



Federal Reserve  
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New England Public Policy Center  
at the Federal Reserve Bank of Boston

# The New England Economy and the Challenges Facing New Hampshire

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Investments to Sustain a Vibrant Economy

New Hampshire Fiscal Policy Institute 6<sup>th</sup> Annual Conference

Disclaimer: The views expressed here are those of the speaker and do not necessarily represent the views of the Federal Reserve Bank of Boston or the Federal Reserve System.

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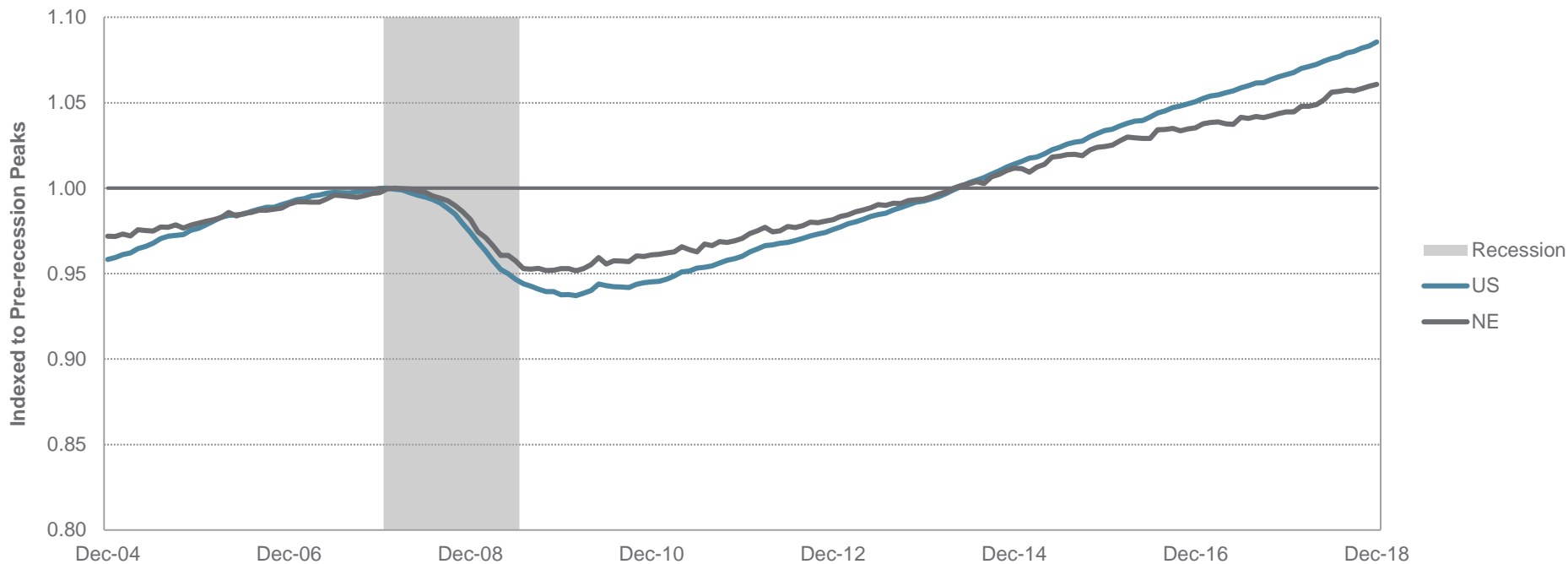
[bostonfed.org](https://bostonfed.org)

# About NEPPC

The Boston Fed's New England Public Policy Center promotes better public policy in New England by conducting and disseminating objective, high-quality research and analysis of strategically identified regional economic and policy issues.

# Rapid Expansion for US and New England

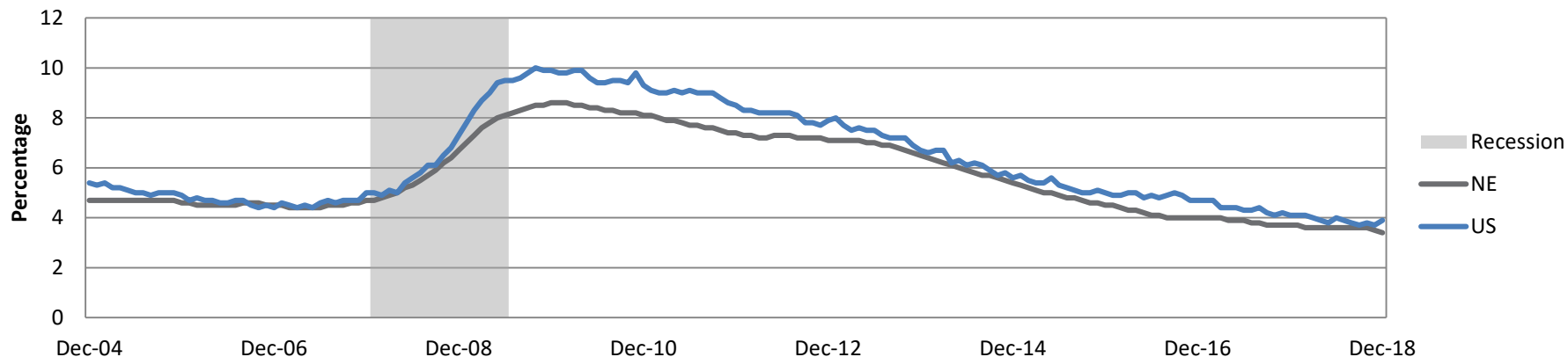
# Non-Agricultural Employment



Source: Bureau of Labor Statistics, NBER, Haver Analytics



# Unemployment Rates

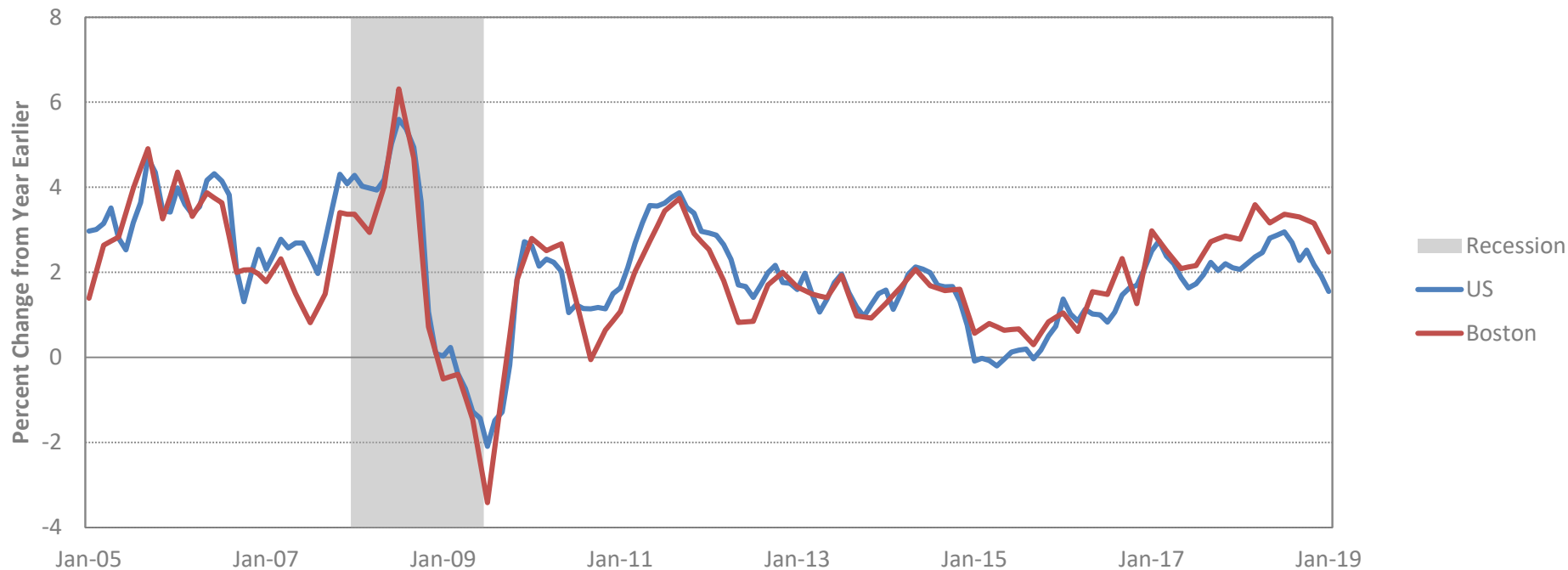


	Dec-17	Dec-18
United States	4.1	3.9
New England	3.7	3.4
Connecticut	4.5	4.0
Maine	3.1	3.4
Massachusetts	3.5	3.3
New Hampshire	2.6	2.5
Rhode Island	4.5	3.9
Vermont	2.9	2.7

Source: Bureau of Labor Statistics, NBER, Haver Analytics

# Finally Generating Wage/Price Pressures

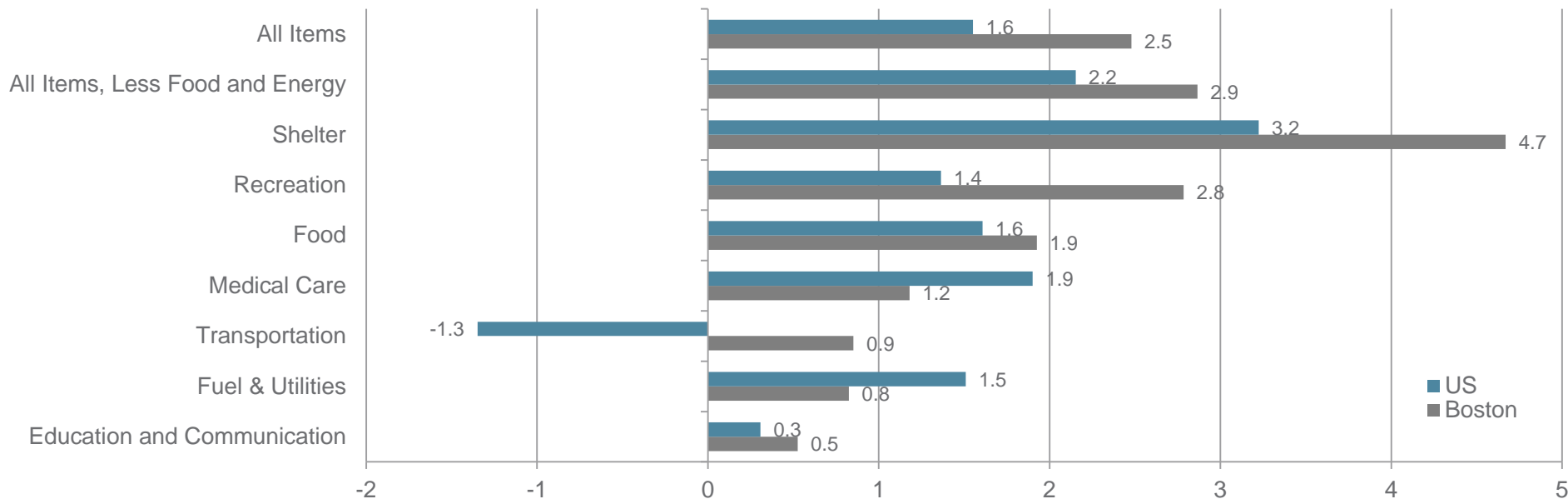
# Consumer Price Index



Source: Bureau of Labor Statistics, NBER, Haver Analytics

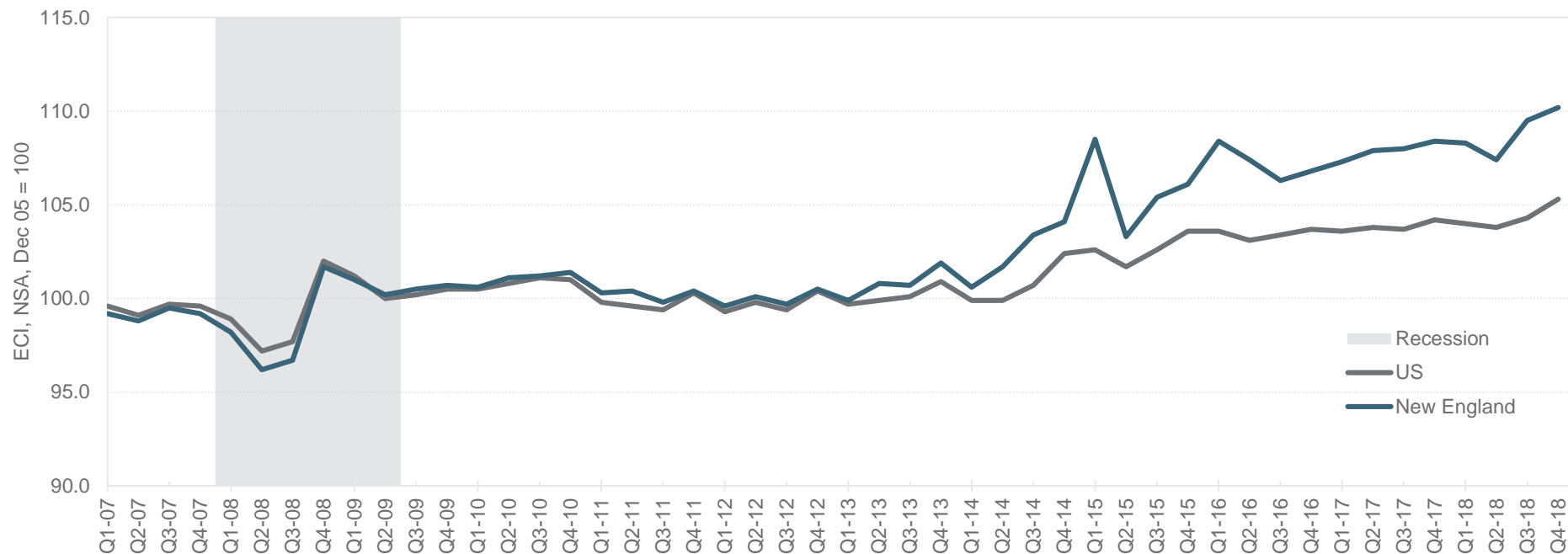
# Components of the Consumer Price Index

