Labor Market Trends in the Metro South/West Region

By Robert Clifford

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A joint project of Commonwealth Corporation and New England Public Policy Center of the Federal Reserve Bank of Boston
Motivation

- Promote better public policy by conducting objective research and analysis of regional economic/policy issues.
- Understand the long-term labor force challenges facing the regional labor markets in Massachusetts.
- Provide detailed data on labor supply and demand trends to support workforce development policy discussions at a local level.
- Build off the labor market work of Harrington and Fogg (2008) and the demographics research of Sasser Modestino (2009, 2010).
Summary

- Metro South/West has had one of the strongest labor market recoveries coming out of the Great Recession.
- The region employs one of the most highly educated work forces in the state and has a strong demand for post-secondary educated labor.
- Demographics present the biggest challenge to the region due to a rapidly aging population.
- Metro South/West residents and employees are highly mobile, and the region’s ability to attract mobile populations may mitigate some of these challenges.
Outline

- Labor Market Performance
- Labor Supply
- Labor Demand
- The Pipeline: Educational Supply of Post-Secondary Degrees
Labor Market Performance

- National and State Employment Trends
- Performance of Regional Labor Markets
- Employment Trends by Industry in Metro South/West and Massachusetts
Massachusetts is still far below its peak employment levels of the early 2000’s.

Metro South/West leads regional employment growth through the earliest stages of the recovery.

The Metro South/West has a strong concentration in the Professional & Business Services industry.

**Employment Distribution by Supersector, Q4 2011**

<table>
<thead>
<tr>
<th>Supersector</th>
<th>Metro South/West</th>
<th>Massachusetts</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information</td>
<td>4.7%</td>
<td>2.8%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Construction</td>
<td>3.8%</td>
<td>3.9%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Other services</td>
<td>3.2%</td>
<td>4.1%</td>
<td>5.8%</td>
</tr>
<tr>
<td>Government</td>
<td>2.8%</td>
<td>4.3%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Financial Activities</td>
<td>5.1%</td>
<td>6.5%</td>
<td>5.9%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>9.1%</td>
<td>7.9%</td>
<td>9.1%</td>
</tr>
<tr>
<td>Leisure &amp; Hospitality</td>
<td>9.0%</td>
<td>9.8%</td>
<td>10.5%</td>
</tr>
<tr>
<td>Professional &amp; Business</td>
<td>22.1%</td>
<td>15.2%</td>
<td>13.6%</td>
</tr>
<tr>
<td>Services</td>
<td></td>
<td>18.3%</td>
<td>20.7%</td>
</tr>
<tr>
<td>Trade, Transportation &amp;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education &amp; Health Services</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Employment growth in major industries between recessions were concentrated in high-skill industries.

Sources: Massachusetts EOLWD, ES-202.
In the Great Recession Metro South/West continued to add jobs in its largest industries.

Employment Changes, Q4-2007 to Q4-2009

Sources: Massachusetts EOLWD, ES-202.
In the early stages of the labor market recovery Metro South/West has outpaced the state in most industries.

**Employment Changes, Q4-2009 to Q4-2011**

- Utilities
- Professional & Technical Services
- Manufacturing
- Wholesale Trade
- Financial Activities
- Government
- Transportation & Warehousing
- Educational Services
- Construction
- Management of Companies & Enterprises
- Retail Trade
- Health Care & Social Assistance
- Arts, Entertainment, & Recreation
- Accommodation & Food Services
- Information
- Other Services
- Administrative & Support Services

**Sources:** Massachusetts EOLWD, ES-202.
Labor Supply

- Residential Population Changes and Characteristics
- Age and Education of the Civilian Labor Force
- Trends and Characteristics of the Unemployed
- Commuting Patterns
After growing over the first half of the decade the population of Metro South/West has declined in recent years.

The region’s population has become more diverse in the past decade.

