Massachusetts: #1 in Innovation Economy Talent
Massachusetts Innovation Economy
Talent Overview

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.;

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.

Bloomberg 2016 U.S. State Innovation Index

<table>
<thead>
<tr>
<th>2016 rank</th>
<th>2015 rank</th>
<th>Change</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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</table>
| 17        | 16        | -1     | North Carolina | 62.37    | 17            | 24            | 13                  | 23                | 19                                 | 20              

Massachusetts has been #1 in the Milken Institute’s annual State Technology and Science Index every year since 2002.
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
- Tufts University
- Brandeis University
- Boston College
- Boston University
- WPI
- Northeastern University
- Clark University
- UMass Amherst

Seven Schools in the Top 100 Liberal Arts College Rankings:

- Williams
- Amherst College
- Wellesley
- Smith College
- College of the Holy Cross
- Mount Holyoke
- Wheaton College

• Home to #1 Ranked Business School (Harvard) and #5 (MIT)
• 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 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 Graduates – 2016</th>
<th>TOTAL</th>
<th>Doctorate</th>
<th>Masters</th>
<th>Bachelors</th>
<th>Associates</th>
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<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>
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<tr>
<td>Greater Boston (Inside Route 128)</td>
<td>70,043</td>
<td>7,179</td>
<td>27,715</td>
<td>31,515</td>
<td>3,635</td>
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<tr>
<td>Within 1 Hour of Boston (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>
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<tr>
<td>Within 2 Hours of Boston (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>
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</tbody>
</table>
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).
STEM Graduates

- 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>
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<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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<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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<td>Within 1 Hour of Boston (Inside Route 495 &amp; Worcester)</td>
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<td>1,557</td>
<td>5,558</td>
<td>9,766</td>
<td>854</td>
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<tr>
<td>Within 2 Hours of Boston (Including Pioneer Valley/South Coast)</td>
<td>21,479</td>
<td>1,716</td>
<td>6,007</td>
<td>12,572</td>
<td>1,184</td>
</tr>
</tbody>
</table>

2016 STEM Grads - Select Schools

- MIT
- Harvard University
- UMass Amherst
- Northeastern University
- WPI
- UMass Lowell

STEM Talent Density

Degrees Granted in Computer and Information Sciences and Support Services per 1 Million Residents Massachusetts & LTS, 2014-2015

Degrees Granted in STEM Fields All Degree Levels per 1 Million Residents Massachusetts & LTS, 2014-2015

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

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