

# The Rhode Island Labor Market in Recovery: Where is the Skills Gap?

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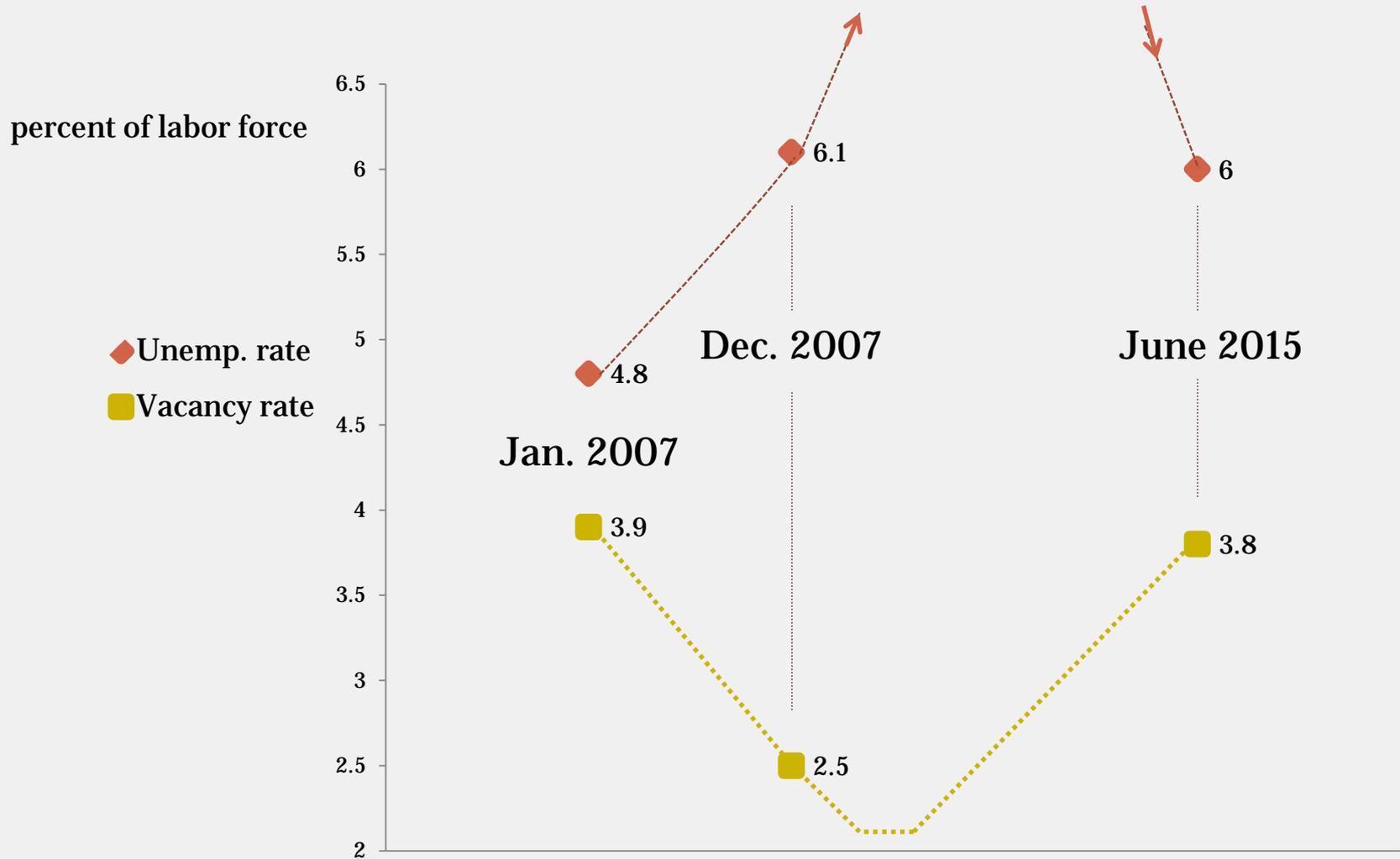
Disclaimer: The views expressed here are those of the speaker and do not necessarily represent the views of the Federal Reserve Bank of Boston or the Federal Reserve System.

*"How can it be that Rhode Island has a stubbornly high unemployment rate, yet there are employers every day saying they have jobs open that they can't fill?"*

Scott Jensen, Director, Rhode Island Dept. of Labor and Training<sup>1</sup>

<sup>1</sup> "Real Jobs Rhode Island Puts Employers at the Center of Job Training," July 31, 2015 Press Release. Cranston, RI: Rhode Island Department of Labor and Training. Available at <http://www.ri.gov/press/view/25467>.

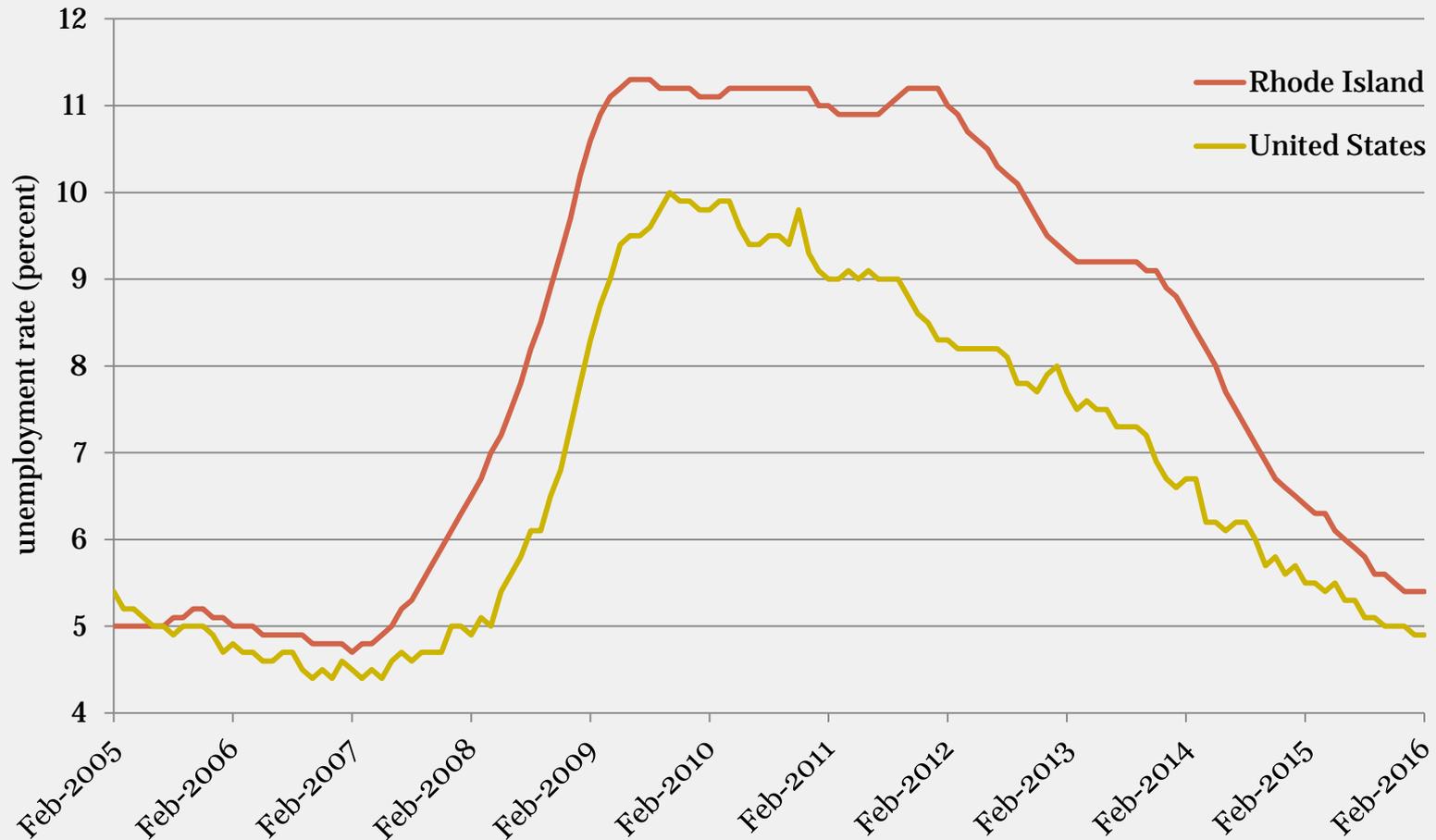
# As of June 2015, Unemployment Rate was High Given the High Vacancy Rate



