

## New Jersey



New Jersey’s bioscience industry is a national leader in its size and diverse concentrations. State bioscience companies employed just over 86,000 in 2012 across 2,498 business establishments. New Jersey’s economy is 86 percent more concentrated in the biosciences than the national average (location quotient is 1.86) and this high degree of specialization spans four of the five major industry subsectors—drugs and pharmaceuticals; research, testing, and medical labs; bioscience-related distribution; and medical devices. This distinction is shared only with one other U.S. territory, Puerto Rico, and no other states. The state is among the top tier in key measures of innovation and risk capital in terms of patents issued and venture capital investments in bioscience-related companies.

### Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

| Metric   | New Jersey | United States | Quintile |
|--|------------|---------------|----------|
| <b>Bioscience Industry, 2012</b>                                     |            |               |          |
| Bioscience Industry Employment                                       | 86,012     | 1,619,746     | I        |
| Bioscience Industry Location Quotient                                | 1.86       | n/a           | I        |
| Bioscience Industry Establishments                                   | 2,498      | 73,088        | I        |
| <b>Academic Bioscience R&amp;D Expenditures, FY 2012</b>             |            |               |          |
| Bioscience R&D (\$ thousands)  | \$489,861  | \$38,139,876  | III      |
| Bioscience Share of Total R&D  | 46%        | 61%           | V        |
| Bioscience R&D Per Capita  | \$55       | \$119         | V        |
| <b>NIH Funding, FY 2013</b>  |            |               |          |
| Funding (\$ thousands)   | \$237,706  | \$22,293,255  | III      |
| Funding Per Capita   | \$27       | \$70          | IV       |
| <b>Bioscience Venture Capital Investments, 2009–13 (\$ millions)</b> | \$2,070.4  | \$49,401.7    | I        |
| <b>Bioscience and Related Patents, 2009–13</b>                       | 7,385      | 100,238       | I        |

State ranking figures for bioscience performance metrics are calculated as quintiles, where I = top quintile, III = middle quintile, and V = bottom quintile.

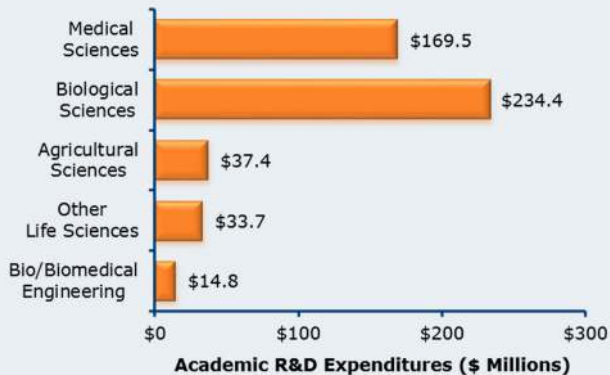
For source notes, see end of State Profile.

