### Table S1.a Projections of future labor demand - New England states

Distribution of employment by educational attainment for major occupation groups, 2009 and 2018.

<table>
<thead>
<tr>
<th></th>
<th>TOTAL</th>
<th>&quot;Low-Skill&quot;</th>
<th>&quot;Middle-Skill&quot;</th>
<th>&quot;High-Skill&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less than high school</td>
<td>High school graduate</td>
<td>Some college</td>
<td>Associate's degree</td>
</tr>
<tr>
<td>Total number of jobs (employment plus vacancies), 2009</td>
<td>5,346,492</td>
<td>563,213</td>
<td>1,397,808</td>
<td>1,257,289</td>
</tr>
<tr>
<td>Total number of jobs (replacement plus new jobs), 2018</td>
<td>5,939,538</td>
<td>623,928</td>
<td>1,546,420</td>
<td>1,397,342</td>
</tr>
<tr>
<td>Net new jobs</td>
<td>593,046</td>
<td>60,715</td>
<td>148,612</td>
<td>140,053</td>
</tr>
</tbody>
</table>

#### Job growth in each education category by major occupational group:

<table>
<thead>
<tr>
<th>Occupational Group</th>
<th>&quot;Low-Skill&quot;</th>
<th>&quot;Middle-Skill&quot;</th>
<th>&quot;High-Skill&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management occupations</td>
<td>0.8%</td>
<td>0.3%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Business and financial operations occupations</td>
<td>8.5%</td>
<td>1.1%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Computer and mathematical science occupations</td>
<td>4.4%</td>
<td>0.3%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Architecture and engineering occupations</td>
<td>1.3%</td>
<td>0.1%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Life, physical, and social science occupations</td>
<td>2.0%</td>
<td>0.2%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Community and social services occupations</td>
<td>2.9%</td>
<td>0.6%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Legal occupations</td>
<td>1.3%</td>
<td>0.1%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Education, training, and library occupations</td>
<td>8.8%</td>
<td>1.5%</td>
<td>4.7%</td>
</tr>
<tr>
<td>Arts, design, entertainment, sports, and media occupations</td>
<td>0.6%</td>
<td>0.0%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Healthcare practitioners and technical occupations</td>
<td>7.6%</td>
<td>0.7%</td>
<td>5.1%</td>
</tr>
<tr>
<td>Healthcare support occupations</td>
<td>7.4%</td>
<td>8.9%</td>
<td>10.4%</td>
</tr>
<tr>
<td>Protective service occupations</td>
<td>2.4%</td>
<td>1.6%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Food preparation and serving related occupations</td>
<td>6.9%</td>
<td>22.2%</td>
<td>7.0%</td>
</tr>
<tr>
<td>Building and grounds cleaning and maintenance occupations</td>
<td>3.0%</td>
<td>10.2%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Personal care and service occupations</td>
<td>3.9%</td>
<td>5.8%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Sales and related occupations</td>
<td>7.6%</td>
<td>7.5%</td>
<td>9.3%</td>
</tr>
<tr>
<td>Office and administrative support occupations</td>
<td>16.2%</td>
<td>7.3%</td>
<td>25.0%</td>
</tr>
<tr>
<td>Farming, fishing, and forestry occupations</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Construction and extraction occupations</td>
<td>6.9%</td>
<td>17.8%</td>
<td>5.7%</td>
</tr>
<tr>
<td>Installation, maintenance, and repair occupations</td>
<td>3.0%</td>
<td>4.0%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Production occupations</td>
<td>0.8%</td>
<td>2.1%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Transportation and material moving occupations</td>
<td>3.7%</td>
<td>7.9%</td>
<td>3.3%</td>
</tr>
</tbody>
</table>

#### Southern New England

<table>
<thead>
<tr>
<th></th>
<th>&quot;Low-Skill&quot;</th>
<th>&quot;Middle-Skill&quot;</th>
<th>&quot;High-Skill&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources:
Total number of jobs in 2009 is the sum of total employment as reported by the U.S. Bureau of Labor Statistics plus the number of vacancies as reported by The Conference Board Help Wanted OnLine™(HWOL) data series. Total number of jobs in 2018 is calculated by applying the 2008-2018 growth rates as projected by the U.S. Bureau of Labor Statistics for the U.S. to 2008 employment for both the region and the nation separately. The distribution of jobs across education levels is our lower bound measure which is based on the actual distribution of educational attainment from the 2006-08 combined American Community Survey.