Source: Bureau of Labor Statistics (unemployment rates); The Conference Board (vacancy rates); both series collected using Haver Analytics

# Feb. 2016 Unemployment Rate (5.4 Percent) Lowest Since Aug. 2007

(above pre-recession min. of 4.7 percent, above U.S. rate of 4.9)



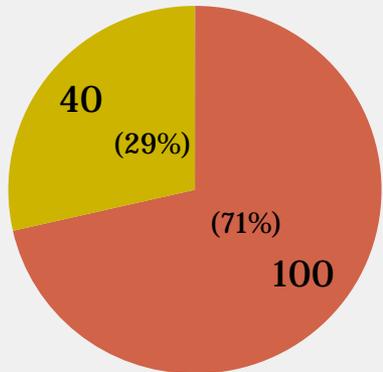
Source: Bureau of Labor Statistics, Haver Analytics

# What is a skills gap or “mismatch”?

- **Occupational or industrial mismatch:**
  - Skills and/or experience of job-seekers do not match those demanded by employers
- **Geographic mismatch**
  - Location of job-seekers does not match location of employers
- **Mismatch holds back employment relative to a situation with no mismatch**
  - Search frictions always generate some unemployment

# Detecting Occupational Mismatch

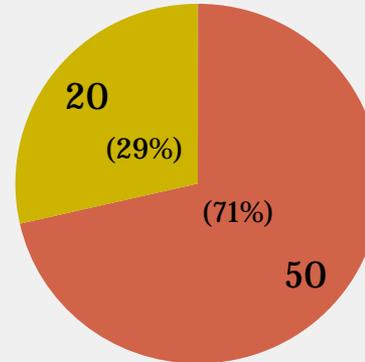
**unemployed people**



no mismatch



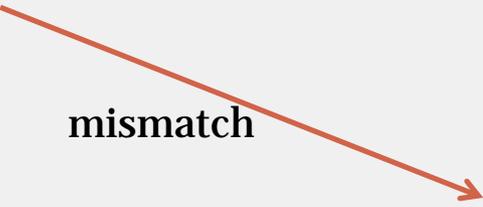
**vacancies (1)**



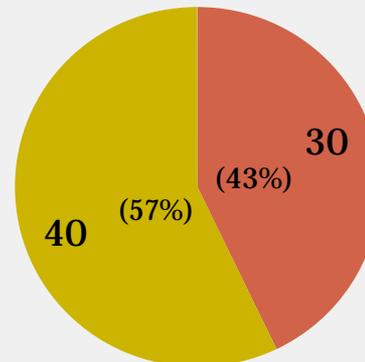
