work for pay or had a job from which they were temporarily absent.
- Someone is *unemployed* if, in the preceding week, they were not employed and were either actively looking for work or expecting to be recalled from a temporary layoff. “Actively looking for work” means, for example, having submitted job applications within the preceding four weeks.
- An individual is *not in the labor force* if, in the preceding week, they were not employed, not actively looking for work, and not expecting to be recalled from a temporary layoff. Common reasons for not being in the labor force include being retired, attending school, or taking care of a home or family.

Unemployed versus Not in the Labor Force: An Illustrative Example

Pablo and Erica (hypothetical individuals) are both currently out of work and both say they would like a job. In the preceding four weeks, Pablo submitted two job applications, while Erica browsed online job listings but did not submit any applications. According to the BLS, Pablo was actively looking for work and therefore would be classified as in the labor force and unemployed. Erica’s actions would not be considered active job searching, so she would be classified as not in the labor force.

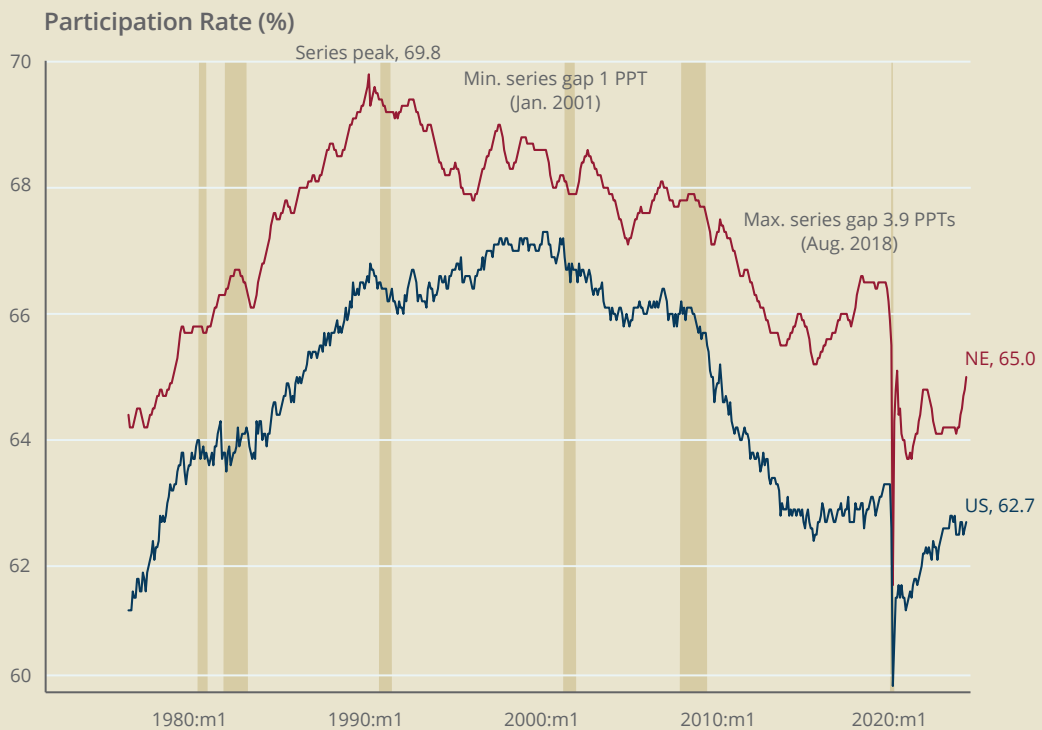
a US Bureau of Labor Statistics, “Labor Force Statistics from the Current Population Survey, Concepts and Definitions (CPS)” (accessed September 5, 2024).

population is concentrated within certain groups, including men with less than a bachelor's degree and residents of nonmetropolitan areas. Constraints on access to childcare have not held back the recovery of participation in the region relative to the nation, even though childcare issues have had a modest dampening effect both regionally and nationally in recent years. The increased availability of remote work opportunities may have blunted the demand for market-based childcare, and the prevalence of remote work expanded more in New England than in the United States from 2019 through 2023. Differences in the cyclical fluctuations in regional and national labor demand have played only a minor role.

The policy goals that emerge from the analysis are diverse, reflecting the many factors contributing to the weaker recovery of participation in the region. For example, policies might seek to (1) promote flexible work options that enable older people to stay in the workforce longer if they desire; (2) address underlying issues holding back participation among prime-age individuals, such as substance abuse problems and lack of opportunities in nonmetropolitan areas; (3) reinforce the labor force attachment of women, minorities, and foreign-born people, as these groups have strengthened the participation recovery since the pandemic and comprise growing shares of the region's workforce; (4) deter domestic out-migration from the region by working to restrain increases in the cost of living; and (5) maintain investments in education and workforce training.

Figure 1

Monthly Labor Force Participation Rates January 1976–July 2024



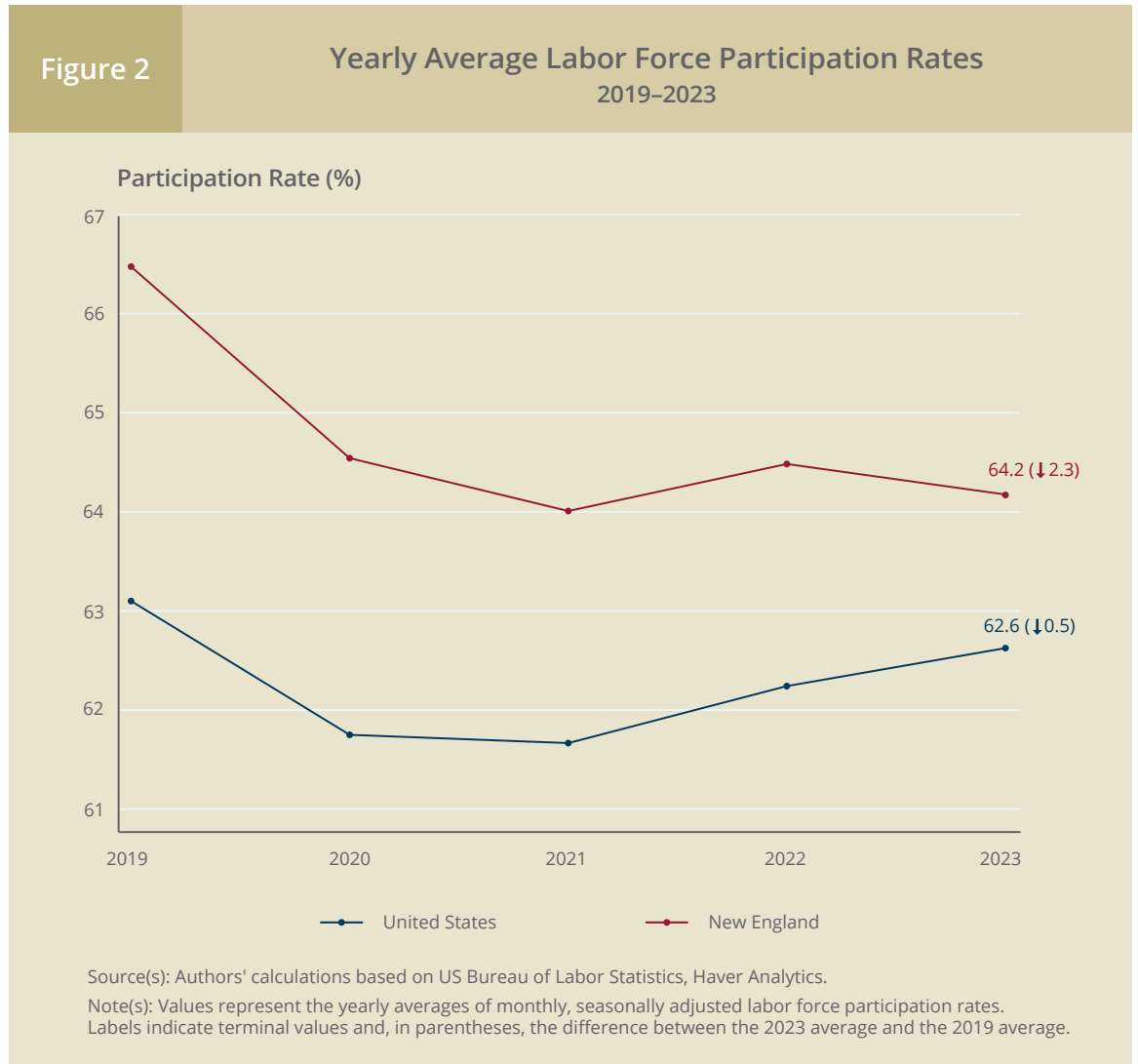
Source(s): Authors' calculations based on US Bureau of Labor Statistics, Haver Analytics. Values are seasonally adjusted.

Note(s): The labor force participation rate represents the percentage of the civilian, noninstitutional population aged 16 and older who are in the labor force. See Box 1 for more information on the measurement of labor force participation.

II. Recent and Longer-run Movements in Labor Force Participation in the United States and New England

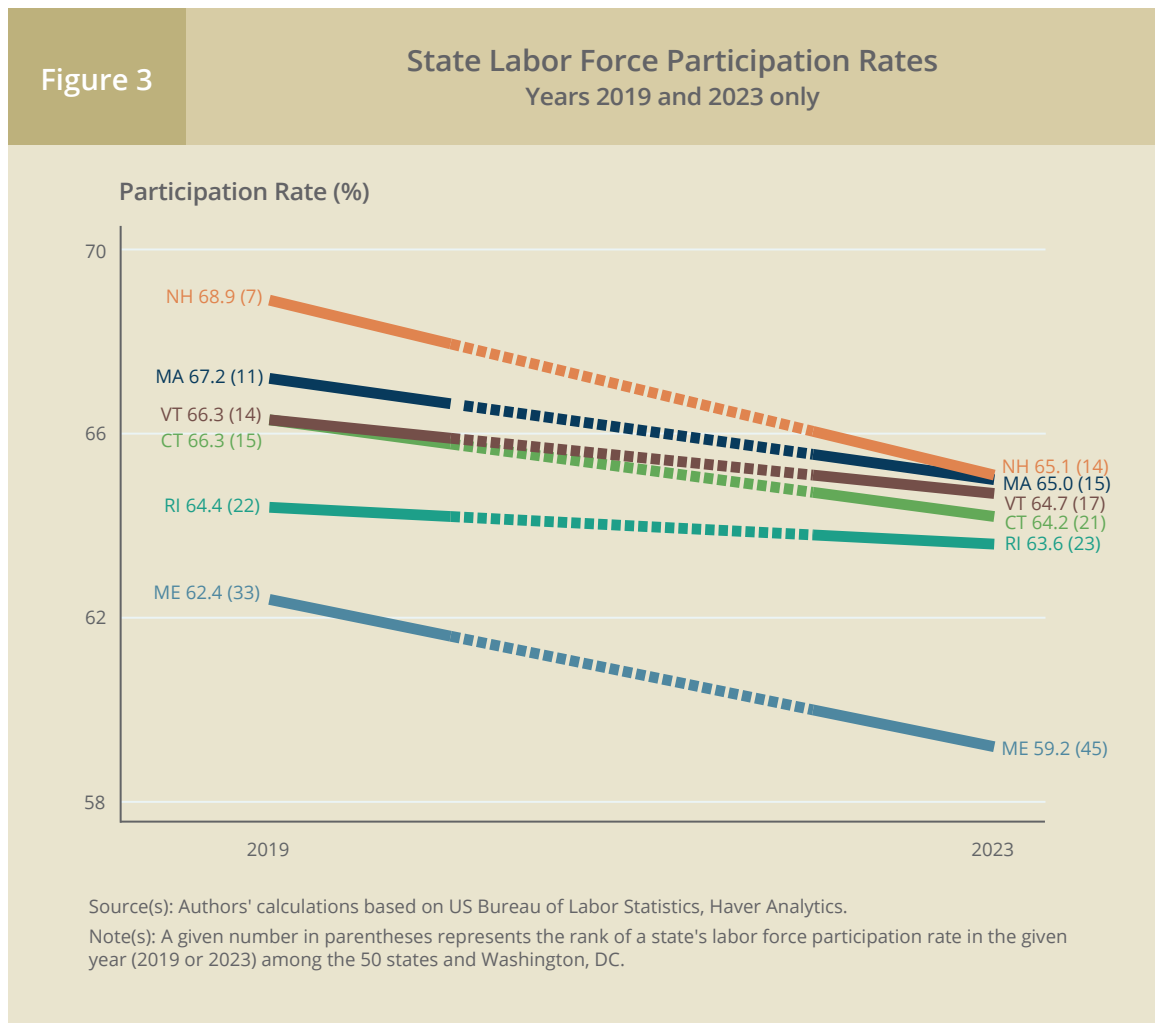
Since January 1976, when the BLS began publishing state-level and census-division-level labor force participation rates, New England has consistently seen rates higher than the US average, ranking fourth or higher among the nine census divisions.² As Figure 1 shows, the region’s edge over the US average has ranged from a low of 1 percentage point (in January 2001) to a high of nearly 4 percentage points (in August 2008). Notwithstanding the positive trend for the first seven months of 2024, recent participation rates for the region (for the 12 months ending in July 2024) were on par with the lowest rates on record in New England (for the first half of 1976), and the region’s advantage over the United States was middling relative to historical levels.

To focus on changes in participation rates across the COVID-19 pandemic, this report starts by studying the period from July 2019 through July 2024. In the New England census division, the net decline in labor force participation over this period was 1.5 percentage points, or 2.3 percent. The US labor force participation rate also declined, but by only 0.4 percentage point, or 0.6 percent. This leaves the region with a “participation recovery gap”—calculated as the difference between the US change and the New England change—of more than 1 percentage point.



2 All rates refer to the civilian noninstitutional population aged 16 years and older and represent the share of this group who were either employed or actively seeking employment. See Box 1 for more information on the definition and measurement of labor force participation rates.

To obtain a more robust sense of changes in participation rates across the pandemic, we compare the average participation rate in 2019 with the average rate in 2023 (the most recent complete year) instead of calculating changes from one specific month to another. Across these years (see Figure 2), participation fell by 2.3 percentage points in New England and by 0.5 percentage point in the United States, leaving a recovery gap of 1.8 percentage points for the region. This latter gap exceeds the one calculated in the preceding paragraph because the data ending with 2023 do not capture the increase in participation in New England in 2024, which was greater than the corresponding increase in the US average. However, because the 2024 data are more recent, they are also more subject to future revision; therefore, this report focuses primarily on comparisons with data ending in 2023. Due to sampling variance in the survey used to generate the estimate of 1.8 percentage points, the true gap could be considerably smaller or larger, but we can conclude confidently that the gap is significantly greater than zero.³



³ Another source of statistical uncertainty in this report's analyses relates to the fact that the BLS data on which we rely, including monthly CPS microdata (IPUMS CPS) and the published labor force and population statistics accessed via Haver Analytics, were subject to periodic updates (in 2020, 2022, and 2024) in response to updated population controls released by the US Census Bureau. As noted in Montes, Smith, and Dajon (2022), these updates can result in discontinuities in monthly (and even yearly) values of labor force participation rates and demographic characteristics, among other outcomes. We do not adjust the historical data retroactively to smooth any such discontinuities, but in the outcomes of interest, we emphasize changes in yearly average outcomes across multiple years rather than month-to-month or year-to-year changes. For more information, see US Bureau of Labor Statistics (2024).

Despite the relatively large decline in its participation rate across those years, New England retained its second-place ranking among census divisions. However, within specific demographic groups, its ranking dropped sharply. For example, the region's participation rate among men fell from second place to sixth place, and its rate among non-college-educated women fell from second to fifth.

Each New England state experienced at least a modest decline in its labor force participation rate from 2019 to 2023, and some states saw pronounced drops. In terms of absolute percentage point changes, New Hampshire had the steepest decline in the region, 3.8 percentage points, but in terms of declines in relative rank among states, Maine had the weakest showing, falling from 33rd to 43rd place (see Figure 3 for details).⁴

III. Why Has New England Had a Weaker Recovery in Labor Force Participation?

The choice of whether to seek or maintain employment depends on the value an individual receives from working (or searching for work) relative to the value they receive from not working (and not searching). The most obvious tradeoff when entering the workforce involves relinquishing time spent on, for example, leisure activities or family caretaking tasks in exchange for earnings to finance greater market consumption. Thus, the choice to enter (or stay in) the labor force depends on individual circumstances that vary over a person's life course—such as whether they have young children at home, are enrolled in college, or have an abundance of savings—as well as on aggregate and local economic conditions affecting the labor market. Therefore, the labor force participation rate reflects factors such as population age composition, marriage and childbearing rates, school enrollment and educational attainment rates, the generosity of unemployment and disability insurance and other benefits programs, and social norms about who can and should work, as well as factors affecting the strength of labor market opportunities. The analysis that follows considers a variety of these factors, providing insights into the relatively weak recovery of labor force participation in New England in the wake of the pandemic.

The outsized increase in nonparticipation in New England was driven primarily by outsized increases in retirements.