Notes:
All calculations are performed at the 6-digit SOC level for detailed sub-occupations and aggregated up.
Table S1.b Projections of future labor demand - New England states
Distribution of employment by educational attainment for major occupation groups, 2009 and 2018.

<table>
<thead>
<tr>
<th></th>
<th>TOTAL</th>
<th>&quot;Low-Skill&quot;</th>
<th></th>
<th>&quot;Middle-Skill&quot;</th>
<th></th>
<th>&quot;High-Skill&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Less than high school</td>
<td>High school graduate</td>
<td>Some college</td>
<td>Associate's degree</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Total number of jobs (employment plus vacancies), 2009</td>
<td>1,513,952</td>
<td>179,334</td>
<td>428,595</td>
<td>361,539</td>
<td>132,563</td>
<td>269,598</td>
</tr>
<tr>
<td>Total number of jobs (replacement plus new jobs), 2018</td>
<td>1,662,245</td>
<td>198,355</td>
<td>472,513</td>
<td>398,180</td>
<td>145,651</td>
<td>294,911</td>
</tr>
<tr>
<td>Net new jobs</td>
<td>148,293</td>
<td>19,021</td>
<td>43,918</td>
<td>36,641</td>
<td>13,088</td>
<td>25,313</td>
</tr>
<tr>
<td>Growth rate 2009-2018</td>
<td></td>
<td>10.4%</td>
<td>10.1%</td>
<td>8.6%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Job growth in each education category by major occupational group:

| Management occupations           | -0.5%           | -0.1%          | -0.3%                | -0.5%          | -0.5%                | -0.8%           | -1.3%           |
| Business and financial operations occupations | 8.1%           | 0.9%           | 3.6%                 | 6.8%           | 9.2%                 | 19.1%           | 17.3%           |
| Computer and mathematical science occupations | 1.3%           | 0.1%           | 0.2%                 | 0.9%           | 1.4%                 | 3.6%           | 4.6%            |
| Architecture and engineering occupations | 0.4%           | 0.1%           | 0.3%                 | 0.5%           | 0.7%                 | 0.4%           | 0.6%            |
| Life, physical, and social science occupations | 0.7%           | 0.1%           | 0.3%                 | 0.5%           | 0.5%                 | 1.4%           | 3.3%            |
| Community and social services occupations | 2.9%           | 0.6%           | 1.3%                 | 2.3%           | 2.9%                 | 6.2%           | 7.8%            |
| Legal occupations                | 0.8%           | 0.0%           | 0.2%                 | 0.6%           | 1.2%                 | 1.2%           | 3.6%            |
| Education, training, and library occupations | 8.5%           | 1.3%           | 3.1%                 | 5.2%           | 6.0%                 | 17.9%          | 35.9%           |
| Arts, design, entertainment, sports, and media occupations | 2.0%           | 0.9%           | 0.7%                 | 1.8%           | 1.5%                 | 4.6%           | 4.0%            |
| Healthcare practitioners and technical occupations | 4.7%           | 0.5%           | 1.7%                 | 3.9%           | 20.3%                | 6.4%           | 4.4%            |
| Healthcare support occupations   | 4.8%           | 4.6%           | 6.3%                 | 6.9%           | 2.8%                 | 1.6%           | 1.5%            |
| Protective service occupations   | 1.4%           | 1.0%           | 1.4%                 | 2.0%           | 1.8%                 | 0.8%           | 0.1%            |
| Food preparation and serving related occupations | 8.4%           | 19.5%          | 10.1%                | 8.4%           | 4.2%                 | 2.5%           | 0.8%            |
| Building and grounds cleaning and maintenance occupations | 3.0%           | 8.3%           | 4.0%                 | 2.0%           | 1.4%                 | 0.9%           | 0.4%            |
| Personal care and service occupations | 5.5%           | 7.4%           | 6.3%                 | 6.4%           | 4.4%                 | 3.5%           | 2.1%            |
| Sales and related occupations    | 6.9%           | 5.0%           | 5.9%                 | 7.6%           | 5.7%                 | 9.9%           | 5.5%            |
| Office and administrative support occupations | 15.6%          | 5.8%           | 16.5%                | 22.9%          | 18.6%                | 13.5%          | 6.0%            |
| Farming, fishing, and forestry occupations | 0.4%           | 1.2%           | 0.6%                 | 0.2%           | 0.2%                 | 0.0%           | 0.0%            |
| Construction and extraction occupations | 10.2%          | 21.1%          | 15.1%                | 8.0%           | 5.8%                 | 2.7%           | 1.2%            |
| Installation, maintenance, and repair occupations | 4.9%           | 6.0%           | 6.9%                 | 5.1%           | 5.7%                 | 1.5%           | 0.6%            |
| Production occupations           | 4.8%           | 7.2%           | 7.6%                 | 4.1%           | 3.3%                 | 1.4%           | 0.8%            |
| Transportation and material moving occupations | 5.1%           | 8.4%           | 7.9%                 | 4.3%           | 2.8%                 | 1.7%           | 0.8%            |
| TOTAL                            | 100%            | 100%           | 100%                 | 100%           | 100%                 | 100%           | 100%            |