no mismatch

	U%/V%
builders	1.0
bankers	1.0

mismatch



**vacancies (2)**

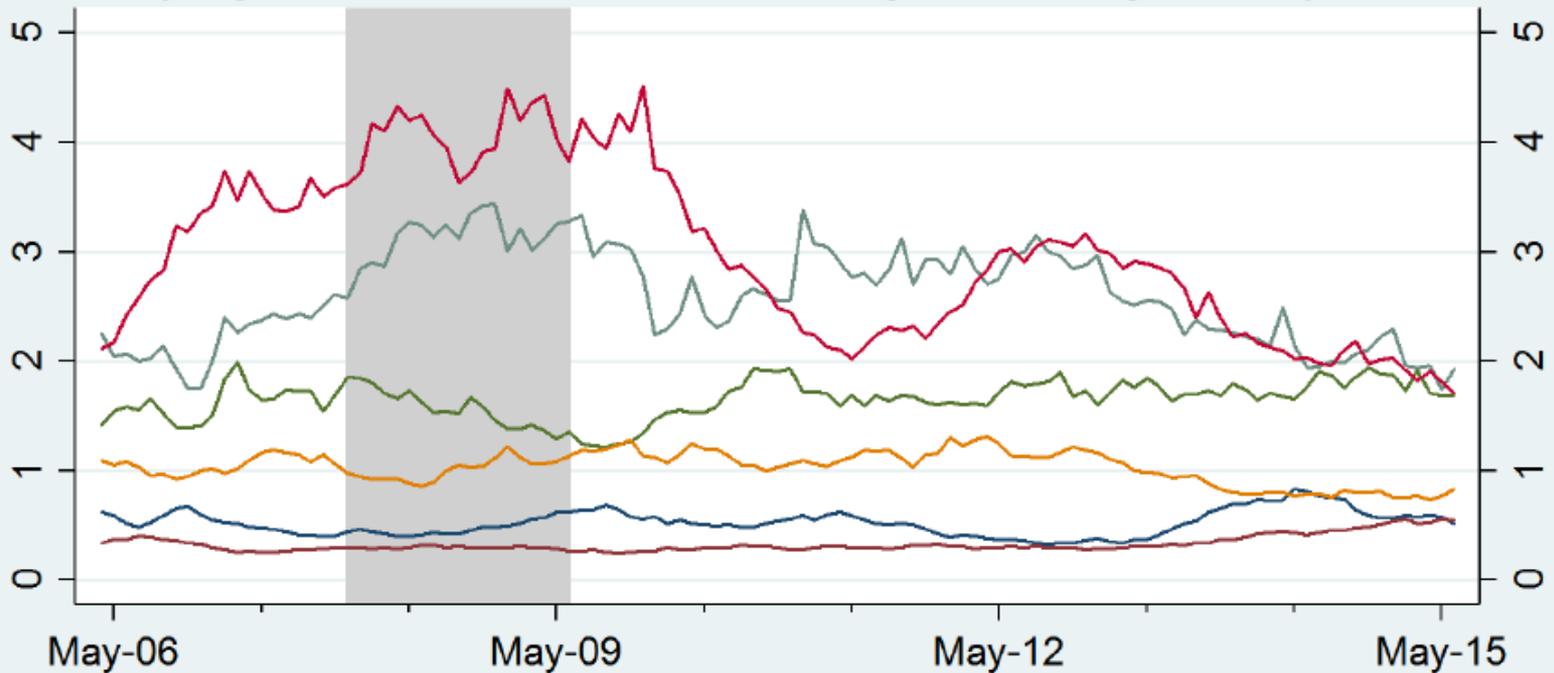


mismatch

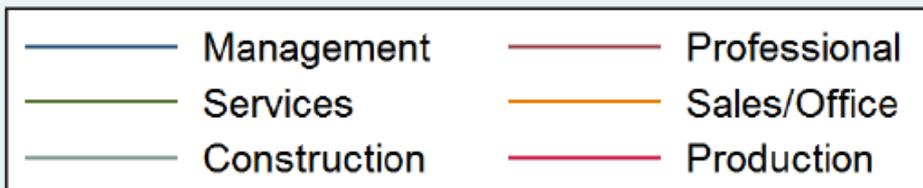
	U%/V%
builders	1.65
bankers	0.51

# Labor Market Imbalances Emerge in Late 2006, Persist During and After Recession

## Unemployment Share over Vacancy Share by Occupation, RI



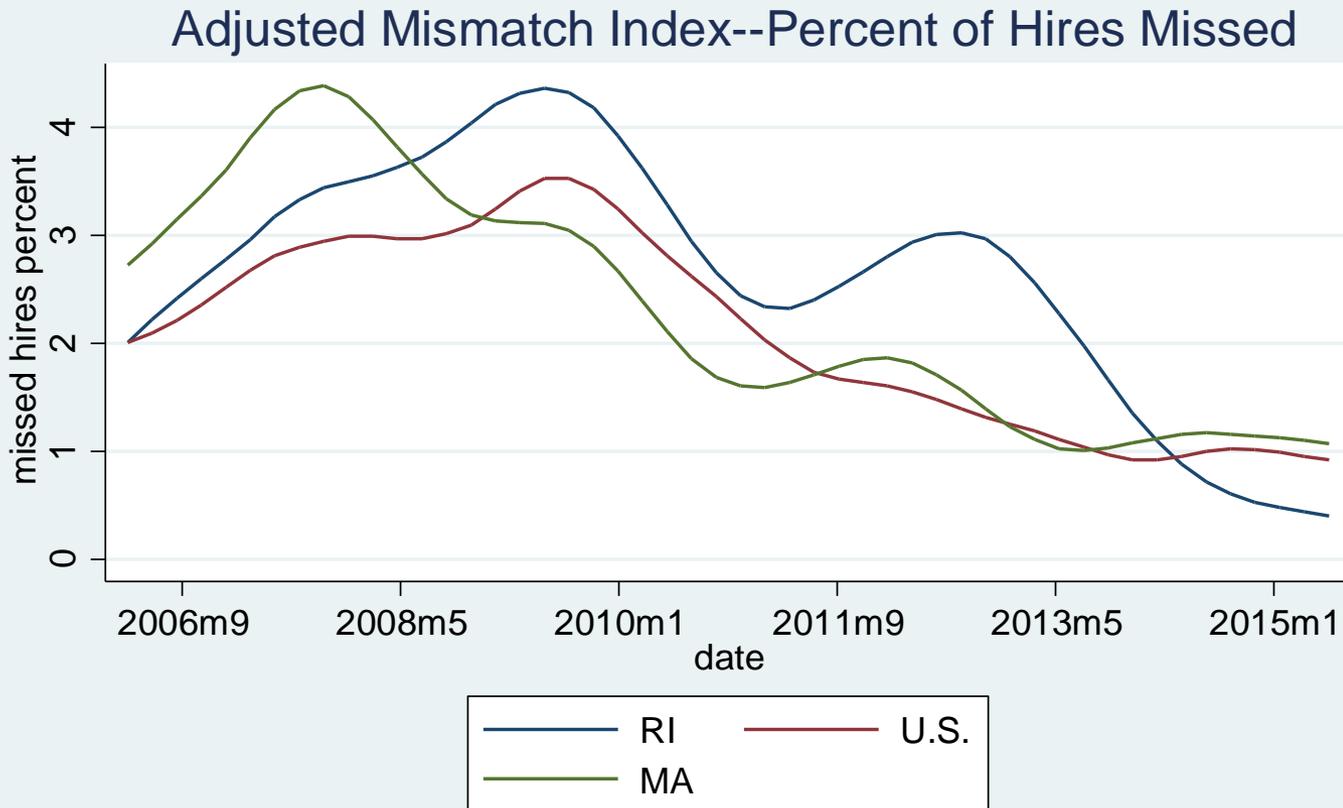
Source: Author's calculations using data from the Census Bureau (CPS) and The Conference Board (Help Wanted OnLine). Help Wanted OnLine data collected in Haver. Unemployment shares calculated out of total number of unemployed persons with observed occupations.



# Index of Occupational Mismatch

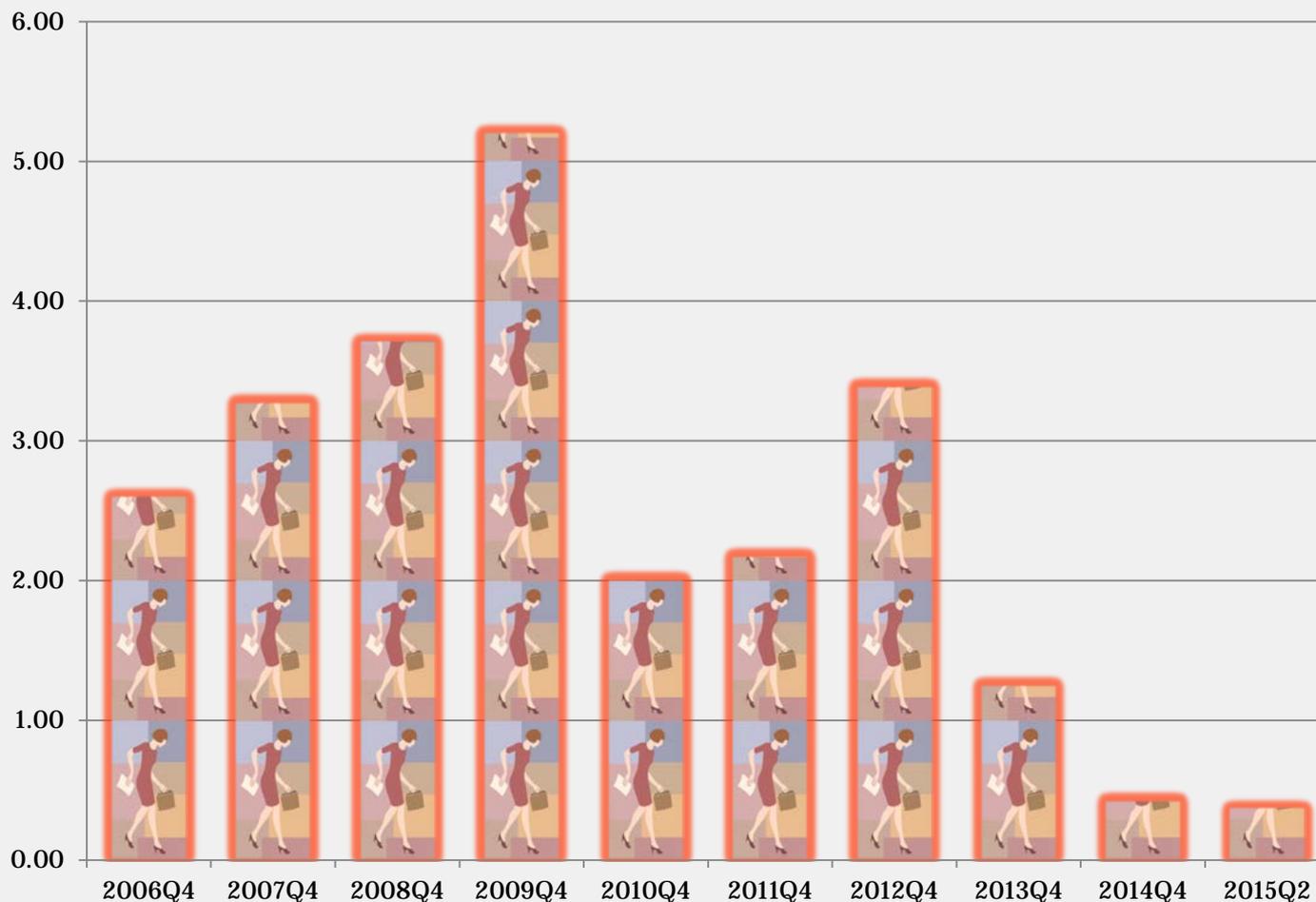
- Percent of potential hires that fail to occur due to labor market mismatch by occupation
- Potential hires: hires that would occur if there were no occupational mismatch
- Adjusts to account for different “matching efficiencies” across occupations