Reasons for Nonparticipation during and since the Pandemic

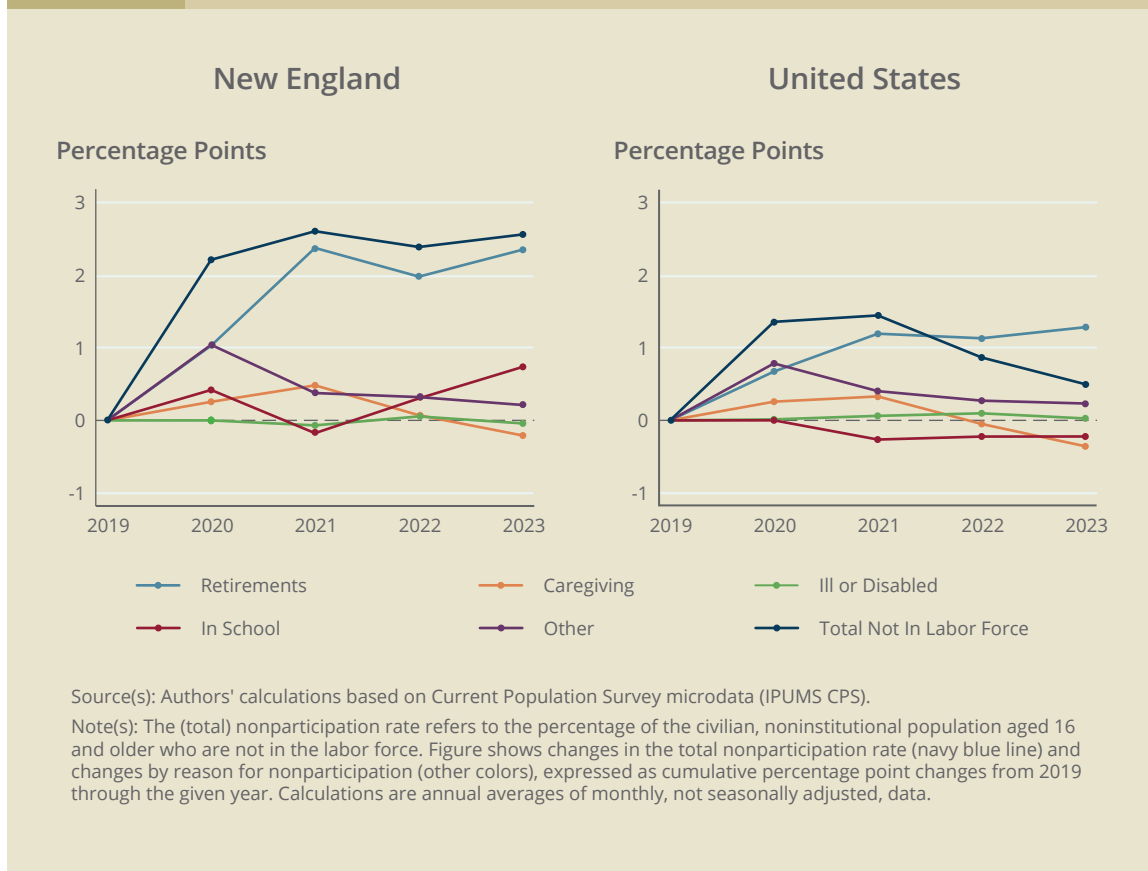
It is helpful to start by considering the different reasons for nonparticipation (that is, being out of the labor force) and how these have varied in importance in recent years for New England and for the United States. In Figure 4, the black line in each panel (New England on the left, the United States on the right) shows the cumulative change in the nonparticipation rate, in percentage points, as of a given year (through 2023) compared with 2019. (All values are yearly averages. An increase in the nonparticipation rate implies a corresponding decrease in the participation rate.) The lines in other colors show, respectively, the portions of the total change in nonparticipation accounted for by the different reasons for nonparticipation, such as retirement (blue line) or caregiving (orange line).

The key takeaway from this figure is that the outsized increase in nonparticipation in New England over this period (relative to the United States) was driven primarily by outsized increases in retirements in the region and secondarily by increased nonparticipation as a result of attending

4 The New England states' labor force participation rates generally turned upward in 2024 (through July), rising by 0.5 percentage point or more since December 2023 in Rhode Island, Massachusetts, New Hampshire, and Vermont. Nonetheless, extending the analysis to include the 2024 data does not affect the performance of the New England states relative to each other.

Figure 4

Change in the Nonparticipation Rate, Total and by Reason Cumulative percentage point change since 2019

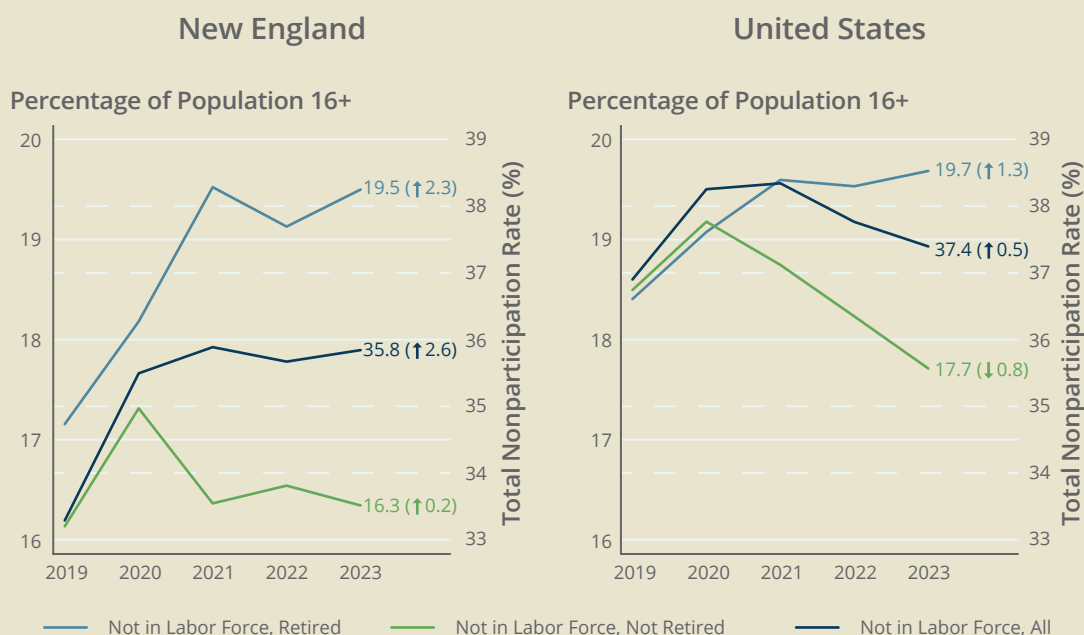


school (high school and college).⁵ For either New England or the United States, retirement was the most common reason for nonparticipation throughout this period, except in 2020 when “other” reasons were about as common as retirement, and retirements consistently added more to nonparticipation rates in New England than the United States. In the first year of the pandemic, approximated here as the 2020 average, caregiving and “other” reasons—presumably related to the massive job losses and other disruptions of that period—also contributed substantially to increased nonparticipation, again with above-average effects seen in New England. In 2022 and 2023, caregiving contributed much less to nonparticipation than it did in either 2020 or 2021 in either New England or the United States, and by 2023, fewer people (as a share of the population) were out of the labor force due to caregiving compared with 2019. The “other” category became less important after 2020 but still made a modest positive contribution to nonparticipation in both New England and the United States in 2023. Within the region, nonparticipation due to attending school increased in 2020 from the previous year and was even greater as of 2023, despite a dip in 2021. By contrast, in the United States, nonparticipation due to attending school decreased on net from 2019 to 2023. Illness or disability did not play a significant role in increasing nonparticipation from 2019 to 2023 in either New England or the United States.

5 A higher rate of nonparticipation due to attending school does not necessarily imply a higher enrollment rate in high school and/or college, as schooling-related nonparticipation captures only students who are out of the labor force. The subsection under the heading “Educational Composition” discusses trends in school enrollment rates specifically.

Figure 5

Total Nonparticipation Rate, Retirement Rate, and Non-retirement Nonparticipation Rate As percentage of population aged 16 and older



Source(s): Authors' calculations based on Current Population Survey microdata (IPUMS CPS).

Note(s): The total nonparticipation rate is defined in the notes for Figure 4. The retirement rate is the percentage of the (civilian, noninstitutional) population aged 16 and older not in the labor force because of retirement. The non-retirement nonparticipation rate is the rate of nonparticipation owing to all reasons other than retirement.

A higher-level view that decomposes the nonparticipation rate into just two categories—the retirement rate and the rate combining all other (non-retirement) reasons (Figure 5)—reveals that the larger and more volatile movements in the retirement rate in New England compared with the United States (see the blue line in each panel) from 2019 through 2023 were a major contributor to the differential movements in overall nonparticipation (and, therefore, participation) between New England and the United States (see the black lines of each panel).⁶ This occurred because retirements accounted for more than half of all nonparticipation during this period in both New England and the United States, and retirements were slightly more dominant as a reason in New England. Nonparticipation for non-retirement reasons also evolved differently in New England compared with the United States. In particular, the steady decline (of 1.5 percentage points) in nonparticipation for “non-retirement reasons” in the United States from 2020 through 2023 drove declines in overall nonparticipation in the United States over this period, whereas in New England, nonparticipation for non-retirement reasons abated by the smaller margin of 1 percentage point from 2020 through 2023. In fact, as of 2023, nonparticipation for non-retirement reasons remained slightly above its 2019 level in New England, but in the United States, it had fallen below its 2019 level.

6 Our analysis suggests that the dip in the retirement rate in New England in 2022 may partly reflect excess deaths among retired individuals, and these deaths may have been related to COVID-19. However, the dip might be overstated owing to data issues related to the 2022 update to the US Census population controls discussed earlier (footnote 3).

Cyclical Factors

Previous research has found that labor force participation tends to fall during recessions and rise during recovery and boom periods, albeit with some time lags (see, for example, Aaronson et al. 2014; Hobijn and Sahin 2021; Prabhakar and Valletta 2024). This relationship in part reflects the fact that, when an individual loses their job during a recession, they will, on average, face greater difficulty finding new employment than they would if they had become unemployed in a stronger labor market, and therefore they are more likely to stop searching for a job and exit the labor force eventually. Also, the weak job opportunities during recessions entice fewer individuals who are initially out of the labor force to start looking for work.

Because the economy endured a severe (if brief) recession in 2020, it is important to evaluate the effect of cyclical factors on participation rate movements from 2019 through 2023. It might simply be the case that the pandemic recession was, on balance, more severe in New England than in the United States and that, accordingly, the recoveries in labor demand and labor force participation have been less complete in the New England states compared with the rest of the country because it generally takes longer to recover from a more severe shock.

A variety of indicators suggest that the 2020 recession was indeed more severe in New England than in the United States overall. For example, from its February 2020 peak to its April 2020 trough, payroll employment plummeted 18 percent in New England before starting to rebound, while in the United States, employment fell about 14.5 percent from peak to trough (also from February 2020 to April 2020). The region's labor force participation rate fell 4.8 percentage points (peak to trough), or 7.2 percent, while the national rate fell just 3.2 percentage points, or 5.1 percent. The unemployment rate rose by similar amounts in New England (11 percentage points from February 2020 to April 2020) and the United States (11.3 percentage points for the same period), but New England's increase was larger as a percentage of its initially lower unemployment rate.⁷

Using a simple model (Burke 2016) that predicts the cyclical change in the labor force participation rate as a decreasing function of the change in the unemployment rate, we estimate that cyclical factors explain 0.07 percentage point (7 basis points), or just 3.5 percent, of the total labor force participation recovery gap of 2 percentage points in New England relative to the United States from 2019 through 2023.⁸ Estimates of the contribution of cyclical factors would be virtually identical based on recent analysis (Prabhakar and Valletta 2024) that includes data from the pandemic recession.⁹

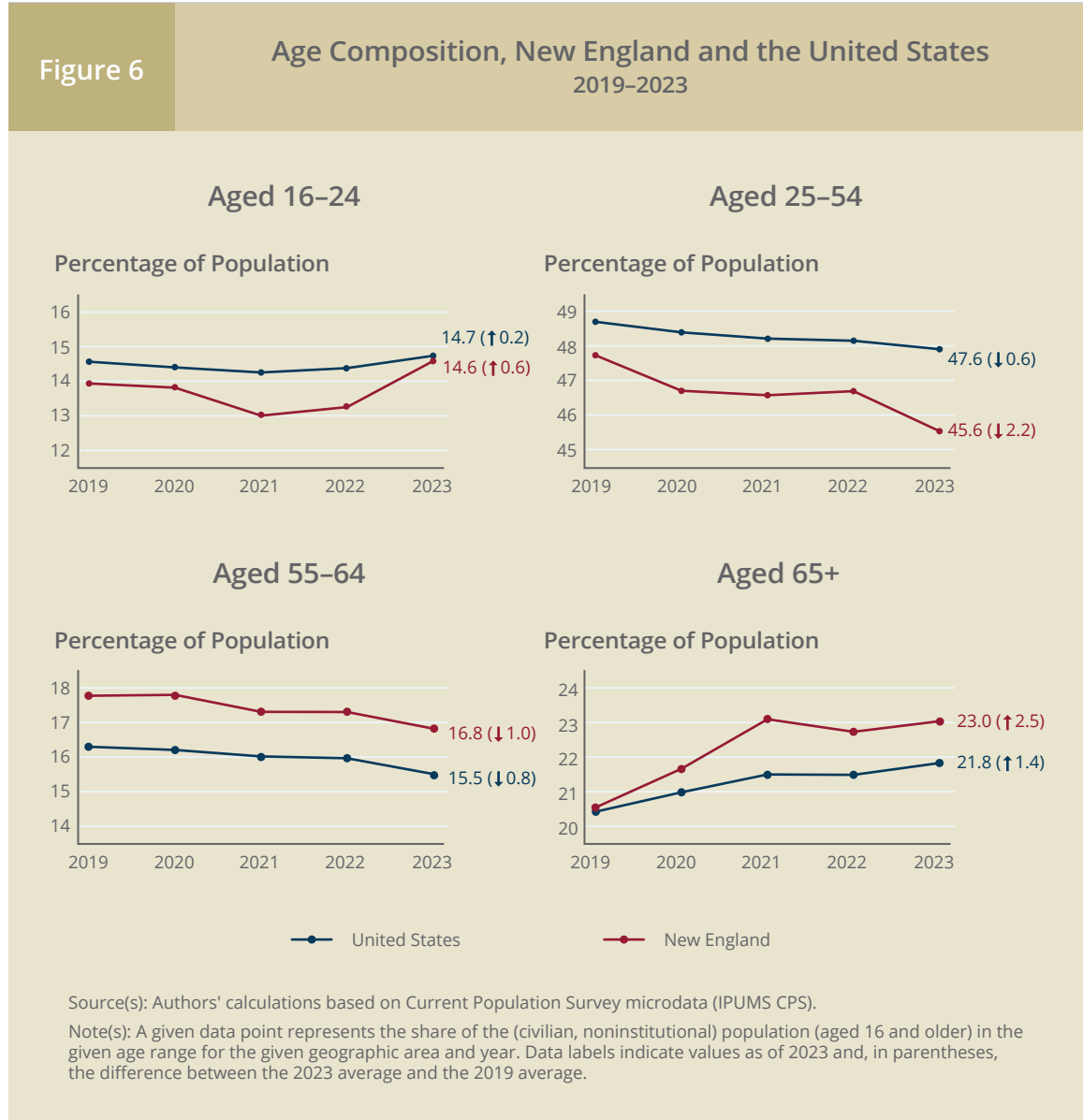
7 Unemployment rates at the height of the pandemic might have been less indicative of labor market weakness than, say, payroll employment losses, as states faced difficulties keeping accurate counts of unemployment amid a surge in applications.

8 When calculated using seasonally adjusted, published data, the participation recovery gap in New England is 1.8 percentage points. However, to calculate the contribution of different factors, we must use the microdata consistently, and the participation recovery gap in the IPUMS CPS microdata is estimated at 2 percentage points. To obtain the latter value, we do the following: (1) compute the annual average of monthly, not seasonally adjusted, labor force participation rates in New England for each of 2019 and 2023; (2) make corresponding computations for the United States; (3) subtract the 2019 average rate in New England from the 2023 average rate in New England and do similarly for the United States; and (4) take the difference between the results of these last two calculations, subtracting the US value from the New England value.

9 Based on results in Burke (2016), we calculate the estimated cyclical change in participation from 2019 to 2023 in New England by multiplying the net change in the region's unemployment rate across these years (0.1 percentage point) by -0.35 . We calculate the estimated cyclical change in participation from 2019 to 2023 in the United States by multiplying the net change in the US unemployment rate across these years (-0.1 percentage point) by -0.35 . We then subtract the latter result from the former to obtain the contribution of unemployment rate movements to the participation recovery gap in New England relative to the United States. Using results from Prabhakar and Valletta (2024), the corresponding calculation would multiply a given change in the unemployment rate by -0.37 .

