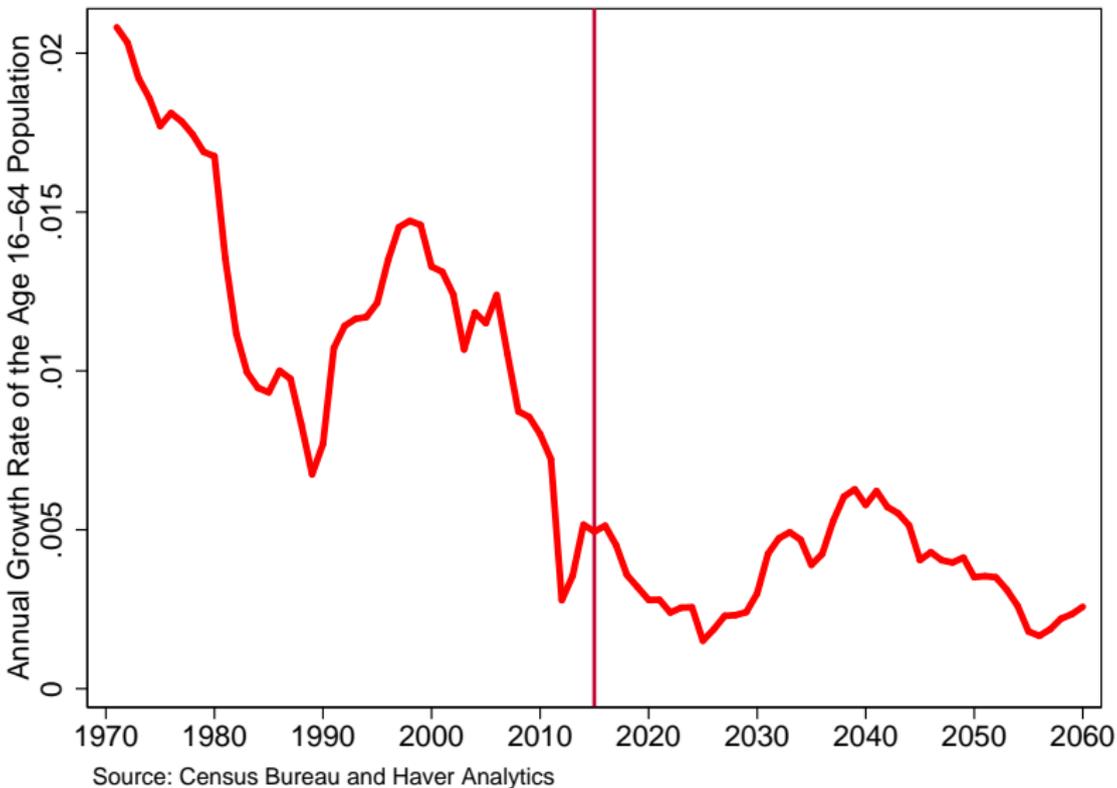




# Outline of presentation

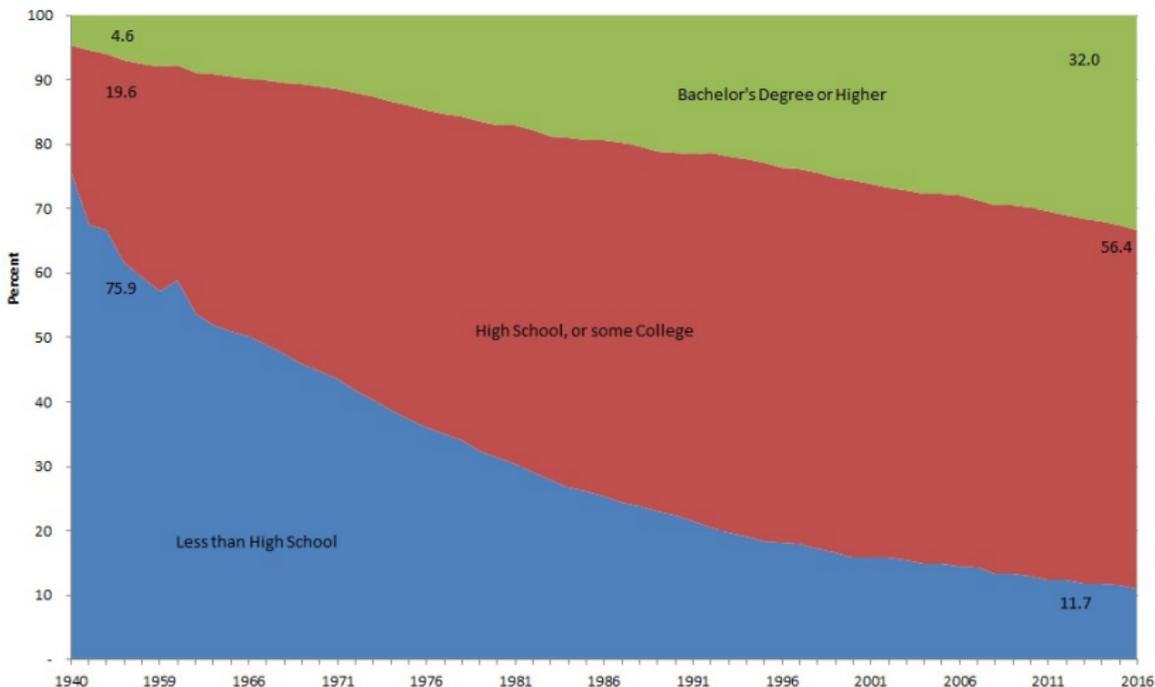
- 1 Labor supply
- 2 Labor demand
- 3 Importance of Regional Planning

