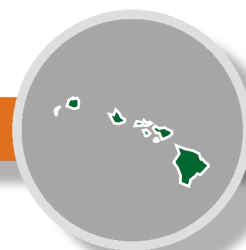


Hawaii



Hawaii’s bioscience industry employed 3,524 in 2012 across 212 business establishments. Two thirds of the state’s bioscience jobs are within the research, testing, and medical labs subsector which is well concentrated with 16 percent greater employment in Hawaii relative to the national average (location quotient is 1.16). Average annual wages in the bioscience industry are nearly \$58,000 in Hawaii, 42 percent greater than the state’s private sector average. Hawaii’s 204 bioscience patents issued since 2009 are distributed primarily across surgical and medical instruments, biochemistry, and drugs and pharmaceuticals.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

| Metric | Hawaii | United States | Quintile |
|----------------------------------------------------------------------|-----------|---------------|----------|
| Bioscience Industry, 2012 | | | |
| Bioscience Industry Employment | 3,524 | 1,619,746 | V |
| Bioscience Industry Location Quotient | 0.50 | n/a | V |
| Bioscience Industry Establishments | 212 | 73,088 | V |
| Academic Bioscience R&D Expenditures, FY 2012 | | | |
| Bioscience R&D (\$ thousands) | \$133,906 | \$38,139,876 | IV |
| Bioscience Share of Total R&D | 41% | 61% | V |
| Bioscience R&D Per Capita | \$95 | \$119 | III |
| NIH Funding, FY 2013 | | | |
| Funding (\$ thousands) | \$42,476 | \$22,293,255 | V |
| Funding Per Capita | \$30 | \$70 | IV |
| Bioscience Venture Capital Investments, 2009–13 (\$ millions) | \$1.5 | \$49,401.7 | V |
| Bioscience and Related Patents, 2009–13 | 204 | 100,238 | V |

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

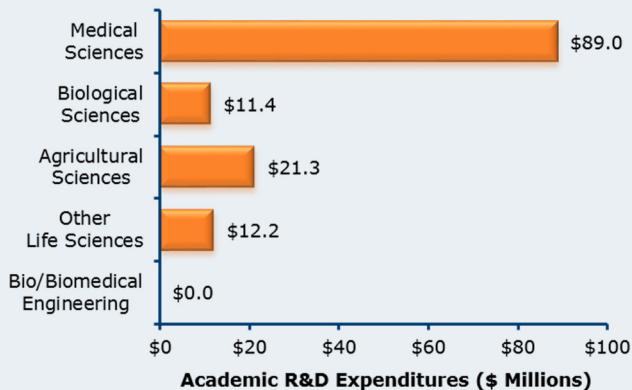
For source notes, see end of State Profile.