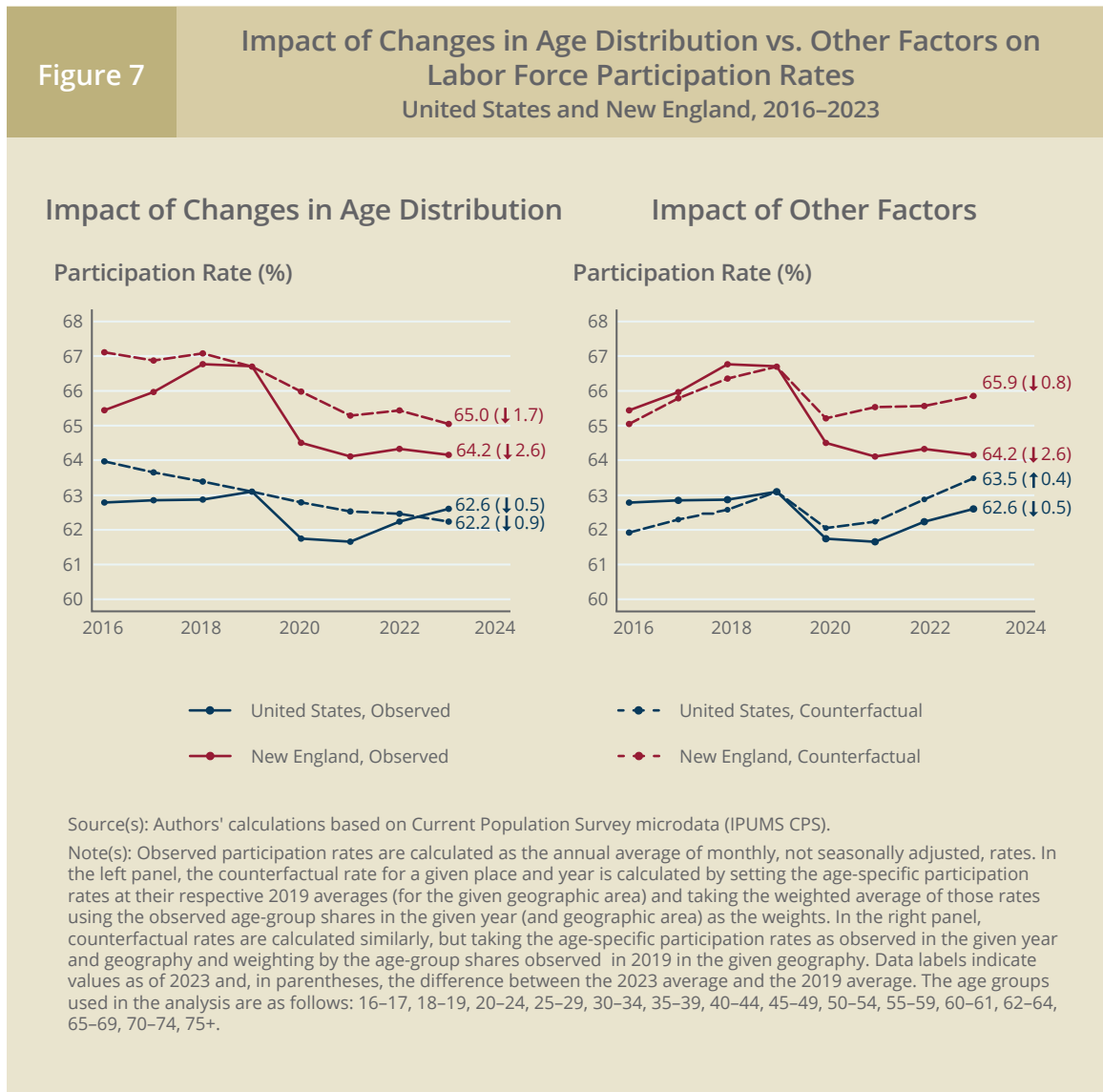
Age Composition

The age composition of a population is a key determinant of its labor force participation rate, as the tendency to participate in the labor force varies over the life course in predictable ways, rising from young adulthood through early middle age and then declining after age 45, with a pronounced drop at the traditional retirement age of 65. Figure 6 depicts the age distribution, separated into four age groups, for New England and the United States for the 2019–2023 period to show how age composition evolved differently in the region than in the nation. Most notably, New England experienced a larger increase in the population share older than 65 and a steeper decline in the population share aged 25 to 54 (or “prime age”), two developments that disadvantaged labor force participation in the region. The population share aged 55 to 64 fell by similar margins in New England and the United States, so these changes would not have explained differential trends in participation. Perhaps surprisingly, the region also saw a larger uptick than the United States in the population share aged 16 to 24. Therefore, changes in population age composition cannot be reduced merely to aging. In fact, from 2019 to 2023, median age (among those aged 16 and older) rose by just six months in New England, from 47.5 to 48, and held steady at 46 in the United States.



Compared with the United States, each New England state saw an above-average increase in its population share aged 65 and older, with New Hampshire experiencing the region’s largest increase. Maine saw a modest increase in its prime-age population share, a shift that would have helped its participation rate, holding all else equal. Although not shown in the figure, even when the analysis is restricted to the subset of the population aged 65 and older, New England’s population experienced a more pronounced shift toward older ages than did the corresponding group in the United States.

We estimate the contribution of age composition to recent changes in labor force participation by constructing counterfactual participation rates for the 2016–2023 period. Our method allows the age distribution for each geographic entity (that is, New England as a whole, the United States, and each New England state) to evolve as observed in that place from 2016 through 2023 and holds age-specific participation rates in the area fixed at their respective 2019 levels. (We include the years before 2019 to provide additional historical context for the developments since 2019.) Alternatively, to estimate the contribution of factors other than changes in the age distribution, we construct separate counterfactuals for which we hold the age distribution in each of the geographic areas fixed as it was in 2019 and allow age-specific participation rates to evolve as they did in that area from 2016 through 2023. By construction, the actual and counterfactual rates for a given geographic area are equal as of 2019.



The left panel of Figure 7 depicts the first (age-only) counterfactual method. For a given geographic entity, the difference between the counterfactual participation rate each year (for example, 2020) and the actual participation rate in 2019 represents the change in labor force participation that would have arisen based solely on changes in the age composition over that period. The closer the age-only counterfactual is to the actual line in any year (other than 2019), the greater was the contribution of age composition to the actual change in participation through that year (from 2019). Comparing 2020 with 2019, we see that age-compositional changes explain less than half of the steep decline in participation that occurred in New England that year and an even smaller fraction of the (smaller) decline observed in the United States. This makes sense since, that year, the region and the country saw massive job losses and other pandemic-related disruptions that contributed to above-average flows out of the labor force. However, by 2021, age composition had started to account for a larger share of the declines in participation (since 2019) in New England, and for the United States, age composition had become even more important in relative terms.

The rebound in age-specific participation rates after 2020 was considerably stronger in the United States than in New England.

The second counterfactual (depicted in the right panel of Figure 7) isolates the effect of changes in age-specific participation rates over the period, applied to the age distribution as of 2019.¹⁰ For both New England and the United States, within-group trends exerted strong downward pressure on participation rates from 2019 through 2020 but then contributed to rebounding participation rates through 2023. However, the rebound in age-specific rates after 2020 was considerably stronger in the United States than in New England. This exercise demonstrates that participation rates in New England generally declined within age groups on net over the period of observation, whereas the opposite is true for the United States.

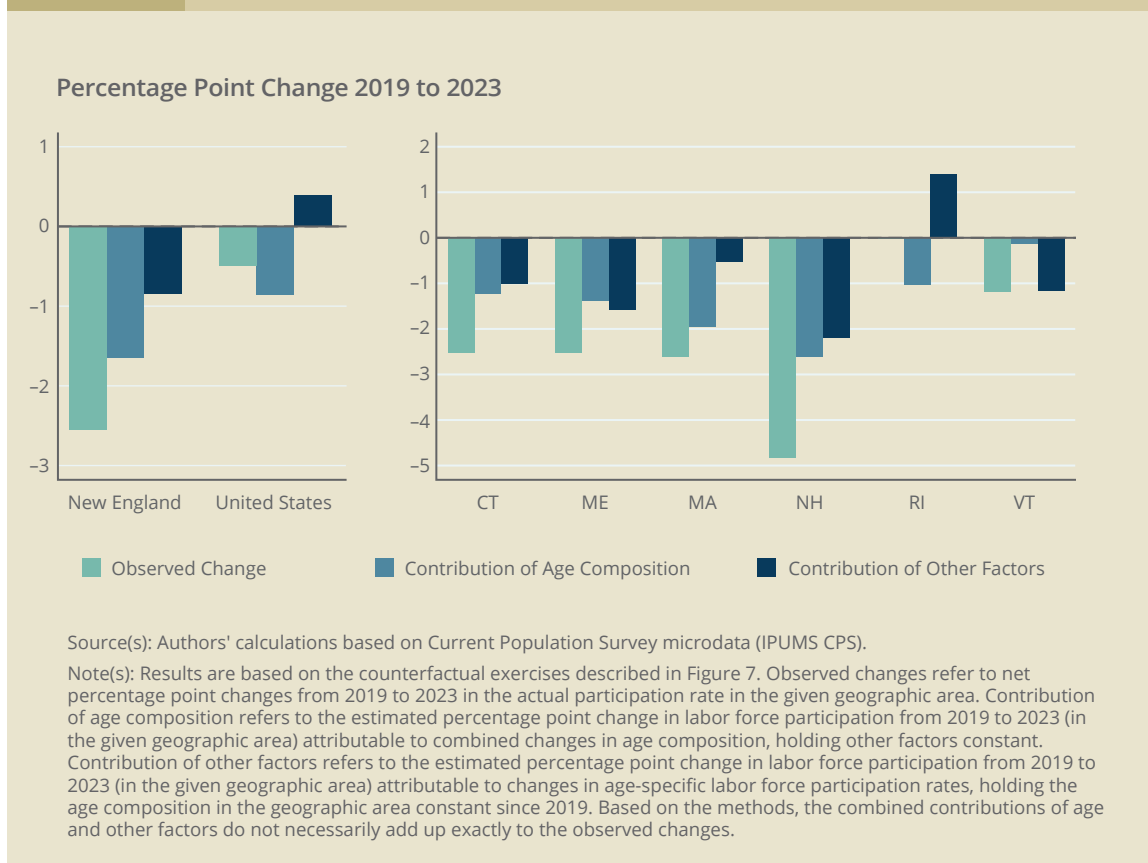
Figure 8 depicts the net changes in participation rates from 2019 to 2023 for New England, the United States, and each New England state (in terms of raw percentage point differences) as predicted by each of the counterfactual exercises, together with the actual changes, to distill the importance of changes in age composition alone versus changes in age-specific participation rates. From 2019 to 2023, combined changes in age composition exerted a drag on labor force participation in New England amounting to nearly 1.7 percentage points. For the United States, the corresponding drag on participation was smaller, at just under 0.9 percentage point. The extra drag from age-compositional factors in the region therefore amounts to 0.8 percentage point, or 80 basis points, representing 40 percent of New England's overall participation recovery gap of 2 percentage points.

In New England, age composition exerted the most downward pressure on the participation rate (in terms of the percentage point decline predicted by aging) in New Hampshire, contributing a decline of 2.6 percentage points. Massachusetts also experienced a large contribution from age composition (–2 percentage points), followed by Maine, Connecticut, Rhode Island, and Vermont, which experienced almost no drag from age-composition changes. In Rhode Island, the moderate

10 These alternative counterfactuals are not wholly devoid of the influence of changes in age composition because these may have occurred within the specified age ranges. However, the age bins are narrow, making it unlikely that within-bin changes in composition are driving the results.

Figure 8

Effect of Changes in Population Age Composition on Labor Force Participation Rates Net Changes 2019 to 2023



(1 percentage point) drag from age composition was offset by increases in age-specific participation rates, resulting in labor participation remaining virtually unchanged in 2023 relative to 2019.¹¹

Educational Composition

Because the tendency to participate in the labor force generally increases with an individual's education level, changes in the educational composition of a population contribute to changes in its participation rate. A counterfactual analysis in which participation rates by education level are held at their 2019 levels and educational composition evolves as it actually did from 2019 through 2023 reveals that rising educational attainment provided a modest boost to participation in both the United States and in New England from 2019 to 2023. This boost was slightly larger in New England than in the United States because the share of residents with a completed college degree or more education increased by more in New England than in the United States over that time period. Therefore, changes in educational composition actually favored New England and did not contribute to the weaker recovery of labor force participation in the region.

Data from the American Community Survey (ACS) on school enrollment rates among young adults (aged 16 to 24) raise concerns about the near-term outlook for educational attainment in New England and the United States. From 2019 to 2023, the share of young adults enrolled in either high school or college dropped by 1.9 percentage points in New England and by 1.74 percentage points

¹¹ For any given geographic area, the change attributed to aging and the change attributed to non-aging factors do not add up exactly to the observed change in the participation rate over the observed period. This discrepancy is due to the sensitivity of the calculations to initial conditions and to interaction effects between age and non-age factors. Nonetheless, the two counterfactual exercises lead to similar conclusions about the importance of age composition versus other factors.

in the United States. These overall declines were driven by enrollment rates at public colleges and universities, which decreased 2.85 percentage points in New England and 2.47 percentage points in the United States.¹² By contrast, high school enrollment rates (both public and private) and private college/university enrollment rates all increased at least slightly from 2019 to 2023.¹³

Migration

Researchers in Massachusetts recently have expressed concerns that workers are leaving the state in large numbers to escape the high cost of living, high income taxes, and other disamenities (Williams, Liu, and Xu 2024).¹⁴ The Healey administration appears to share similar concerns, as evidenced by recent policy initiatives promoting new strategies for retaining talent in Massachusetts.¹⁵ Indeed, excluding international migration, the state has experienced net outflows of residents to other states in all but one year (2009) since the US Census Bureau began publishing state-level migration rates in 1991. The rate of these net outflows (per 1,000 persons) has generally trended higher since 2010 but spiked sharply in 2022 and remained elevated, albeit less so, in 2023.

The impact of domestic migration on a state's labor force participation rate depends not only on how many people leave (and how many enter) the state each year, but also on the labor force participation rates among the out-migrants ("leavers") and in-migrants ("entrants") relative to the rate of the ongoing residents ("stayers"). If the leavers have a higher average participation rate relative to the stayers, then, ignoring the participation of entrants, the migration will exert a drag on the state's participation rate. That might occur, for example, if working-age individuals are overrepresented among the leavers.

We obtain individuals' state of residence in the preceding year and the current year, along with their labor force status, from the ACS and use that information to estimate the impact of net domestic migration into and out of New England on the labor force participation rate for the 2019–2023 period. We do a similar exercise for Massachusetts alone because, on average, since 2019, the state has been subject to the region's largest net domestic outflows, both in raw numbers of people and relative to its population.¹⁶ In each exercise, we create counterfactual labor force participation rates that (1) suppress

Massachusetts has experienced net outflows of residents to other states in all but one year (2009) since 1991.

12 For more information on recent enrollment trends in public higher education institutions, including information on individual states, see State Higher Education Executive Officers Association (2024).

13 Using the CPS data instead of the ACS data, we find that the school enrollment rate (combining high school and college, whether public or private) among those aged 16 to 24 in New England increased on net from 2019 to 2023. However, the sample sizes in the CPS for this narrow age group in New England are not large enough to estimate outcomes with a high degree of precision. We have greater confidence in the enrollment rate trends based on the ACS, given this survey's larger sample sizes. For the United States, both the CPS and the ACS data indicate that the school enrollment rate among young adults declined from 2019 to 2023.

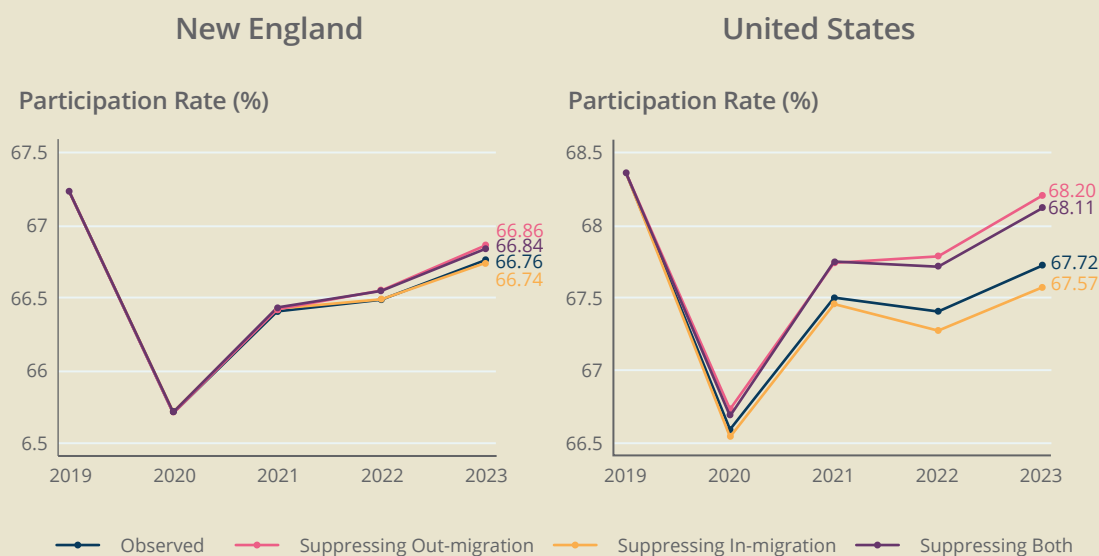
14 Another recent report pushed back against such out-migration concerns. See Kurt Wise, "Data Do Not Show Massachusetts Facing a Crisis of Outmigration," Massachusetts Budget and Policy Center, September 17, 2024.