### Demographic Characteristics of Metro South/West

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2008-2010</th>
<th>Absolute Change</th>
<th>Annual Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Resident Population</strong></td>
<td>1,019,337</td>
<td>1,038,784</td>
<td>19,447</td>
<td>0.2%</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>486,222</td>
<td>504,845</td>
<td>18,623</td>
<td>0.4%</td>
</tr>
<tr>
<td>Female</td>
<td>533,115</td>
<td>533,939</td>
<td>824</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Nativity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native Born</td>
<td>877,860</td>
<td>859,444</td>
<td>-18,416</td>
<td>-0.2%</td>
</tr>
<tr>
<td>Immigrant</td>
<td>141,477</td>
<td>179,340</td>
<td>37,863</td>
<td>2.7%</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>909,509</td>
<td>868,184</td>
<td>-41,325</td>
<td>-0.5%</td>
</tr>
<tr>
<td>Black, non-Hispanic</td>
<td>16,142</td>
<td>22,322</td>
<td>6,180</td>
<td>3.7%</td>
</tr>
<tr>
<td>Asian, non-Hispanic</td>
<td>47,857</td>
<td>75,701</td>
<td>27,844</td>
<td>5.2%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>27,933</td>
<td>48,259</td>
<td>20,326</td>
<td>6.3%</td>
</tr>
<tr>
<td>Other race, non-Hispanic</td>
<td>17,896</td>
<td>24,318</td>
<td>6,422</td>
<td>3.5%</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau 2000 Decennial Census PUMS data files and 2008-2010 ACS PUMS data files.
Metro South/West has one of the older labor forces in Massachusetts with 50 percent over 45 years old.

Source: U.S. Census Bureau 2000 Decennial Census PUMS data files and 2008-2010 ACS PUMS data files.
The region also has the most educated labor force with over 60 percent having a Bachelor’s Degree or higher.

Source: U.S. Census Bureau 2000 Decennial Census PUMS data files and 2008-2010 ACS PUMS data files.
When looking at education and age together we see the challenges an aging labor force poses for the region.

Educational Attainment of the Civilian Labor Force in Metro South/West

- **Master's Degree or more**
- **Bachelor's Degree**
- **Associate's Degree**
- **Some College**
- **High School**
- **Less than High School**

Source: U.S. Census Bureau 2008-2010 ACS PUMS data files.
Along with strong employment gains, Metro South/West has the lowest unemployment rate of all regions.

Unemployment Rates, 2000 to 2011

The unemployed in Metro South/West are disproportionally younger and have lower levels of educational attainment.

**Age Distribution**

- **Civilian Labor Force**
  - Age 65+: 5.7%
  - Age 55-64: 26.4%
  - Age 45-54: 17.7%
  - Age 35-44: 23.6%
  - Age 25-34: 17.1%
  - Age 16-24: 9.5%

- **Unemployed**
  - Age 65+: 5.2%
  - Age 55-64: 27.6%
  - Age 45-54: 17.9%
  - Age 35-44: 18.2%
  - Age 25-34: 13.6%
  - Age 16-24: 17.5%

**Education Distribution**

- **Civilian Labor Force**
  - Master's degree or more: 29.6%
  - Bachelor's degree: 30.3%
  - Associate's degree: 13.3%
  - Some College, no degree: 16.7%
  - High school: 21.6%
  - Less than High School: 9.5%

- **Unemployed**
  - Master's degree or more: 18.8%
  - Bachelor's degree: 27.9%
  - Associate's degree: 5.5%
  - Some College, no degree: 16.7%
  - High school: 21.6%
  - Less than High School: 9.5%

Source: U.S. Census Bureau 2008-2010 ACS PUMS data files.
Metro South/West is a magnet for commuters and interconnected with a number of labor markets.