Percent Change, January 2018 - January 2019



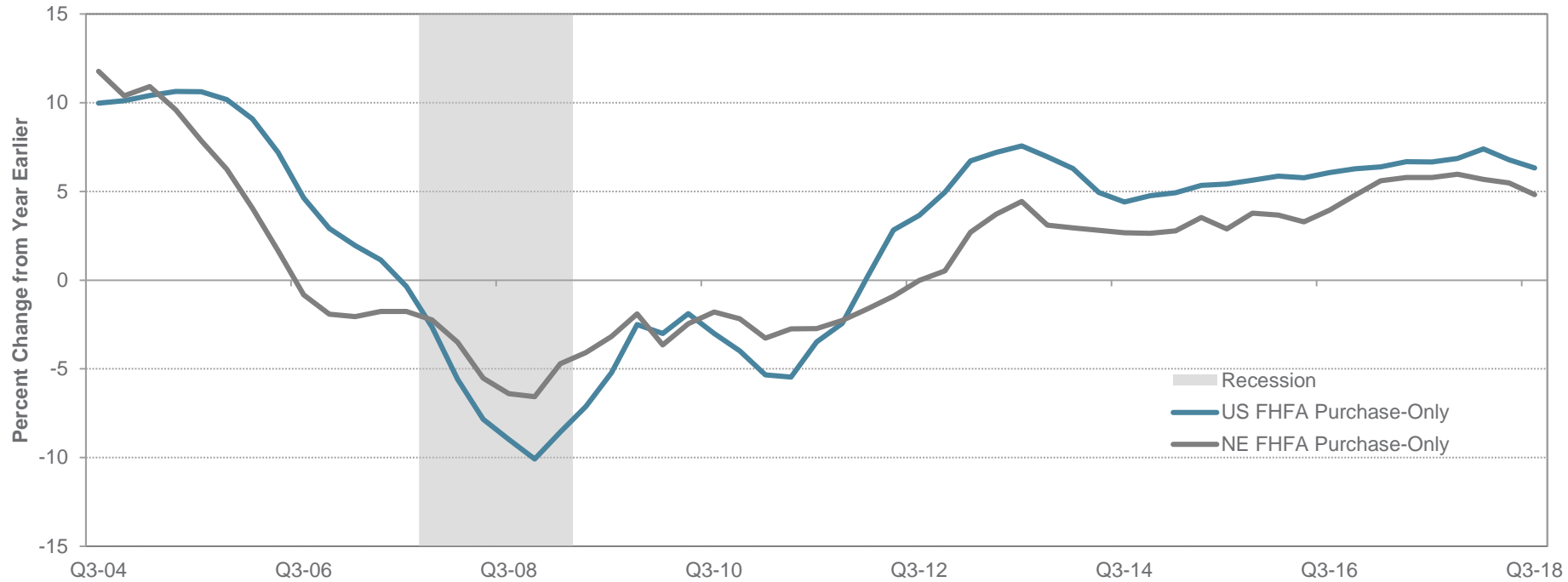
Source: Bureau of Labor Statistics, Haver Analytics