15 These initiatives include an executive order, signed in January 2024, implementing "skills-based" hiring practices for state government jobs, emphasizing specific skill requirements rather than education credentials (see Jane Thier, "Massachusetts Governor Leans into the Skills-based Hiring Revolution by Axing Degree Requirements for State Jobs. The Private Sector Is Up Next," *Fortune*, January 26, 2024), and the formation, in March 2024, of the MassSkills Coalition, a public-private partnership aimed at promoting skills-based hiring and other strategies for attracting and retaining workers in the state more broadly. See "Governor Healey Announces MassSkills Coalition, a New Public-Private Partnership to Promote Skills-based Hiring," Governor Maura Healey and Lieutenant Governor Kim Driscoll press release, March 19, 2024.

16 This statement is based on data from the US Census Bureau for the 2019–2023 period accessed via Haver Analytics on September 9, 2024. Based on this same source, Connecticut and Rhode Island also experienced net population outflows due to domestic migration on average from 2019 through 2023, while Maine, New Hampshire, and Vermont each experienced net inflows from domestic migration on average over this period. The US Census Bureau does not publish data on net domestic migration for the New England census division. For more information on recent domestic migration patterns in New England, see Wu (2024).

Figure 9

Simulated Effects of Domestic Migration on Labor Force Participation 2019–2023



Source(s): Authors' calculations based on American Community Survey microdata (IPUMS USA) and US Census Bureau ACS 1-Year Estimates, 2023.

Note(s): For 2019, the counterfactual labor force participation rates are set equal to the observed rate. For 2020, we proceed as follows: When suppressing out-migration, we treat those who left New England since 2019 as if they still lived in New England and assign them their labor force status as observed in their 2020 location; we use the observed labor force status of everyone else and calculate the participation rate over the resulting counterfactual population. When suppressing domestic in-migration, we simply omit from the 2020 sample anyone who lived in a non-New England state in 2019 and calculate the participation rate after that omission. For 2021, the counterfactual of a given type (for example, suppressing out-migration) carries forward the relevant effect calculated for 2020 and adds the marginal effect of suppressing out-migration since 2020, which assumes the labor force status of all previous leavers did not change since the year in which they left. We iterate the process again for 2022 and 2023. The calculations are analogous for Massachusetts, except that moves between Massachusetts and other New England states are counted as domestic migration.

the impact of domestic out-migration, (2) suppress the impact of domestic in-migration, and (3) suppress both channels.¹⁷

The exercise, depicted in the left panel of Figure 9, shows that domestic out-migration was indeed a drag on labor force participation in the region—that is, participation likely would have been higher had these people stayed in the region. The in-migrants offset that effect somewhat—participation would have been lower without them—but not fully. The cumulative net effect is very small, subtracting only 8 basis points from the participation rate from 2019 through 2023. Domestic moves are assumed to have no net effect on the US participation rate because they occur within a closed system.¹⁸ Therefore, net domestic migration from New England occurring from 2019 through 2023 likely contributed to the region's participation recovery gap relative to the United States for that same period but, based on our estimates, can account for only 0.08 percentage point, or 4 percent, of the overall recovery gap of 2 percentage points.¹⁹ A similar analysis for Massachusetts alone (depicted in the right panel of Figure 9) reveals that net domestic migration to and from the state

17 See the notes for Figure 11 for a description of the methods used to calculate these counterfactual participation rates.

18 Domestic moves could either precipitate a change in labor force status or occur simultaneously with such a change. Someone might move expressly because they want to join the labor force and are seeking a more favorable labor market, such as after college graduation, or one might move when leaving the labor force upon retirement.

19 The participation recovery gap of 2 percentage points is calculated using the IPUMS CPS microdata from 2019 through 2023, as described in footnote 8.

(whether to or from another New England state or elsewhere in the country) subtracted 0.39 percentage point from that state's labor force participation rate from 2019 to 2023. This margin may sound small, but in fact, it reflects an estimated net cumulative loss of more than 95,000 workers from 2019 to 2023.²⁰ The latter estimate does not factor in international immigration and does not contradict the fact that, over the same period, the resident population of Massachusetts increased by about 1.6 percent.²¹

The ACS data also enable estimates of the effect of moves into New England (or the United States in general) from other countries on labor force participation. (The effect of emigration to international destinations on participation cannot be tracked because the ACS does not survey individuals living overseas.) Our analysis of the data from 2019 through 2023 indicates that immigration exerted a modest drag on labor force participation in New England during that time, as current-year immigrants had lower participation rates than the combined group of nonimmigrants and immigrants who had arrived earlier than 2019.²² However, we estimate a similar, if slightly weaker, negative effect for the United States, suggesting that immigration did not contribute meaningfully to the weaker recovery in the region. One explanation for the lower participation rate among current-year immigrants is that students (high school and college) are overrepresented in that group. Nonetheless, further analysis of ACS data shows that even among prime-age individuals, current-year immigrants have a below-average participation rate, even if the comparisons are conducted separately for men and women. However, results we discuss later show that when the analysis of foreign-born (prime-age) men is not restricted to recent arrivals, these men have higher participation rates than their native-born peers, suggesting a delay between when male immigrants arrive in the United States and when they enter the labor force.

From 2019 through 2023, net domestic migration from Massachusetts resulted in an estimated cumulative loss of more than 95,000 workers.

Changes in Age-specific Labor Force Participation Rates

As discussed earlier, changes in age composition account collectively for a large portion, but less than half, of the overall labor force participation recovery gap in New England from 2019 through 2023. Therefore, changes in age-specific participation rates must account for more than half of that gap. Figure 10 compares New England and US participation rate movements by broad age group from 2019 through 2023. The figure shows that, except for the 55–64 age group, participation rates in New England weakened relative to those in the United States within each age group. In the youngest group, 16- to 24-year-olds, participation fell starkly in New England while rising modestly in the United States, erasing the region's initial advantage.

The differential changes in participation for the young adult (aged 16 to 24) group as observed in the CPS data can explain a substantial portion of the overall participation recovery gap in the region. However, the sample sizes in the CPS for that narrow age group in New England are not large enough to estimate outcomes with a high degree of precision. Using data from the ACS, which offers much larger sample sizes than the CPS for both New England and the United States, we find that the labor force participation rate among young adults increased from 2019 to 2023 in both New England

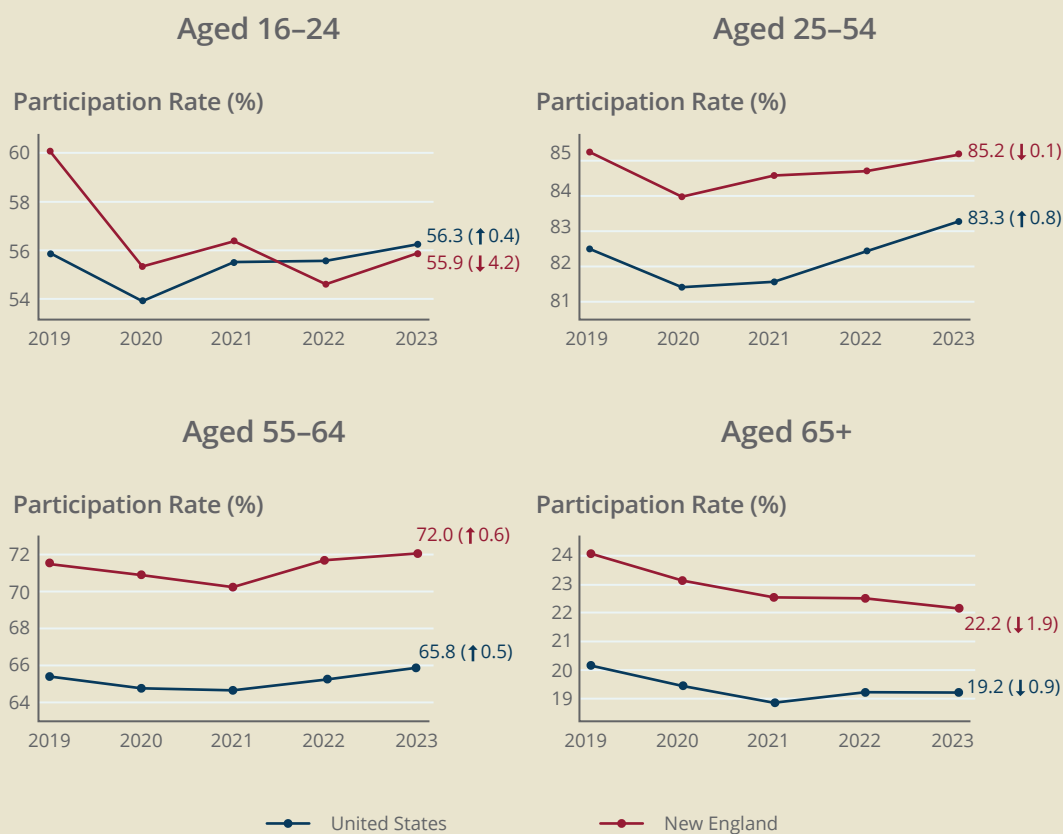
20 Excluding Massachusetts from the calculations for New England, we estimate from the ACS data that there was a net influx of about 46,000 workers to the other five New England states combined (from non-New England states) from 2019 to 2022. Nonetheless, the estimated impact of domestic migration on labor force participation for the region was negative, due primarily to the influence of Massachusetts.

21 This statement is based on data on the annual resident population of Massachusetts for the years 2019 through 2023 from the US Census Bureau, accessed via Haver Analytics.

22 We calculate the effects on current-year participation of current-year immigrants and accumulate the effects over time. Current-year immigrants are those who lived outside the United States in the preceding year and were not born in the United States.

Figure 10

Labor Force Participation by Age, New England and the United States 2019–2023



Source(s): Authors' calculations based on Current Population Survey microdata (IPUMS CPS).

Note(s): Participation rates are calculated as the annual average of monthly, not seasonally adjusted, rates, restricted to the indicated age group in each year and geographic area. Data labels indicate values as of 2023 and, in parentheses, the difference between the 2023 average and the 2019 average.

and nationwide, and by similar margins, suggesting that trends in this age group did not contribute significantly to the participation recovery gap in the region.

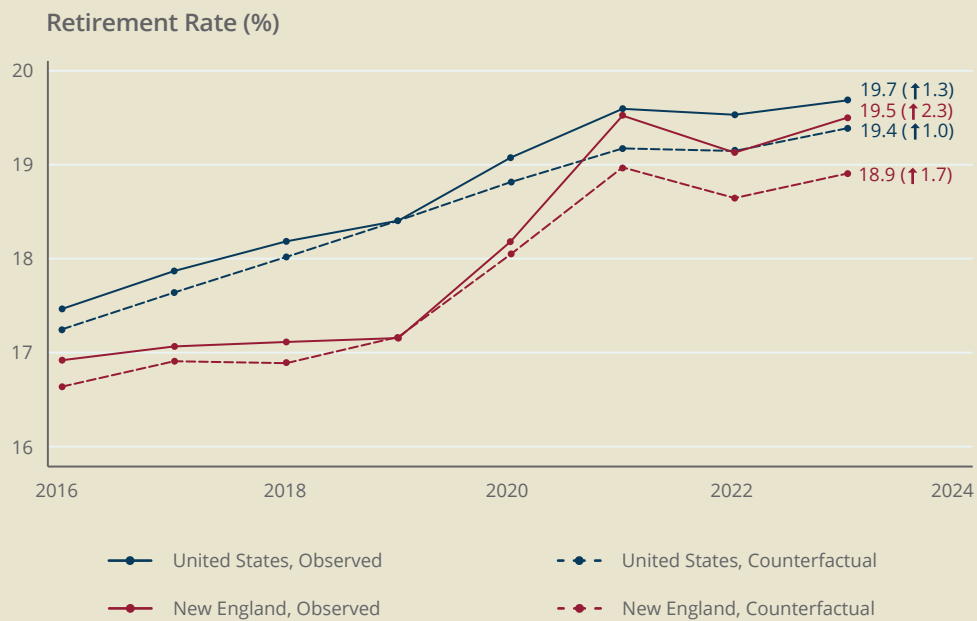
Of greater concern for the region's labor force outlook is that New England lost considerable advantage relative to the United States in participation among prime-age individuals (aged 25 to 54) and those aged 65 and older. The relatively unfavorable participation trends for these groups contributed, respectively, 0.42 percentage point and 0.20 percentage point to New England's participation recovery gap.

Excess Retirements

Figure 10 shows that participation among individuals aged 65 and older declined more sharply in New England than in the United States on net from 2019 to 2023. Retirement patterns are important for understanding that difference. Previous research (Montes, Smith, and Dajon 2022) finds that the pandemic brought a wave of unexpected, or “excess,” retirements that represented about half of the overall increase in the US retirement rate from February 2020 to late 2022. We estimate excess retirements in New England from 2019 through 2023 by constructing, for each year, a counterfactual that represents the retirement rate that would have occurred based on actual changes in population age composition but holding age-group-specific retirement rates fixed at their respective

Figure 11

Observed and Counterfactual Retirement Rates, New England and the United States 2019–2023



Source(s): Authors' calculations based on Current Population Survey microdata (IPUMS CPS).

Note(s): The observed retirement rate is the percentage of the (civilian, noninstitutional) population aged 16 and older (in the given year and geographic area) not in the labor force because of retirement. The counterfactual retirement rates represent retirement rates as predicted solely by changes in age composition in the given geographic area since 2019 as of a given year, holding retirement rates by age fixed at their respective 2019 levels. The age groups used in the analysis are as follows: under 50, 50–54, 55–59, 60–64, 65–69, 70–74, 75 or older. Data labels indicate values as of 2023 and, in parentheses, the difference between the 2023 average and the 2019 average.

2019 levels.²³ The excess retirement rate in a year is the difference between that year's actual retirement rate and its counterfactual rate. We estimate excess retirement rates for the United States analogously. Figure 11 shows the results and indicates the age groups used in the analysis.

The counterfactual analysis implies that, as of 2023, excess retirements had contributed an additional 0.6 percentage point to the retirement rate in New England and boosted retirements in the United States by 0.3 percentage point. Based on the difference between these contributions, excess retirements in New England accounted for 0.3 percentage point, or 15 percent, of the region's participation recovery gap relative to the United States as of 2023.^{24, 25} The fact that New England experienced a higher rate of excess retirements than the United States is not surprising given the findings of Montes, Smith, and Dajon (2022) that (1) excess retirements in the United States were concentrated among non-Hispanic White individuals, college-educated individuals, and those who were aged 65 and older at the start of the pandemic, and (2) excess retirements were likely

23 Montes, Smith, and Dajon (2022) use more sophisticated methods to construct counterfactual retirement rates for the United States. Nonetheless, our estimates of excess retirement rates for the United States through 2022 are very similar to theirs for the corresponding time periods.

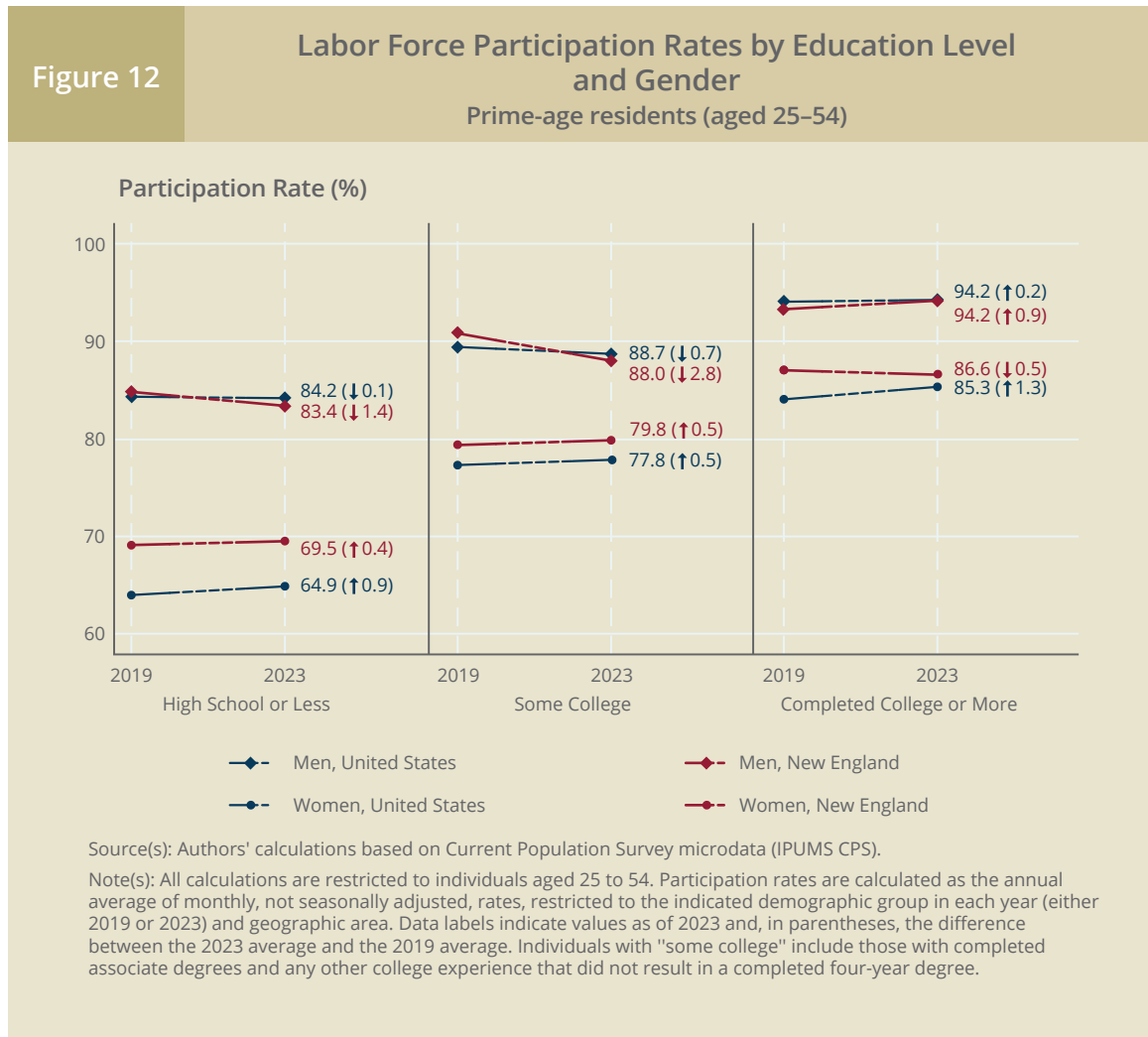
24 This calculation assumes that retired individuals left the labor force when they retired and had not left the labor force earlier for reasons other than retirement.