| Industry Subsector                                 | New Jersey |                  | United States |                  |
|--|------------|------------------|---------------|------------------|
|  | 2012       | 2007-2012 Change | 2012          | 2007-2012 Change |
| <b>Agricultural Feedstock &amp; Chemicals</b>      |            |                  |               |                  |
| Establishments                                     | 18         | -19.7%           | 1,772         | 5.2%             |
| Employment   | 404        | -3.8%            | 76,404        | -1.0%            |
| Location Quotient                                  | 0.18       |                  | n/a           |                  |
| Direct-Effect Employment Multiplier                | 18.3       |                  | 18.1          |                  |
| Total Employment Impact                            | 7,392      |                  | 1,382,637     |                  |
| Average Annual Wage                                | \$126,730  | 64.3%            | \$75,828      | 14.2%            |
| <b>Bioscience-Related Distribution</b>             |            |                  |               |                  |
| Establishments                                     | 1,085      | 9.0%             | 36,793        | 1.4%             |
| Employment   | 19,835     | 6.3%             | 442,016       | -3.9%            |
| Location Quotient                                  | 1.42       |                  | n/a           |                  |
| Direct-Effect Employment Multiplier                | 2.7        |                  | 2.7           |                  |
| Total Employment Impact                            | 53,634     |                  | 1,199,015     |                  |
| Average Annual Wage                                | \$128,974  | 33.2%            | \$85,188      | 11.5%            |
| <b>Drugs and Pharmaceuticals</b>                   |            |                  |               |                  |
| Establishments                                     | 231        | -6.1%            | 3,057         | 12.0%            |
| Employment   | 26,726     | -36.7%           | 284,331       | -10.9%           |
| Location Quotient                                  | 3.29       |                  | n/a           |                  |
| Direct-Effect Employment Multiplier                | 10.1       |                  | 9.9           |                  |
| Total Employment Impact                            | 268,885    |                  | 2,673,265     |                  |
| Average Annual Wage                                | \$152,260  | 22.7%            | \$106,576     | 13.9%            |
| <b>Medical Devices and Equipment</b>               |            |                  |               |                  |
| Establishments                                     | 280        | 8.9%             | 7,235         | 12.0%            |
| Employment   | 12,664     | 0.9%             | 349,432       | 1.4%             |
| Location Quotient                                  | 1.27       |                  | n/a           |                  |
| Direct-Effect Employment Multiplier                | 3.7        |                  | 3.9           |                  |
| Total Employment Impact                            | 47,141     |                  | 1,318,459     |                  |
| Average Annual Wage                                | \$100,527  | 14.7%            | \$75,695      | 10.7%            |
| <b>Research, Testing, and Medical Laboratories</b> |            |                  |               |                  |
| Establishments                                     | 884        | 15.9%            | 24,231        | 31.0%            |
| Employment   | 26,383     | 5.6%             | 467,563       | 9.7%             |
| Location Quotient                                  | 1.97       |                  | n/a           |                  |
| Direct-Effect Employment Multiplier                | 2.9        |                  | 2.7           |                  |
| Total Employment Impact                            | 76,378     |                  | 1,284,196     |                  |
| Average Annual Wage                                | \$127,603  | 25.6%            | \$91,248      | 15.9%            |
| <b>Total Bioscience Industry</b>                   |            |                  |               |                  |
| Establishments                                     | 2,498      | 9.4%             | 73,088        | 11.4%            |
| Employment   | 86,012     | -13.0%           | 1,619,746     | -0.4%            |
| Location Quotient                                  | 1.86       |                  | n/a           |                  |
| Direct-Effect Employment Multiplier                | 5.4        |                  | 4.9           |                  |
| Total Employment Impact                            | 467,986    |                  | 7,857,572     |                  |
| Average Annual Wage                                | \$131,590  | 21.4%            | \$88,202      | 12.8%            |
| <b>Total Private Sector</b>                        |            |                  |               |                  |
| Establishments                                     | 243,466    | -8.4%            | 8,699,564     | -0.5%            |
| Employment   | 3,179,859  | -5.1%            | 111,137,206   | -3.1%            |
| Average Annual Wage                                | \$58,122   | 8.5%             | \$49,130      | 11.1%            |

Note: U.S. employment metrics include Puerto Rico. Estimates of total impacts do not include Puerto Rico.

