Labor Market Trends in the Southeast Region

By Robert Clifford
Policy Analyst
New England Public Policy Center
Federal Reserve Bank of Boston

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).
The Southeast region was one of the hardest hit regional labor markets in the Great Recession, resulting in the highest unemployment rate of all regional labor markets.

Despite gains in the educational attainment of its labor force in the past decade, the region still has one of the highest shares of individuals with a High School Degree or less.

Addressing the barriers to full employment facing the regions unemployed, particularly among the young and less educated, is key to the recovery of the Southeast region.

Public institutions in the region play a sizeable role in the supply of post-secondary educated labor.
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 the Southeast Region and Massachusetts
Massachusetts is still far below its peak employment levels of the early 2000’s.

Total Non-Agricultural Employment, Q1-2000 to Q2-2012

The Southeast region was one of the hardest hit regional labor markets in the Great Recession and is recovering modestly.

**Total Growth Rates in Employment**

<table>
<thead>
<tr>
<th>Region</th>
<th>Q1 2001-Q1 2008</th>
<th>Q4 2007-Q4 2009</th>
<th>Q4 2009-Q4 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southeast</td>
<td>0.3%</td>
<td>-5.2%</td>
<td>-10.0%</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>-2.1%</td>
<td>-8.0%</td>
<td>-6.0%</td>
</tr>
<tr>
<td>United States</td>
<td>-4.0%</td>
<td>-4.0%</td>
<td>-2.0%</td>
</tr>
<tr>
<td>Berkshire</td>
<td>0.0%</td>
<td>2.0%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Boston/Metro North</td>
<td>6.0%</td>
<td>8.0%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Cape &amp; Islands</td>
<td>0.0%</td>
<td>2.0%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Central Mass</td>
<td>-2.0%</td>
<td>-4.0%</td>
<td>-6.0%</td>
</tr>
<tr>
<td>Metro South/West</td>
<td>-6.0%</td>
<td>-8.0%</td>
<td>-10.0%</td>
</tr>
<tr>
<td>Northeast</td>
<td>-8.0%</td>
<td>-10.0%</td>
<td>-12.0%</td>
</tr>
<tr>
<td>Pioneer Valley</td>
<td>-10.0%</td>
<td>-12.0%</td>
<td>-14.0%</td>
</tr>
</tbody>
</table>

**Sources:** Massachusetts Executive Office of Labor and Workforce Development (EOLWD), ES-202 and U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).
Greater New Bedford and the South Shore have fared better than Bristol County and Brockton.

**Total Growth Rates in Employment**

<table>
<thead>
<tr>
<th>Region</th>
<th>Q1 2001-Q1 2008</th>
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</tr>
<tr>
<td>Massachusetts</td>
<td>-2.0%</td>
<td>-4.0%</td>
<td>-6.0%</td>
</tr>
<tr>
<td>United States</td>
<td>-4.0%</td>
<td>-6.0%</td>
<td>-8.0%</td>
</tr>
<tr>
<td>Bristol County</td>
<td>-6.0%</td>
<td>-8.0%</td>
<td>-10.0%</td>
</tr>
<tr>
<td>Brockton</td>
<td>-8.0%</td>
<td>-10.0%</td>
<td>-12.0%</td>
</tr>
<tr>
<td>Greater New Bedford</td>
<td>2.1%</td>
<td>0.0%</td>
<td>2.0%</td>
</tr>
<tr>
<td>South Shore</td>
<td>4.0%</td>
<td>6.0%</td>
<td>8.0%</td>
</tr>
</tbody>
</table>

**Share of Employment, Q4 2011**

- Greater New Bedford: 15.7%
- South Shore: 40.1%
- Brockton: 17.6%
- Bristol County: 26.6%
- Southeast: 40.1%

The region has stronger concentrations in Construction, Manufacturing, and Trade, Transportation, & Utilities.

**Employment Distribution by Supersector, Q4 2011**

- **Southeast**
  - Information: 1.8%
  - Construction: 5.0%
  - Other services: 5.3%
  - Government: 3.6%
  - Financial Activities: 5.8%
  - Manufacturing: 8.3%
  - Leisure & Hospitality: 10.3%
  - Professional & Business Services: 10.0%
  - Trade, Transportation & Utilities: 23.3%
  - Education & Health Services: 26.5%

- **Massachusetts**
  - Information: 2.8%
  - Construction: 3.9%
  - Other services: 4.1%
  - Government: 4.3%
  - Financial Activities: 6.5%
  - Manufacturing: 7.9%
  - Leisure & Hospitality: 9.8%
  - Professional & Business Services: 15.2%
  - Trade, Transportation & Utilities: 18.3%
  - Education & Health Services: 27.2%

- **United States**
  - Information: 2.2%
  - Construction: 4.5%
  - Other services: 5.8%
  - Government: 3.5%
  - Financial Activities: 5.9%
  - Manufacturing: 9.1%
  - Leisure & Hospitality: 10.5%
  - Professional & Business Services: 13.6%
  - Trade, Transportation & Utilities: 20.7%
  - Education & Health Services: 24.3%

Between recessions, the Southeast region gained jobs in a number of industries which contracted statewide.