# Compensation: Private Industry Workers



Source: Bureau of Economic Analysis, Haver Analytics

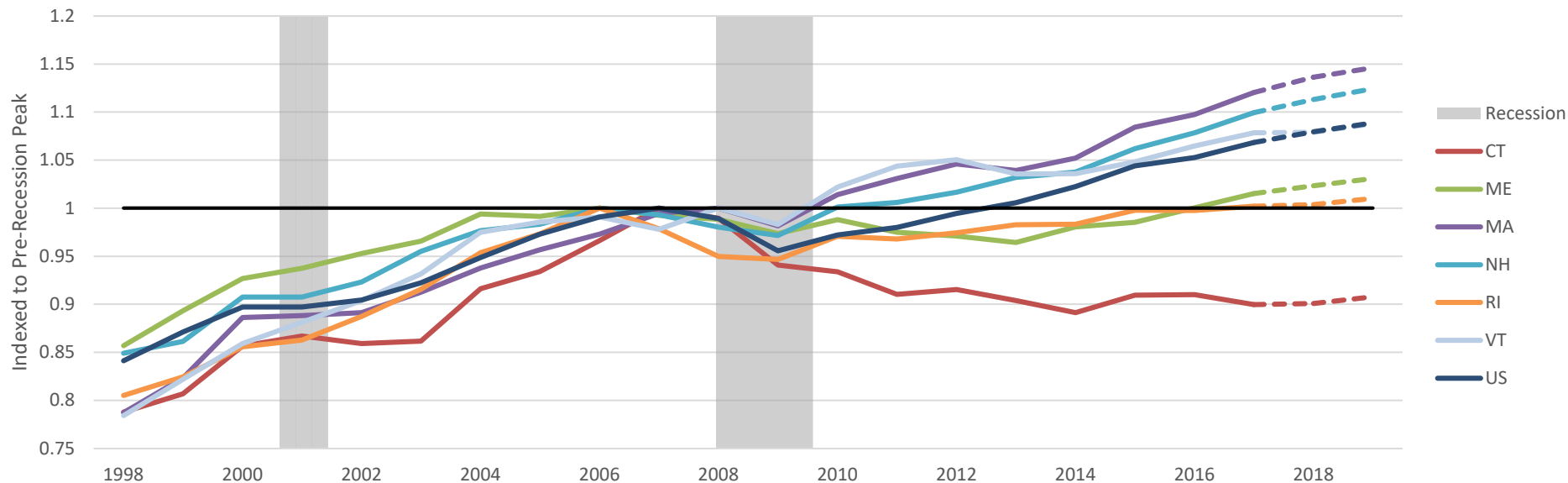
# Repeat-Sales Home Price Index



Source: FHFA, NBER, S&P/Case-Shiller, Haver Analytics

# Substantial Variation in the Extent of Recovery Across States/Regions/Groups

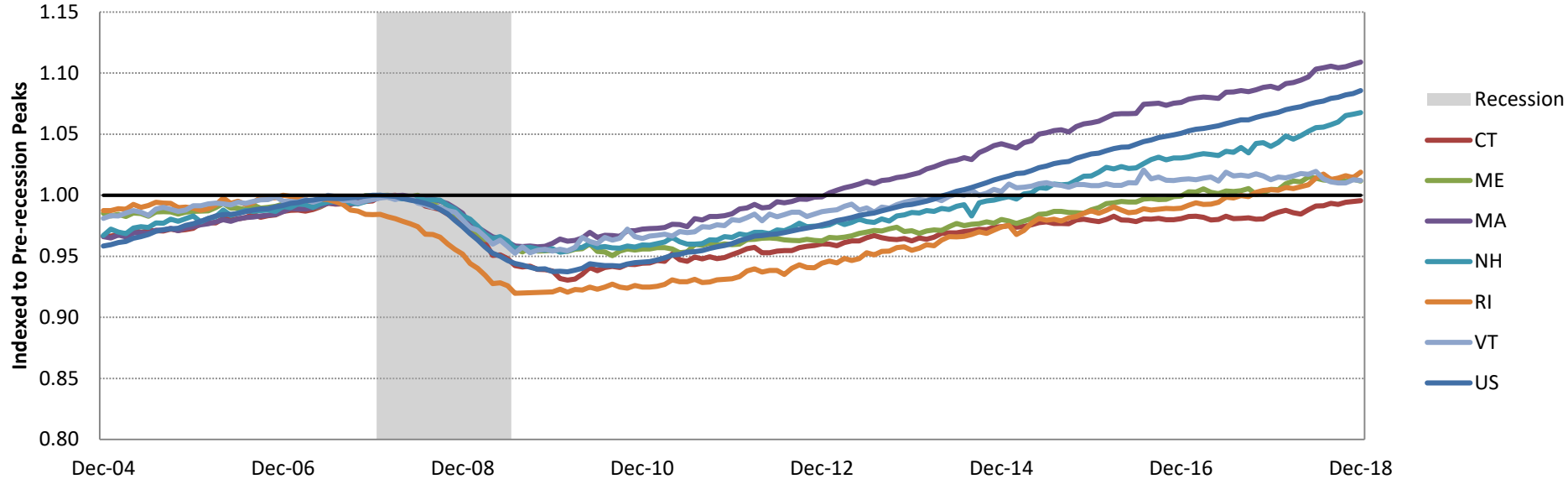
# Real GDP Per Capita



Source: Bureau of Economic Analysis, Haver Analytics

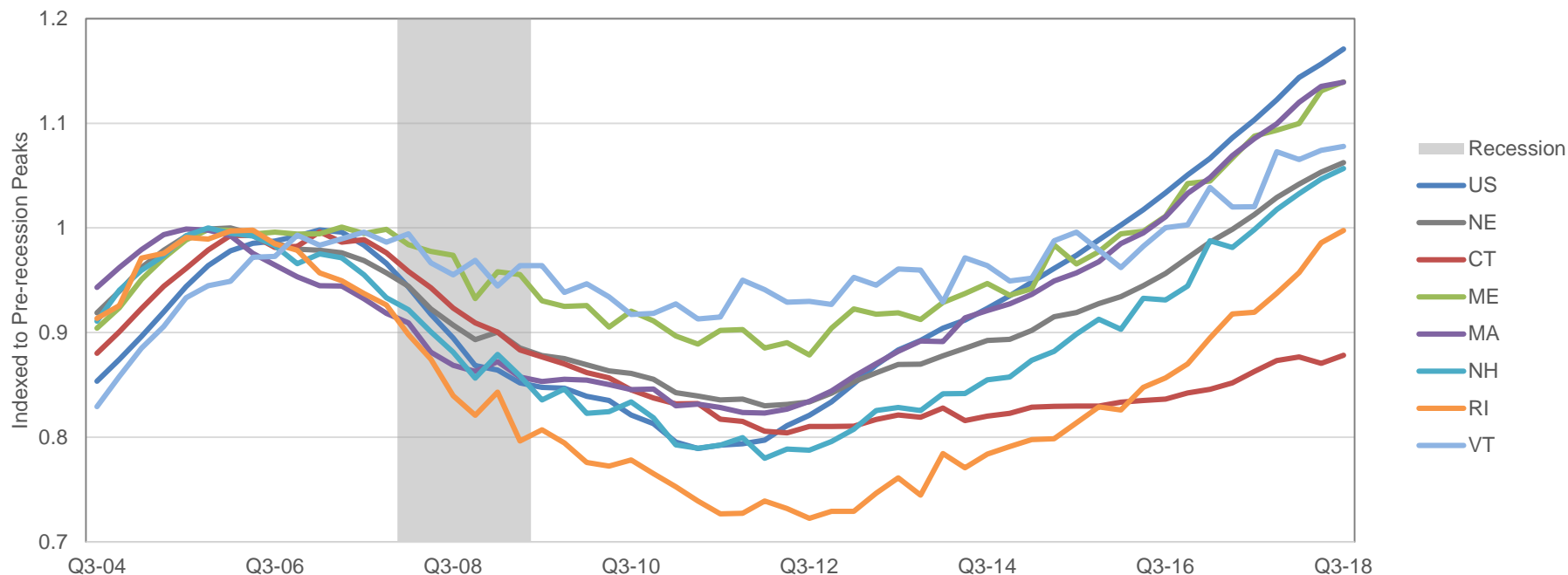


# Non-Agricultural Employment



Source: Bureau of Labor Statistics, NBER, Haver Analytics

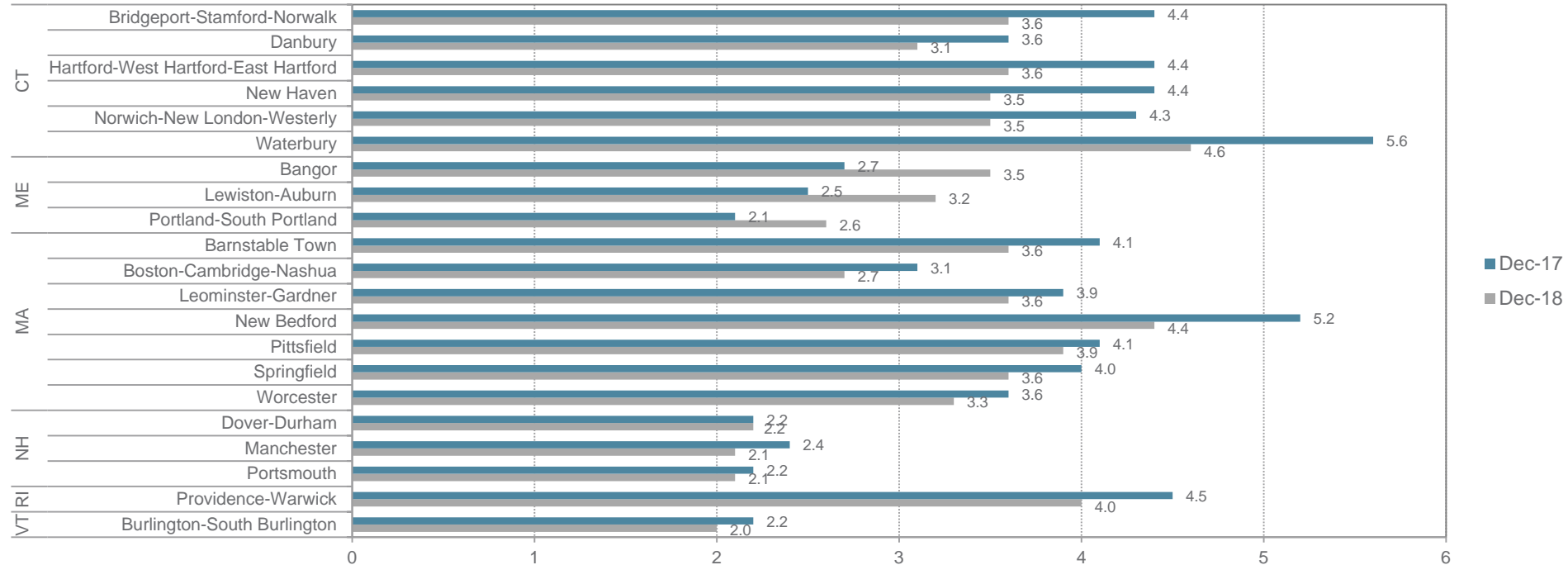
# FHFA Purchase-Only Home Price



Note: Data are seasonally adjusted

Source: FHFA, Haver Analytics

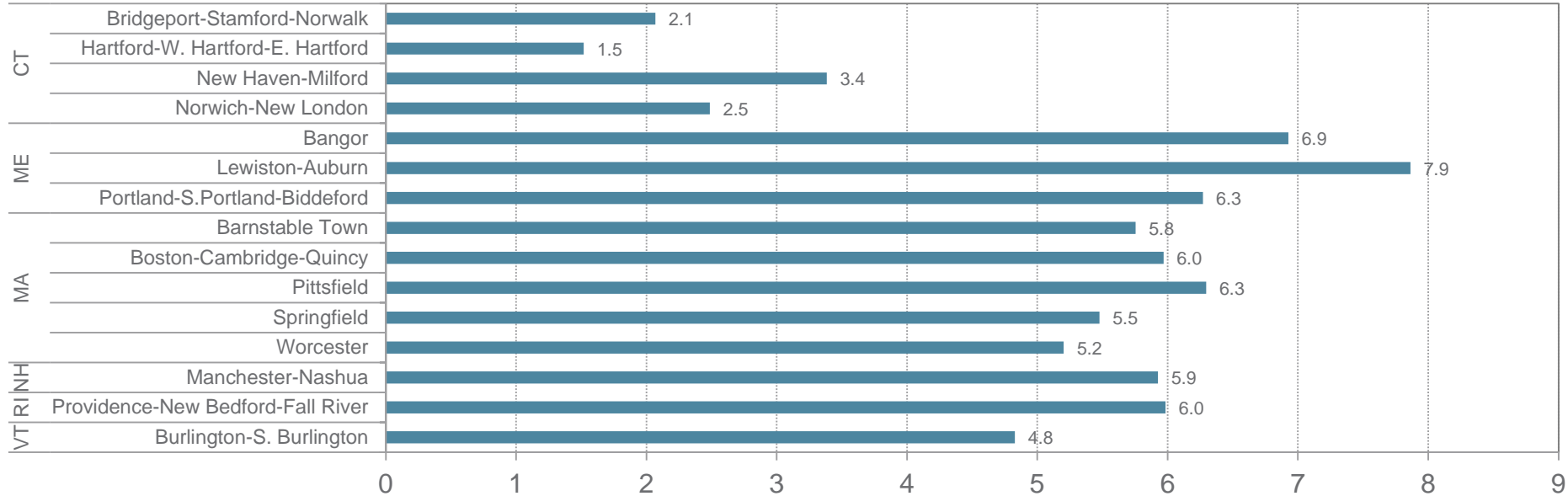
# Unemployment Rates in New England by Metropolitan Areas



Source: Bureau of Labor Statistics, Haver Analytics, Federal Reserve Bank of Boston

# House Price Changes in New England Metropolitan Areas

Percent Change, Q3 2017 - Q3 2018



Note: changes calculated using single family homes

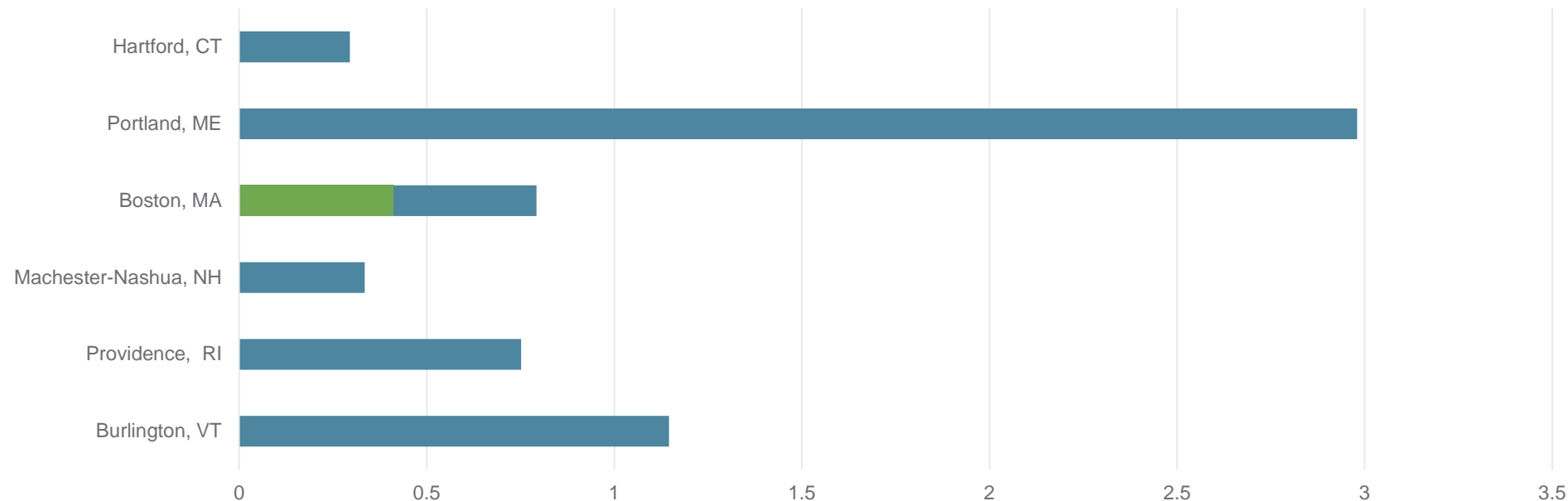
Source: Freddie Mac Home Loan Mortgage Corporation, Haver Analytics

# Employment Growth Rates

	Annual Long-Term Trend	Last 12 Months		Since Peak	
	Percent	Percent	Number	Percent	Number
<b>United States</b>	1.4	1.7	2,516,000	8.2	11,331,000
<b>New England</b>	0.9	1.5	113,400	5.8	414,900
<b>Connecticut</b>	0.5	1.3	22,300	-0.7	-11,400
<b>Maine</b>	1.1	1.3	7,900	1.3	8,200
<b>Massachusetts</b>	0.9	1.8	64,400	10.6	351,800
<b>New Hampshire</b>	1.5	2.3	15,300	6.6	42,900
<b>Rhode Island</b>	0.7	1.3	6,300	1.5	7,400
<b>Vermont</b>	1.3	-0.9	-2,800	0.8	2,600

Source: Bureau of Labor Statistics, Haver Analytics

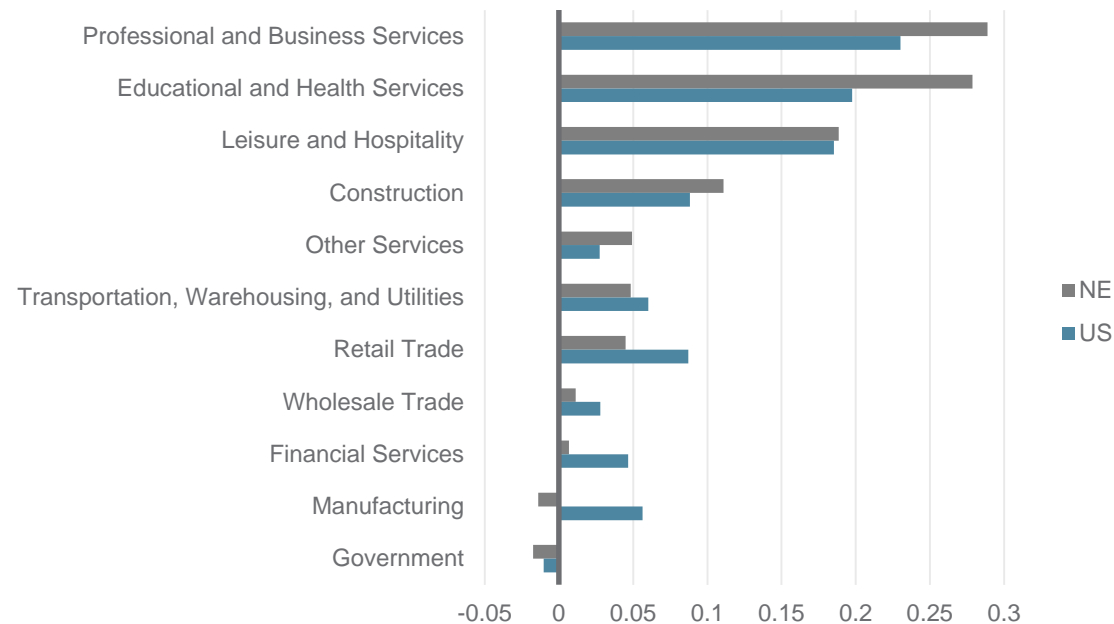
# Top Metro Area Share of Total Jobs Added Since Pre-Recession Peak



*Green segment of Boston, MA refers to the share for the Boston Metro Division whereas the blue refers to the combined Boston-Cambridge-Newton Metro Divisions*