Sources:
Total number of jobs in 2009 is the sum of total employment as reported by the U.S. Bureau of Labor Statistics plus the number of vacancies as reported by The Conference Board Help Wanted OnLine™ (HWOL) data series. Total number of jobs in 2018 is calculated by applying the 2008-2018 growth rates as projected by the U.S. Bureau of Labor Statistics for the U.S. to 2008 employment for both the region and the nation separately. The distribution of jobs across education levels is our lower bound measure which is based on the actual distribution of educational attainment from the 2006-08 combined American Community Survey.

Notes:
All calculations are performed at the 6-digit SOC level for detailed sub-occupations and aggregated up.
**Table S1.c Projections of future labor demand - New England states**

Distribution of employment by educational attainment for major occupation groups, 2009 and 2018.

<table>
<thead>
<tr>
<th></th>
<th>&quot;Low-Skill&quot;</th>
<th>&quot;Middle-Skill&quot;</th>
<th>&quot;High-Skill&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less than</td>
<td>High school</td>
<td>Some college</td>
</tr>
<tr>
<td>Total number of jobs (employment plus vacancies), 2009</td>
<td>3,233,642</td>
<td>332,020</td>
<td>826,960</td>
</tr>
<tr>
<td>Total number of jobs (replacement plus new jobs), 2018</td>
<td>3,584,451</td>
<td>367,347</td>
<td>914,375</td>
</tr>
<tr>
<td>Net new jobs</td>
<td>350,809</td>
<td>35,327</td>
<td>87,415</td>
</tr>
</tbody>
</table>