**Employment Changes, Q1-2001 to Q1-2008**

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

**Sources:** Massachusetts EOLWD, ES-202.
The Great Recession hit a number of industries in the region harder than it did statewide.

![Employment Changes, Q4-2007 to Q4-2009](image)

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

Sources: Massachusetts EOLWD, ES-202.
In the recovery, the region has continued to lose jobs in some industries and trails statewide employment gains in others.

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
The Southeast region experienced one of the fastest growing residential populations of all regions in the past decade.

**Total Residential Population Growth**

Growth in immigrant and minority populations accounted for nearly all of the growth in the residential population.

### Demographic Characteristics of the Southeast

<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>Resident Population</td>
<td>1,281,613</td>
<td>1,319,715</td>
<td>38,102</td>
<td>0.3%</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>618,463</td>
<td>635,944</td>
<td>17,481</td>
<td>0.3%</td>
</tr>
<tr>
<td>Female</td>
<td>663,150</td>
<td>683,771</td>
<td>20,621</td>
<td>0.3%</td>
</tr>
<tr>
<td><strong>Nativity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native Born</td>
<td>1,135,918</td>
<td>1,142,325</td>
<td>6,407</td>
<td>0.1%</td>
</tr>
<tr>
<td>Immigrant</td>
<td>145,695</td>
<td>177,390</td>
<td>31,695</td>
<td>2.2%</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>1,124,396</td>
<td>1,096,965</td>
<td>-27,431</td>
<td>-0.3%</td>
</tr>
<tr>
<td>Black, non-Hispanic</td>
<td>43,735</td>
<td>82,958</td>
<td>39,223</td>
<td>7.4%</td>
</tr>
<tr>
<td>Asian, non-Hispanic</td>
<td>31,600</td>
<td>49,362</td>
<td>17,762</td>
<td>5.1%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>35,313</td>
<td>55,012</td>
<td>19,699</td>
<td>5.0%</td>
</tr>
<tr>
<td>Other race, non-Hispanic</td>
<td>46,569</td>
<td>35,418</td>
<td>-11,151</td>
<td>-3.0%</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau 2000 Decennial Census PUMS data files and 2008-2010 ACS PUMS data files.
The civilian labor force in the Southeast region is slightly older than that of Massachusetts and the United States.

**Age Distribution of the Civilian Labor Force**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 65+</td>
<td>11.2%</td>
<td>16.3%</td>
<td>10.8%</td>
<td>15.8%</td>
<td>10.2%</td>
<td>14.7%</td>
</tr>
<tr>
<td>Age 55-64</td>
<td>23.1%</td>
<td>24.8%</td>
<td>22.4%</td>
<td>23.9%</td>
<td>21.8%</td>
<td>23.3%</td>
</tr>
<tr>
<td>Age 45-54</td>
<td>27.2%</td>
<td>22.7%</td>
<td>27.0%</td>
<td>22.0%</td>
<td>26.8%</td>
<td>22.3%</td>
</tr>
<tr>
<td>Age 35-44</td>
<td>21.9%</td>
<td>17.9%</td>
<td>23.3%</td>
<td>20.2%</td>
<td>22.7%</td>
<td>21.5%</td>
</tr>
<tr>
<td>Age 25-34</td>
<td>13.1%</td>
<td>13.6%</td>
<td>12.9%</td>
<td>13.2%</td>
<td>15.2%</td>
<td>14.2%</td>
</tr>
<tr>
<td>Age 16-24</td>
<td>13.6%</td>
<td>13.6%</td>
<td>13.6%</td>
<td>15.8%</td>
<td>14.7%</td>
<td>14.7%</td>
</tr>
</tbody>
</table>

**Source:** U.S. Census Bureau 2000 Decennial Census PUMS data files and 2008-2010 ACS PUMS data files.
The region’s labor force has one of the highest concentrations of individuals with a High School Degree or less in the state.