25 As an alternative method for estimating the contribution of excess retirements to the participation recovery gap, instead of estimating counterfactual retirement rates, we assume that excess retirements, whether in New England or the United States, accounted for half of the overall increase in the retirement rate in the given geographic area, which Montes, Smith, and Dajon (2022) found to be true of the United States as of 2022. Our results are nearly identical to those based on the counterfactual retirement rate analysis.

precipitated by the extreme health and economic shocks of the pandemic. The previously listed demographic groups most affected by excess retirements in the United States were overrepresented in New England immediately before the start of the pandemic, and in 2020, the region experienced an above-average COVID-19 death rate and a more severe economic contraction compared with the United States overall.²⁶

Changes in Prime-age Participation Rates

Prime-age participation rate patterns warrant further analysis, as individuals aged 25 to 54 form the bulk of the labor force, and nonparticipants in that age range are more likely to rejoin the workforce in the future compared with older nonparticipants. Analysis of prime-age participation in 2019 and as of 2023 along the dimensions of gender, education, race, Hispanic ethnicity, place of birth (United States or elsewhere), and place of residence (metropolitan or nonmetropolitan) reveals several facts that may be relevant for policy considerations. As Figure 12 shows, New England held an advantage over the United States in terms of prime-age women’s labor force participation within each of three education groups, both in 2019 and as of 2023. However, New England’s participation



26 We estimate a COVID-19 mortality rate for New England for 2020 by taking the average of published, state-level COVID-19 mortality rates in 2020, weighted by each New England state’s 2020 resident population. Maine, New Hampshire, and Vermont all had below-US-average COVID-19 mortality rates in 2020, but Connecticut, Massachusetts, and Rhode Island had above-average rates, and these three latter states dominated the regional average given their much larger combined population. In 2021, New England’s COVID-19 mortality rate (calculated similarly) was below the US average. State-level and national COVID-19 mortality rates were sourced from the US Centers for Disease Control and Prevention, National Center for Health Statistics, “COVID-19 Mortality by State” (accessed October 15, 2024).

advantage over the United States narrowed in 2023 (compared with 2019) among prime-age women with a high school education or less. Meanwhile, participation among the region’s prime-age female college graduates declined outright over the period. Among prime-age men, the New England and US participation rates in those years were similar—within 1 percentage point or less of each other—within each education group, despite rising with educational attainment as expected. New England men lost ground relative to US men among those with a high school education or less and especially among those with only some college but gained modestly on the United States among men with a bachelor’s degree or more education. When not disaggregated by educational attainment, participation among New England’s prime-age women fell behind that of their US counterparts by more than a full percentage point from 2019 to 2023, while participation among New England’s prime-age men showed a smaller recovery gap (0.45 percentage point) relative to prime-age men in the United States. When not judged relative to their respective US counterparts, however, New England’s prime-age women had a stronger participation recovery from 2019 to 2023, notching a 0.3 percentage point increase, than did New England’s prime-age men, for whom participation fell 0.4 percentage point.

Figure 13 shows prime-age participation rates by race and sex. New England experienced a stronger recovery than the United States (involving either larger increases or smaller decreases) among Black women, Black men, and other race/multiracial men but had a weaker recovery among White women, White men, and other/multiracial women. The figure illustrates two other notable facts: The participation rate among prime-age Black men in New England was well above the US

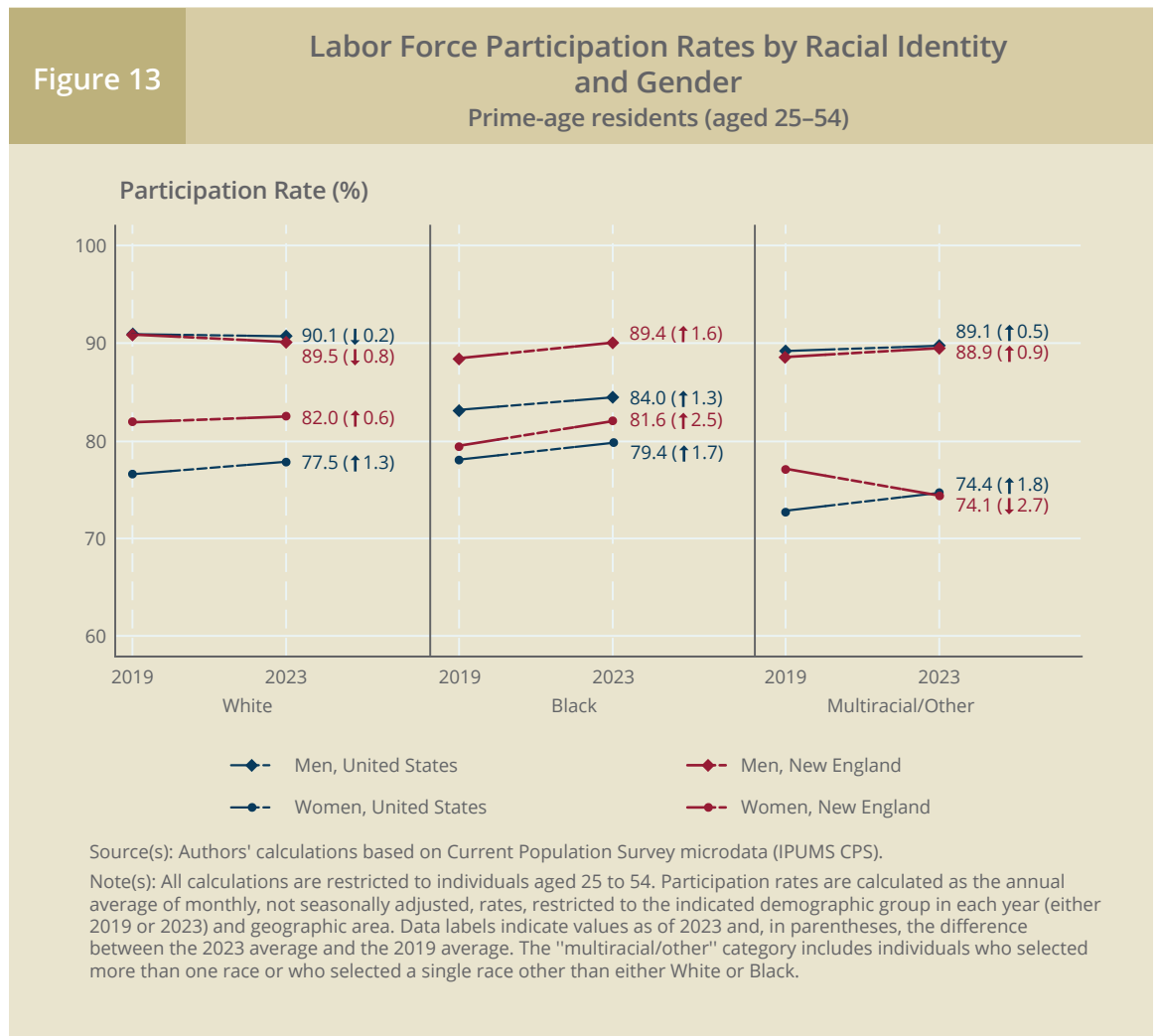
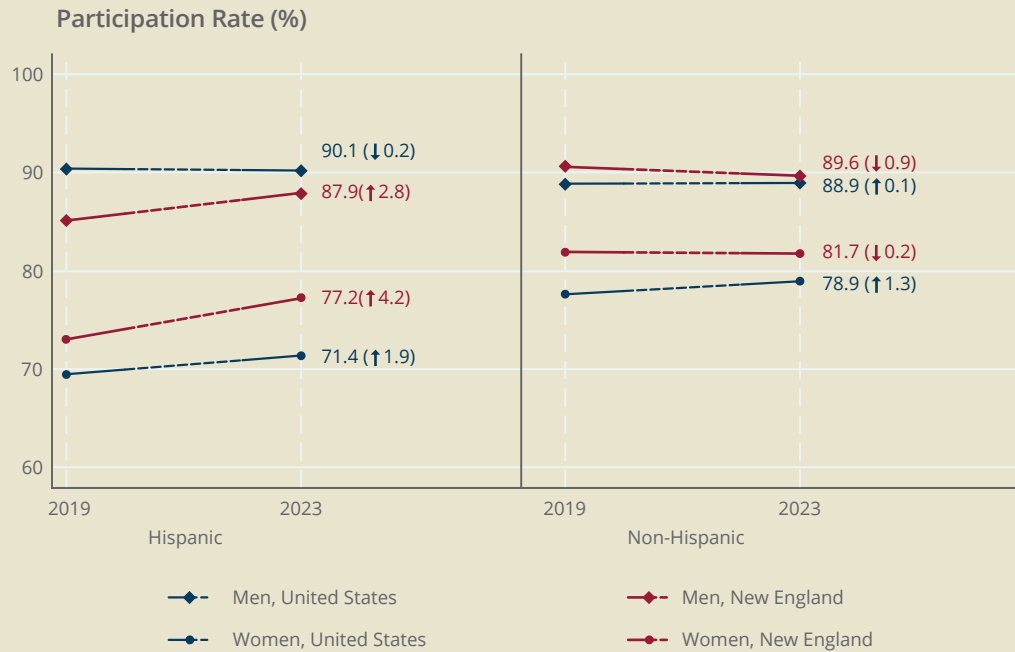


Figure 14

Labor Force Participation Rates by Hispanic Ethnicity and Gender

Prime-age residents (aged 25–54)



Source(s): Authors' calculations based on Current Population Survey microdata (IPUMS CPS).

Note(s): All calculations are restricted to individuals aged 25 to 54. Participation rates are calculated as the annual average of monthly, not seasonally adjusted, rates, restricted to the indicated demographic group in each year (either 2019 or 2023) and geographic area. Data labels indicate values as of 2023 and, in parentheses, the difference between the 2023 average and the 2019 average. Individuals of Hispanic ethnicity may fall into any racial category, and the same applies to those of non-Hispanic ethnicity.

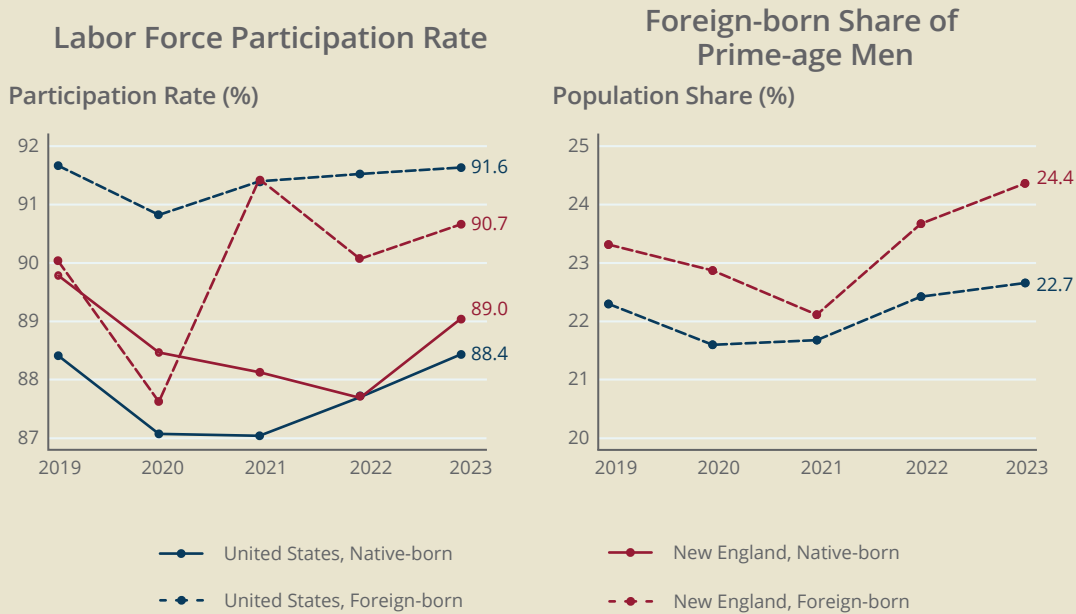
average rate for prime-age Black men (in both 2019 and 2023), and as of 2023, there was virtually no disparity in New England between the participation rates of prime-age White men and prime-age Black men. This convergence is most likely due in part to sharp increases in educational attainment among prime-age Black men in New England from 2019 to 2023 (not shown). These gains exceeded the gains among prime-age White men in the region and among prime-age Black men nationwide. As a result of the recent changes in participation rates by race in New England, the share of New England's prime-age labor force (male and female combined) identifying as Black increased 1 percentage point (from 8.5 percent to 9.5 percent) from 2019 to 2023 while increasing by less than half a percentage point in the United States (from 13.3 to 13.7 percent).

Prime-age Hispanic individuals, where Hispanic ethnicity is independent of racial identity, contributed to increased labor force participation in New England, both in absolute terms and relative to the United States (see Figure 14). Participation among the region's prime-age Hispanic women rose more than 4 percentage points from 2019 to 2023, exceeding the gains among prime-age Hispanic women nationwide; participation also increased among prime-age Hispanic men in the region despite decreasing for this group nationwide. Among the non-Hispanic population, participation rate movements were negative in New England for prime-age men and women alike but were modestly positive for these same groups in the United States.

Decomposing prime-age participation rates by birthplace status (native or foreign) and sex (Figure 15) reveals that native-born men drove the weak recovery of prime-age male participation in New England (relative to the United States). By contrast, participation among foreign-born prime-age

Figure 15

Labor Force Participation Rates by Place of Birth; Foreign-born Population Shares Prime-age men (aged 25–54)



Source(s): Authors' calculations based on Current Population Survey microdata (IPUMS CPS).

Note(s): All calculations are restricted to men aged 25 to 54 residing in the United States. Participation rates are calculated as the annual average of monthly, not seasonally adjusted, rates, restricted to the indicated demographic group in each year and geographic area. Data labels indicate values as of 2023. The native-born population refers to men (aged 25–54) born in the United States, and the foreign-born population refers to men (aged 25–54) born elsewhere.

men in New England experienced a net increase from 2019 to 2023, while the United States saw no net change. In the United States, foreign-born prime-age men had consistently higher participation rates than their native-born counterparts during these years, and this was also true in New England apart from 2020. In addition to showing a net increase in participation since 2019, New England's foreign-born prime-age men constituted a larger share of the prime-age male population in the region as of 2023 compared with 2019, following a strong post-pandemic rebound in international immigration to New England and nationwide in 2022 and 2023.^{27, 28}

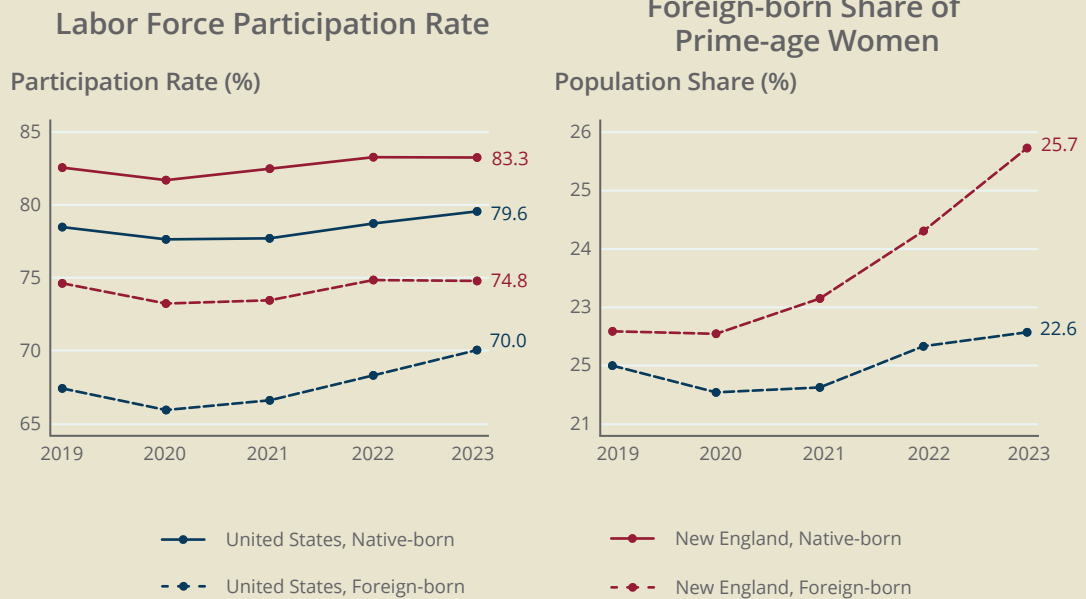
In contrast to men, foreign-born women of prime age were less likely than native-born women in the same age range to belong to the labor force from 2019 through 2023, either in New England

27 These statements about rebounding immigration are based on US Census Bureau estimates accessed via Haver Analytics. The Congressional Budget Office (CBO) produces separate estimates of international immigration flows based on administrative data for the United States but not for individual census divisions. The CBO recently reported that its estimated immigration flows from 2021 through 2023 were well above the levels they had forecasted previously (see Congressional Budget Office, "Effects of the Immigration Surge on the Federal Budget and the Economy," July 23, 2024). The CBO's latest estimates are also considerably greater than the US Census Bureau's estimates for the same years (see Jed Kolko, "Can New Data Solve an Old Immigration Puzzle?" Slow Boring blog, September 12, 2024). A recent report from the Hamilton Project (Edelberg and Watson 2024) argues that recent population and employment estimates from the BLS (based on US Census data) are too low because they reflect undercounts of the recent surge of migrants. The issue remains unsettled because both data sources may be subject to errors.