<table>
<thead>
<tr>
<th>Region</th>
<th>Number</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of employed persons living in Metro South/West...</td>
<td>538,965</td>
<td>100.0%</td>
</tr>
<tr>
<td>...who work in:</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Metro South/West</strong></td>
<td>312,625</td>
<td><strong>58.0%</strong></td>
</tr>
<tr>
<td>Boston/Metro North</td>
<td>143,259</td>
<td>26.6%</td>
</tr>
<tr>
<td>Southeast</td>
<td>26,439</td>
<td>4.9%</td>
</tr>
<tr>
<td>Central Mass</td>
<td>23,306</td>
<td>4.3%</td>
</tr>
<tr>
<td>Northeast</td>
<td>18,260</td>
<td>3.4%</td>
</tr>
<tr>
<td>Other parts of Massachusetts</td>
<td>1,706</td>
<td>0.3%</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>2,559</td>
<td>0.5%</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>6,361</td>
<td>1.2%</td>
</tr>
<tr>
<td>Other places outside Massachusetts</td>
<td>4,450</td>
<td>0.8%</td>
</tr>
<tr>
<td>Total number of persons working in Metro South/West...</td>
<td>599,083</td>
<td>100.0%</td>
</tr>
<tr>
<td>...who live in:</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Metro South/West</strong></td>
<td>312,625</td>
<td><strong>52.2%</strong></td>
</tr>
<tr>
<td>Boston/Metro North</td>
<td>85,621</td>
<td>14.3%</td>
</tr>
<tr>
<td>Southeast</td>
<td>57,855</td>
<td>9.7%</td>
</tr>
<tr>
<td>Central Mass</td>
<td>56,392</td>
<td>9.4%</td>
</tr>
<tr>
<td>Northeast</td>
<td>45,878</td>
<td>7.7%</td>
</tr>
<tr>
<td>Other parts of Massachusetts</td>
<td>4,964</td>
<td>0.8%</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>14,430</td>
<td>2.4%</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>15,028</td>
<td>2.5%</td>
</tr>
<tr>
<td>Other places outside Massachusetts</td>
<td>6,290</td>
<td>1.0%</td>
</tr>
<tr>
<td>Net in-commuting</td>
<td>60,118</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau 2008-2010 ACS PUMS data files.
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December 6, 2012

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Labor Demand

- Educational Attainment of Employed
- Educational Attainment and Composition of Industries and Occupations
- Demand of Post-Secondary Educated Labor Pre- and Post-Recession
The educational attainment of those working in the region is high, far exceeding state and national levels.

Educational Attainment of Individuals Employed in Region

Source: U.S. Census Bureau 2000 Decennial Census PUMS data files and 2008-2010 ACS PUMS data files.
A growing number of employees have an Bachelor's Degree or higher, while a shrinking number have lower levels of education.

Annual Growth in the Employed by Education, 2000 to 2008-2010

Source: U.S. Census Bureau 2000 Decennial Census PUMS data files and 2008-2010 ACS PUMS data files.
Industries in Metro South/West employ greater shares of employees with Bachelor’s Degrees or higher than statewide.

**Educational Attainment of Employees by Major Industry in Metro South/West**

- **Professional & Technical Services**:
  - High School Degree or Less: 5.9%
  - Some College or Associate's Degree: 14.3%
  - Bachelor's Degree or Higher: 79.9%

- **Health Care & Social Assistance**:
  - High School Degree or Less: 21.2%
  - Some College or Associate's Degree: 31.4%
  - Bachelor's Degree or Higher: 47.4%

- **Manufacturing**:
  - High School Degree or Less: 25.2%
  - Some College or Associate's Degree: 21.9%
  - Bachelor's Degree or Higher: 52.9%

**Educational Attainment of Employees by Major Industry in Massachusetts**

- **Professional & Technical Services**:
  - High School Degree or Less: 8.0%
  - Some College or Associate's Degree: 15.9%
  - Bachelor's Degree or Higher: 76.1%

- **Health Care & Social Assistance**:
  - High School Degree or Less: 23.0%
  - Some College or Associate's Degree: 33.2%
  - Bachelor's Degree or Higher: 43.8%

- **Manufacturing**:
  - High School Degree or Less: 37.3%
  - Some College or Associate's Degree: 23.8%
  - Bachelor's Degree or Higher: 38.8%

*Source: U.S. Census Bureau 2008-2010 ACS PUMS data files.*
Occupations in Metro South/West are also occupied by higher shares of employees with Bachelor’s Degrees.