# Mismatch Reduced Hires by Max of 5 Percent in 2009; Hiring Restraint Minimal as of June 2015



Source: Author's calculations using data from the Conference Board (via Haver), the CPS, and occupational matching efficiency parameters estimated by Sahin et al. 2014. Mismatch index based on equation (27) in Sahin et al., 2011. All series are smoothed using a local polynomial fit.

# Number of Missed Hires Per 100 Potential Hires; Rhode Island, 2006-2015

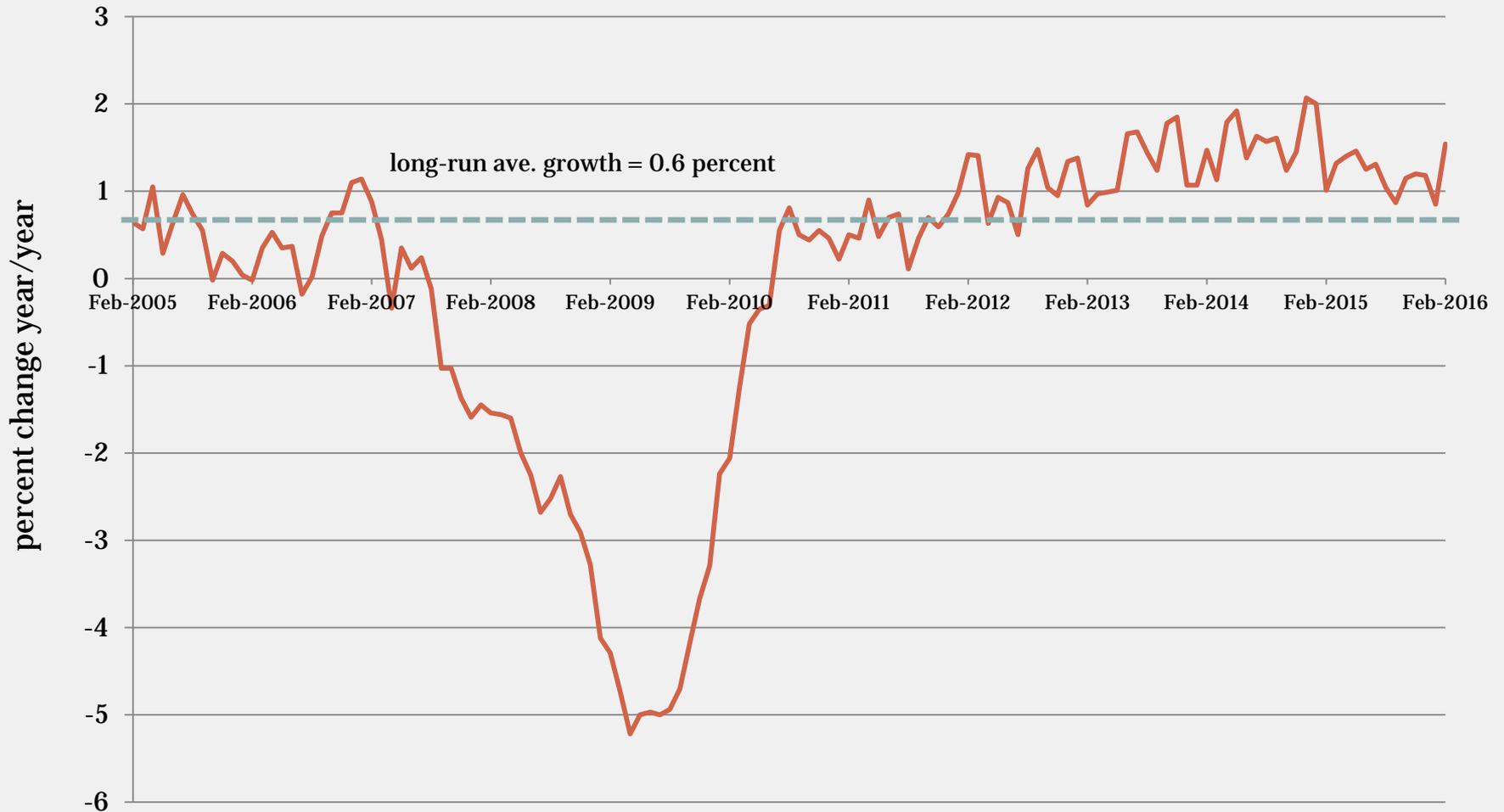


Source: Author's calculations using data from the Conference Board (via Haver Analytics), the Current Population Survey (CPS), and Sahin et al. (2014).