# Our population is aging, and labor force growth has slowed.



# Educational attainment has increased over time...

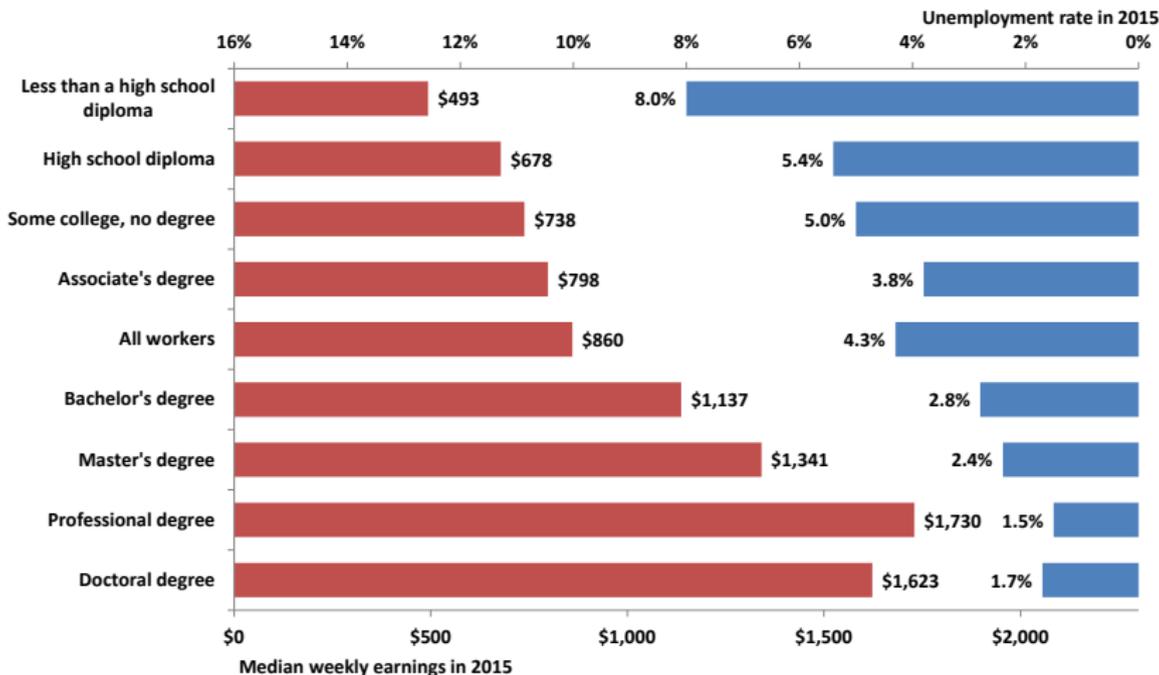
## Educational attainment of the U.S. population age 25+



Sources: U.S. Census Bureau, 1947, 1952-2002 March Current Population Survey, 2003-2016 Annual Social and Economic Supplement to the Current Population Survey; 1940-1960 Census of Population.

... and the economic return to education has increased.

