MASSACHUSETTS

#1 in Innovation Economy Talent
Top State for Innovation Economy Talent:

- 10 Top 100 National Universities
  - #1 Ranked Business School (Harvard) and Engineering School (MIT)
- 117 Colleges and Universities producing over 120,000 graduates annually
- 47.3% of workforce has Bachelors degree or higher
- 21,775 STEM Graduates in 2016, #1 state per capita

Massachusetts has the highest concentration of innovation economy employees of any state in the U.S.;

Massachusetts: #1 Innovation State

Bloomberg’s 2015 and 2016 U.S. Innovation Index ranks Massachusetts as the “Most Innovative State.”

The Index factors R&D intensity, productivity, tech company density, concentration of STEM employment, science and engineering degrees, and patent activity.

Massachusetts has been #1 in the Milken Institute’s annual State Technology and Science Index every year since 2002.

Bloomberg 2016 U.S. State Innovation Index

<table>
<thead>
<tr>
<th>Rank</th>
<th>State</th>
<th>Total Score</th>
<th>R&amp;D Intensity</th>
<th>Productivity</th>
<th>Tech Company Density</th>
<th>STEM Concentration</th>
<th>Science &amp; Engineering Degree Holders</th>
<th>Patent Activity</th>
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<td>1</td>
<td>Massachusetts</td>
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<td>2</td>
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<td>4</td>
<td>3</td>
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<td>California</td>
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<td>4</td>
<td>7</td>
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<td>6</td>
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<td>3</td>
<td>13</td>
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<td>North Carolina</td>
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<td>13</td>
<td>23</td>
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</table>
Massachusetts: #1 Innovation State

Additional Top Rankings:

- #1: State New Economy Index, Information Technology & Innovation Foundation
- #1: Technology Jobs per Capita, CompTIA Cyberstates Report
- #1: High Tech Job Concentration, U.S. Chamber’s Enterprising States
- #1: Boston – U.S. Chamber’s Innovation That Matters report
- #1: Technology Innovation & #1: Education- CNBC’s Top States for Business 2017

Massachusetts has the highest concentration of innovation economy employees of any state in the U.S.;


Massachusetts ranks in the top 5 nationally in the concentration of two key innovation sectors, which make up 19% of total innovation economy employment in the Commonwealth (2016):

160,715 employees in Software & Communication Services &
U.S. News & World Report Rankings

Ten Schools in the Top 100 National University Rankings:
- Harvard University
- MIT (Massachusetts Institute of Technology)
- Tufts University
- Boston College
- Brandeis University
- Boston University
- Northeastern University
- WPI (Worcester Polytechnic Institute)
- UMASS Amherst
- Clark University

Seven Schools in the Top 100 Liberal Arts College Rankings:
- Williams College
- Amherst College
- Wellesley College
- Saint Joseph's College of the Holy Cross
- Smith College
- Wheaton College
- Mount Holyoke College

• Home to #1 Ranked School for Engineering (MIT)
• Home to #1 (Babson) and #2 (MIT) in the Undergrad Entrepreneurship Program Rankings
• Home to #1 Ranked Business School (Harvard) and #5 (MIT)
• Home to #1 Ranked School for Best Internship/Career Services (Northeastern)
Top Talent Pipeline

There are **117 colleges and universities in Massachusetts enrolling over 500,000 students** (Based on National Center for Education Statistics, 2016).

- Massachusetts is #2 in awarding new college degrees per capita, inclusive of community college, 4-year, and advanced degrees with **120,813 higher education graduates in 2016. This includes more than 70,000 graduates inside Route 128 alone.**

- 50 of these colleges and universities are in the greater Boston metropolitan area, which is home to more than 250,000 students.

Massachusetts confers the **most STEM Degrees in the U.S. per million residents.**
(source: Massachusetts Innovation Index)

Massachusetts has the **Highest Percentage (47.3%) of Adults in US with a Bachelor’s Degree or Higher.**
(source: Massachusetts Innovation Index)
Massachusetts provides a deep pool of talent, producing over 120,000 graduates annually across all institutions in the state, with over 50% of those undergraduates.