# Is Mismatch Overblown?

- **Recent hiring restraint of 0.4 percent is negligible**
  - ✦ lower than pre-recession value
  - ✦ zero mismatch impossible to achieve
- **Unemployment down sharply since 2014**
- **Payroll employment growth robust since mid-2012**

# Payroll employment growth rate above long-run average since mid-2012



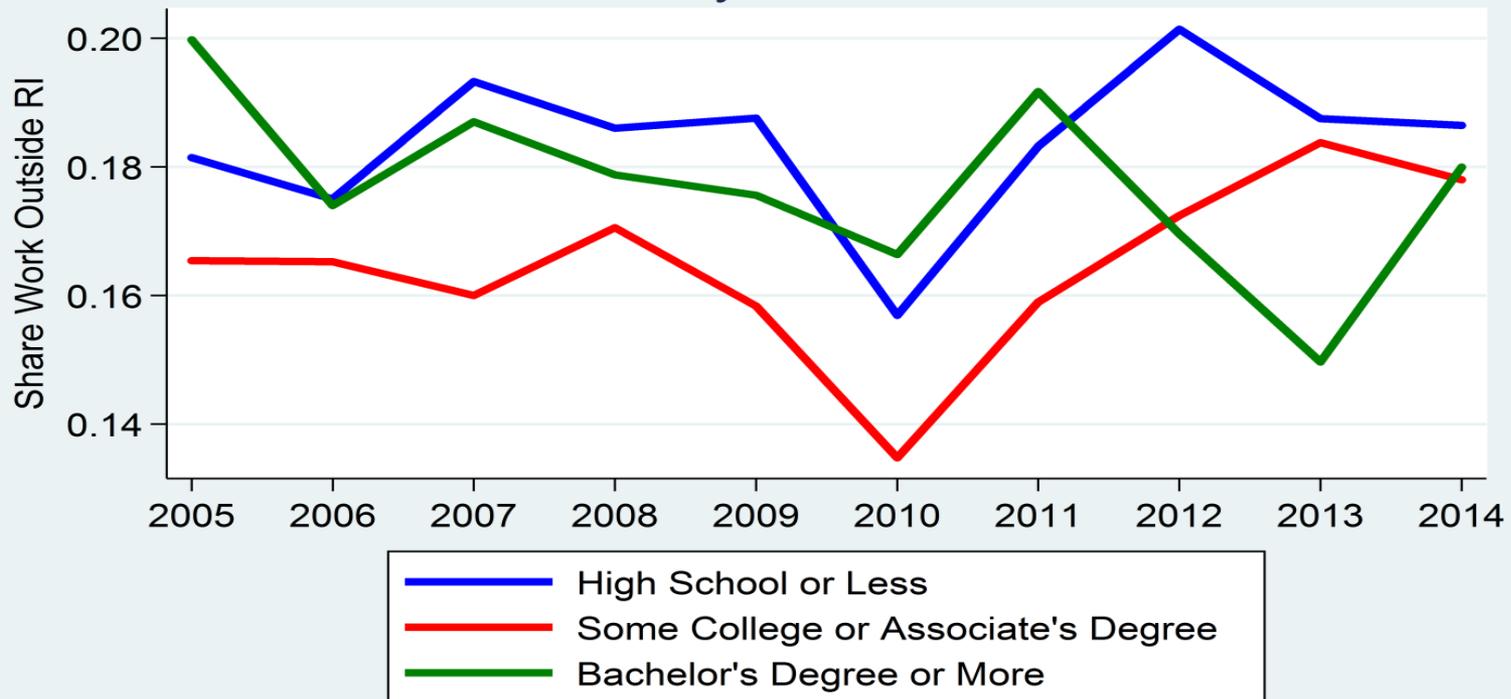
Source: Bureau of Labor Statistics, Haver Analytics

# Or is the Mismatch Index Not the Whole Story?

- **Hidden or “censored” mismatch**
  - Workers give up search, drop out or move away
  - Employers take down vacancies or move elsewhere
  - Fewer high-powered employers attracted to state
- **Mismatch alleviated by commuting**
  - Unemployed RI'ers find work in MA or CT
  - RI employers fill vacancies with out-of-state workers
  - May be a less-than-ideal solution

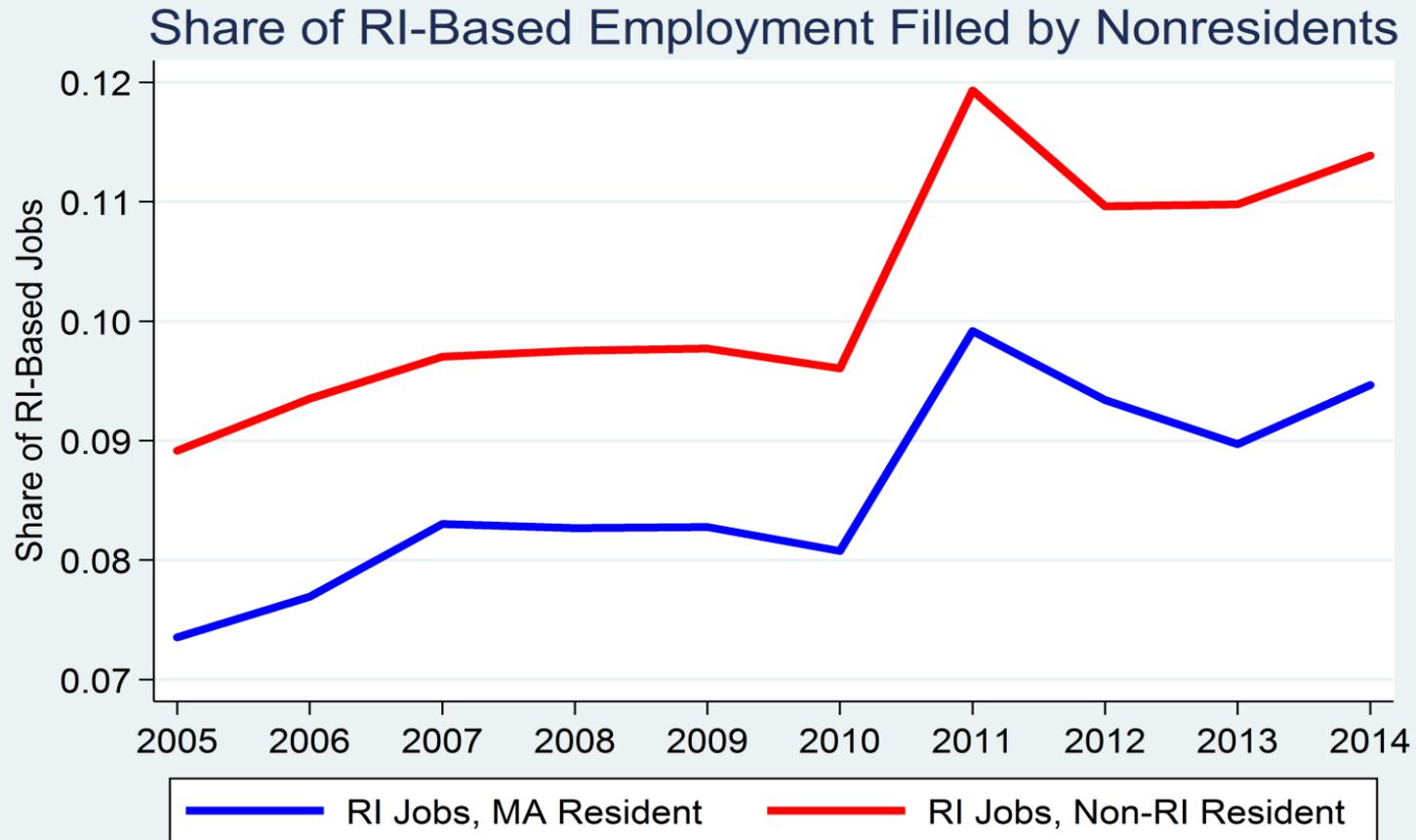
# Commuting from RI to Other States Increased 2010-2014