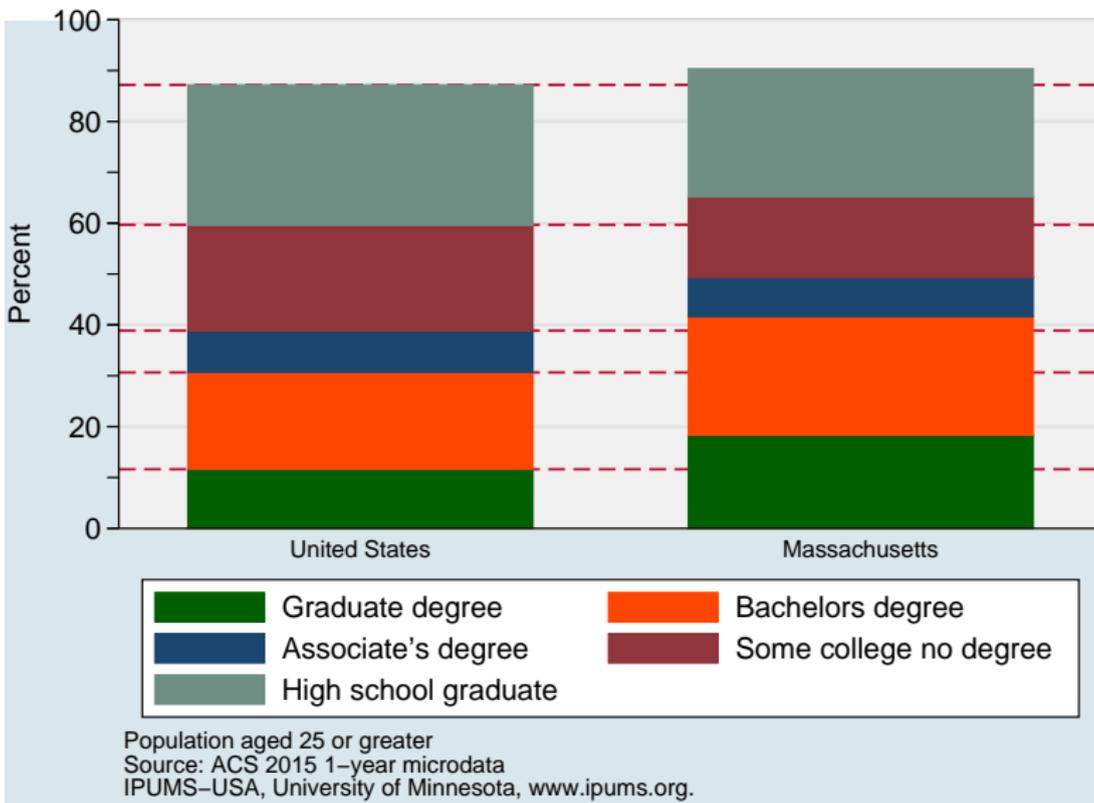
### Earnings and unemployment rates by educational attainment, 2015



Note: Data are for persons age 25 and over. Earnings are for full-time wage and salary workers.

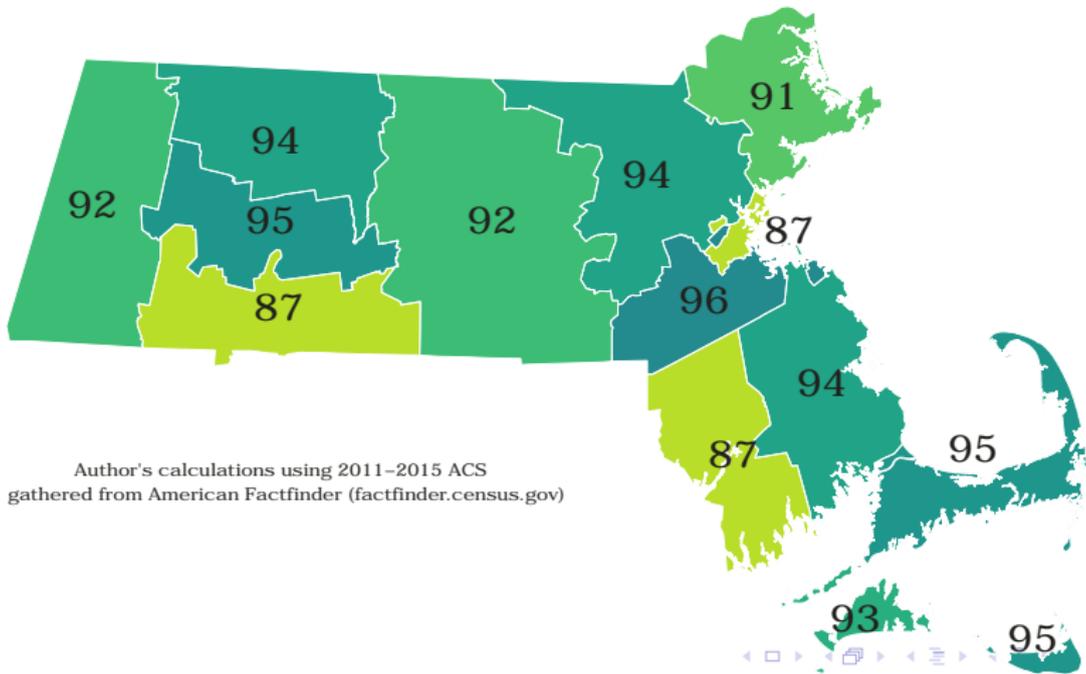
Source: U.S. Bureau of Labor Statistics, Current Population Survey, [http://www.bls.gov/emp/ep\\_table\\_001.htm](http://www.bls.gov/emp/ep_table_001.htm)