28 Massachusetts, Rhode Island, and Connecticut each experienced larger increases in their respective net international migration rates from 2021 to 2023 compared with the United States overall. Maine and Vermont also experienced increases in their net international migration rates from 2021 to 2023, but they were smaller than the corresponding gains seen in the United States. The net international migration rate in New Hampshire was down in 2023 compared with 2021 after having increased in 2022.

Figure 16

Labor Force Participation Rates by Place of Birth; Foreign-born Population Shares Prime-age women (aged 25–54)



Source(s): Authors' calculations based on Current Population Survey microdata (IPUMS CPS).

Note(s): All calculations are restricted to women aged 25 to 54 residing in the United States. Participation rates are calculated as the annual average of monthly, not seasonally adjusted, rates, restricted to the indicated demographic group in each year and geographic area. Data labels indicate values as of 2023. The native-born population refers to women (aged 25–54) born in the United States, and the foreign-born population refers to women (aged 25–54) born elsewhere.

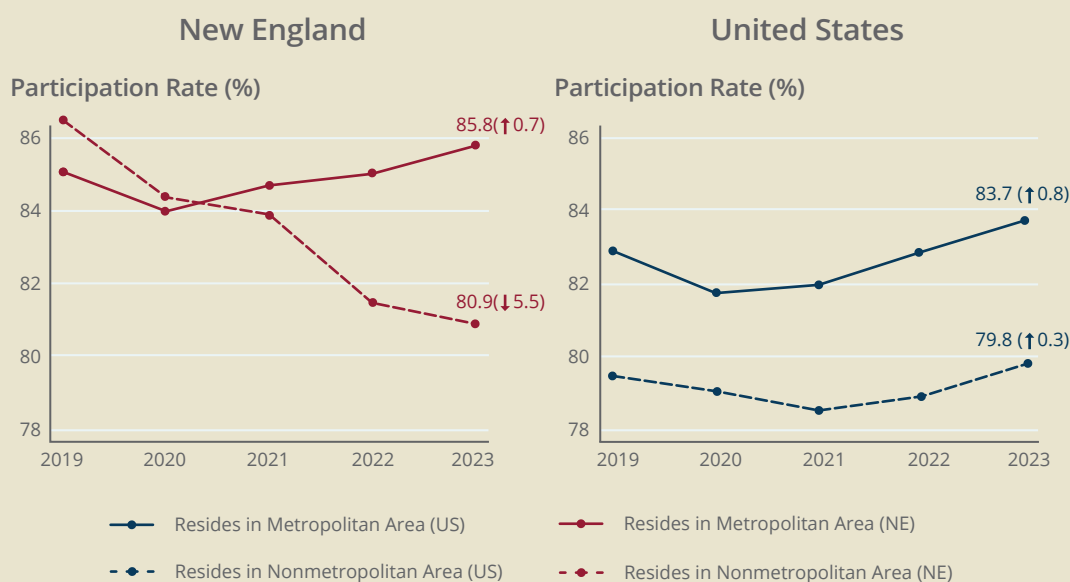
or in the United States as a whole (Figure 16). Furthermore, the participation rate among foreign-born prime-age women in the region, although consistently higher than the corresponding rate for the United States from 2019 through 2023, was flat on net over this period. By contrast, the United States saw a net increase in participation among foreign-born women over the same period. (Among native-born women, the participation rate increased from 2019 to 2023 by a small margin in New England and in the United States.) The foreign-born share of the prime-age female population in New England increased markedly from 2019 to 2023 (and less markedly in the United States), exacerbating the unfavorable participation trend among foreign-born women as a contributing factor to the weaker recovery of prime-age labor force participation in New England.

Another source of weakness in prime-age participation trends in the region relates to the recent experience in nonmetropolitan areas.²⁹ As Figure 17 shows, participation among prime-age residents of New England's nonmetropolitan areas declined sharply from 2019 to 2023, falling 5.5 percentage points in total, in stark contrast to the modest increase in nonmetropolitan-area participation in the United States over the same period. Participation among prime-age metropolitan-area residents in New England increased on net from 2019 to 2023, albeit by a smaller margin compared with the United States. Additional analysis reveals that Connecticut, Maine, and New Hampshire all contributed to the trend of declining prime-age participation in nonmetropolitan areas, but Vermont was an exception. (Massachusetts and Rhode Island do not have any nonmetropolitan areas.)

29 The region's nonmetropolitan areas were home to just under 10 percent of its prime-age population as of 2023, which was an increase of 0.5 percentage point from 2019. The nonmetropolitan share of the US prime-age population was roughly 11 percent in 2019 and as of 2023.

Figure 17

Labor Force Participation Rates by Metropolitan Area Residence Status Prime-age residents (aged 25–54)



Source(s): Authors' calculations based on Current Population Survey microdata (IPUMS CPS).

Note(s): All calculations are restricted to individuals aged 25 to 54. Participation rates are calculated as the annual average of monthly, not seasonally adjusted, rates, restricted to the indicated demographic group in each year and geographic area. Data labels indicate values as of 2023 and, in parentheses, the difference between the 2023 average and the 2019 average. A metropolitan area includes both the central city area and other surrounding areas (such as suburbs). Anyone not living in such an area is designated as living in a nonmetropolitan area. Within New England, Massachusetts and Rhode Island contain no nonmetropolitan areas.

Childcare Constraints

During the initial phase of the pandemic, in the spring and summer of 2020, an estimated 16,000 childcare centers nationwide were forced to close at least temporarily to minimize the spread of COVID-19.³⁰ After shutdown orders were lifted, however, the childcare industry faced massive staffing shortages that, even as of late 2023, had not been fully resolved.³¹ Consistent with widespread anecdotal evidence that a lack of access to affordable childcare created return-to-work barriers for parents, research from the Federal Reserve Bank of St. Louis (Bick, Gregory, and Leukhina 2023a) finds that the scarcity of affordable childcare options after the pandemic—as manifested in rising childcare-worker wages from the first half of 2019 through the first half of 2022—constrained the recovery of labor force participation among partnered women with children to a moderate extent but did not significantly affect the participation recovery of other groups.

Assuming that the St. Louis Fed research applies to New England, we estimate the dampening effect of childcare scarcity on the labor force participation rate in each New England state and for the region using state-level data on private childcare-worker wage increases from 2019 to 2023.³²

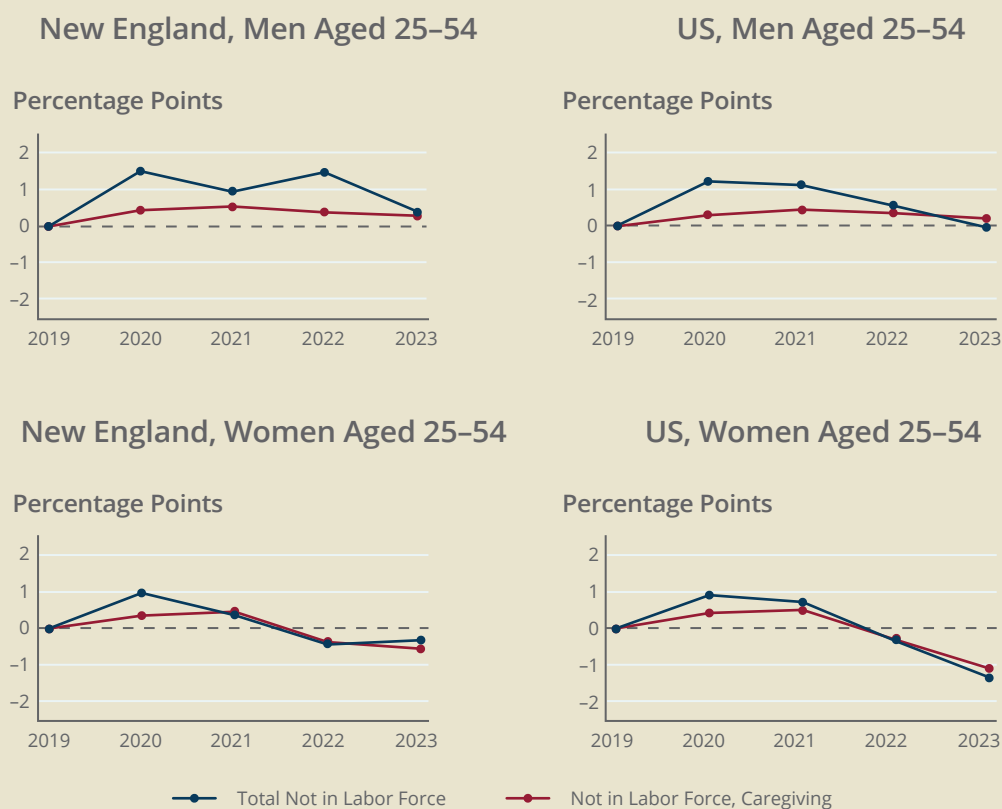
30 See Stephanie Ferguson, "Understanding America's Labor Shortage: The Impact of Scarce and Costly Childcare," US Chamber of Commerce, June 26, 2024.

31 See Rose Khattar and Maureen Coffey, "The Child Care Sector Is Still Struggling to Hire Workers," Center for American Progress, October 19, 2023.

32 Private childcare-worker wages are sourced from the Quarterly Census of Employment and Wages (US Bureau of Labor Statistics 2024). The calculations assume that the effect of a given increase in childcare-worker wages on partnered women's participation would have been the same in any individual state as it was on average nationwide. The estimated effects differ across states insofar as the wage increase from 2019 to 2023 differed and the population share of partnered women with children differed in 2019 and/or as of 2023. Among New England states, the wage increase was greatest in Maine, at 33 percent, and smallest in Rhode Island, at 27 percent.

Figure 18

Change in Prime-age Nonparticipation Rate, Total and Caregiving-related Cumulative percentage point change since 2019



Source(s): Authors' calculations based on Current Population Survey microdata (IPUMS CPS).

Note(s): All calculations are restricted to individuals aged 25 to 54, also separated by gender and geographic area. The (total) nonparticipation rate refers to the percentage of the relevant population who are not in the labor force. The figure shows changes in the total nonparticipation rate (blue line) and changes in nonparticipation because of caregiving responsibilities (red line), expressed as cumulative percentage point changes from 2019 through the given year. Calculations are based on the annual average of monthly, not seasonally adjusted, data.

We find that the effect for New England—representing how much higher labor force participation rates would have been in 2023 had wages for childcare workers remained constant at 2019 levels—is about 0.13 percentage point. This estimate is virtually identical to the estimated effect for the United States, as the increase in childcare-worker wages was about the same in the region (31 percent) as it was on average in the country as a whole (33 percent). The predicted effect is greatest for Connecticut, at about 0.14 percentage point, although the estimates for the region's states are statistically indistinguishable from each other. Based on this analysis, rising childcare costs do not help explain the participation recovery gap in the region relative to the United States, even if such costs somewhat constrained the recovery among partnered women with children both in New England and nationwide.

As noted earlier (Figure 4), caregiving, which may include care for other adults as well as children, contributed significantly to increased nonparticipation (and, therefore, to decreased participation) in 2020 and 2021—and more so in New England than in the United States—but by 2023, it had become less important as a source of nonparticipation. Still, from 2021 to 2023, caregiving-related nonparticipation fell more sharply in the United States than in New England, and based on this difference alone, the region's participation rate would have increased by about 0.15 percentage

point less than the US rate did, assuming declines in caregiving-related nonparticipation translated one-for-one into increases in participation. Restricting the analysis to prime-age women (see Figure 18), a similar pattern holds but has even stronger implications. From 2021 to 2023, as caregiving-related nonparticipation receded substantially among prime-age US women but declined less dramatically among prime-age women in New England, the labor force participation rate of New England's prime-age women would have increased 0.55 percentage point less than the nationwide rate for prime-age women did. (This estimate ignores other factors affecting participation and assumes that the former caregivers re-entered the labor force rather than staying out for a reason not related to caregiving.)

The presence of a participation recovery gap linked to caregiving might seem to contradict the earlier evidence that New England would have experienced similar (not greater) headwinds to labor force participation from increased childcare costs compared with the United States on average. However, caregiving is not limited to childcare, and a caregiver's decision to stay out of the labor force depends not only on the costs of market-based care, but also on factors such as the strength of employment offers and personal preferences. Therefore, the results of these two lines of inquiry do not necessarily contradict each other.

Even though women are still much more likely than men to cite caregiving as a reason for staying out of the labor force, the CPS data suggest that caregiving responsibilities have fallen increasingly on men in recent years. Whether in New England or nationwide, the rate of caregiving-related nonparticipation remained slightly higher among prime-age men as of 2023 compared with 2019 (Figure 18). Furthermore, prime-age men not in the labor force in 2023 were more likely to cite caregiving as the reason for not participating compared with prime-age men in 2019—and this increase was more pronounced in New England than in the United States overall—but no such change was observed among prime-age women.

Rising childcare costs do not help explain the participation recovery gap in the region relative to the United States.

Remote Work Opportunities

Perhaps counterintuitively, in US data as of early 2023, participation rates among parents of either sex, and even just the participation rate of women with children under age 6, had not recovered any less fully from their pandemic-associated declines than had participation rates among (nonelderly) childless adults (Bick, Gregory, and Leukhina 2023b). The surprisingly healthy rebound of labor force participation among women with young children, even in the face of childcare accessibility issues, has been linked to the rise of remote work opportunities (Bauer and Wang 2023). Consistent with this hypothesis, recent research finds that women able to work remotely were less likely to exit the labor force compared with women without this option (Langemeier and Tito 2021, 2022). Using two different indicators, we find that the prevalence of remote work in New England was consistently greater than the US average from 2018 through 2023 and increased more on net than in the United States during this period (Figure 19).³³ According to these measures, a disadvantage in remote work opportunities has not been a factor in the weaker recovery of labor

33 One such indicator represents a predicted remote work prevalence based on occupation characteristics, and the other measure estimates the actual availability of remote work based on a survey of employers. Refer to Figure 19 for details.

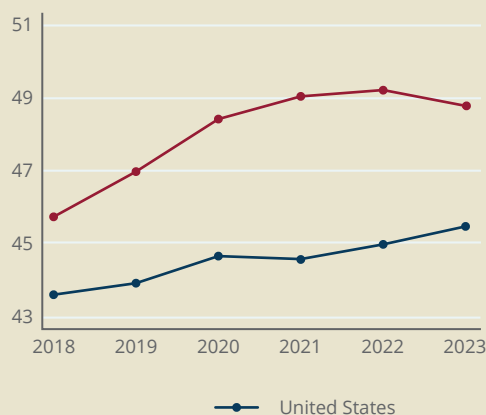
Figure 19

Labor Force Participation Rates by Metropolitan Area Residence Status

Prime-age residents (aged 25–54)

Remote Work Potential from Occupation Characteristics

Percentage of Occupants

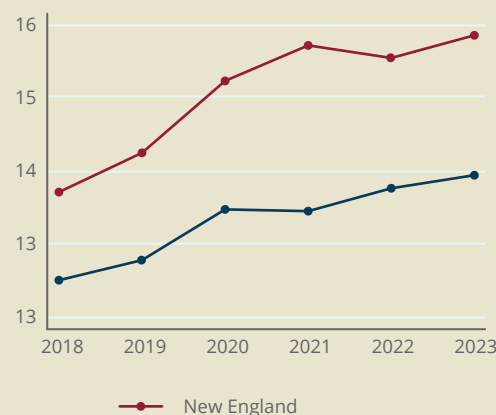


Source(s): Authors' calculations based on Montenegro, Laura, Xuan Jiang, Felipe A. Lozano-Rojas, Ian M. Schmutte, Kosali Simon, Bruce A. Weinberg, and Coody Wing. Occupational Social Distancing Indices, United States, 2019. Inter-university Consortium for Political and Social Research [distributor], 2024-07-29; Current Population Survey microdata (IPUMS CPS); US Census Bureau (2019).

Note(s): Values represent the share of employment with the potential to be conducted remotely based on an index of remote communications per occupation, described in Montenegro et al. (2020), applied to the occupation distribution of employment in the CPS following the methods of Langemeier and Tito (2022).