| Industry Subsector | Hawaii | | United States | |
|----------------------------------------------------|----------|------------------|---------------|------------------|
| | 2012 | 2007-2012 Change | 2012 | 2007-2012 Change |
| Agricultural Feedstock & Chemicals | | | | |
| Establishments | 7 | 16.7% | 1,772 | 5.2% |
| Employment | 39 | -52.2% | 76,404 | -1.0% |
| Location Quotient | 0.12 | | n/a | |
| Direct-Effect Employment Multiplier | 12.7 | | 18.1 | |
| Total Employment Impact | 497 | | 1,382,637 | |
| Average Annual Wage | \$34,800 | -7.2% | \$75,828 | 14.2% |
| Bioscience-Related Distribution | | | | |
| Establishments | 107 | -3.0% | 36,793 | 1.4% |
| Employment | 983 | -5.9% | 442,016 | -3.9% |
| Location Quotient | 0.54 | | n/a | |
| Direct-Effect Employment Multiplier | 2.3 | | 2.7 | |
| Total Employment Impact | 2,224 | | 1,199,015 | |
| Average Annual Wage | \$57,461 | 17.5% | \$85,188 | 11.5% |
| Drugs and Pharmaceuticals | | | | |
| Establishments | 5 | 25.0% | 3,057 | 12.0% |
| Employment | 125 | 109.1% | 284,331 | -10.9% |
| Location Quotient | 0.10 | | n/a | |
| Direct-Effect Employment Multiplier | 7.7 | | 9.9 | |
| Total Employment Impact | 962 | | 2,673,265 | |
| Average Annual Wage | \$48,051 | 3.6% | \$106,576 | 13.9% |
| Medical Devices and Equipment | | | | |
| Establishments | 2 | 0.0% | 7,235 | 12.0% |
| Employment | 26 | 27.8% | 349,432 | 1.4% |
| Location Quotient | 0.02 | | n/a | |
| Direct-Effect Employment Multiplier | 3.1 | | 3.9 | |
| Total Employment Impact | 83 | | 1,318,459 | |
| Average Annual Wage | \$31,839 | -46.9% | \$75,695 | 10.7% |
| Research, Testing, and Medical Laboratories | | | | |
| Establishments | 91 | 32.7% | 24,231 | 31.0% |
| Employment | 2,351 | -3.8% | 467,563 | 9.7% |
| Location Quotient | 1.16 | | n/a | |
| Direct-Effect Employment Multiplier | 2.3 | | 2.7 | |
| Total Employment Impact | 5,295 | | 1,284,196 | |
| Average Annual Wage | \$59,182 | 11.2% | \$91,248 | 15.9% |
| Total Bioscience Industry | | | | |
| Establishments | 212 | 11.0% | 73,088 | 11.4% |
| Employment | 3,524 | -3.5% | 1,619,746 | -0.4% |
| Location Quotient | 0.50 | | n/a | |
| Direct-Effect Employment Multiplier | 3.0 | | 4.9 | |
| Total Employment Impact | 10,505 | | 7,857,572 | |
| Average Annual Wage | \$57,832 | 12.2% | \$88,202 | 12.8% |
| Total Private Sector | | | | |
| Establishments | 35,969 | -1.8% | 8,699,564 | -0.5% |
| Employment | 483,229 | -4.7% | 111,137,206 | -3.1% |
| Average Annual Wage | \$40,860 | 9.1% | \$49,130 | 11.1% |

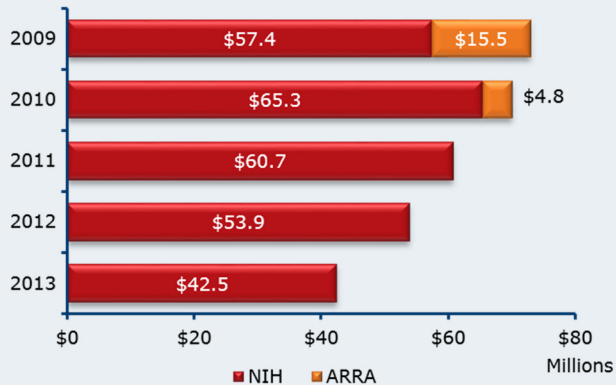
Note: U.S. employment metrics include Puerto Rico. Estimates of total impacts do not include Puerto Rico.

