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

MARY A. BURKE
SENIOR ECONOMIST
RESEARCH DEPARTMENT
FEDERAL RESERVE BANK OF BOSTON

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"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

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

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<tr>
<td>Unemp. rate</td>
<td>4.8</td>
<td>6.1</td>
<td>6</td>
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<tr>
<td>Vacancy rate</td>
<td>3.9</td>
<td>2.5</td>
<td>3.8</td>
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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

40 (29%) builders
100
(71%)
bankers

no mismatch

vacancies (1)

20 (29%)
(71%)
50

U%/V%

builders 1.0
bankers 1.0

mismatch

vacancies (2)

40 (57%)
30
(43%)

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

Adjusted Mismatch Index--Percent of Hires Missed

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

long-run ave. growth = 0.6 percent

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
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.”

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

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<td>Unemp. rate</td>
<td>6.0</td>
<td>5.6</td>
<td>5.4</td>
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<tr>
<td>Vacancy rate</td>
<td>3.8</td>
<td>3.7</td>
<td>3.0</td>
</tr>
<tr>
<td>Num. of residents</td>
<td>522,549</td>
<td>522,385</td>
<td>522,368</td>
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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: Bureau of Labor Statistics, Haver Analytics

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

More inclusive unemployment measure for RI (U6)

Traditional or “headline” unemployment rate for RI (U3)

Source: Bureau of Labor Statistics, Haver Analytics
“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.”

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