# Overall, Massachusetts is a very highly educated state.



# Regional differences in high school graduation are fairly modest...

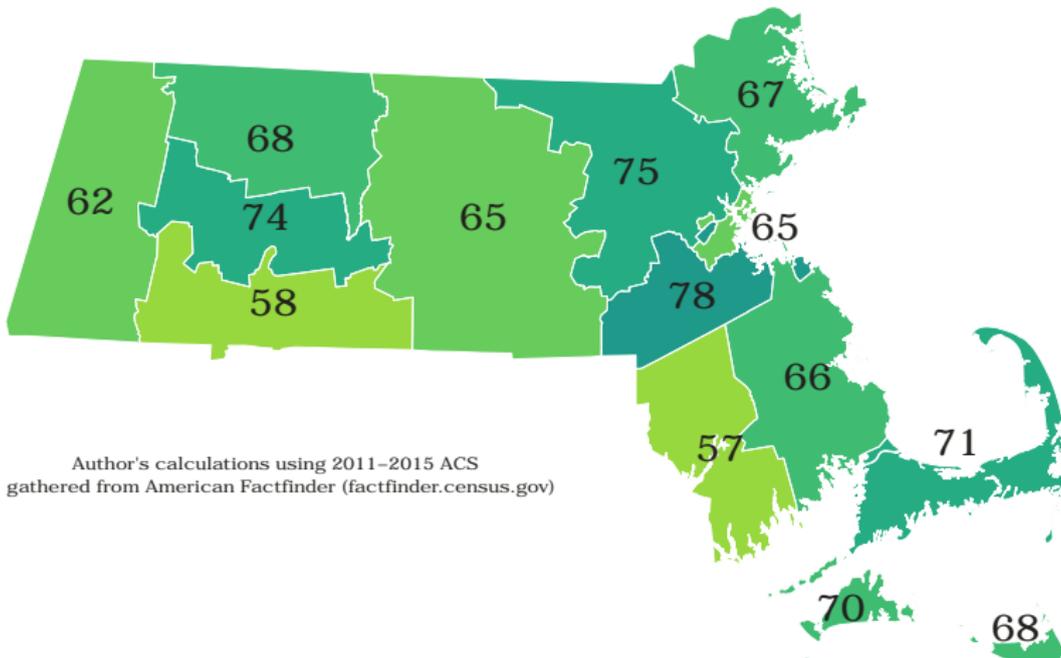
## Percentage of age 25-64 population with at least a high school diploma or GED



Author's calculations using 2011-2015 ACS gathered from American Factfinder ([factfinder.census.gov](http://factfinder.census.gov))

...differences in post-secondary schooling are more pronounced...