*Source: Bureau of Economic Analysis and Haver Analytics*

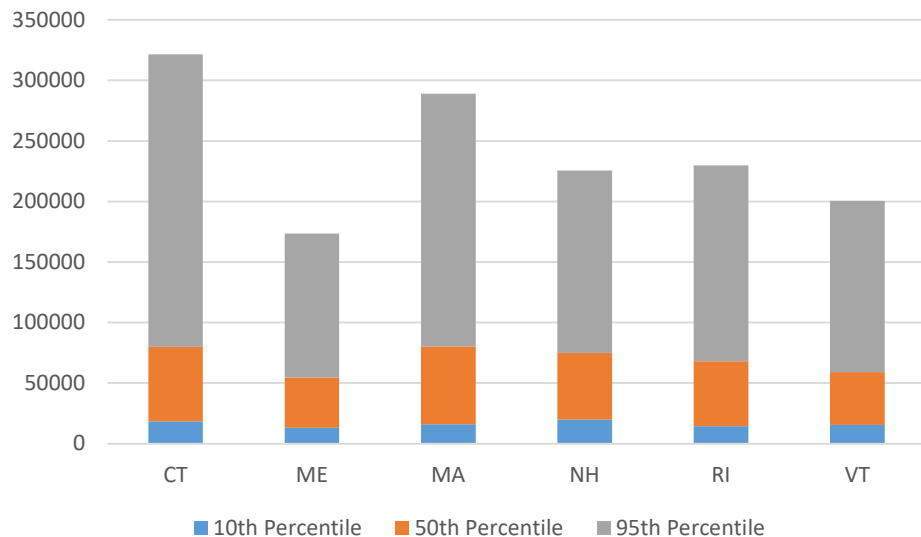
# Industry Share of Jobs Added since Recession



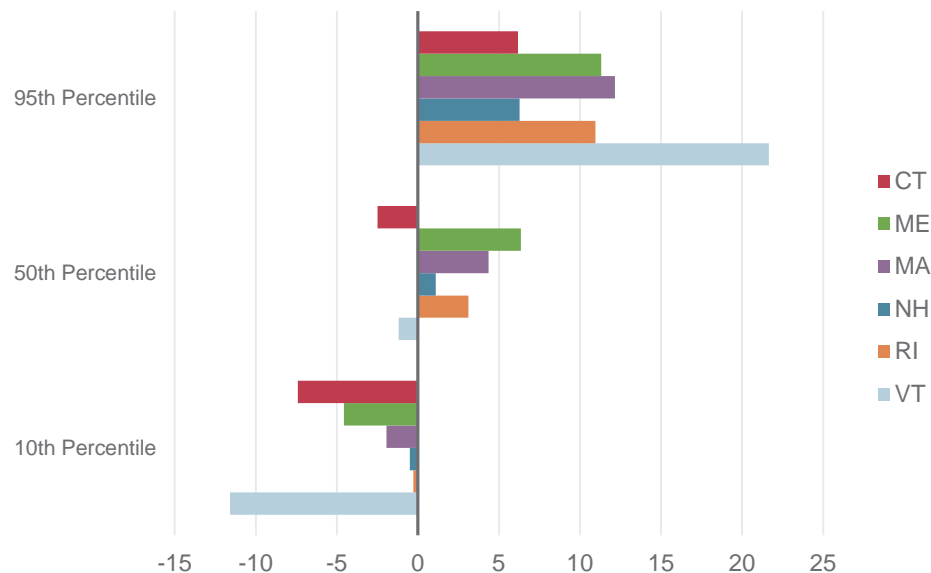
	Average Weekly Wage	
	NE	US
Professional and Business Services	\$ 1,701	\$ 1,365
Educational and Health Services	\$ 1,050	\$ 951
Leisure and Hospitality	\$ 471	\$ 449
Construction	\$ 1,291	\$ 1,159
Other Services	\$ 630	\$ 725
Transportation, Warehousing, and Utilities	\$ 1,583	\$ 1,473
Retail Trade	\$ 634	\$ 619
Wholesale Trade	\$ 1,679	\$ 1,427
Financial Services	\$ 2,040	\$ 1,589
Manufacturing	\$ 1,438	\$ 1,264
Government	\$ 1,248	\$ 1,113

Source: Bureau of Labor Statistics and Haver Analytics

# New England States Income Inequality



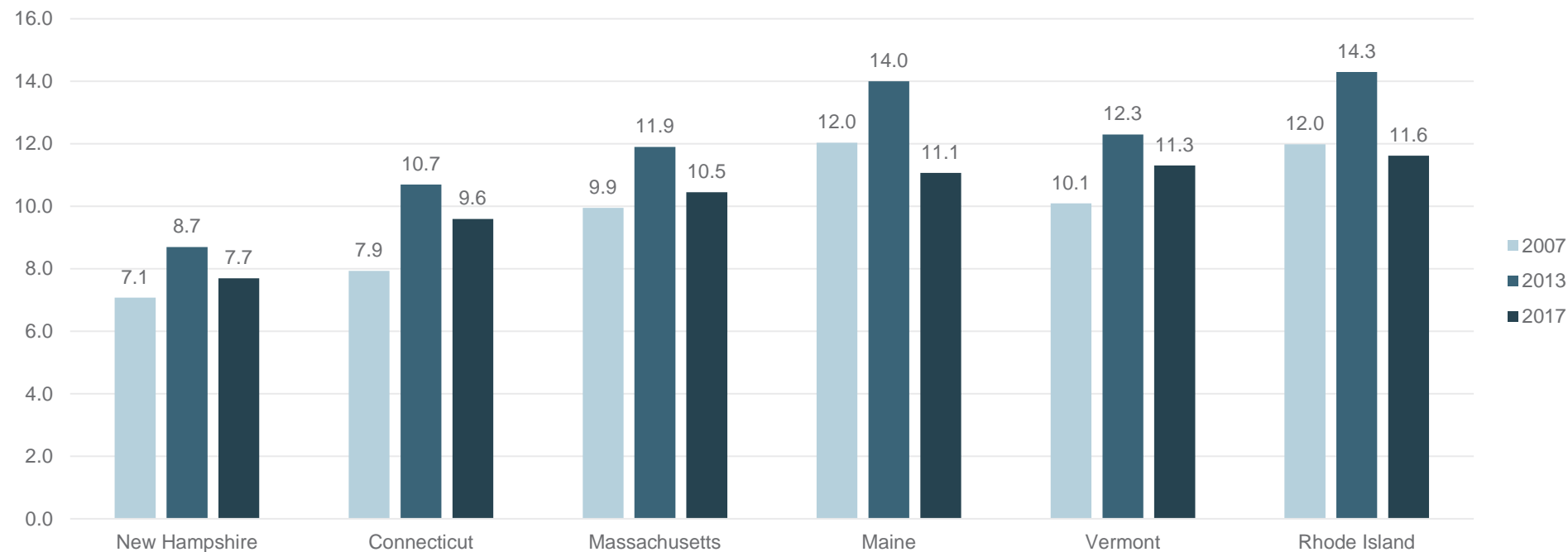
Percent Change in Real Household Income  
(between 2007 and 2017)