## Share of Employed RI Residents Who Work Outside of RI, by Educational Attainment



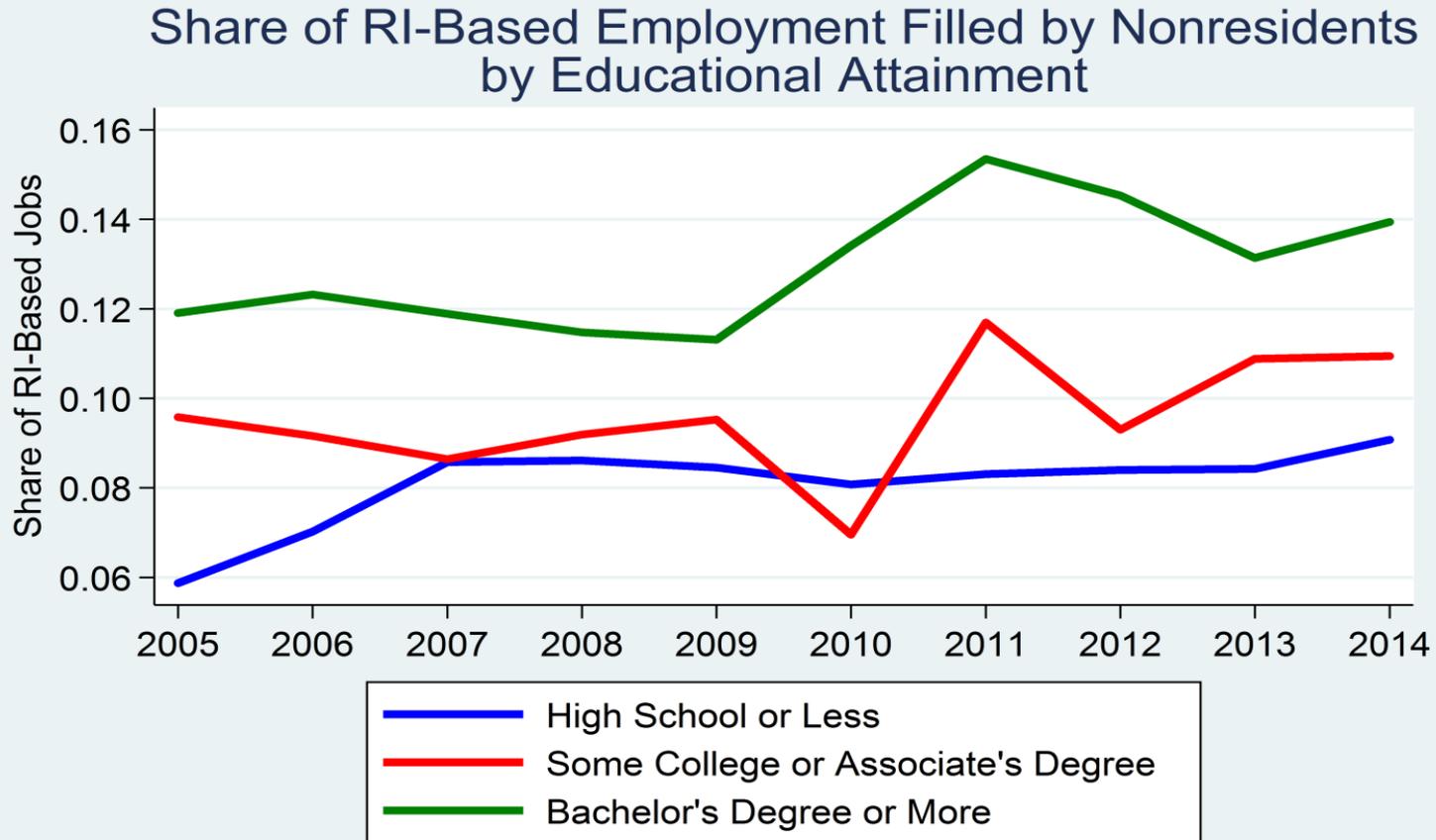
Source: Author's calculations, based on data from the U.S. Census Bureau's ACS microdata, collected from Integrated Public Use Microdata Series (ACS-IPUMS) database.

# Non-resident employment share up since 2005; down slightly from 2011 peak



Source: Author's calculations, based on data from the U.S. Census Bureau's ACS microdata, collected from Integrated Public Use Microdata Series (ACS-IPUMS) database.