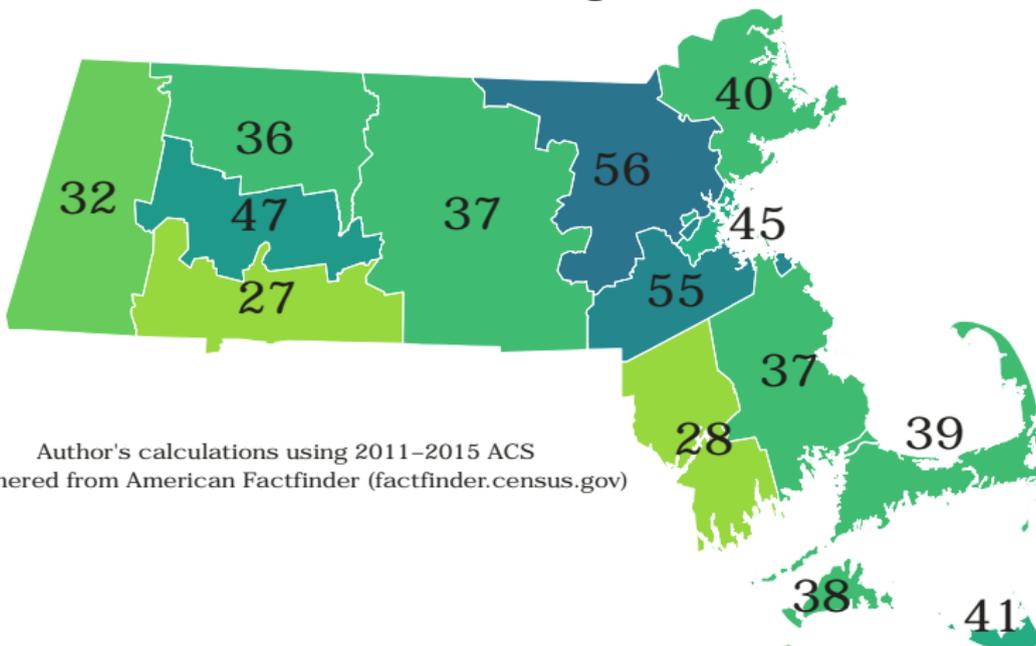
### Percentage of age 25-64 population with post-secondary education



Author's calculations using 2011-2015 ACS gathered from American Factfinder ([factfinder.census.gov](http://factfinder.census.gov))

... and differences in 4-year college are greater still.

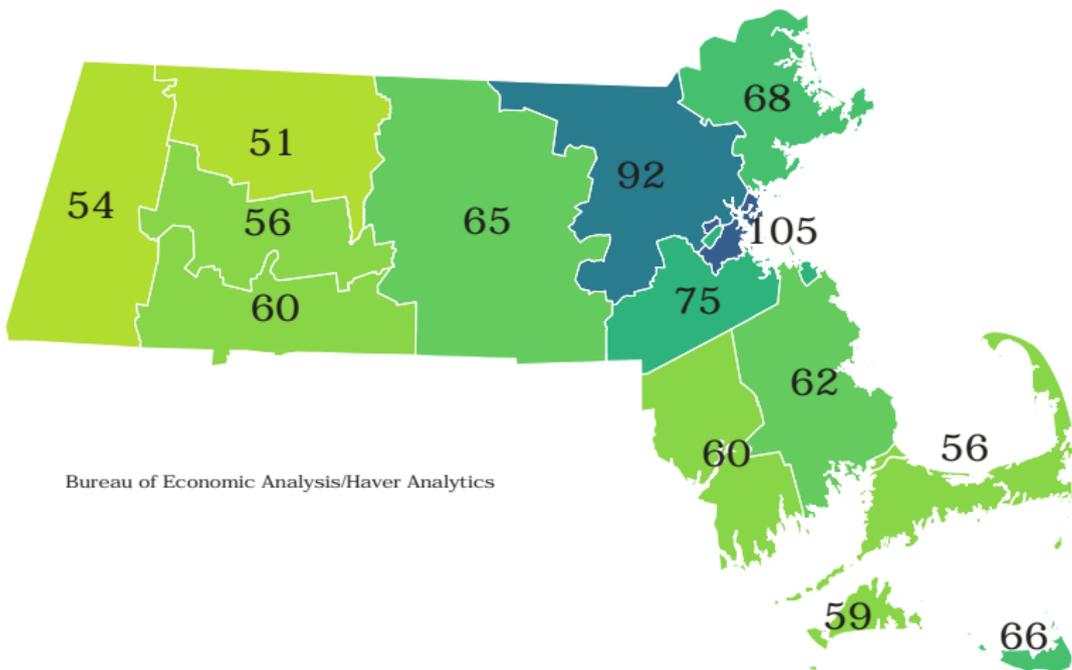
## Percentage of age 25-64 population with at least a bachelor's degree



Author's calculations using 2011-2015 ACS gathered from American Factfinder ([factfinder.census.gov](http://factfinder.census.gov))