**Job growth in each education category by major occupational group:**

<table>
<thead>
<tr>
<th>Occupational group</th>
<th>&quot;Low-Skill&quot;</th>
<th>&quot;Middle-Skill&quot;</th>
<th>&quot;High-Skill&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management occupations</td>
<td>4.0%</td>
<td>1.2%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Business and financial operations occupations</td>
<td>8.5%</td>
<td>1.2%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Computer and mathematical science occupations</td>
<td>5.1%</td>
<td>0.3%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Architecture and engineering occupations</td>
<td>1.5%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Life, physical, and social science occupations</td>
<td>2.2%</td>
<td>0.3%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Community and social services occupations</td>
<td>2.8%</td>
<td>0.7%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Legal occupations</td>
<td>1.3%</td>
<td>0.1%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Education, training, and library occupations</td>
<td>7.4%</td>
<td>1.6%</td>
<td>1.6%</td>
</tr>
<tr>
<td>Arts, design, entertainment, sports, and media occupations</td>
<td>0.4%</td>
<td>-0.1%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Healthcare practitioners and technical occupations</td>
<td>8.2%</td>
<td>0.7%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Healthcare support occupations</td>
<td>7.7%</td>
<td>9.2%</td>
<td>9.2%</td>
</tr>
<tr>
<td>Protective service occupations</td>
<td>1.1%</td>
<td>0.9%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Food preparation and serving related occupations</td>
<td>6.8%</td>
<td>22.7%</td>
<td>22.7%</td>
</tr>
<tr>
<td>Building and grounds cleaning and maintenance occupations</td>
<td>2.6%</td>
<td>9.3%</td>
<td>9.3%</td>
</tr>
<tr>
<td>Personal care and service occupations</td>
<td>4.3%</td>
<td>6.4%</td>
<td>6.4%</td>
</tr>
<tr>
<td>Sales and related occupations</td>
<td>7.9%</td>
<td>7.5%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Office and administrative support occupations</td>
<td>16.6%</td>
<td>7.5%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Farming, fishing, and forestry occupations</td>
<td>0.0%</td>
<td>-0.2%</td>
<td>-0.2%</td>
</tr>
<tr>
<td>Construction and extraction occupations</td>
<td>6.8%</td>
<td>17.7%</td>
<td>17.7%</td>
</tr>
<tr>
<td>Installation, maintenance, and repair occupations</td>
<td>3.1%</td>
<td>4.5%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Production occupations</td>
<td>0.1%</td>
<td>0.1%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Transportation and material moving occupations</td>
<td>4.1%</td>
<td>9.3%</td>
<td>9.3%</td>
</tr>
</tbody>
</table>

**TOTAL** 100%

**Sources:**

Total number of jobs in 2009 is the sum of total employment as reported by the U.S. Bureau of Labor Statistics plus the number of vacancies as reported by The Conference Board Help Wanted OnLine™ (HWOL) data series. Total number of jobs in 2018 is calculated by applying the 2008-2018 growth rates as projected by the U.S. Bureau of Labor Statistics for the U.S. to 2008 employment for both the region and the nation separately. The distribution of jobs across education levels is our lower bound measure which is based on the actual distribution of educational attainment from the 2006-08 combined American Community Survey.

**Notes:**

All calculations are performed at the 6-digit SOC level for detailed sub-occupations and aggregated up.
<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Foreign-born</th>
<th>Native</th>
<th>White</th>
<th>African-American</th>
<th>Hispanic</th>
<th>Asian</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>6,043,357</td>
<td>1,231,088</td>
<td>4,812,270</td>
<td>78.3%</td>
<td>6.7%</td>
<td>9.3%</td>
<td>4.7%</td>
<td>1.0%</td>
</tr>
<tr>
<td>2019</td>
<td>6,217,933</td>
<td>1,639,011</td>
<td>4,578,923</td>
<td>68.7%</td>
<td>8.5%</td>
<td>14.5%</td>
<td>6.7%</td>
<td>1.6%</td>
</tr>
<tr>
<td>2029</td>
<td>6,150,030</td>
<td>2,045,165</td>
<td>4,104,865</td>
<td>56.9%</td>
<td>10.0%</td>
<td>21.2%</td>
<td>9.4%</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

Percent change 2009-2019: 2.9% 33.1% -4.8%
Percent change 2019-2029: -1.1% 24.8% -10.4%