## Bioscience Research in New Jersey

### Bioscience Academic R&D Expenditures, FY 2012



### NIH Awards, 2009–2013

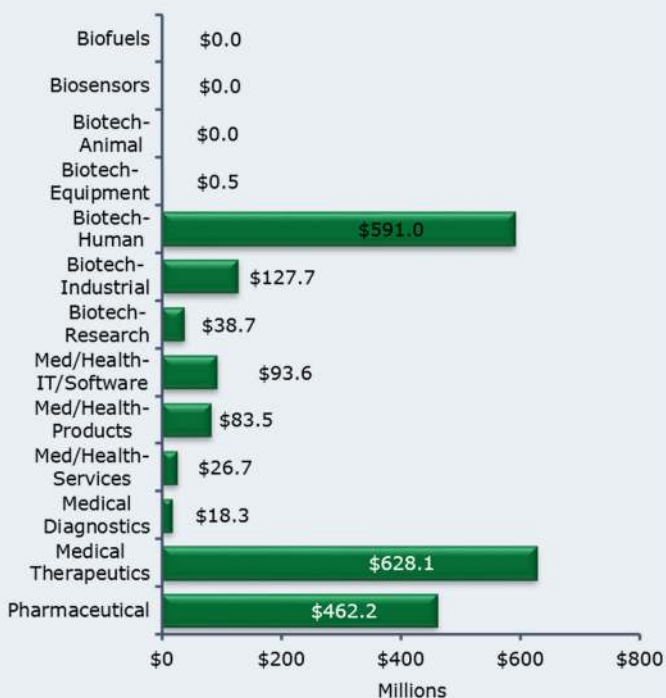


## Bioscience Venture Capital in New Jersey

### Bioscience-Related Venture Capital Investments, 2009–2013

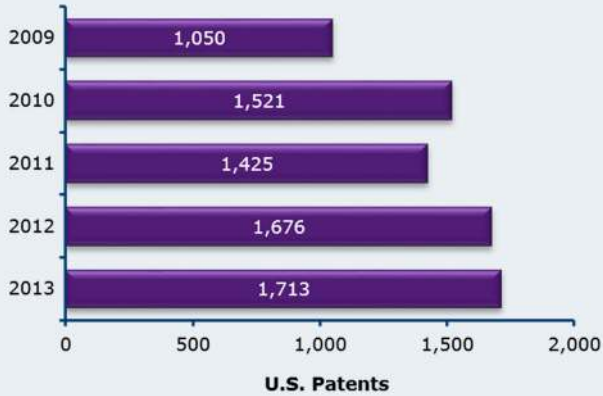


### Bioscience-Related Venture Capital Investments by Segment, 2009–2013

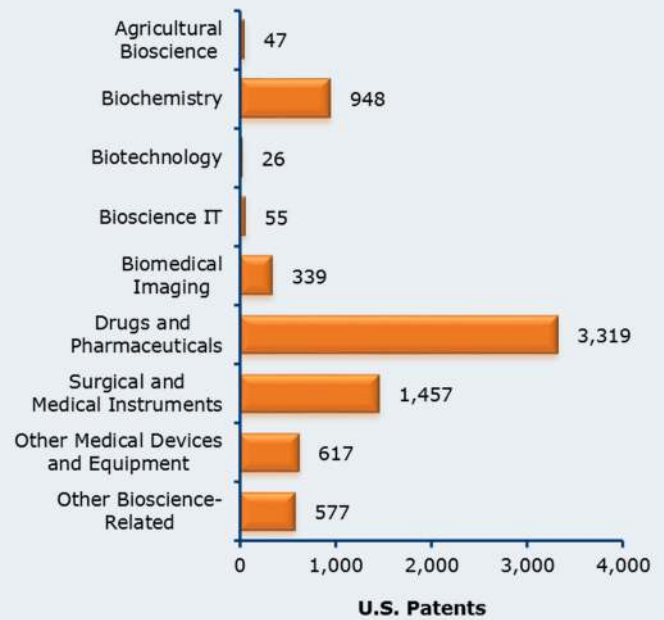


## Bioscience Patents in New Jersey

**Bioscience-Related Patents, 2009–2013**



**Bioscience-Related Patents by Segment, 2009–2013**



### Source Notes

**Employment, Establishments, and Wages:** U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW), enhanced file from the IMPLAN Group, LLC.

**Employment Multipliers:** IMPLAN Group, LLC state-level Input/Output models.

**Academic R&D Expenditures:** National Science Foundation (NSF) Higher Education Research and Development (HERD) Survey.

**NIH Funding:** National Institutes of Health, *NIH Awards by Location & Organization* (summary information within RePORT database), and NIH-managed funding for FY 2009 and FY 2010 from the American Recovery and Reinvestment Act (ARRA) website.

**Venture Capital:** Thomson Reuters Thomson ONE venture capital database.

**Patents:** U.S. Patent & Trademark Office data from Thomson Reuters Delphion Patent Analysis Database.

For a more detailed discussion of the data and methodology used, please see the Appendix to the full national report.