# Greater educational attainment is associated with greater earnings.

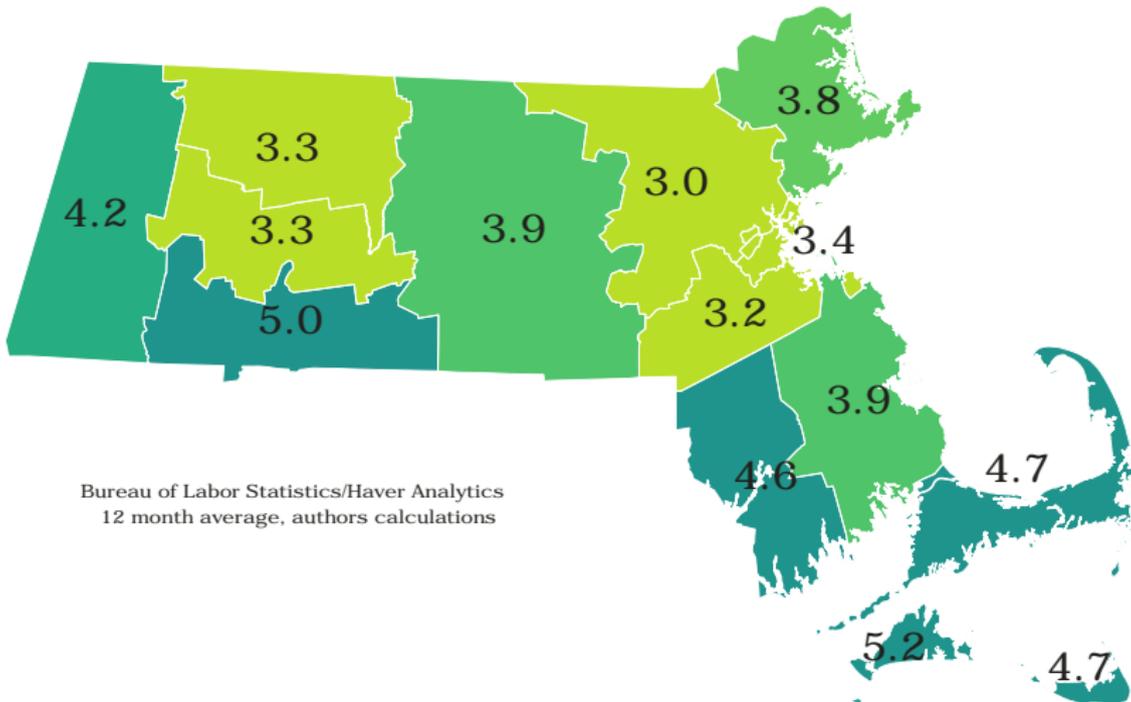
## Average annual compensation per job (\$ thousands), 2015



Bureau of Economic Analysis/Haver Analytics

Differences in unemployment across counties are currently fairly modest.

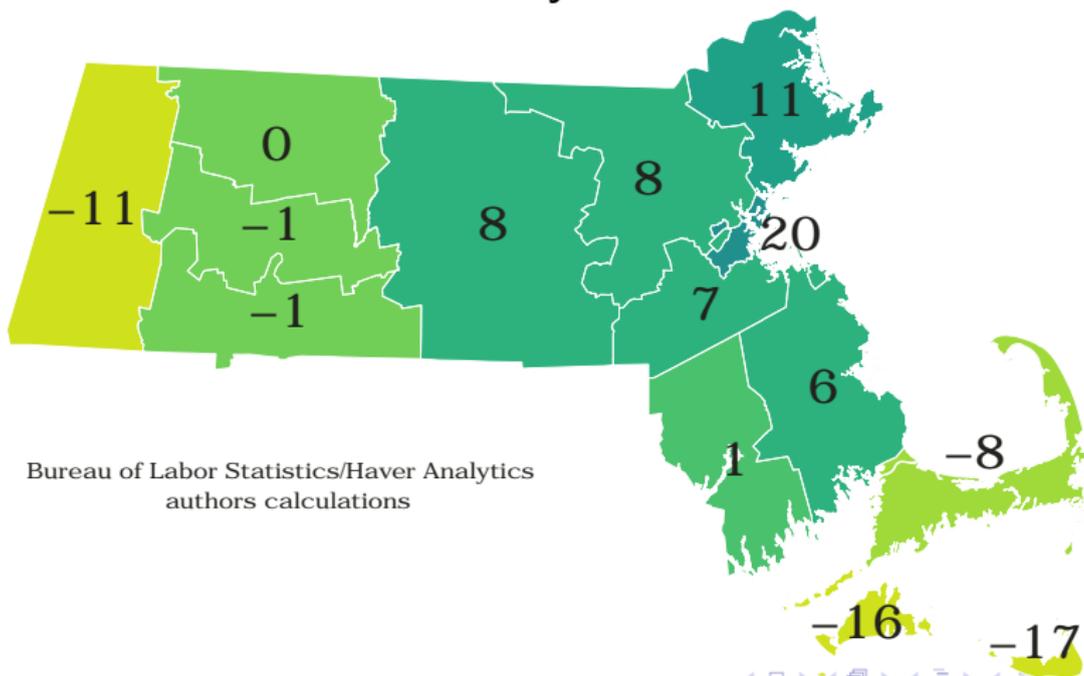
### Mean unemployment rate over past 12 months