Remote Work Availability from Employer Survey

Percentage of Occupants



Source(s): Authors' calculations based on US Bureau of Labor Statistics Occupational Requirements Survey, 2023; Current Population Survey microdata (IPUMS CPS); US Census Bureau (2019).

Note(s): Values represent the percentage of employment such that remote work is available to employees, according to a survey of employers about job characteristics for detailed occupations applied to the occupation distribution of employment in the CPS. In cases when the survey provided only a numerical range for remote work availability for a certain occupation, rather than a precise numerical value, a data value was imputed as the largest whole number strictly less than the upper bound of the given range.

force participation in the region.³⁴ Nonetheless, it is worth noting that under either measure, the prevalence of remote work stagnated (or even fell) in New England after 2021 (through 2023) while continuing to rise at least slightly in the United States. It is therefore possible that return-to-office policies in the region have blunted the rise of participation since 2021 (relative to the United States) among women with young children and others preferring remote work.

34 In fact, the rise of remote work in New England since 2019 most likely means that there is a growing number of individuals who work (remotely) for employers based in the region and yet are not counted as part of the region's labor force because they reside outside New England. Likewise, there was likely an increased incidence of people residing in New England and working remotely for establishments located outside the region, but the latter types should, in principle, be counted in the region's labor force. Unfortunately, we are not aware of data sources that would enable us to estimate the number of either type of individual reliably for the New England region. Based on the wording of the ACS, individuals working remotely, when asked to report their place of work, typically report their home location rather than the location of the establishment to which they telecommute.

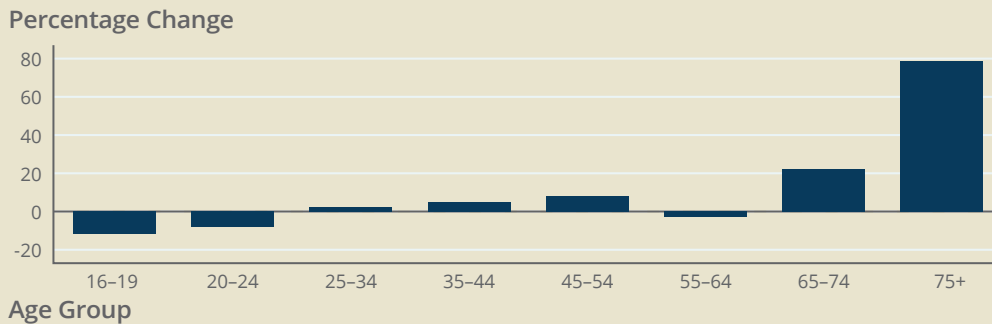
IV. Projections and Policy Considerations

Notwithstanding the large negative shocks to labor force participation in New England stemming from the pandemic recession of 2020, some of the factors contributing to the participation recovery gap in the region—including population aging, declining participation within certain subsets of the prime-age population, and domestic out-migration—reflect longer-run trends that were in place before the pandemic and that could continue to exert downward pressure on labor force participation in the region.

As the figures in Box 2 show, population aging is projected to advance for at least the next decade both nationally and in at least two New England states. The BLS predicts that the labor force will grow at a much slower pace in the coming decade (through 2033) compared with the past 10 years (ending in 2023) and that it will become significantly older. For example, the share of the workforce aged 65 to 74 will rise to 6.5 percent by 2033, up from 5.5 percent as of 2023, and the workforce share aged 75 and older will exceed 2 percent by 2033, up from 1.2 percent as of

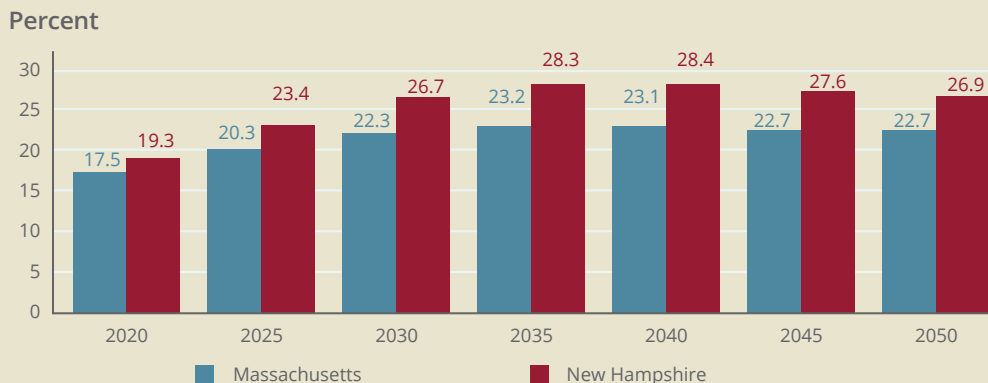
Box 2

Projected Change in US Workforce Size, by Age Group Forecasted percentage change from 2023 to 2033



Source(s): US Bureau of Labor Statistics Employment Projections, 2023–2033.

Projected Share of Population Aged 65 or Older Massachusetts and New Hampshire, 2020–2050



Source(s): UMass Donahue Institute V2024 Population Projections; "State of New Hampshire State, County, and Municipal Population Projections: 2020–2050." Robert Scardamalia, New Hampshire Department of Business and Economic Affairs, September 2022.

2023.³⁵ Although workforce-by-age projections are not available for New England, population projections for Massachusetts and New Hampshire (bottom panel of Box 2) indicate that these states will experience significant further population aging through at least 2035.

The extent of downward pressure on labor force participation in the region stemming from future population aging will depend on not just the demographic shifts themselves, but also, crucially, retirement patterns by age. We demonstrated earlier that participation rates among older workers fell more sharply in New England than in the United States during and after the pandemic recession, as the region was especially susceptible to excess retirements that occurred during this period. These early retirements are likely to hold the region's participation rate below what would have been forecasted (based on pre-pandemic retirement trends) until the early retirees reach the respective ages at which they otherwise would have retired. A similar statement applies to the United States, but the dampening effect will most likely be greater in the region.

Recent data raise concerns that the early-retirement trend of the pandemic may be proving sticky, especially in the region. As of 2023, the retirement rate at age 60 (and, separately, at age

Recent data raise concerns that the early-retirement trend of the pandemic may be proving sticky.

65) in New England remained considerably higher than the 2019 level, despite having receded from an even higher level observed in 2021. By contrast, the age-60 (and age-65) retirement rate(s) in the United States had nearly returned to the 2019 level as of 2023. Nonetheless, the trend in place for decades before the pandemic—both regionally and nationally—had been toward later retirements, driven by increases in education, increases in the Social Security full retirement age, shifts away from pensions mandating retirement at a fixed age (Coile 2018), and a desire to stay engaged in meaningful pursuits well into old age (Montgomery 2023). A resumption of the trend toward later retirements would help offset the dampening impact of population aging on labor force participation but could raise compensation

costs for employers—older workers, on average, incur higher health-care costs and earn higher salaries—and leave fewer job openings for younger workers.

Recent research suggests that there may be significant untapped labor potential even among current retirees. A 2020 study based on a survey of relatively healthy and wealthy Americans over age 55 found that about 60 percent of nonworking respondents would return to work—at jobs like those they had held just before retiring—provided they could choose how many hours to work (Ameriks et al. 2020). To understand why many survey respondents, some in their 70s, expressed a willingness to work but have remained out of the labor market, the study's authors infer that profitability considerations restrict employers' willingness to offer part-time roles to older workers.

Consistent with this gap between a desire for flexible work and available opportunities in the traditional job market, recent research finds that nearly 8 percent of employees and more than 30 percent of managers and business owners make a transition to independent self-employment at the time of retirement (Abramowitz 2021). A study based on a Gallup telephone survey found that independent contract work was the most common form of self-employment at older ages and that about one-quarter of independent contractors aged 50 and older worked for a past employer (Abraham, Hershbein, and Houseman 2020). Nonetheless, the study found that contract work opportunities were less available for less educated older adults. As further evidence of transitions to independent work at older ages, nontrivial shares of self-described retirees indicated earning money in informal or gig-economy jobs (such as selling goods online, babysitting, and driving for

35 See US Bureau of Labor Statistics, "Employment Projections: Civilian Labor Force by Age, Sex, Race, and Ethnicity" (accessed September 9, 2024).

ride-hailing services) in repeated national surveys on gig-work participation fielded from 2015 through 2022 (Bracha and Burke 2023).

Employers' reluctance to offer transitions to part-time work for older employees could signal that such arrangements are inefficient, which could be true if the fixed employment costs per worker are high. In such cases, policies to incentivize part-time arrangements could be ineffective at best and fiscally wasteful at worst. For example, the Government Finance Officers Association (GFOA) opposes deferred retirement option plans (DROPs), which enable workers to extend employment past a mandated retirement age without forfeiting traditional pension benefits.³⁶ However, the relative scarcity of flexible options for older workers, excluding independent work opportunities, could, in some cases, reflect a lack of experience with such arrangements or misperceptions of older workers' preferences and capacities (Eyster, Johnson, and Toder 2008). In either case, such arrangements appear to be on the rise, as evidenced by the growing popularity of phased retirement programs, which establish either a formal schedule for reduced hours and pay or informal agreements for transitioning slowly out of a job.³⁷

Policies might be needed to address the benefits gap typically associated with independent work.

Transitions to nonstrenuous independent work might be especially desirable for those with physically demanding jobs who prefer to retire earlier but may lack the financial resources to finance a longer retirement. However, policies might be needed to address the benefits gap typically associated with independent work, such as lack of health insurance and minimum wage guarantees. In June 2024, the state of Massachusetts reached a settlement with Uber and Lyft that provides drivers with guaranteed minimum pay of \$32.50 per hour, paid sick leave, health insurance stipends, and other benefits while maintaining drivers' status as independent contractors.³⁸ Utah, Pennsylvania, and other states have also begun experimenting with portable benefits models that enable independent workers to receive benefits without forcing the companies with which they contract to classify them as employees.³⁹

Older workers may also need support maintaining skills later in life as job requirements change over time. In addition to existing state and federal programs (such as the Senior Community Service Employment Program) that offer job training for low-income workers aged 55 and older, organizations such as AARP International and the World Economic Forum are advocating that employers adopt "age-inclusive policies ... [that] ... ensure individuals remain employable throughout their lives with continued education and training."⁴⁰

The weaker recovery of prime-age participation in New England relative to the United States accounted for as much as one-fifth of the region's overall recovery gap from 2019 through 2023, according to our estimates. The region's relative weakness in participation was more pronounced among prime-age women than prime-age men, even though from 2019 to 2023 participation declined somewhat among New England's prime-age men—driven by those without four-year college degrees—and increased modestly among the region's prime-age women. Indeed, labor force participation among prime-age men has followed a negative long-run trend for decades in both New England and the United States, and researchers have pointed to a wide range of contributing

36 See Government Finance Officers Association, "Deferred Retirement Option Plans" (accessed September 6, 2024).

37 See Chris Farrell, "Why More People Are Trying Phased Retirement," *Forbes*, August 26, 2024.

38 See Massachusetts Office of the Attorney General, "Uber and Lyft Settlement Information and Frequently Asked Questions" (accessed October 31, 2024).

39 See Liya Palagashvili, "Flexible Benefits for a Flexible Workforce: Legalizing Access to Portable Benefits for Independent Workers," testimony before US House Education Subcommittee on Workforce Protections, April 11, 2024.

40 See AARP International, "How and Why Modern Employers Should Embrace Longevity" (accessed September 6, 2024).

factors, including the decline of manufacturing (Binder and Bound 2019; Valletta and Barlow 2018), shifting gender roles, prolonged investments in education that extend later into adulthood, and rising disability rates (Bengali, Duzhak, and Zhao 2023; Krueger 2017; Council of Economic Advisers 2016).

Recent evidence also points to the opioid epidemic, which has disproportionately affected men who are White and less educated, as a factor that has held back labor force participation since 2000 (Krueger 2017; Cho et al. 2021). Given that New England has suffered disproportionately from opioid-related mortality (Burke et al. 2021) and that opioid-related deaths spiked during

The data patterns highlight the growing importance of foreign-born prime-age men to New England's labor force.

the pandemic,⁴¹ the opioid crisis may have been a factor contributing to the weak post-pandemic recovery of labor force participation among prime-age men in the region, particularly since the recovery was notably weak among White men and men without a college degree. Research shows that applying evidence-based treatments for opioid use disorder might raise an individual's chances of regaining employment, emphasizing the urgency of helping more individuals gain access to such treatments (Burke et al. 2022). New Hampshire Governor Chris Sununu pioneered the Recovery Friendly Workplace Initiative, which provides resources to employers to promote "a supportive environment that encourages the success of their employees in recovery," by, for example, ensuring employees have access

to treatment for their condition.⁴² The US Department of Labor modeled its Recovery-Ready Workplace initiative on the New Hampshire program.⁴³

The data patterns highlight the growing importance of foreign-born prime-age men to New England's labor force, as the region's participation rate would have fallen even further behind had it not been for rising participation among this group and their growing population share. At the same time, the recent surge of immigration has created challenges for state governments, as illustrated by the migrant shelter crisis in Massachusetts, for which the state recently received \$20 million in federal funding to supplement \$175 million in budgeted state funds.⁴⁴ Debates about immigration policy at the state and federal levels are likely to remain prominent and contentious in the coming years. As states face different tradeoffs in setting their immigration policies and represent populations with different values and priorities, it makes sense that some states would adopt a more restrictive stance and others a less restrictive stance and that the policy calculations might change over time. A recent Federal Reserve Bank of Boston study (Sullivan 2023) highlights the important role of temporary-employment visas and student visas as legal pathways to immigration that also support labor force participation in New England.

As the share of foreign-born residents in the region's population and prime-age workforce has grown in recent years, so have the shares of Black and Hispanic workers (regardless of their birthplace), according to findings we highlighted earlier. Such changes in the demographic composition of the region's labor force emphasize the importance of fostering inclusive workplaces that

41 Estimated overdose deaths from opioids increased to 75,673 in the 12-month period ending in April 2021, up from 56,064 the year before. See "Drug Overdose Deaths in the U.S. Top 100,000 Annually," Centers for Disease Control and Prevention press release, November 17, 2021.

42 See the Recovery Friendly Workplace Initiative website (accessed September 10, 2024).

43 See US Department of Labor, Employment and Training Administration, "Recovery-Ready Workplace" (accessed September 9, 2024).

44 See Mandile Mpofu, "State Secures Federal Funding for Family Shelter System," *Bay State Banner*, September 11, 2024; and "2025 Massachusetts Budget Showcases Accomplishments of Fair Share Amendment," Massachusetts Budget and Policy Center, July 29, 2024.

support enduring labor force attachment for a diverse population of workers.

Recognizing that cost-of-living pressures may be driving workers out of the region, government leaders in the New England states have prioritized the expansion of access to affordable childcare and affordable housing. The Massachusetts budget for fiscal year 2025 maintains financial support for childcare providers at the same level as when it was covered in part by federal funds from the pandemic period's American Rescue Plan Act (ARPA) which were phased out in late 2023. Connecticut and Maine also recently launched state programs that provide financial assistance for early childcare centers, and Vermont has offered a variety of childcare subsidies since 2018 (Zhao and Luengo-Prado 2024), but similar proposed legislation in New Hampshire and Rhode Island did not pass.⁴⁵ Since 2014, Vermont has offered 10 hours per week (for 35 weeks per year) of free pre-kindergarten education for children aged 3 through 5 and is currently studying the viability of offering full-time coverage of pre-K for all 4-year-olds in the state.⁴⁶

New England states are also considering numerous policies aimed at increasing the housing supply, particularly the supply of affordable and middle-income housing. Each state except New Hampshire recently passed legislation to allow accessory dwelling units (ADUs) on most properties, even if zoning previously allowed only single-family homes.⁴⁷ Connecticut, Maine, Massachusetts, and Vermont have passed legislation allowing multifamily housing in areas previously restricted to single-family homes.⁴⁸ There are also several programs throughout New England that provide funding for low- and middle-income residents to help them pay for housing, but these policies do not address the supply-side constraints that make housing expensive to begin with.⁴⁹

Unlike nonmetropolitan areas in the United States, New England's nonmetropolitan areas saw net declines in labor force participation from 2019 to 2023, even when we limit the analysis to prime-age residents. This pattern could reflect declining economic vitality in the region's rural areas—especially in the northern reaches of Maine, New Hampshire, and Vermont—resulting from population aging and/or population loss (Sullivan 2019) and leading to reduced job opportunities for younger residents remaining in these areas. One initiative intended to reverse such trends is the Working Communities Challenge, a program led by the Federal Reserve Bank of Boston that promotes collaborative economic development efforts among state governments, nonprofits, and private

The net declines in labor force participation could reflect declining economic vitality in the region's rural areas.

45 For information on the Connecticut legislation, see "An Act Concerning Early Childhood Care and Education. H.B. 5002," June 4, 2024 (accessed August 26, 2024). For information on the Maine legislation, see "An Act to Support Children's Healthy Development and School Readiness" (accessed August 26, 2024). For information on the most recent relevant legislation in Vermont, known as Act 76, see "A Law Related to Child Care and Early Childhood Education," Vermont Department for Children & Families Child Development Division (accessed August 26, 2024).