### Educational Attainment of Employees by Occupation in Metro South/West

<table>
<thead>
<tr>
<th>Occupation</th>
<th>High School Degree or Less</th>
<th>Some College or Associate's Degree</th>
<th>Bachelor's Degree or Higher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>10.1%</td>
<td>18.6%</td>
<td>71.4%</td>
</tr>
<tr>
<td>Office &amp; Administrative Support</td>
<td>32.4%</td>
<td>37.8%</td>
<td>29.8%</td>
</tr>
<tr>
<td>Healthcare Practitioners &amp; Technical</td>
<td>6.7%</td>
<td>27.7%</td>
<td>65.7%</td>
</tr>
<tr>
<td>Production</td>
<td>60.3%</td>
<td>22.6%</td>
<td>17.1%</td>
</tr>
</tbody>
</table>

### Educational Attainment of Employees by Occupation in Massachusetts

<table>
<thead>
<tr>
<th>Occupation</th>
<th>High School Degree or Less</th>
<th>Some College or Associate's Degree</th>
<th>Bachelor's Degree or Higher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>13.5%</td>
<td>21.2%</td>
<td>65.3%</td>
</tr>
<tr>
<td>Office &amp; Administrative Support</td>
<td>35.3%</td>
<td>40.4%</td>
<td>24.3%</td>
</tr>
<tr>
<td>Healthcare Practitioners &amp; Technical</td>
<td>6.4%</td>
<td>29.9%</td>
<td>63.8%</td>
</tr>
<tr>
<td>Production</td>
<td>65.6%</td>
<td>23.2%</td>
<td>11.1%</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau 2008-2010 ACS PUMS data files.
Prior to the recession there were higher vacancy rates in the more highly educated occupations than in the less educated.

In the early stages of the labor market recovery this pattern weakened but basically continued to hold.

**Job Vacancies and Educational Attainment by Occupation, Post-Recession**

- **Greater Boston**
- **Massachusetts**
- Linear (Greater Boston)
- Linear (Massachusetts)

Source: Massachusetts EOLWD, Job Vacancy Survey and U.S. Census Bureau 2008-2010 ACS PUMS data files.
The Pipeline: Educational Supply of Post-Secondary Degrees

- Enrollment Patterns
- Degree Completions
- Major Fields of Study by Degree Type
Over the past decade enrollment growth at two-year institutions in Metro South/West exceeded that of other institutions.
Over the last decade completions of programs and degrees in Metro South/West have trailed state and national trends.
The number and types of Certificates in Metro South/West vary widely from year to year.

Annual Certificate Completions by Major in Metro South/West, 2000 to 2010

- Education
- Business
- Engineering & Computer Sciences
- Health Sciences
- Services

Associate’s Degree completions have surged in recent years in two fields: Arts, Humanities & Social Sciences and Services.

Annual Associate’s Degree Completions by Major in Metro South/West, 2000 to 2010

Bachelor’s Degree completions are largely concentrated in two majors: Arts, Humanities & Social Sciences and Business.

![Annual Bachelor’s Degree Completions by Major in Metro South/West, 2000 to 2010](image)

Summary

 The recovery in employment has been stronger in Metro South/West than in most other regions.

 Firms in the region employ one of the most highly educated workforces in the state and continue to demand more post-secondary educated labor.

 With one of the oldest civilian labor forces in the state, Metro South/West will face the demographic challenges of an aging population sooner than other regions.

 Given such trends, what should be done to ensure the future economic vitality of Metro South/West moving forward?
Thank You