Source: ACS One-Year Estimates



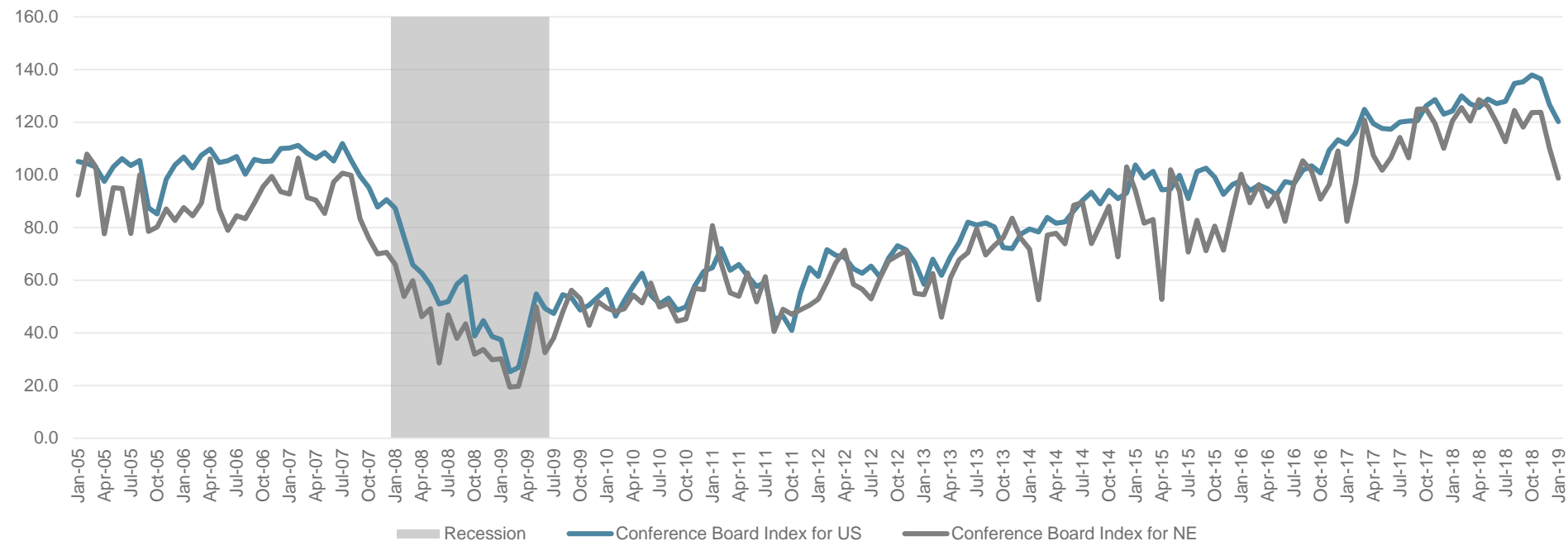
# Poverty Rates by State



Source: ACS One-Year Estimates

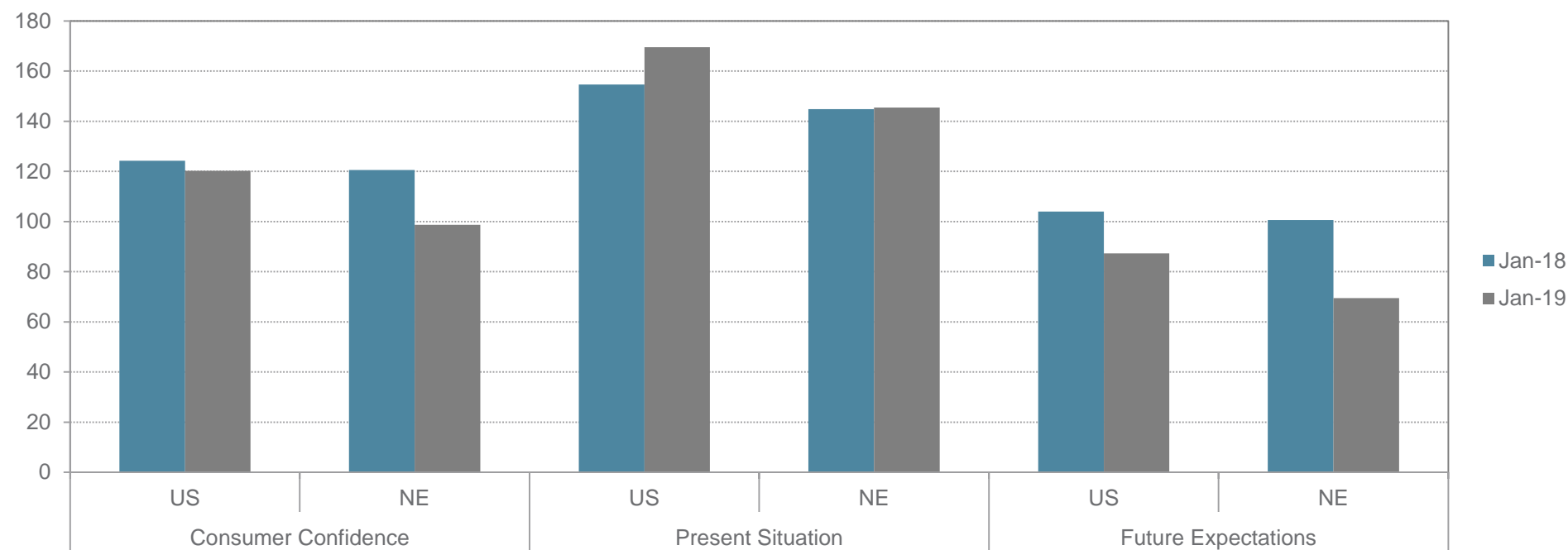
# Slower growth expected moving forward

# Consumer Confidence



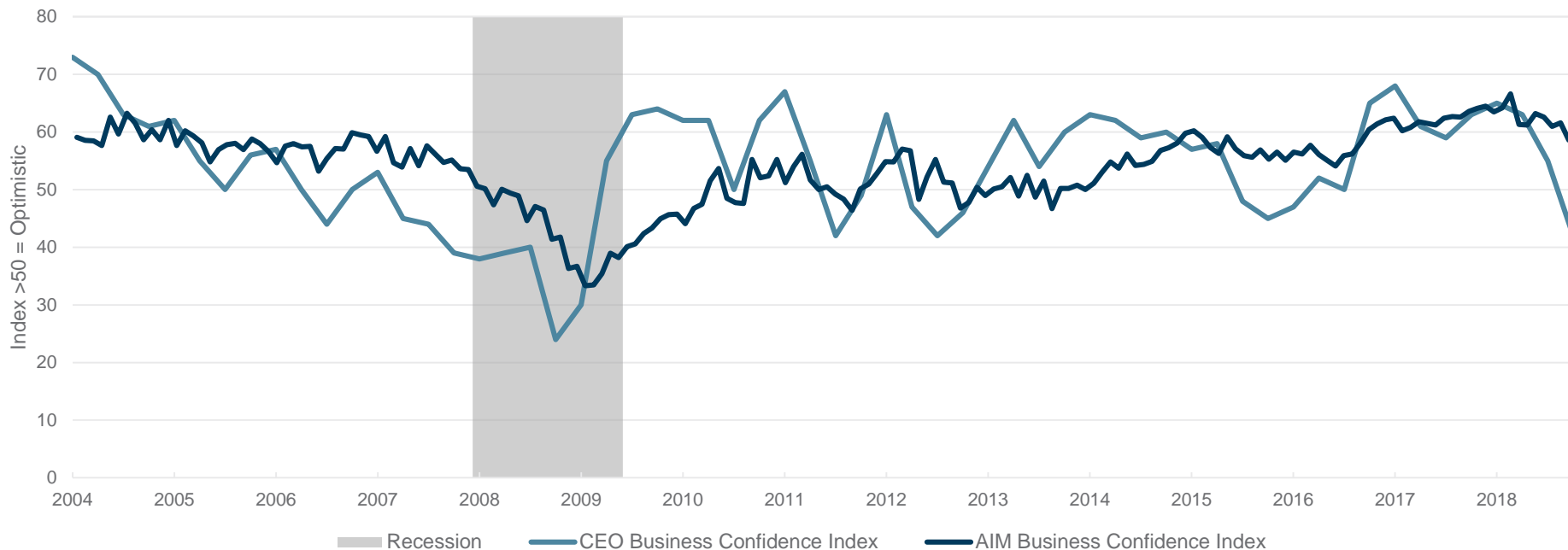
Source: The Conference Board, NBER, Haver Analytics

# Consumer Confidence



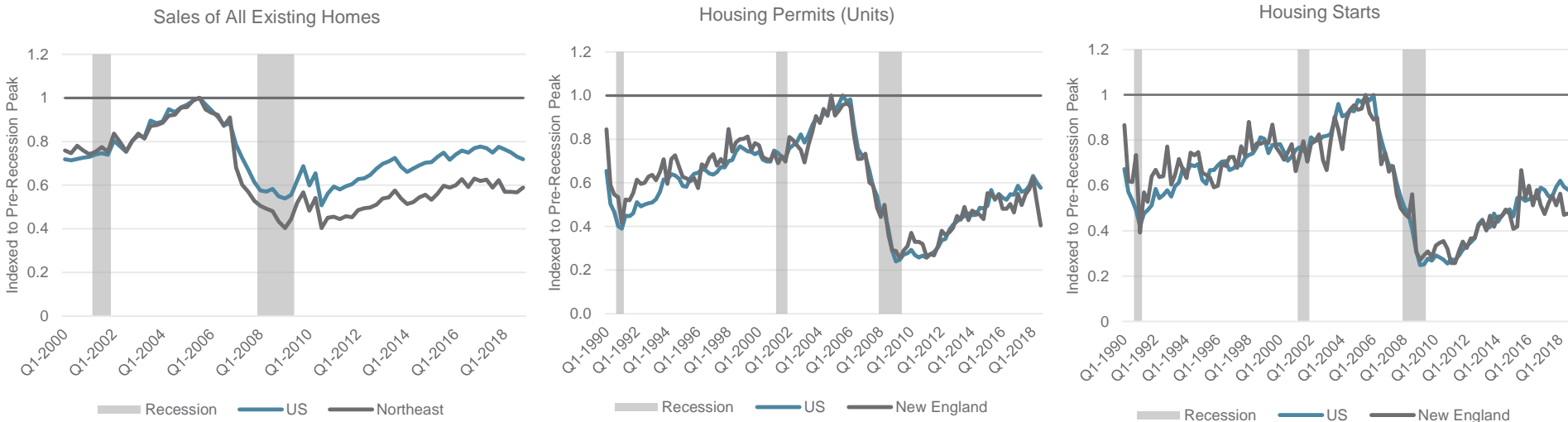
Source: The Conference Board, Haver Analytics

# Business Confidence Indices



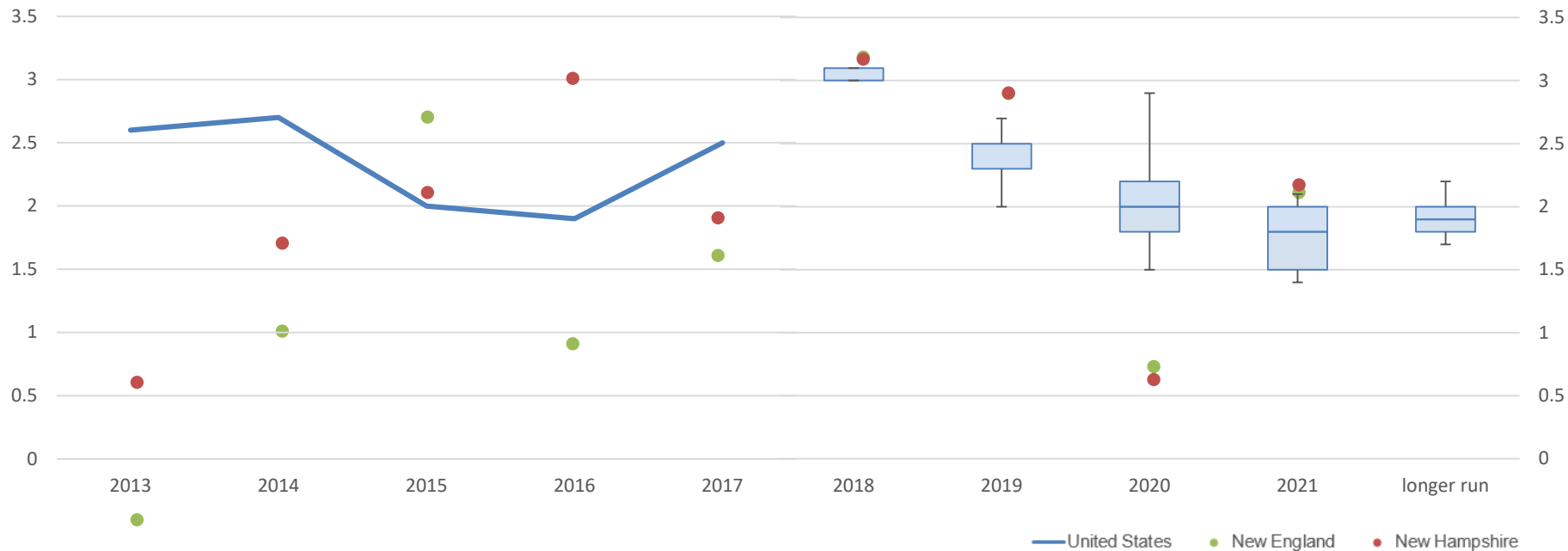
Source: The Conference Board, Associated Industries of Massachusetts, and Haver Analytics