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Foreign-born</th>
<th>Native</th>
<th>White</th>
<th>African-American</th>
<th>Hispanic</th>
<th>Asian</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>4,857,971</td>
<td>945,201</td>
<td>3,912,770</td>
<td>79.4%</td>
<td>6.3%</td>
<td>8.7%</td>
<td>4.6%</td>
<td>1.0%</td>
</tr>
<tr>
<td>2019</td>
<td>4,936,734</td>
<td>1,259,846</td>
<td>3,676,888</td>
<td>69.9%</td>
<td>8.1%</td>
<td>13.7%</td>
<td>6.7%</td>
<td>1.6%</td>
</tr>
<tr>
<td>2029</td>
<td>4,858,162</td>
<td>1,569,971</td>
<td>3,288,192</td>
<td>58.3%</td>
<td>9.6%</td>
<td>20.1%</td>
<td>9.5%</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

Percent change 2009-2019: 1.6% 33.3% -6.0%
Percent change 2019-2029: -1.6% 24.6% -10.6%

Source:
Author's calculations.

Notes:
Supply projections are made by using a cohort-component model which ages the current population (as of 2009) over time. Calculations are made for individuals aged 25 to 64 years broken down by 5-year age cohorts, nativity, gender, and race/ethnicity. See the data appendix on the New England Public Policy Center’s website for details.
Table S2.b  Projections of future labor supply - New England states
Indians aged 25-64 years

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Foreign-born</th>
<th>Native</th>
<th>White</th>
<th>African-American</th>
<th>Hispanic</th>
<th>Asian</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>1,785,663</td>
<td>107,002</td>
<td>1,678,661</td>
<td>94.9%</td>
<td>0.9%</td>
<td>1.7%</td>
<td>1.4%</td>
<td>1.1%</td>
</tr>
<tr>
<td>2019</td>
<td>1,808,904</td>
<td>129,128</td>
<td>1,679,776</td>
<td>91.4%</td>
<td>1.6%</td>
<td>3.0%</td>
<td>2.1%</td>
<td>2.0%</td>
</tr>
<tr>
<td>2029</td>
<td>1,658,804</td>
<td>152,642</td>
<td>1,506,161</td>
<td>85.3%</td>
<td>3.0%</td>
<td>5.2%</td>
<td>3.2%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Percent change 2009-2019</td>
<td>1.3%</td>
<td>20.7%</td>
<td>0.1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent change 2019-2029</td>
<td>-8.3%</td>
<td>18.2%</td>
<td>-10.3%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labor Force</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>1,435,130</td>
<td>83,574</td>
<td>1,351,556</td>
<td>95.2%</td>
<td>0.8%</td>
<td>1.6%</td>
<td>1.4%</td>
<td>1.0%</td>
</tr>
<tr>
<td>2019</td>
<td>1,427,304</td>
<td>99,837</td>
<td>1,327,468</td>
<td>92.0%</td>
<td>1.5%</td>
<td>2.8%</td>
<td>2.0%</td>
<td>1.7%</td>
</tr>
<tr>
<td>2029</td>
<td>1,307,577</td>
<td>117,781</td>
<td>1,189,796</td>
<td>86.4%</td>
<td>2.8%</td>
<td>4.9%</td>
<td>3.0%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Percent change 2009-2019</td>
<td>-0.5%</td>
<td>19.5%</td>
<td>-1.8%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent change 2019-2029</td>
<td>-8.4%</td>
<td>18.0%</td>
<td>-10.4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source:
Author's calculations.