Bureau of Labor Statistics/Haver Analytics  
12 month average, authors calculations

# Employment growth since the onset of the Great Recession has been uneven.

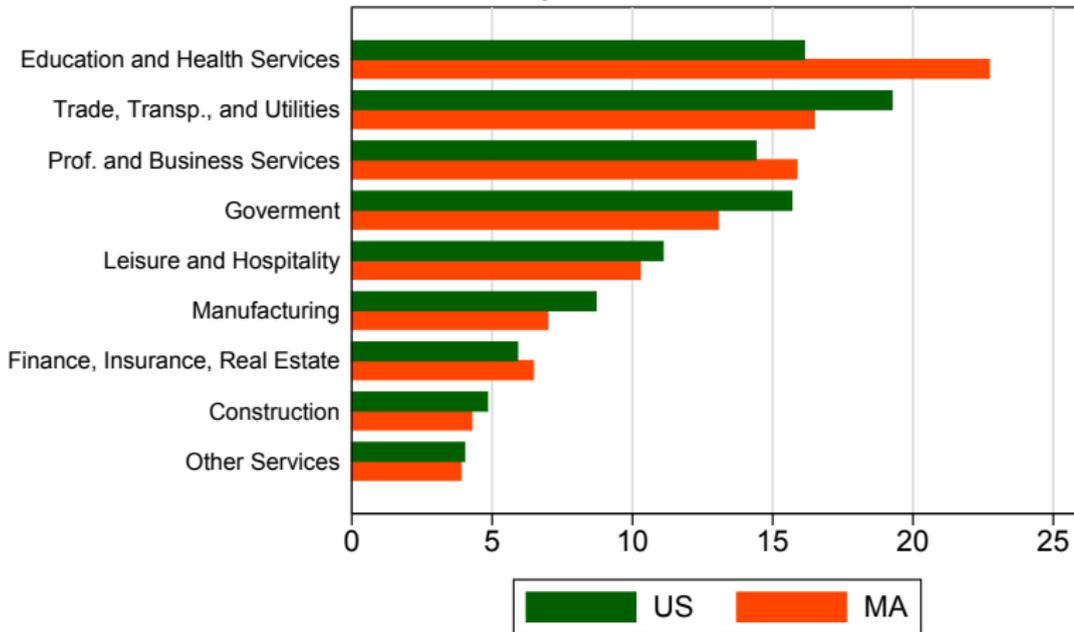
## Percentage employment change by county, January 2007 - January 2017