<table>
<thead>
<tr>
<th>TOTAL GRADS – 2016</th>
<th>TOTAL</th>
<th>Doctorate</th>
<th>Masters</th>
<th>Bachelors</th>
<th>Associates</th>
</tr>
</thead>
<tbody>
<tr>
<td>All of Massachusetts</td>
<td>120,813</td>
<td>8,475</td>
<td>38,281</td>
<td>60,715</td>
<td>13,342</td>
</tr>
<tr>
<td><strong>Greater Boston (Inside Route 128)</strong></td>
<td>70,043</td>
<td>7,179</td>
<td>27,715</td>
<td>31,515</td>
<td>3,635</td>
</tr>
<tr>
<td><strong>Within 1 Hour of Boston</strong> (Inside Route 495 &amp; Worcester)</td>
<td>96,663</td>
<td>7,745</td>
<td>33,536</td>
<td>46,346</td>
<td>9,036</td>
</tr>
<tr>
<td><strong>Within 2 Hours of Boston</strong> (Including Pioneer Valley/South Coast)</td>
<td>119,375</td>
<td>8,475</td>
<td>38,215</td>
<td>59,774</td>
<td>12,911</td>
</tr>
</tbody>
</table>

[Images of college campuses]
STEM Graduates

STEM (Science, Technology, Engineering & Math)

• MA is #1 nationally in STEM graduate and professional degrees granted per capita

• Two Massachusetts universities rank in the top five best graduate schools for math: Massachusetts Institute of Technology (#1) and Harvard University (#3)

Science

• MA is #4 nationally in number of Science graduate and professional degrees granted

• Three Massachusetts universities rank in the top 25 of the best schools for computer science: Massachusetts Institute of Technology (#1), Harvard University (#18) and University of Massachusetts Amherst #25).

Engineering

• MA is #5 nationally in number of Engineering graduate and professional degrees granted

• Four Massachusetts universities rank in the top 50 engineering schools: Massachusetts Institute of Technology (#1), Harvard University (#20), Boston University (#37) and Northeastern (#43).
In 2016, 21,775 total STEM students graduated from Massachusetts universities, including over 17,000 within an hour’s drive of Boston.

While several UMass system schools are located outside of Greater Boston, roughly three-quarters of recent UMass grads stay to live and work in Mass., and 60% remain long-term.

<table>
<thead>
<tr>
<th>STEM GRADS – 2016</th>
<th>TOTAL</th>
<th>Doctorate</th>
<th>Masters</th>
<th>Bachelors</th>
<th>Associates</th>
</tr>
</thead>
<tbody>
<tr>
<td>All of Massachusetts</td>
<td>21,775</td>
<td>1,716</td>
<td>6,007</td>
<td>12,853</td>
<td>1,199</td>
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<tr>
<td>Greater Boston (Inside Route 128)</td>
<td>12,769</td>
<td>1,383</td>
<td>4,507</td>
<td>6,533</td>
<td>346</td>
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<tr>
<td>Within 1 Hour of Boston</td>
<td>17,735</td>
<td>1,557</td>
<td>5,558</td>
<td>9,766</td>
<td>854</td>
</tr>
<tr>
<td>(Inside Route 495 &amp; Worcester)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Within 2 Hours of Boston</td>
<td>21,479</td>
<td>1,716</td>
<td>6,007</td>
<td>12,572</td>
<td>1,184</td>
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<tr>
<td>(Including Pioneer Valley/South Coast)</td>
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</tbody>
</table>

**2016 STEM Grads - Select Schools**

- **MIT**: 2,432
- **Harvard University**: 1,460
- **UMASS Amherst**: 1,874
- **Northeastern University**: 2,510
- **WPI**: 1,425
- **UMASS Lowell**: 1,368

Source: The Index of the Massachusetts Innovation Economy 2015/16, MassTech Collaborative
Partner with Us

STEM Talent is an abundant natural resource for Massachusetts and one that drives economic growth, corporate expansion, and R&D. Let us introduce you to well-trained workers who can help your company grow.

**Connect:**

Massachusetts Technology Collaborative

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