Notes:
Supply projections are made by using a cohort-component model which ages the current population (as of 2009) over time. Calculations are made for individuals aged 25 to 64 years broken down by 5-year age cohorts, nativity, gender, and race/ethnicity. See the data appendix on the New England Public Policy Center’s website for details.
### Table S2.c Projections of future labor supply - New England states

Individuals aged 25-64 years

<table>
<thead>
<tr>
<th></th>
<th>Massachusetts</th>
<th></th>
<th>Racial/ethnic composition as a percent of population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Growth</td>
<td>Total</td>
</tr>
<tr>
<td>Population</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>3,597,959</td>
<td>733,760</td>
<td>2,864,199</td>
</tr>
<tr>
<td>2019</td>
<td>3,717,228</td>
<td>981,719</td>
<td>2,735,509</td>
</tr>
<tr>
<td>2029</td>
<td>3,677,311</td>
<td>1,204,342</td>
<td>2,472,969</td>
</tr>
<tr>
<td>Percent change 2009-2019</td>
<td>3.3%</td>
<td>33.8%</td>
<td>-4.5%</td>
</tr>
<tr>
<td>Percent change 2019-2029</td>
<td>-1.1%</td>
<td>22.7%</td>
<td>-9.6%</td>
</tr>
<tr>
<td>Labor Force</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>2,891,450</td>
<td>557,833</td>
<td>2,333,617</td>
</tr>
<tr>
<td>2019</td>
<td>2,948,597</td>
<td>747,204</td>
<td>2,201,393</td>
</tr>
<tr>
<td>2029</td>
<td>2,899,260</td>
<td>914,312</td>
<td>1,984,947</td>
</tr>
<tr>
<td>Percent change 2009-2019</td>
<td>2.0%</td>
<td>33.9%</td>
<td>-5.7%</td>
</tr>
<tr>
<td>Percent change 2019-2029</td>
<td>-1.7%</td>
<td>22.4%</td>
<td>-9.8%</td>
</tr>
</tbody>
</table>

Source: Author's calculations.

Notes:
Supply projections are made by using a cohort-component model which ages the current population (as of 2009) over time. Calculations are made for individuals aged 25 to 64 years broken down by 5-year age cohorts, nativity, gender, and race/ethnicity. See the data appendix on the New England Public Policy Center’s website for details.
### Table 53. Projections of educational attainment - New England states
All Individuals aged 25-64 years

<table>
<thead>
<tr>
<th></th>
<th>Southern New England</th>
<th>Northern New England</th>
<th>Massachusetts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less than high school</td>
<td>High school graduate</td>
<td>Some college</td>
</tr>
<tr>
<td><strong>Actual 2009</strong></td>
<td>9.5%</td>
<td>26.3%</td>
<td>17.0%</td>
</tr>
<tr>
<td>Lower bound: holding educational attainment patterns constant</td>
<td>9.7%</td>
<td>25.8%</td>
<td>17.2%</td>
</tr>
<tr>
<td></td>
<td>10.7%</td>
<td>25.3%</td>
<td>17.3%</td>
</tr>
<tr>
<td>Upper bound: allowing educational attainment to increase over lifecycle</td>
<td>9.4%</td>
<td>25.3%</td>
<td>17.2%</td>
</tr>
<tr>
<td></td>
<td>10.1%</td>
<td>24.3%</td>
<td>17.4%</td>
</tr>
<tr>
<td><strong>Actual 2009</strong></td>
<td>7.2%</td>
<td>32.2%</td>
<td>19.2%</td>
</tr>
<tr>
<td>Lower bound: holding educational attainment patterns constant</td>
<td>6.8%</td>
<td>32.0%</td>
<td>20.0%</td>
</tr>
<tr>
<td></td>
<td>7.0%</td>
<td>30.9%</td>
<td>20.9%</td>
</tr>
<tr>
<td>Upper bound: allowing educational attainment to increase over lifecycle</td>
<td>6.1%</td>
<td>31.0%</td>
<td>20.0%</td>
</tr>
<tr>
<td></td>
<td>5.4%</td>
<td>28.5%</td>
<td>20.9%</td>
</tr>
<tr>
<td><strong>Actual 2009</strong></td>
<td>9.1%</td>
<td>25.4%</td>
<td>16.2%</td>
</tr>
<tr>
<td>Lower bound: holding educational attainment patterns constant</td>
<td>9.0%</td>
<td>24.9%</td>
<td>16.2%</td>
</tr>
<tr>
<td></td>
<td>9.5%</td>
<td>24.2%</td>
<td>16.4%</td>
</tr>
<tr>
<td>Upper bound: allowing educational attainment to increase over lifecycle</td>
<td>8.8%</td>
<td>24.4%</td>
<td>16.4%</td>
</tr>
<tr>
<td></td>
<td>9.2%</td>
<td>23.2%</td>
<td>16.6%</td>
</tr>
</tbody>
</table>