Bioscience Research in Hawaii

Bioscience Academic R&D Expenditures, FY 2012

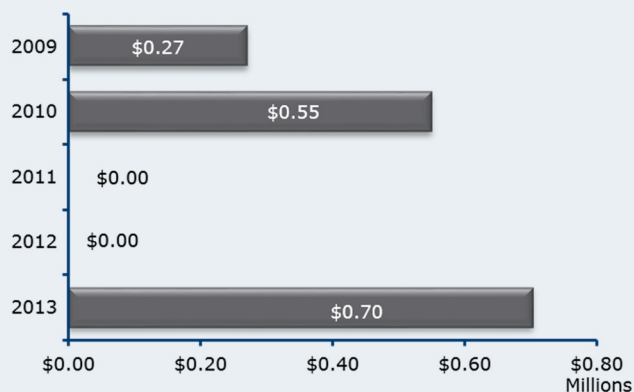


NIH Awards, 2009–2013

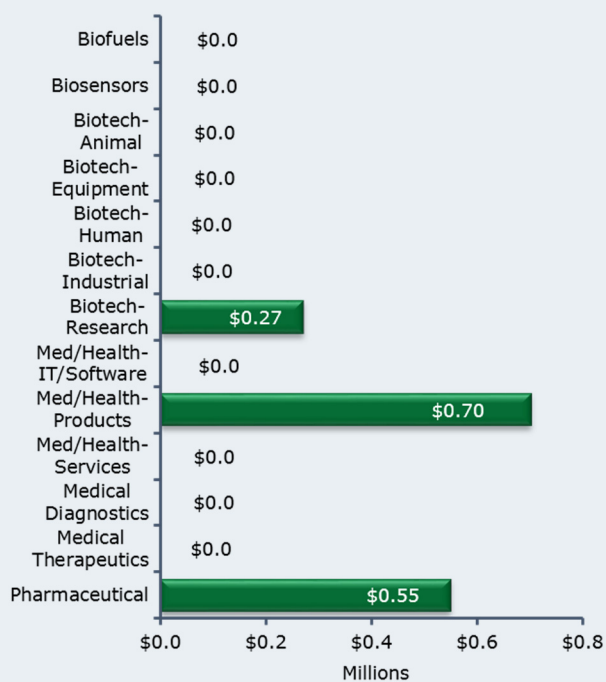


Bioscience Venture Capital in Hawaii

Bioscience-Related Venture Capital Investments, 2009–2013

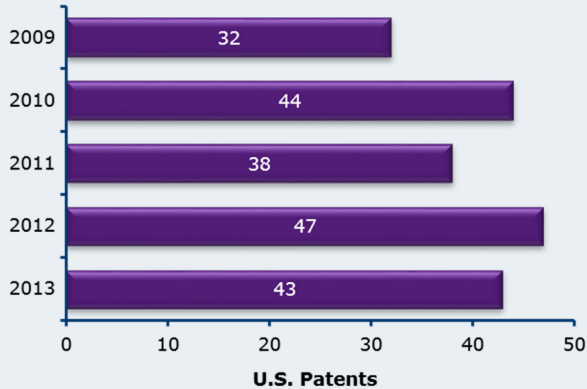


Bioscience-Related Venture Capital Investments by Segment, 2009–2013

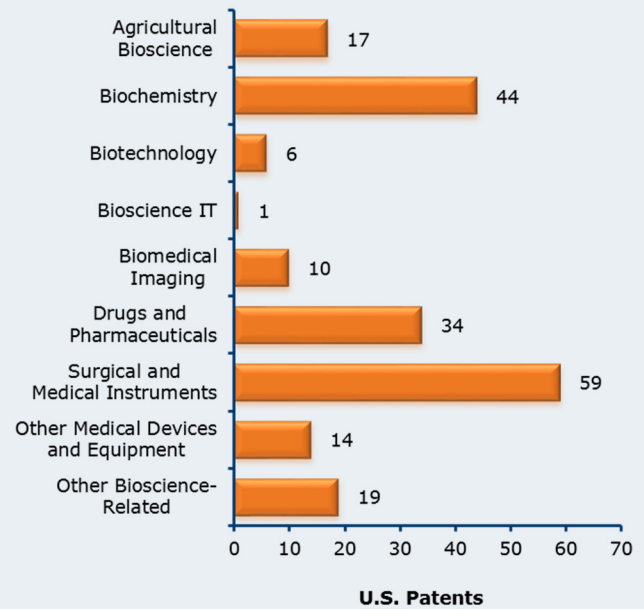


Bioscience Patents in Hawaii

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.