# Increase in non-resident employment driven by jobs requiring bachelor's degree

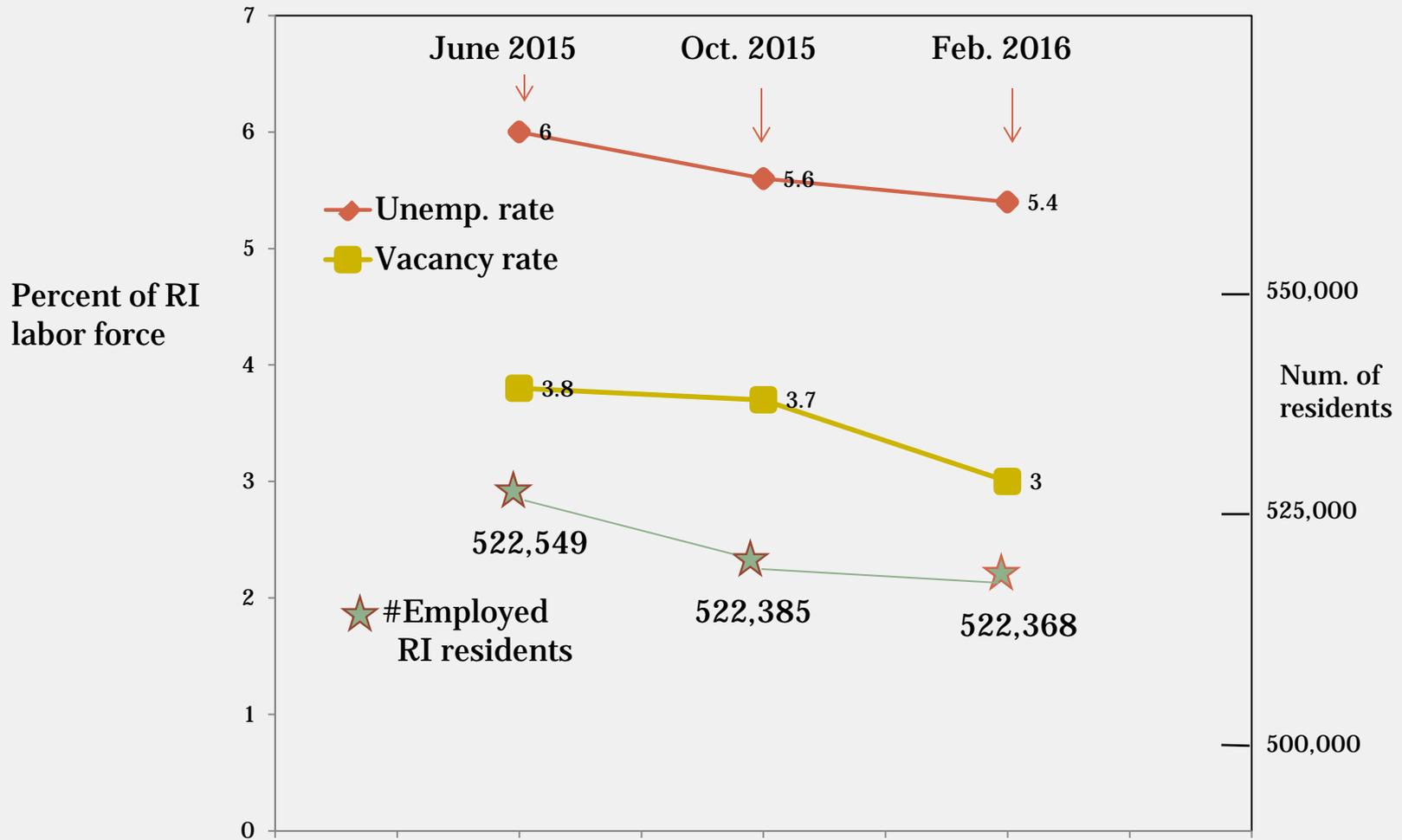


Source: Author's calculations, based on data from the U.S. Census Bureau's ACS microdata, collected from Integrated Public Use Microdata Series (ACS-IPUMS) database.

*“Employers in [Rhode Island’s] biomedical equipment industry have difficulty finding qualified labor to fill equipment and IT positions... As a result, these jobs are going to job seekers from out of state.”*

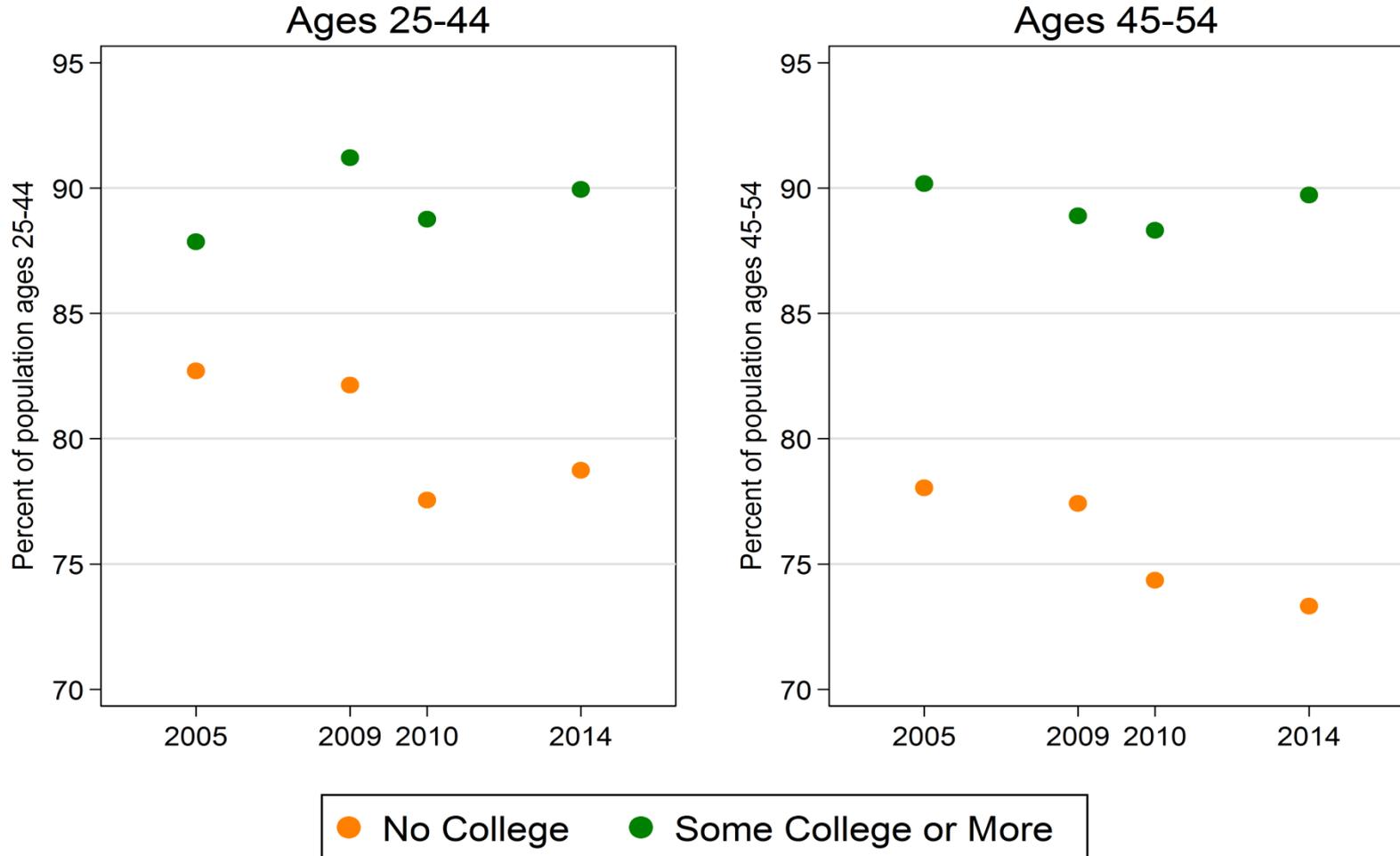
From planning grant application to Real Jobs RI by Clafin Medical Equipment and strategic partners.  
<http://www.governor.ri.gov/documents/press/RealJobsRI.pdf>.

# Since June, Unemployment Down, But So Are Vacancy Rate and Number Employed



Source: Bureau of Labor Statistics Household Employment Survey; Conference Board; both sources access through Haver Analytics