### Educational Attainment of the Civilian Labor Force

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than High School</td>
<td>13.8%</td>
<td>9.8%</td>
<td>11.5%</td>
<td>8.7%</td>
<td>15.5%</td>
<td>11.8%</td>
</tr>
<tr>
<td>High School</td>
<td>27.9%</td>
<td>27.5%</td>
<td>24.3%</td>
<td>23.5%</td>
<td>26.9%</td>
<td>26.3%</td>
</tr>
<tr>
<td>Some College, no degree</td>
<td>20.5%</td>
<td>20.7%</td>
<td>19.1%</td>
<td>18.7%</td>
<td>23.9%</td>
<td>24.0%</td>
</tr>
<tr>
<td>Associate's degree</td>
<td>7.9%</td>
<td>7.9%</td>
<td>7.9%</td>
<td>7.2%</td>
<td>8.3%</td>
<td></td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>19.4%</td>
<td>21.9%</td>
<td>22.3%</td>
<td>24.4%</td>
<td>17.2%</td>
<td>19.1%</td>
</tr>
<tr>
<td>Master's degree or more</td>
<td>9.2%</td>
<td>10.4%</td>
<td>14.8%</td>
<td>16.8%</td>
<td>9.4%</td>
<td>10.5%</td>
</tr>
</tbody>
</table>

**Source:** U.S. Census Bureau 2000 Decennial Census PUMS data files and 2008-2010 ACS PUMS data files.
In the past decade the Southeast region has seen progressively stronger growth the higher the level of educational attainment.

**Annual Growth in the Civilian Labor Force by Education, 2000 to 2008-2010**

- **Master's Degree or more**
  - Massachusetts: 2.4%
  - Southeast: 2.4%

- **Bachelor's Degree**
  - Massachusetts: 2.0%
  - Southeast: 2.4%

- **Associate's Degree**
  - Massachusetts: 1.0%
  - Southeast: 1.6%

- **Some College, no degree**
  - Massachusetts: 0.7%
  - Southeast: 1.1%

- **High School**
  - Massachusetts: 0.6%
  - Southeast: 0.9%

- **Less than High School**
  - Massachusetts: -2.2%
  - Southeast: -2.8%

Source: U.S. Census Bureau 2000 Decennial Census PUMS data files and 2008-2010 ACS PUMS data files.
The trends in educational attainment and aging leave the region with potential shortfalls of workers in nearly every category.

Educational Attainment of the Civilian Labor Force in the Southeast

Source: U.S. Census Bureau 2008-2010 ACS PUMS data files.
In the Great Recession the unemployment rate reached 9.6 percent in the Southeast region, highest among all regions.

Unemployment Rates, 2000 to 2011

The highest unemployment rates were reached in Greater New Bedford (11.3 percent) and Bristol County (10.7 percent).
The unemployed in the Southeast region are disproportionately younger and have lower levels of educational attainment.

**Age Distribution**

- Civilian Labor Force:
  - Age 65+: 4.6%
  - Age 55-64: 16.3%
  - Age 45-54: 24.8%
  - Age 35-44: 22.7%
  - Age 25-34: 17.9%
  - Age 16-24: 13.6%

- Unemployed:
  - Age 65+: 4.9%
  - Age 55-64: 11.8%
  - Age 45-54: 19.8%
  - Age 35-44: 18.4%
  - Age 25-34: 17.4%
  - Age 16-24: 27.7%

**Education Distribution**

- Civilian Labor Force:
  - Master's degree or more: 10.4%
  - Bachelor's degree: 21.9%
  - Associate's degree: 9.6%
  - Some College, no degree: 20.7%
  - High School: 27.5%
  - Less than High School: 21.1%

- Unemployed:
  - Master's degree or more: 3.7%
  - Bachelor's degree: 13.9%
  - Associate's degree: 6.5%
  - Some College, no degree: 20.7%
  - High School: 34.2%
  - Less than High School: 21.9%

Source: U.S. Census Bureau 2008-2010 ACS PUMS data files.
In both the region and statewide individuals with lower levels of educational attainment face significant barriers to employment.

![Unemployment Rates by Education, 2008-2010](chart)

**Source:** U.S. Census Bureau 2008-2010 ACS PUMS data files.
The Southeast region is closely tied to neighboring labor markets, with large shares of residents working elsewhere.

<table>
<thead>
<tr>
<th>Number</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of employed persons living in the Southeast region...</td>
<td>652,693</td>
</tr>
<tr>
<td>...that work in:</td>
<td></td>
</tr>
<tr>
<td><strong>Southeast</strong></td>
<td>441,244</td>
</tr>
<tr>
<td>Boston/Metro North</td>
<td>106,686</td>
</tr>
<tr>
<td>Metro South/West</td>
<td>57,855</td>
</tr>
<tr>
<td>Cape &amp; Islands</td>
<td>7,195</td>
</tr>
<tr>
<td>Other parts of Massachusetts</td>
<td>6,915</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>28,110</td>
</tr>
<tr>
<td>Other places outside Massachusetts</td>
<td>4,688</td>
</tr>
<tr>
<td>Total number of persons working in the Southeast region...</td>
<td>535,070</td>
</tr>
<tr>
<td>...that live in:</td>
<td></td>
</tr>
<tr>
<td><strong>Southeast</strong></td>
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</tr>
<tr>
<td>Boston/Metro North</td>
<td>20,692</td>
</tr>
<tr>
<td>Metro South/West</td>
<td>26,439</td>
</tr>
<tr>
<td>Cape &amp; Islands</td>
<td>6,770</td>
</tr>
<tr>
<td>Other parts of Massachusetts</td>
<td>7,512</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>27,964</td>
</tr>
<tr>
<td>Other places outside Massachusetts</td>
<td>4,449</td>
</tr>
<tr>
<td><strong>Net in-commuting</strong></td>
<td><strong>-117,623</strong></td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau 2008-2010 ACS PUMS data files.
Labor Demand