Bureau of Labor Statistics/Haver Analytics  
authors calculations

# Massachusetts specializes in high-skill sectors.

Massachusetts and U.S. employment shares by supersector  
February 2017

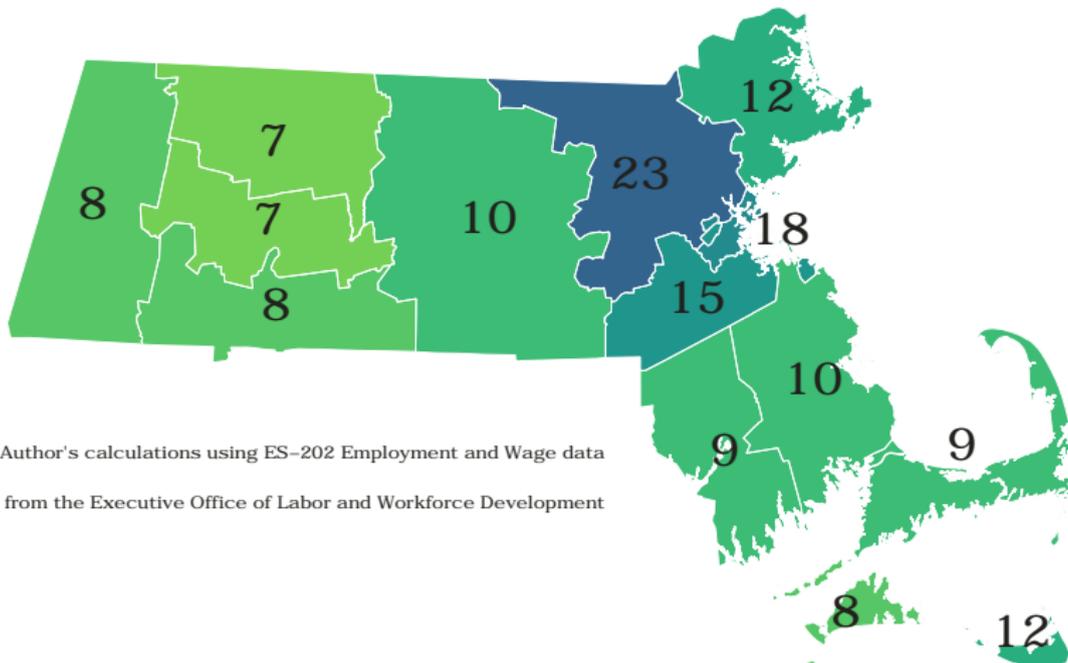


Seasonally adjusted

Source: Bureau of Labor Statistics Establishment Survey and Haver Analytics

# Professional services are centered around Boston ...

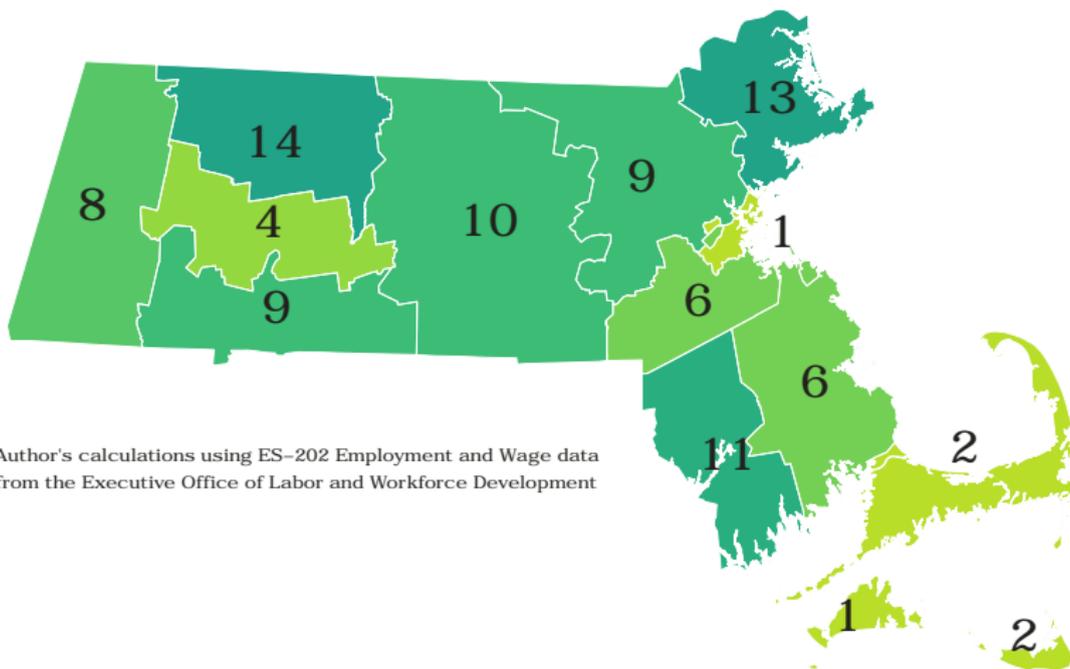
## Professional and business services as a percentage of total employment, 2015



Author's calculations using ES-202 Employment and Wage data from the Executive Office of Labor and Workforce Development

... while manufacturing has a larger share elsewhere.

## Manufacturing as a percentage of total employment, 2015



Author's calculations using ES-202 Employment and Wage data from the Executive Office of Labor and Workforce Development

# Implications for workforce skills planning

- The economic return to training and education depends on the quality of the job match.
- It is important to match training and credentials to regional labor demand.
- The economic prospects of regions depend on the availability of an educated workforce.