Source: Author's calculations.

Notes: Supply projections are made by using a cohort-component model which ages the current population (as of 2009) over time. The actual supply distribution for 2009 is calculated using the 2006-08 combined ACS. The lower bound estimates are made by assigning the 2006-08 combined ACS education distribution for those aged 25-29 and 30-34 as of 2009 to those individuals who will be aged 25-29 and 30-34 in 2019. The upper bound estimates are made by also assigning additional educational attainment for those aged 25-29, 30-34, and 35-39 based on the change in educational attainment for similarly aged cohorts between the 1990 and 2000 Census. See the data appendix on the New England Public Policy Center's website for details.
Figure S1. Individuals with postsecondary education
New England states


Note: Educational attainment in 1980 is defined by number of years of completed education and is not strictly comparable to that in 1990 and later years which is based on degrees completed.
Figure S2. Share of individuals with postsecondary education
New England states

Share of individuals age 25-64 years with a Bachelor’s Degree or higher

<table>
<thead>
<tr>
<th>State</th>
<th>1990</th>
<th>2000</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connecticut</td>
<td>15%</td>
<td>20%</td>
<td>25%</td>
</tr>
<tr>
<td>Maine</td>
<td>20%</td>
<td>25%</td>
<td>30%</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>25%</td>
<td>30%</td>
<td>35%</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>30%</td>
<td>35%</td>
<td>40%</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>35%</td>
<td>40%</td>
<td>45%</td>
</tr>
<tr>
<td>Vermont</td>
<td>40%</td>
<td>45%</td>
<td>50%</td>
</tr>
</tbody>
</table>

Share of individuals age 25-64 years with some college or an Associate’s Degree

<table>
<thead>
<tr>
<th>State</th>
<th>1990</th>
<th>2000</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connecticut</td>
<td>20%</td>
<td>25%</td>
<td>30%</td>
</tr>
<tr>
<td>Maine</td>
<td>25%</td>
<td>30%</td>
<td>35%</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>30%</td>
<td>35%</td>
<td>40%</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>35%</td>
<td>40%</td>
<td>45%</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>40%</td>
<td>45%</td>
<td>50%</td>
</tr>
<tr>
<td>Vermont</td>
<td>45%</td>
<td>50%</td>
<td>55%</td>
</tr>
</tbody>
</table>


Note: Educational attainment in 1980 is defined by number of years of completed education and is not strictly comparable to that in 1990 and later years which is based on degrees completed.
Figure S3. College wage premium
New England states

Premium paid to men with a bachelor’s degree versus a high school diploma

Source: Author’s calculations based on the decennial Census and the 2005 and 2006 American Community Surveys (combined).
Note: The college wage premium is defined as the percentage increase in average hourly wages for an individual with a bachelor’s degree relative to an individual with only a high school diploma. See appendix for details.
**Figure S4.a Labor demand**

Distribution of labor demand by educational attainment, selected years

**Southern New England**

<table>
<thead>
<tr>
<th>Education Level</th>
<th>2006 Share</th>
<th>2018 Share</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than High School</td>
<td>37.4%</td>
<td>34.0% to 36.5%</td>
<td></td>
</tr>
<tr>
<td>High School graduate</td>
<td>32.5%</td>
<td>31.0% to 32.5%</td>
<td></td>
</tr>
<tr>
<td>Some College</td>
<td>30.1%</td>
<td>31.0% to 35.0%</td>
<td></td>
</tr>
</tbody>
</table>