# Housing Sales, Permits, and Starts



Source: Census Bureau, Bank of Tokyo-Mitsubishi UFJ, and Haver Analytics

# GDP Forecasts

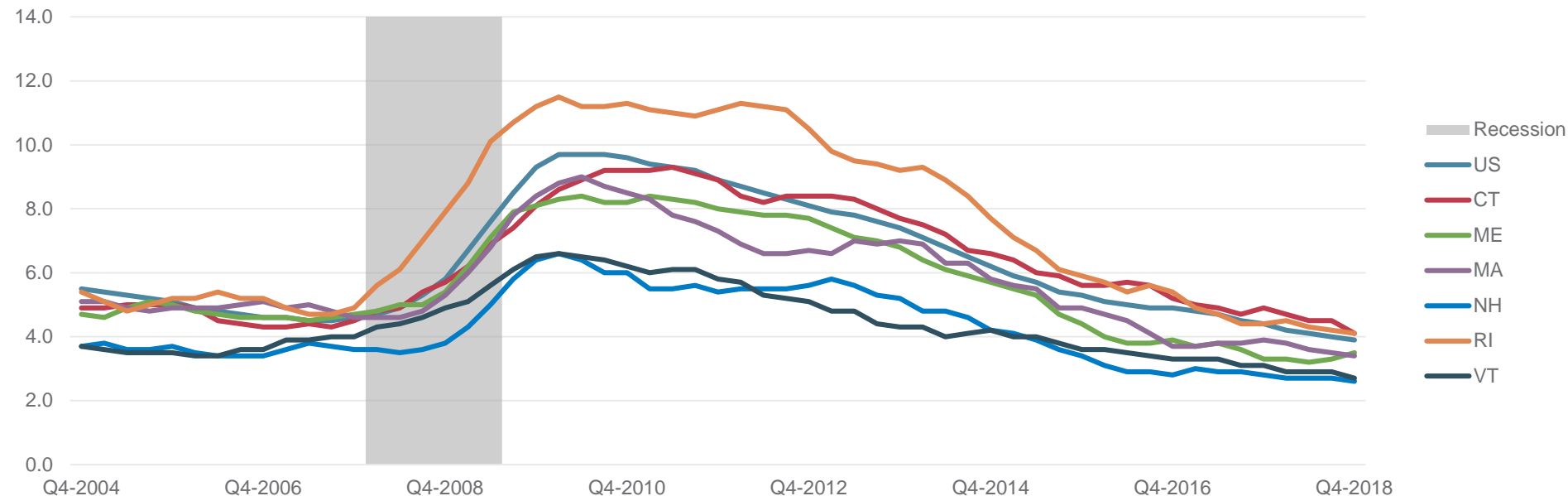


Source: FOMC Minutes from December 2018 and the Bureau of Economic Analysis

# Near-term challenges?

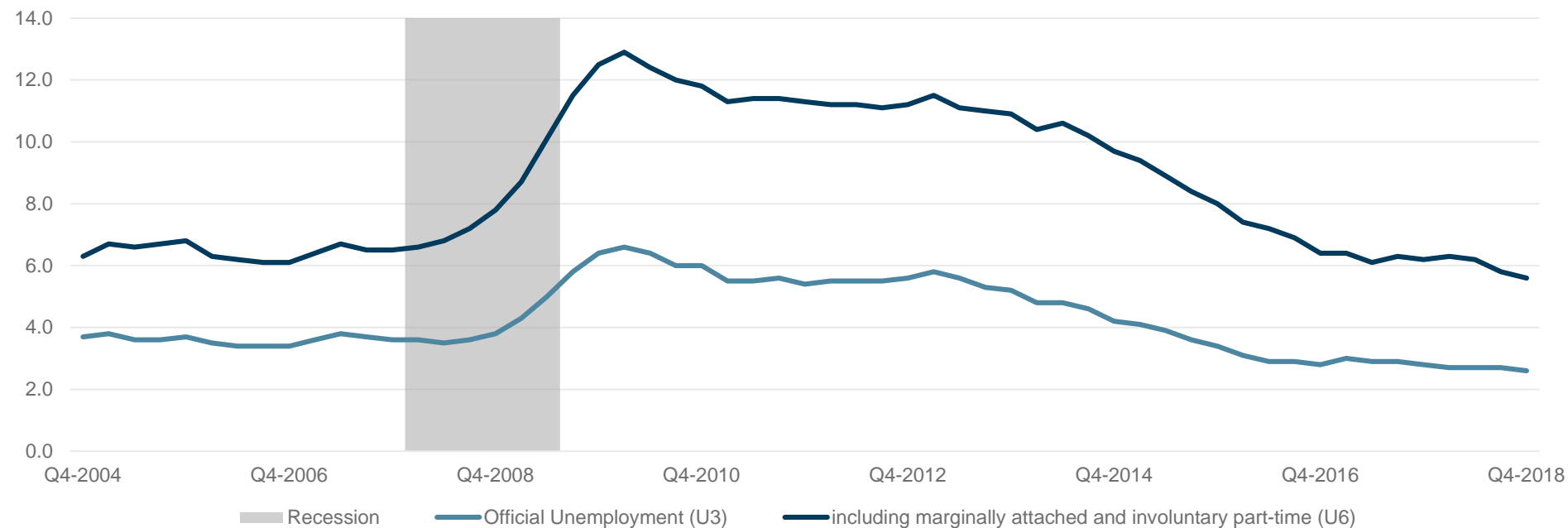


# Official Unemployment Rate (U3)



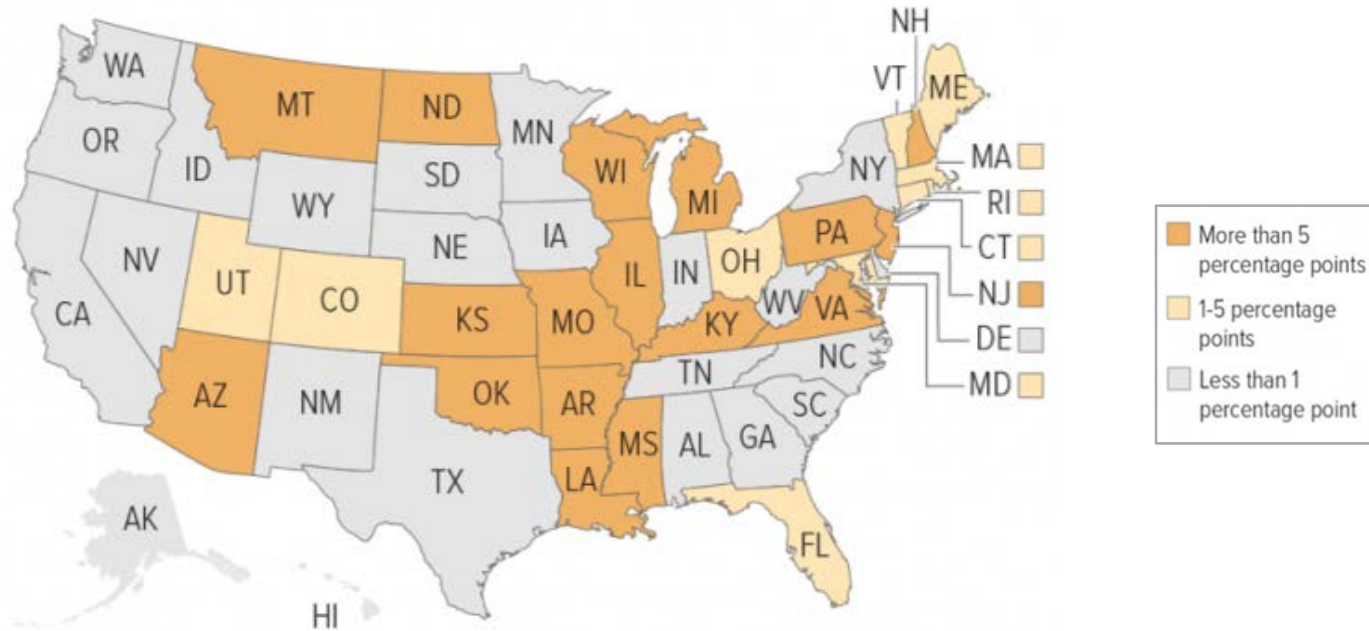
Source: Bureau of Labor Statistics, NBER, Haver Analytics

# New Hampshire Unemployment Rates (U3 and U6)



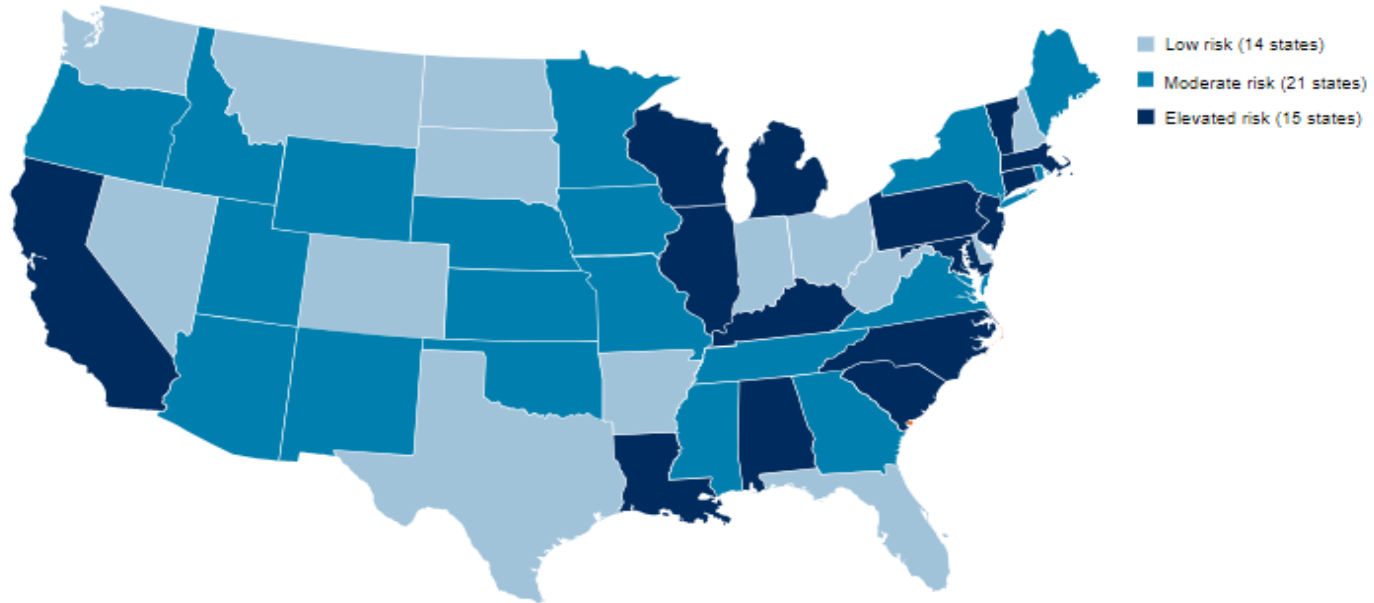
Source: Bureau of Labor Statistics, NBER, Haver Analytics

# Gap between Current and Necessary Reserves



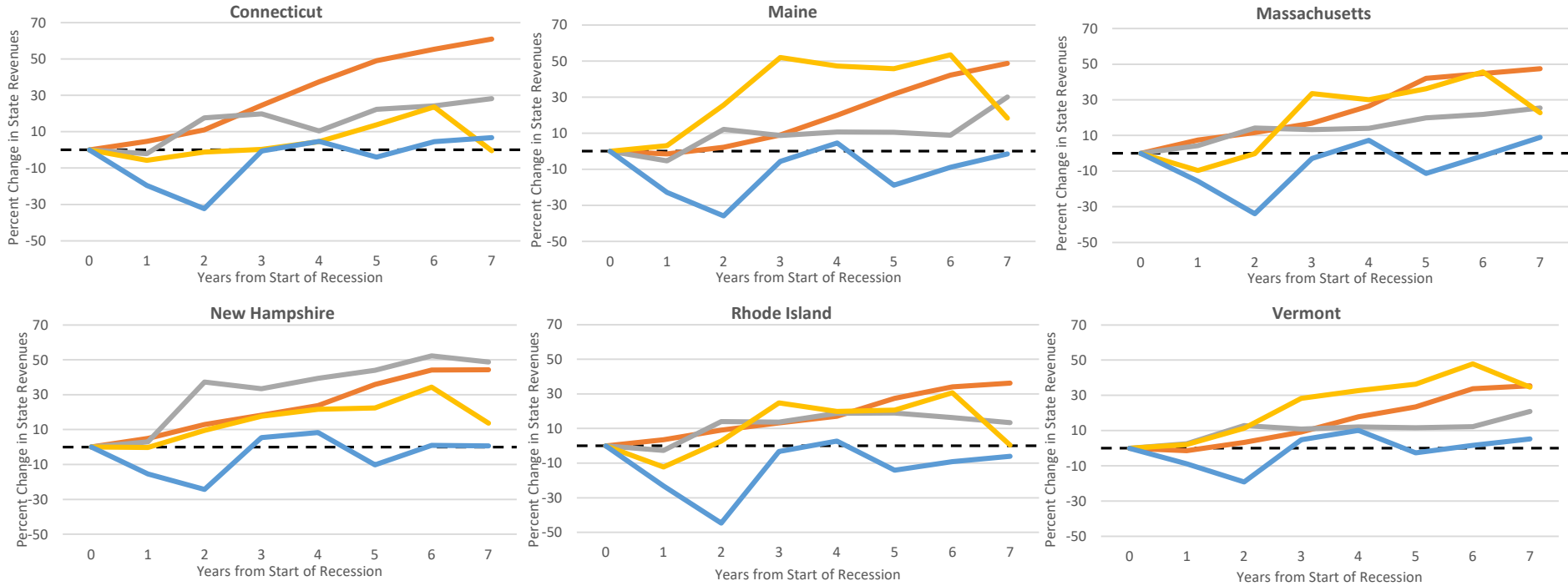
Source: Data from Moody's Analytics, "Stress-Testing States 2018", Visualization from the Center on Budget and Policy Priorities

# State Susceptibility to Fiscal Distress in Recession



Source: S&P Global Market Intelligence; "When the Credit Cycle Turns, U.S. States May be Tested in Unprecedented Ways"

# State Revenues Post-Recession

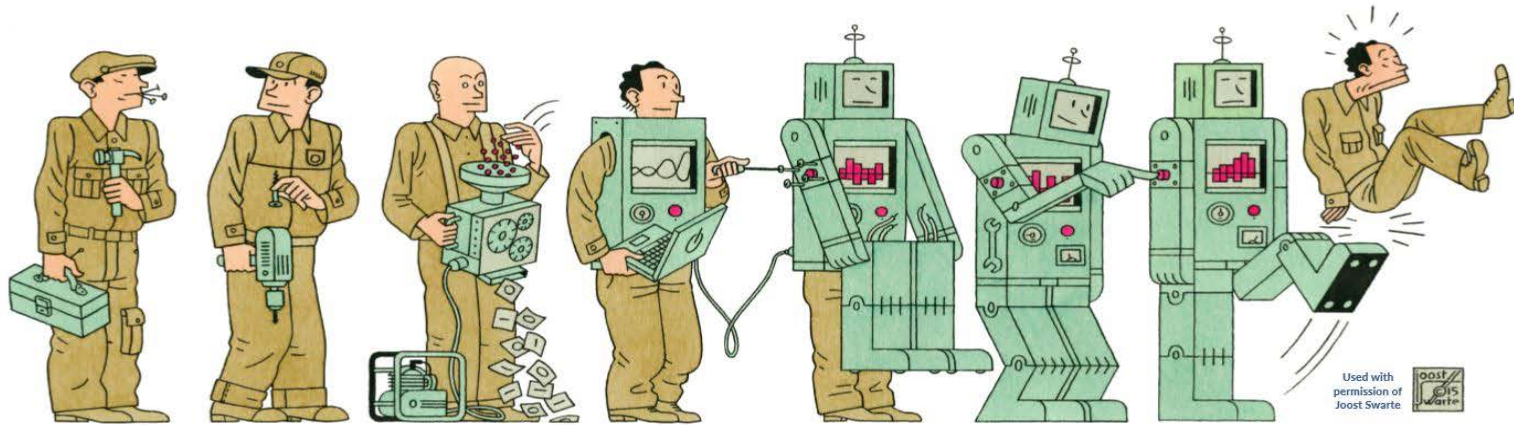


Source: Census Bureau and Haver Analytics

# Long-term challenges

- ▶ How New Hampshire Fits into the Economy of the Future
  - ▶ Infrastructure
  - ▶ Housing Affordability
  - ▶ Cost of Higher Education
  - ▶ Population Growth and Demographic Shifts

# Work of the Past, Work of the Future



David H. Autor, Ford Professor of Economics, MIT and NBER  
Richard T. Ely Lecture, AEA Annual Meeting  
Atlanta, January 4, 2019

<https://www.aeaweb.org/webcasts/2019/aea-ely-lecture-work-of-the-past-work-of-the-future>

Slide currently embargoed, please see

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For the full lecture.



