Massachusetts: #1 in Innovation Economy Talent
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.

Bloomberg 2016 U.S. State Innovation Index

| 2016 rank | 2015 rank | Change | State       | Total score | R&D intensity | Productivity | Tech company density | STEM concentration | Science & engineering degree holders | Patent activity |
|-----------|-----------|--------|-------------|-------------|---------------|---------------|----------------------|------------------|--------------------------------------|----------------|----------------|----------------|
| 1         | 1         |        | Massachusetts | 94.82       | 2             | 5             | 4                    | 3                | 5                                    | 2              |
| 2         | 2         |        | California    | 93.80       | 4             | 7             | 3                    | 6                | 3                                    | 1              |
| 3         | 3         |        | Washington    | 92.73       | 5             | 9             | 7                    | 1                | 2                                    | 3              |
| 4         | 4         |        | New Jersey    | 80.17       | 12            | 10            | 5                    | 15               | 10                                   | 12             |
| 5         | 7         | +2     | Maryland      | 78.95       | 3             | 13            | 19                   | 2                | 4                                    | 26             |
| 6         | 6         |        | Oregon        | 78.22       | 9             | 15            | 22                   | 9                | 6                                    | 8              |
| 7         | 5         | -2     | Connecticut   | 78.17       | 8             | 4             | 24                   | 12               | 12                                   | 7              |
| 8         | 8         |        | Colorado      | 75.58       | 22            | 17            | 16                   | 5                | 7                                    | 10             |
| 9         | 10        | +1     | Minnesota     | 75.00       | 15            | 19            | 10                   | 8                | 23                                   | 4              |
| 10        | 12        | +2     | New Hampshire | 74.75       | 10            | 39            | 2                    | 14               | 9                                    | 6              |
| 11        | 11        |        | Virginia      | 73.23       | 20            | 16            | 14                   | 4                | 1                                    | 29             |
| 12        | 9         | -3     | Delaware      | 69.80       | 7             | 3             | 34                   | 11               | 17                                   | 16             |
| 13        | 13        |        | New Mexico    | 68.90       | 1             | 23            | 8                    | 18               | 15                                   | 31             |
| 14        | 20        | +6     | Utah          | 63.50       | 14            | 34            | 12                   | 13               | 28                                   | 13             |
| 15        | 19        | +4     | Arizona       | 62.80       | 16            | 42            | 6                    | 10               | 24                                   | 17             |
| 16        | 14        | -2     | Rhode Island  | 62.55       | 18            | 26            | 1                    | 25               | 21                                   | 24             |
| 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
• #2: Workforce & #3: Technology & Innovation - CNBC’s Top States for Business 2016

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

1,328,199: Workers in the Mass. Innovation Economy (Q1 2016).

Massachusetts ranks in the top 5 nationally in the concentration of two key innovation sectors, which make up 18% of total innovation economy employment in the Commonwealth (Q1 2016):

157,224 employees in Software & Communication Services &
U.S. News & World Report Rankings

Ten Schools in the Top 100 National University Rankings:

- Harvard University
- Massachusetts Institute of Technology
- Tufts University
- Boston College
- Brandeis University
- Northeastern University
- Clark University
- UMass Amherst
- WPI
- MIT

Seven Schools in the Top 100 Liberal Arts College Rankings:

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

- 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)
- Home to #1 Ranked School for Best Internship/Career Services (Northeastern)
Top Talent Pipeline

There are 114 colleges and universities in Massachusetts enrolling over 400,000 students seeking bachelor's or associate degrees (Based on National Center for Education Statistics, 2014).

- Massachusetts is #1 in awarding new college degrees per capita, with 118,420 higher education graduates in 2015, inclusive of community college, 4-year, and advanced degrees. This includes more than 67,000 degree holders 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 is home to the most STEM Degrees in the U.S. per million residents. (source: Massachusetts Innovation Index)

Massachusetts has the Highest Percentage (46.6%) of Adults in US with a Bachelor’s Degree or Higher. (source: Massachusetts Innovation Index)
College & University Grads

Massachusetts provides a deep pool of talent, producing nearly 120,000 graduates annually across all institutions in the state, with over 50% of those undergraduates.

<table>
<thead>
<tr>
<th>TOTAL GRADS – 2015</th>
<th>TOTAL</th>
<th>Degree Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Doctorate</td>
</tr>
<tr>
<td>All of Massachusetts</td>
<td>118,420</td>
<td>8,409</td>
</tr>
<tr>
<td>Greater Boston (Inside Route 128)</td>
<td>67,493</td>
<td>6,534</td>
</tr>
<tr>
<td>Within 1 Hour of Boston (Inside Route 495 &amp; Worcester)</td>
<td>93,695</td>
<td>7,639</td>
</tr>
<tr>
<td>UMass Amherst Only (Less than 2 hours from Boston)</td>
<td>7,452</td>
<td>297</td>
</tr>
</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)*
- **Over 2,600 students** graduated from cybersecurity-related programs in 2015.

**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 2015, 21,349 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 – 2015</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>21,349</td>
<td>1,604</td>
<td>5,926</td>
<td>12,294</td>
<td>1,525</td>
</tr>
<tr>
<td>Greater Boston (Inside Route 128)</td>
<td>12,071</td>
<td>1,308</td>
<td>4,394</td>
<td>5,918</td>
<td>451</td>
</tr>
<tr>
<td>Within 1 Hour of Boston (Inside Route 495 &amp; Worcester)</td>
<td>17,383</td>
<td>1,470</td>
<td>5,439</td>
<td>9,328</td>
<td>1,146</td>
</tr>
</tbody>
</table>

2015 STEM Grads - Select Schools

- MIT: 2,260
- Harvard University: 1,421
- UMass Amherst: 1,778
- Northeastern University: 2,109
- WPI: 1,445
- UMass Lowell: 1,347

Degrees Granted in Computer and Information Sciences and Support Services per 1 Million Residents Massachusetts, 2013-2014

Degrees Granted in STEM Fields per 1 Million Residents Massachusetts, 2013-2014

Source: The Index of the Massachusetts Innovation Economy 2015/16, MassTech Collaborative
Talent Pipeline: Computer Science and Engineering

- **MA produces Masters degrees at about the same rate the US produces bachelors, and more than double the rate that the US produces masters degrees.**
- **MA produces 56% more bachelors degrees per capita than the US.**

![Diagram showing Bachelors and Masters Degrees Conferred in Computer Science & Engineering per 100,000 residents in Massachusetts & U.S., 2000-2014.](image)
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 with Us:**

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