**Northern New England**

<table>
<thead>
<tr>
<th>Education Level</th>
<th>2006 Share</th>
<th>2018 Share</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than High School</td>
<td>41.0%</td>
<td>37.6% to 40.4%</td>
<td></td>
</tr>
<tr>
<td>High School graduate</td>
<td>32.6%</td>
<td>31.6% to 32.7%</td>
<td></td>
</tr>
<tr>
<td>Some College</td>
<td>26.4%</td>
<td>26.9% to 30.7%</td>
<td></td>
</tr>
</tbody>
</table>

Note: Author's calculations based on employment by detailed occupations for 2006 and 2009 as well as projected employment growth for 2008-2018 by the U.S. Bureau of Labor Statistics. Employment is categorized by skill level using educational attainment by detailed occupation from the 2006-08 combined American Community Survey. Total employment for 2006 and 2009 includes current employment plus vacancies. Employment projections for 2018 include both replacement needs and new job growth. See the data appendix for more details on the methodology.
Massachusetts

Figure S4.b Labor demand

Distribution of labor demand by educational attainment, selected years

Share of total employment

“Low skill”
2006 Share=36.5%
2018 Share=33.2% to 35.8%

“Middle skill”
2006 Share=32.3%
2018 Share=30.8% to 32.4%

“High skill”
2006 Share=31.2%
2018 Share=31.9% to 36.0%

Note: Author’s calculations based on employment by detailed occupations for 2006 and 2009 as well as projected employment growth for 2008-2018 by the U.S. Bureau of Labor Statistics. Employment is categorized by skill level using educational attainment by detailed occupation from the 2006-08 combined American Community Survey. Total employment for 2006 and 2009 includes current employment plus vacancies. Employment projections for 2018 include both replacement needs and new job growth. See the data appendix for more details on the methodology.
Figure S5.a Skill mix of the labor force

Southern New England

Source: Author’s projections of labor supply using a cohort component model. See data appendix for details.
Source: Author's projections of labor supply using a cohort component model. See data appendix for details.
Figure S5.c Skill mix of the labor force

Massachusetts

Source: Author’s projections of labor supply using a cohort component model. See data appendix for details.
Source: Author’s calculations.
Note: Demand for 2018 is based on employment growth projections by the U.S. Bureau of Labor Statistics. Supply for 2009 by educational attainment is from the 2006-2008 combined American Community Survey. Supply for 2019 and 2029 is projected using our upper bound estimates. See data appendix for details.
Figure S6.b Number of workers, supply and demand

Labor force participants age 25-64 years

Massachusetts

Number of workers

Source: Author's calculations.
Note: Demand for 2018 is based on employment growth projections by the U.S. Bureau of Labor Statistics. Supply for 2009 by educational attainment is from the 2006-2008 combined American Community Survey. Supply for 2019 and 2029 is projected using our upper bound estimates. See data appendix for details.
Figure S7.a Distribution of workers, labor supply and labor demand

Distribution of labor supply and labor demand by educational attainment, 2019

Share of total employment

Southern New England

“Low skill”

“Middle skill”

“High skill”

Northern New England

“Low skill”

“Middle skill”

“High skill”

Note: Author’s calculations based on employment by detailed occupations for 2006 and 2009 as well as projected employment growth for 2008-2018 by the U.S. Bureau of Labor Statistics. See the data appendix for more details on the methodology.
Figure S7.b Distribution of workers, labor supply and labor demand

Distribution of labor supply and labor demand by educational attainment, 2019

Note: Author’s calculations based on employment by detailed occupations for 2006 and 2009 as well as projected employment growth for 2008-2018 by the U.S. Bureau of Labor Statistics. See the data appendix for more details on the methodology.