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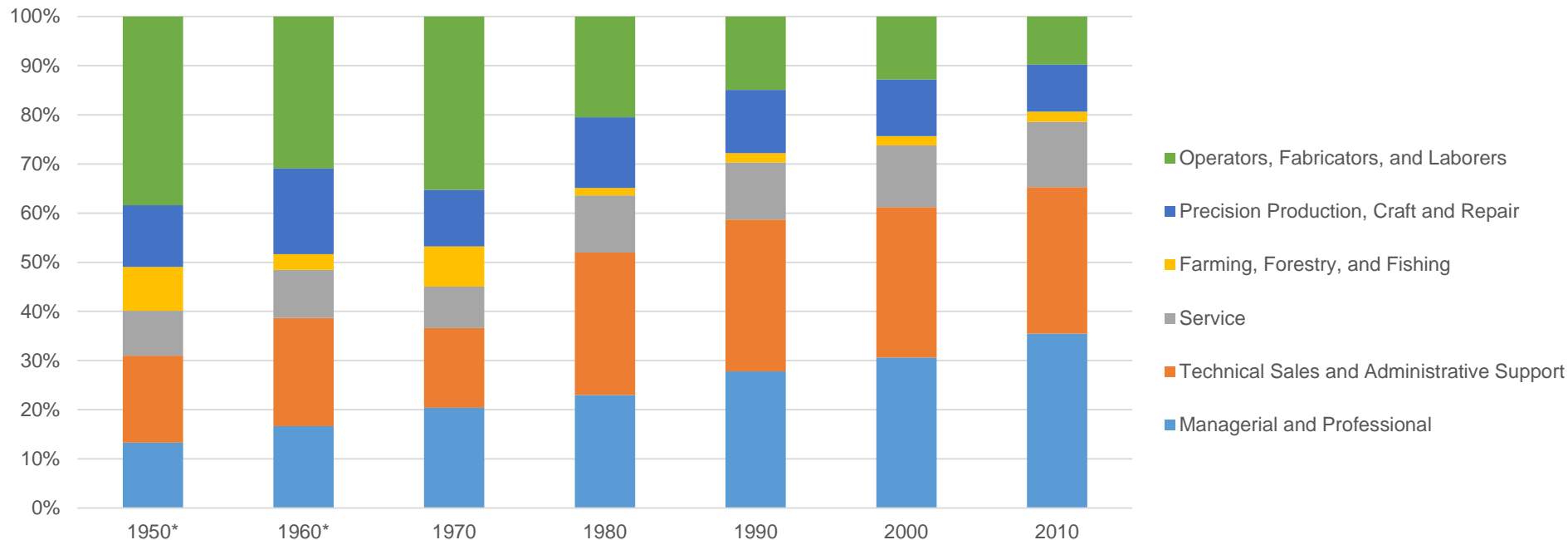
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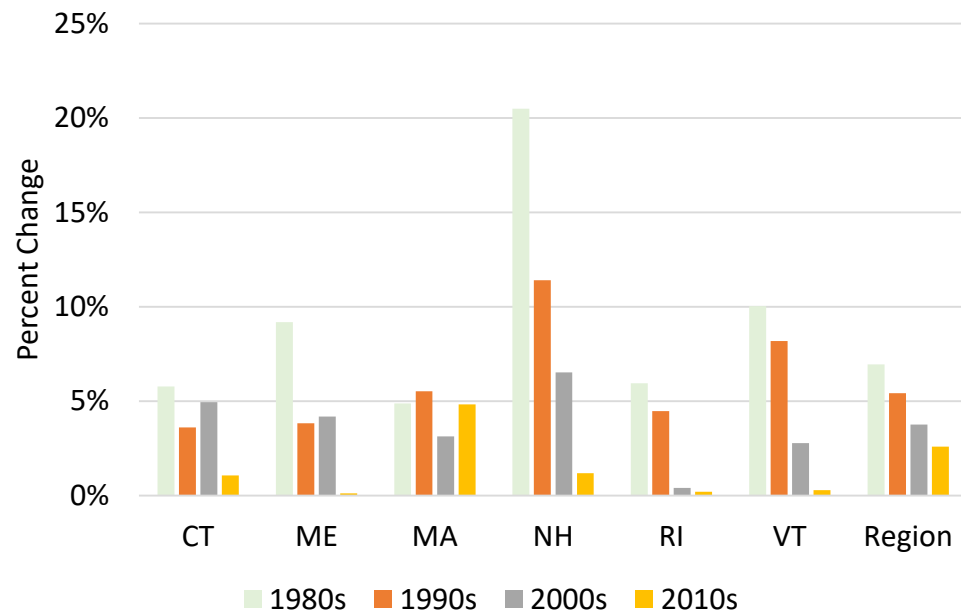
# New Hampshire Historical Occupation Shares



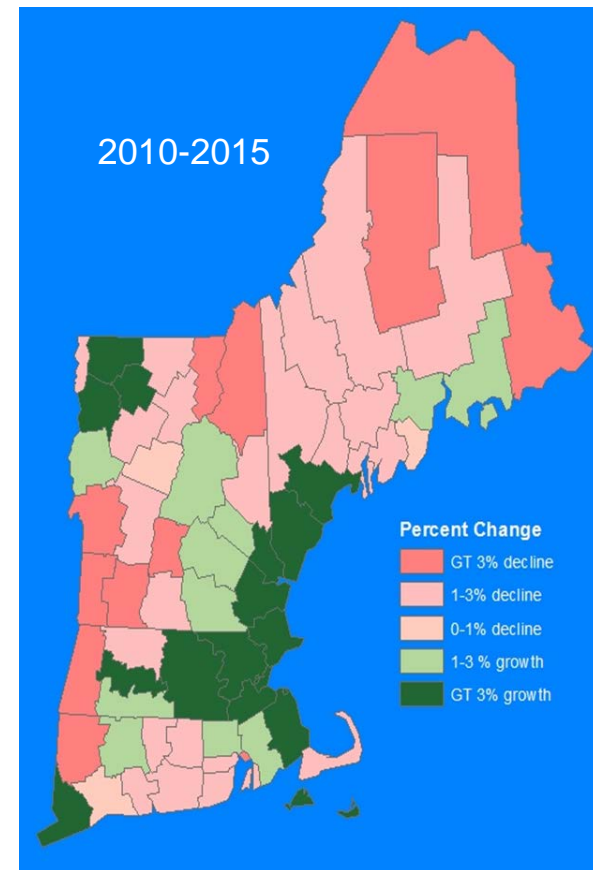
*\*for 1950 and 1960 this represents the share of known occupations, for all years this excludes military employment*

*Source: Decennial Census Data from the Census Bureau*

# Population Growth in New England

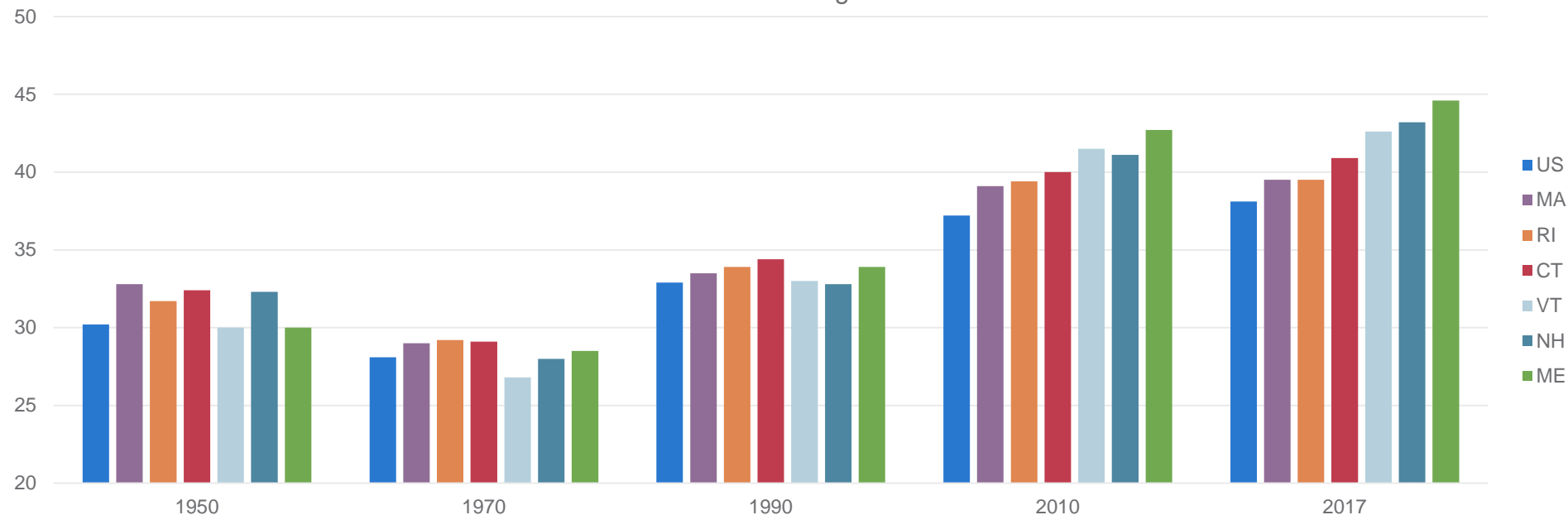


Source: Dr. Peter Nelson, Middlebury College, Slides from Vermont Chamber Economic Conference, January 10, 2019



# Aging New England Population

Median Age



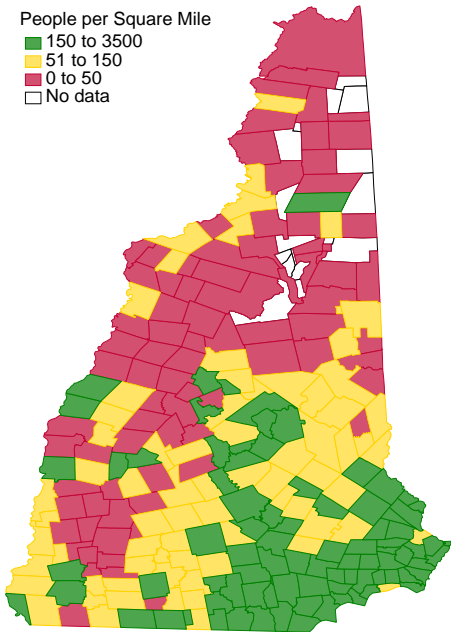
Source: Decennial Census of Population and Housing, ACS 1 Year Estimate for 2017

# Variation across New Hampshire Towns: The Importance of Boston

Population Density

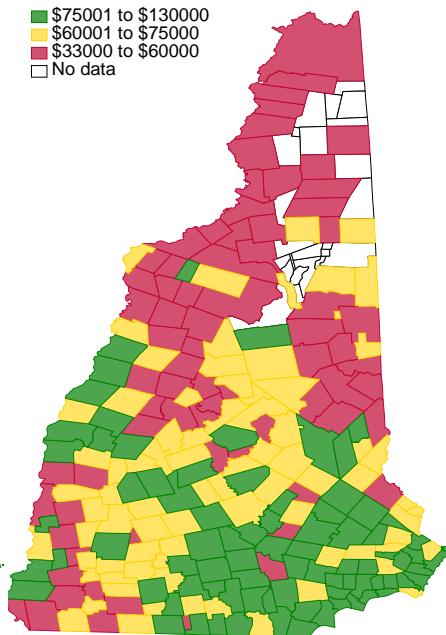
People per Square Mile

- 150 to 3500
- 51 to 150
- 0 to 50
- No data



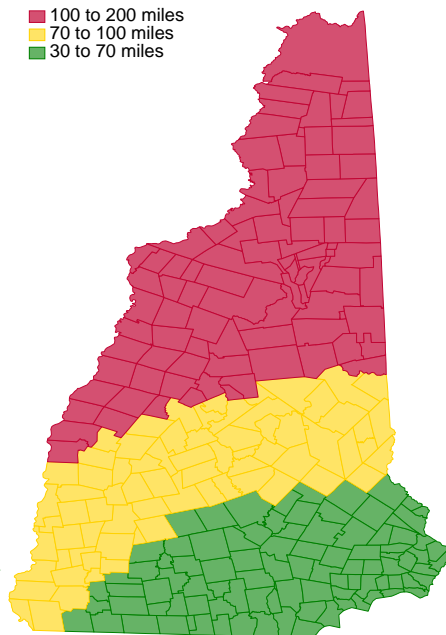
Median HH Income

- \$75001 to \$130000
- \$60001 to \$75000
- \$33000 to \$60000
- No data



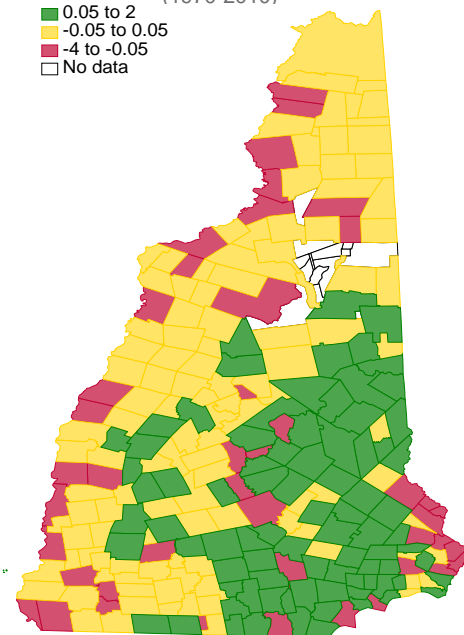
Distance to Boston

- 100 to 200 miles
- 70 to 100 miles
- 30 to 70 miles



Percent Change in Share of Population  
(1970-2010)