- Educational Attainment of Employed
- Educational Attainment and Composition of Industries and Occupations
- Demand for Workers with Post-Secondary Education Pre- and Post-Recession
The educational attainment of those employed in the Southeast region is closer to the nationwide workforce than statewide.

Educational Attainment of Individuals Employed in the Region

Source: U.S. Census Bureau 2000 Decennial Census PUMS data files and 2008-2010 ACS PUMS data files.
Industries in the region have small shares of employees with a Bachelor’s Degree or Higher, but large shares with “middle-skills”.

### Educational Attainment of Employees by Selected Major Industries in the Southeast Region

<table>
<thead>
<tr>
<th>Industry</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>Health Care &amp; Social Assistance</td>
<td>26.9%</td>
<td>38.9%</td>
<td>34.1%</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>44.5%</td>
<td>34.2%</td>
<td>21.3%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>49.4%</td>
<td>23.2%</td>
<td>27.4%</td>
</tr>
</tbody>
</table>

### Educational Attainment of Employees by Selected Major Industries in Massachusetts

<table>
<thead>
<tr>
<th>Industry</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>Health Care &amp; Social Assistance</td>
<td>23.0%</td>
<td>33.2%</td>
<td>43.8%</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>42.1%</td>
<td>33.1%</td>
<td>24.8%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>37.3%</td>
<td>23.8%</td>
<td>38.8%</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau 2008-2010 ACS PUMS data files.
The pattern persists across occupations, although the difference in post-secondary educational attainment is not as large.

**Educational Attainment of Employees by Selected Occupations in the Southeast Region**

<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>Office &amp; Administrative Support</td>
<td>40.0%</td>
<td>41.4%</td>
<td>18.6%</td>
</tr>
<tr>
<td>Healthcare Practitioners &amp; Technical</td>
<td>8.4%</td>
<td>37.8%</td>
<td>53.8%</td>
</tr>
<tr>
<td>Sales &amp; Related</td>
<td>35.4%</td>
<td>33.2%</td>
<td>31.4%</td>
</tr>
<tr>
<td>Production</td>
<td>69.0%</td>
<td>20.9%</td>
<td>10.0%</td>
</tr>
</tbody>
</table>

**Educational Attainment of Employees by Selected 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>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>Sales</td>
<td>31.5%</td>
<td>31.0%</td>
<td>37.5%</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.

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

- **Southeast**
- **Massachusetts**
- Linear (Southeast)
- 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
Enrollment at higher educational institutions in the region has varied by type of institution and enrollment status.

### Annual Growth in Enrollments, 2000 to 2010

#### Full-Time Enrollment
- **Southeast**: -2.0%
- **Massachusetts**: -4.0%
- **United States**: 0.0%

#### Part-Time Enrollment
- **Southeast**: 4.0%
- **Massachusetts**: 8.0%
- **United States**: 12.0%

Growth in certificate and degree completions in the region exceeded statewide trends in the past decade.
Public institutions account for a larger share of Associate’s and Bachelor's Degrees completions in the region than statewide.

Health Sciences and Services have accounted for most of the Certificates completed in the Southeast region.

**Annual Certificate Completions by Major in the Southeast Region, 2000 to 2010**

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

Associate’s Degree completions have been in a number of fields of study, with more coming in Health Sciences in recent years.

![Annual Associate’s Degree Completions by Major in the Southeast Region, 2000 to 2010](image)

Art, Humanities, & Social Sciences accounted for nearly half of all Bachelor’s Degrees completed in the Southeast region.

**Annual Bachelor’s Degree Completions by Major in the Southeast Region, 2000 to 2010**

- Science & Mathematics
- Services
- Health Sciences
- Business
- Arts, Humanities, & Social Sciences

Summary

- In the Great Recession, the region experienced a steep decline in employment and large increase in unemployment that positioned the region for a tough labor market recovery.
- While educational attainment of the region’s labor force has increased more rapidly in the Southeast region than statewide in the past decade, it still has one of the highest shares of individuals with a High School Degree or less.
- Addressing the employment barriers facing the region’s unemployed, particularly among the young and less educated, is one key to the recovery of the Southeast region.
- Given such trends, what should be done to ensure the future economic vitality of the Southeast region moving forward?
Thank You

Robert.Clifford@bos.frb.org

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