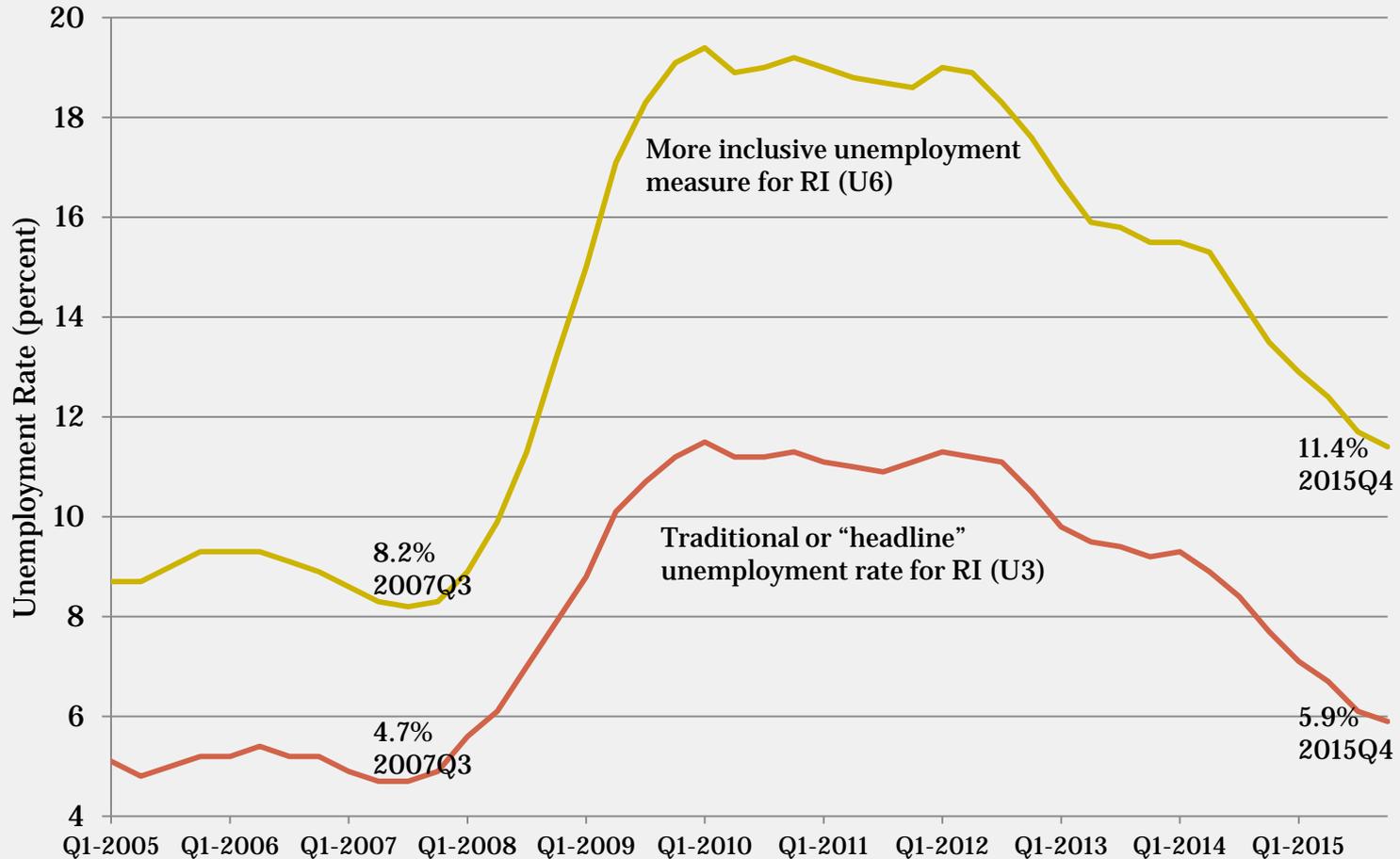
# Labor Force Participation is Down Among 25-54 Year Olds with Less Education



Source: Author's calculations, based on data from the U.S. Census Bureau's American Community Survey, collected from the Integrated Public Use Microdata Series (ACS-IPUMS) database.

# Broader Unemployment Measure Remains Elevated

U6 Includes Those Working Part-Time for Economic Reasons, Discouraged Workers, and Marginally Attached Workers



Source: Bureau of Labor Statistics, Haver Analytics

# Workforce Quality Affects Where Firms Locate

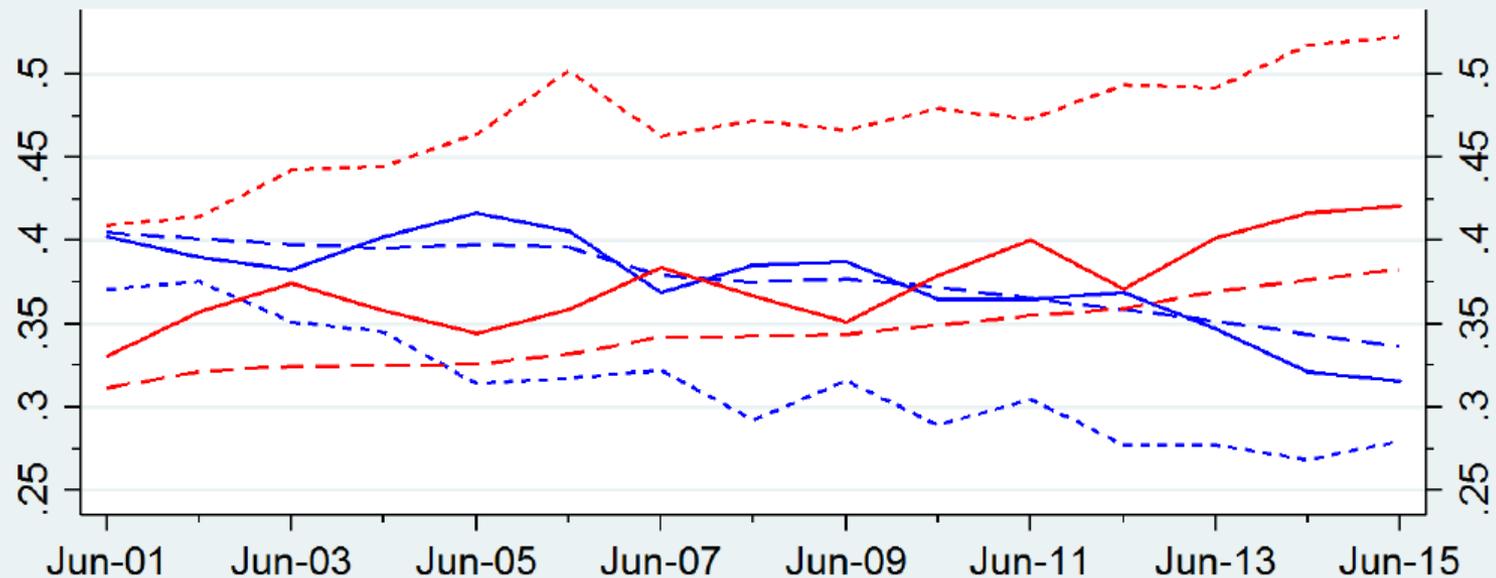
*“Greater Boston is home to 55 colleges and universities. Massachusetts spends more on research & development than any other region in the world, and Boston attracts a diverse, technologically-fluent workforce.”*

Jeffrey Immelt, CEO of General Electric Corp., in press release on GE's recent decision to move its headquarters to Boston.

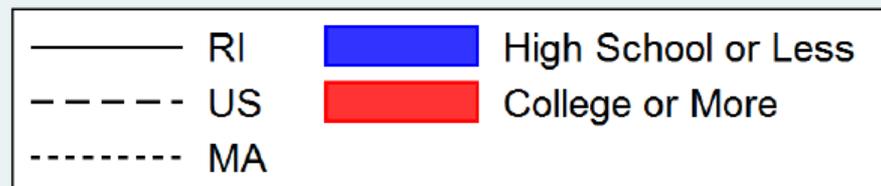
<http://www.genewsroom.com/press-releases/ge-moves-headquarters-boston-282587>

# RI Labor Force Lags MA Labor Force in Education

## Labor Force Composition by Education, Ages 25-64



Source: Author's calculations, based on data from the U.S. Census Bureau's CPS microdata. A given series represents the share of labor force members ages 25-64 who are in the given education group.



# Concluding thoughts

- **Mismatch spiked in recession, fell back in recovery**
  - no longer a significant restraint on hiring
- **Mismatch index does not fully capture skill deficits**
  - RI jobs increasingly filled by out-of-state workers
  - Discouraged workers drop out rather than retrain
  - Larger, more-skilled workforce would boost growth potential
- **Workforce training strategy subject to debate**
  - Start young vs. focus on adults
  - College degree vs. vocational training
  - Public vs. private dollars