- 0.05 to 2
- 0.05 to 0.05
- 4 to -0.05
- No data



*Distance to Boston is measured as the distance from the town center to Boston City center*

*Source: US Census Bureau ACS 5-Year Estimates 2017 for New Hampshire County Subdivisions*



# Aging Infrastructure Needing Considerable Investment

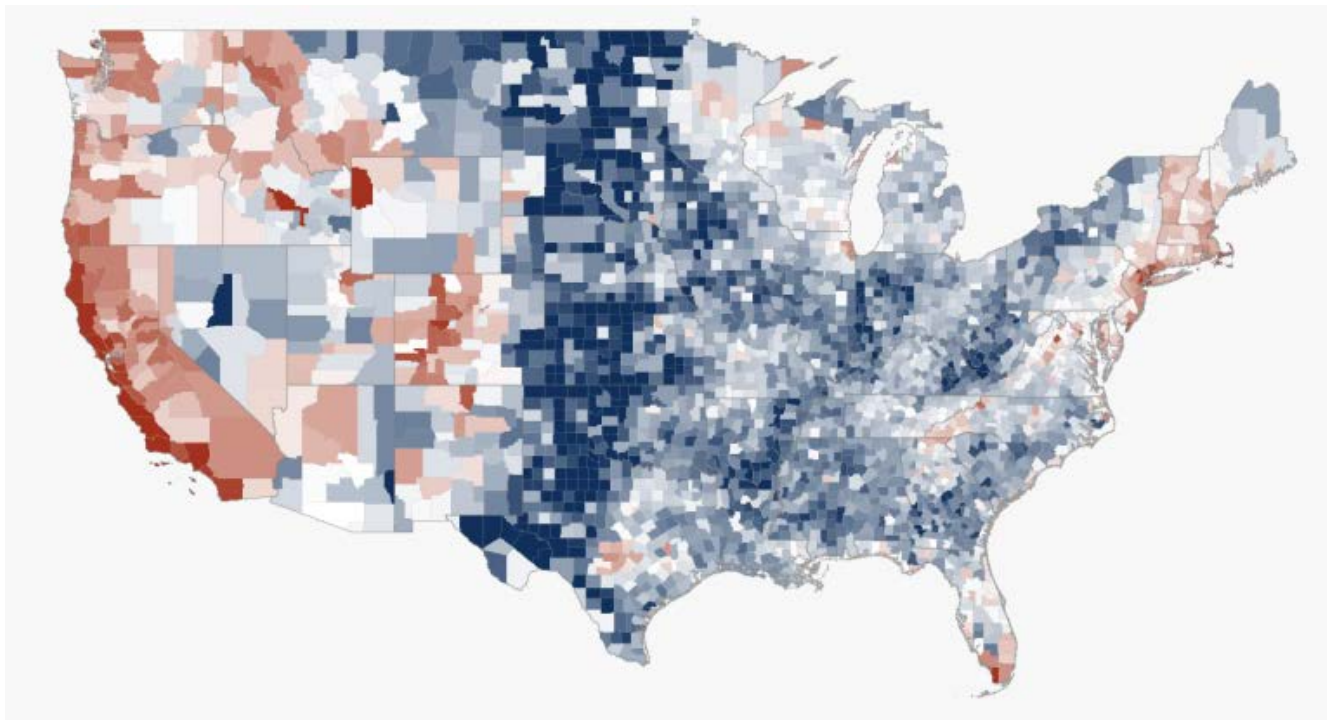


## Five New England States Among 10 “Worst” for Infrastructure

	RI	NH	ME	CT	MA	VT
<b>Rank (1=worst)</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>9</b>	<b>18</b>
Deficient Bridges (as a percent of all bridges)	23.2	10.9	13.3	7.8	9.3	5.6
Average Commute Time to Work (in minutes)	24.8	26.9	23.9	26.3	29.6	21.5
Roads in poor or mediocre condition (as a percent of all roads)	70	54	53	73	42	24
20-year water-system needs	\$1.7 B	\$1.9 B	\$1.3 B	\$4 B	\$12.2 B	\$511 M

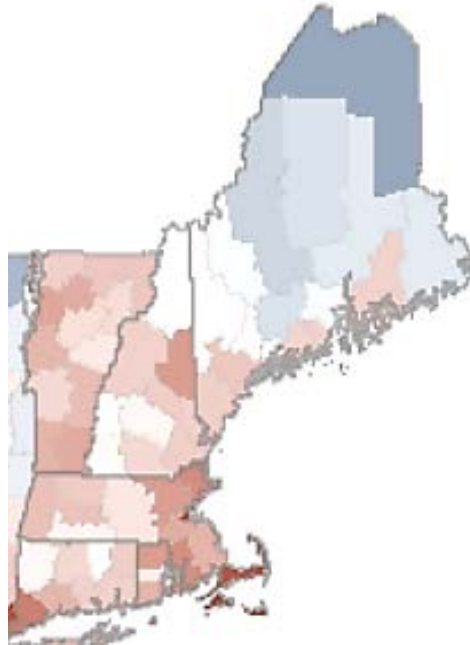
Source CNBC/McKinsey Analysis “Top States for Business: America in Crisis – The 10 States with the Worst Infrastructure”

# Housing Affordability Nationwide



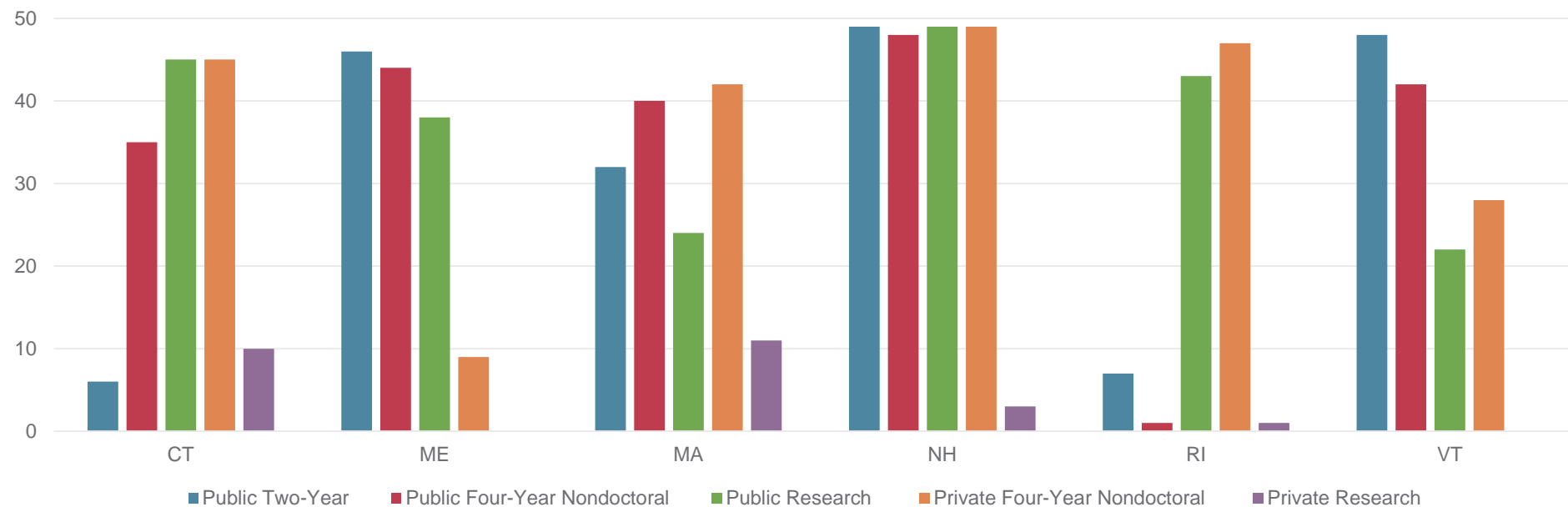
Source: ESRI Demographics "The Delicate Balance between Housing Affordability, Growth, and Income"

# Housing Affordability Index in New England



Source: ESRI Demographics "The Delicate Balance between Housing Affordability, Growth, and Income"

# College Affordability Rankings



Source: University of Pennsylvania Institute for Research on Higher Education 2016 College Affordability Diagnosis

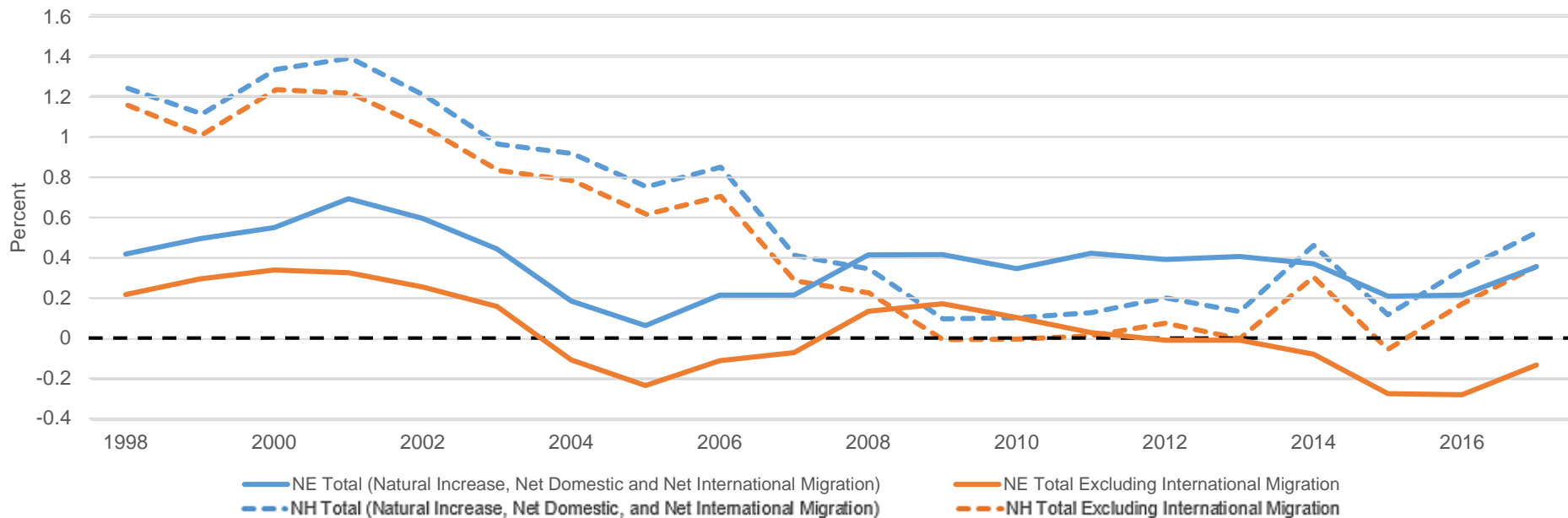
# New England Student Loan Debt

	NH	RI	VT	MA	CT	ME
Percent of Graduates with Debt	74%	64%	60%	59%	57%	56%
Rank	1	6	15	17	24	28
Average Debt	\$34,415	\$32,250	\$30,651	\$32,065	\$38,510	\$31,364
Rank	4	3	16	7	1	10

Source: The Institute for College Access and Success "Student Debt and the Class of 2017"

# New England Population Changes

Population Change as a Share of Total Population



Source: US Census Bureau and Haver Analytics

# In Conclusion

- ▶ Attracting and Retaining Young Worker and Families
  - ▶ Jobs
  - ▶ Housing
  - ▶ Education
- ▶ Connecting all parts of the state to the dynamism of the Boston Metro area
  - ▶ Skilled workers
  - ▶ Transportation
  - ▶ Fiscal connectedness

# Thank You

**Dr. Jeffrey Thompson**

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