46 For information about current pre-K funding in Vermont, see "Act 166, Publicly Funded Prekindergarten Education in Vermont" (accessed October 30, 2024). The viability study for full-time pre-K coverage was established under Vermont Act 76, referenced in the preceding footnote.

47 Following is a list of legislation allowing ADUs in New England states. Connecticut: An Act Concerning the Zoning Enabling Act, Accessory Apartments, Training for Certain Land Use Officials, Municipal Affordable Housing Plans and a Commission on Connecticut's Development and Future, H.B. 6107, June 10, 2021 (accessed August 26, 2024). Maine: Title 30-A, Part 2, Subpart 6-A, Chapter 187, Subchapter 3, §4364-B (accessed August 26, 2024). Massachusetts: H.4977, An Act Relative to the Affordable Homes Act, August 6, 2024 (accessed August 26, 2024).

48 Following is a list of legislation requiring multifamily zoning. Connecticut: H.B. 5474, Session Year 2024 (accessed August 26, 2024). Maine: ACTPUB Chapter 672, April 27, 2022 (accessed August 26, 2024). Massachusetts: General Law—Part I, Title VII, Chapter 40A, Section 3A (accessed August 26, 2024). Vermont: Status S.100 (Act 47) (accessed August 26, 2024).

49 Information on such policies for Massachusetts, Rhode Island, and Connecticut can be obtained from the following sources, respectively: MassHousing Impact Framework (accessed September 13, 2024); RI Housing Project-Based Voucher Program (accessed September 13, 2024); and Connecticut State Department of Housing Rental Assistance Program (accessed September 13, 2024).

employers in the rural areas of northern New England.⁵⁰ Separately, the Northern Border Regional Commission's Workforce Opportunity for Rural Communities Initiative provides grants to support workforce development in Maine, New Hampshire, and Vermont.⁵¹ These are just two examples of many related initiatives around the region.

Educational attainment remains a strong point in the region that should not be taken for granted.

In considering the outlook for labor force participation in the region, it is worth remembering that New England continues to enjoy an above-average participation rate relative to the United States. In thinking about policy priorities, it is instructive to focus on the factors supporting greater participation in the region in recent years, not just on the factors that imposed a drag. Historically, the region's above-average labor force participation rate has been linked most closely to above-average levels of educational attainment, as well as to above-average participation rates among women at all levels of education. Women's participation remains a strength in the region, although, surprisingly, the regional advantage in participation among college-educated prime-age women narrowed considerably from 2019 to 2023.

Educational attainment remains a strong point in the region that should not be taken for granted. Regarding public higher education funding in the region, a recent report (State Higher Education Executive Officers Association 2024) offers mixed results. It finds that from 2018 to 2023, four of the six New England states (the exceptions were Maine and Rhode Island) raised their spending on public higher education by an above-average percentage compared with the overall US increase but that as of 2023, Vermont and New Hampshire ranked 49th and 50th, respectively, in public higher education appropriations per full-time student, and only Massachusetts and Connecticut had appropriations rates higher than the US average in 2023. Another concerning fact, noted earlier and based on the ACS, is that enrollment rates in public colleges and universities among young adults fell from 2019 to 2023 and by a somewhat larger margin in New England than in the United States.

Despite the restraining effect of attending school on participation rates at certain ages, education spending is an investment in the future labor force, provided graduates remain in the region. Rhode Island offers student loan forgiveness to graduates who stay in the state and become employed in certain jobs, such as in health-care and STEM fields.⁵² In July 2024, Massachusetts made community college free to all residents,⁵³ another move that should support greater labor force growth, and there has been an increase in the number of partnerships between community colleges and employers to help students plan their education and maximize their employment potential after graduation.⁵⁴ Aside from policies supporting school enrollment, federal ARPA funds are still being spent (and may continue to be spent through the end of 2026) by state and local areas to help existing workers update their skills and adapt to rapidly changing job requirements, although new funding opportunities have expired (Kizior 2024; Zmuda et al. 2023).⁵⁵ Related to continuing education, skills-based hiring policies such as those promoted by recent initiatives in

50 See the Federal Reserve Bank of Boston, "Working Communities Challenge" (accessed September 12, 2024).

51 See Northern Border Regional Commission, "Workforce Opportunity for Rural Communities (WORC)" (accessed September 12, 2024).

52 See Melanie Lockert, "Three Options for Student Loan Forgiveness in RI," Student Loan Planner, May 19, 2024.

53 See Nik DeCosta-Klipa, "Four Major Policy Changes in the New Mass. State Budget, from Childcare to Free Community College," Boston's Morning Newsletter, WBUR, July 30, 2024.

54 See Massachusetts Association of Community Colleges, "Be Mass Competitive Program" (accessed September 13, 2024).

55 For details about American Rescue Plan Act funding and spending deadlines, see Kathleen Kizior, "Navigating the American Rescue Plan Act: A Guide to Obligation Deadline Readiness." Cherry Bekaert, February 23, 2024.

Massachusetts⁵⁶ might encourage more people to acquire specific marketable skills, rather than broad education credentials, reducing the barriers to labor market entry and thereby generating potential benefits for workers and employers alike (Fuller et al. 2022).

Recent data from the BLS on labor force participation in New England, while still preliminary, show encouraging signs of further recovery and indicate a potential narrowing of the recovery gap between the region and the rest of the country. Comparing average outcomes for the first 10 months of 2024 with 2023 full-year averages (all seasonally adjusted), New England's labor force participation rate increased 0.53 percentage point, while the US rate decreased slightly (0.05 percentage point). The CPS data underlying those statistics suggest that the recent increase in participation in New England in part reflects a decline in the retirement rate, where elevated retirement rates had been a key factor in the region's participation recovery gap as of 2023. However, as preliminary data are often subject to revisions over time, it is too soon to draw robust conclusions about recent labor force participation rate trends and the factors driving them.

56 See Jane Thier, "Massachusetts Governor Leans into the Skills-based Hiring Revolution by Axing Degree Requirements for State Jobs. The Private Sector Is Up Next," *Fortune*, January 26, 2024.

References

- Aaronson, Stephanie, Tomaz Cajner, Bruce Fallick, Felix Galbis-Reig, Christopher L. Smith, and William Wascher. 2014. "Labor Force Participation: Recent Developments and Future Prospects." FEDS Notes. Washington, DC: Board of Governors of the Federal Reserve System.
- Abraham, Katharine G., Brad Hershbein, and Susan Houseman. 2020. "Contract Work at Older Ages." National Bureau of Economic Research Working Paper No. 26612.
- Abramowitz, Joelle. 2021. "Heterogeneity in Self-employment and the Transition to Retirement among Older Adults in the United States." University of Michigan Retirement and Disability Research Center Working Paper 2021-423.
- Ameriks, John, Joseph Briggs, Andrew Caplin, Minjoon Lee, Matthew D. Shapiro, and Christopher Tonetti. 2020. "Older Americans Would Work Longer If Jobs Were Flexible." *American Economic Journal: Macroeconomics* 12(1): 174-209.
- Bauer, Lauren, and Sarah Yu Wang. 2023. "Prime-age Women Are Going Above and Beyond in the Labor Market Recovery." Brookings Institution. August 30.
- Bengali, Leila, Evgeniya A. Duzhak, and Cindy Zhao. 2023. "Men's Falling Labor Force Participation across Generations." FRBSF Economic Letter 2023-26, Federal Reserve Bank of San Francisco.
- Bick, Alexander, Victoria Gregory, and Oksana Leukhina. 2023a. "Are Higher Child Care Wages Affecting the Labor Supply?" Federal Reserve Bank of St. Louis *On the Economy Blog*, July 11.
- Bick, Alexander, Victoria Gregory, and Oksana Leukhina. 2023b. "How Child Care Impacts Parents' Labor Force Participation." Federal Reserve Bank of St. Louis *On the Economy Blog*. July 10.
- Binder, Ariel J., and John Bound. 2019. "The Declining Labor Market Prospects of Less-educated Men." *Journal of Economic Perspectives* 33(2): 163-190.
- Bracha, Anat, and Mary A. Burke. 2023. "Informal Work and Official Employment Statistics: What's Missing?" Federal Reserve Bank of Boston Research Department Working Papers No. 23-15. <https://doi.org/10.29412/res.wp.2023.15>
- Burke, Mary A. 2016. "Labor Force Participation in New England vs. the United States, 2007-2015: Why Was the Regional Decline More Moderate?" Federal Reserve Bank of Boston Current Policy Perspectives No. 16-02.
- Burke, Mary A., Katherine Carman, Riley Sullivan, Hefei Wen, J. Frank Wharam, and Hao Yu. 2021. "Who Gets Medication-assisted Treatment for Opioid Use Disorder, and Does it Reduce Overdose Risk? Evidence from the Rhode Island All-payer Claims Database." Federal Reserve Bank of Boston Research Department Working Paper No. 21-3. <https://doi.org/10.29412/res.wp.2021.03>
- Burke, Mary A., Riley Sullivan, Katherine Carman, Hefei Wen, J. Frank Wharam, and Hao Yu. 2022. "Employment Trajectories among Individuals with Opioid Use Disorder: Can Evidence-based Treatment Improve Outcomes?" Federal Reserve Bank of Boston Research Department Working Papers No. 22-25. <https://doi.org/10.29412/res.wp.2022.25>
- Cho, David, Daniel I. Garcia, Joshua Montes, and Alison Weingarden. 2021. "Labor Market Effects of the Oxycodone-Heroin Epidemic." FEDS Notes. Washington, DC: Board of Governors of the Federal Reserve System.
- Coile, Courtney. 2018. "Working Longer in the US: Trends and Explanations." National Bureau of Economic Research Working Paper No. 24576.
- Congressional Budget Office. 2024. "Effects of the Immigration Surge on the Federal Budget and the Economy."
- Council of Economic Advisers. 2016. "The Long-term Decline in Prime-age Male Labor Force Participation."
- Dotsey, Michael, Shigeru Fujita, and Leena Rudanko. 2017. "Where Is Everybody? The Shrinking Labor Force Participation Rate." Federal Reserve Bank of Philadelphia Research Department.
- Edelberg, Wendy, and Tara Watson. 2024. "New Immigration Estimates Help Make Sense of the Pace of Employment." The Hamilton Project. Brookings Institution.
- Eyster, Lauren, Richard W. Johnson, and Eric Toder. 2008. "Current Strategies to Employ and Retain Older Workers." The Urban Institute.
- Flood, Sarah, Miriam King, Renae Rodgers, Steven Ruggles, J. Robert Warren, Daniel Backman, Annie Chen, Grace Cooper, Stephanie Richards, Megan Schouweiler, and Michael Westberry. 2024. Integrated Public Use Microdata Series, Current Population Survey. Version 11.0 (data set). Minneapolis, MN: IPUMS.

- Fuller, Joseph, Christina Langer, and Matt Sigelman. 2022. "Skills-based Hiring Is on the Rise." *Harvard Business Review*. February 11. <https://hbr.org/2022/02/skills-based-hiring-is-on-the-rise>
- Hobijn, Bart, and Ayşegül Şahin. 2021. "Maximum Employment and the Participation Cycle." National Bureau of Economic Research Working Paper No. 29222.
- Krueger, Alan B. 2017. "Where Have All of the Workers Gone? An Inquiry into the Decline of the Labor Force Participation Rate." *Brookings Papers on Economic Activity*, Fall: 1–59.
- Langemeier, Kathryn, and Maria D. Tito. 2021. "The Ability to Work Remotely: Measures and Implications," FEDS Notes. Washington, DC: Board of Governors of the Federal Reserve System.
- Langemeier, Kathryn, and Maria D. Tito. 2022. "The Ability to Work Remotely: Measures and Implications." *Review of Economic Analysis* 14(2): 319–333.
- Montenovo, Laura, Xuan Jiang, Felipe A. Lozano-Rojas, Ian M. Schmutte, Kosali Simon, Bruce A. Weinberg, and Coady Wing. *Occupational Social Distancing Indices, United States*, 2019. Inter-university Consortium for Political and Social Research (distributor). July 29, 2024. <https://doi.org/10.3886/ICPSR39168.v1>
- Montenovo, Laura, Xuan Jiang, Felipe A. Lozano-Rojas, Ian M. Schmutte, Kosali Simon, Bruce A. Weinberg, and Coady Wing. 2020. "Determinants of Disparities in COVID-19 Job Losses." National Bureau of Economic Research Working Paper No. 27132.
- Montes, Joshua, Christopher Smith, and Juliana Dajon. 2022. "The Great Retirement Boom: The Pandemic-era Surge in Retirements and Implications for Future Labor Force Participation." FEDS Notes. Washington, DC: Board of Governors of the Federal Reserve System.
- Montgomery, David H. 2023. "Who's Not Working? Understanding the US's Aging Workforce." Federal Reserve Bank of Minneapolis. February 27.
- Prabhakar, Deepika Baskar, and Robert G. Valletta. 2024. "Why Is Prime-age Labor Force Participation So High?" FRBSF Economic Letter 2024-26, Federal Reserve Bank of San Francisco.
- Ruggles, Steven, Sarah Flood, Matthew Sobek, Daniel Backman, Annie Chen, Grace Cooper, Stephanie Richards, Renae Rodgers, and Megan Schouweiler. 2024. IPUMS USA: Version 15.0 (data set). Minneapolis, MN: IPUMS. <https://doi.org/10.18128/D010.V15.0>
- Scardamalia, Robert. 2022. "State of New Hampshire State, County, and Municipal Population Projections: 2020–2050." New Hampshire Department of Business and Economic Affairs.
- State Higher Education Executive Officers Association. 2024. "State Higher Education Finance: FY2023."
- Sullivan, Riley. 2019. "Aging and Declining Populations in Northern New England: Is There a Role for Immigration?" Federal Reserve Bank of Boston New England Public Policy Center Regional Briefs No. 19-2.
- Sullivan, Riley. 2023. "Recent Migration and Visa Trends in New England and Implications for the Labor Market." Federal Reserve Bank of Boston New England Public Policy Center Regional Briefs No. 23-1.
- US Bureau of Labor Statistics. 2024. "Adjustments to Household Survey Population Estimates in January 2024." Technical documentation. February.
- US Bureau of Labor Statistics. 2024. Quarterly Census of Employment & Wages (data set).
- US Census Bureau. 2019. 2018 Census Occupation Code List with Crosswalk (data set).
- Valletta, Robert G., and Nathaniel Barlow. 2018. "The Prime-age Workforce and Labor Market Polarization." FRBSF Economic Letter 2018-21. Federal Reserve Bank of San Francisco.
- Williams, Mark T., Yuhan Liu, and Linglan Xu. 2024. "Massachusetts Outmigration Study." Boston University Questrom School of Business.
- Wu, Pinghui. 2024. "Geographic Mobility Trends: New Englanders Still Aren't Moving as Much as They Did before the Pandemic." Federal Reserve Bank of Boston New England Public Policy Center Regional Briefs No. 24-3.
- Zhao, Bo, and María J. Luengo-Prado. 2024. "Recent Trends in Vermont's Childcare: A Decrease in Capacity, Increases in Cost and Quality, and Policy Responses." Federal Reserve Bank of Boston New England Public Policy Center Regional Briefs No. 24-5.
- Zmuda, Teryn, Lavea Brachman, Kevin Shrawder, and Glencora Haskins. 2023. "How the American Rescue Plan Act Is Preparing Workers for the Job Market of the Future through Local Investments." The Brookings Institution. August 31.

About the Authors



Mary A. Burke is a senior economist and policy advisor with the New England Public Policy Center in the Federal Reserve Bank of Boston Research Department. She is an applied labor economist studying the economics of health behaviors and health outcomes, education, social norms, and the gig economy. Burke earned a BA in mathematics from Brown University and both an MA and PhD in economics from Johns Hopkins University. Before joining the Boston Fed in 2005, she served as an assistant professor of economics at Florida State University. She gives regular briefings on the New England economy to senior leaders with the Federal Reserve System and to public audiences.



Nathaniel R. Nelson is a research assistant with the New England Public Policy Center in the Federal Reserve Bank of Boston Research Department. He graduated from the University of Minnesota with a bachelor's degree in economics and mathematics. Nelson's research interests include applied microeconomics, labor economics, econometrics, and political economy.

Acknowledgments

The authors thank Susan Collins, Egon Zakrajšek, Jeffrey Thompson, and Pinghui Wu for offering constructive feedback; Nick Hall and Alejandra Guadarrama-Mojica for their painstaking factchecking work; Joshua Montes (Federal Reserve Board) and Oksana Leukhina (Federal Reserve Bank of St. Louis) for methodological assistance; Gregory Longfield and Delia Sawhney for help with data acquisitions; and Larry Bean and Brad Arndt for editorial assistance.



New England Public Policy Center
Federal Reserve Bank of Boston
600 Atlantic Avenue
Boston, MA 02210

The New England Public Policy Center was established by the Federal Reserve Bank of Boston in 2005. The Boston Fed has provided support to the public policy community of New England for many years; the NEPPC institutionalizes and expands on this tradition. The Center's mission is to promote better public policy in New England by conducting and disseminating objective, high-quality research and analysis of strategically identified regional economic and policy issues. When appropriate, the Center works with regional and Bank partners to advance identified policy options.

You can learn more about the Center by contacting us or visiting our website:

New England Public Policy Center

Federal Reserve Bank of Boston

E-mail: neppc@bos.frb.org

Web: <http://www.bostonfed.org/neppc>