

South Dakota



South Dakota is home to a growing and diverse bioscience industry that employed 5,175 in 2012 across 374 business establishments. The state has an 8 percent greater concentration of bioscience jobs in its economy relative to the national average, its location quotient is 1.08. South Dakota has a specialized employment concentration in three of the five major industry subsectors—agricultural feedstock and chemicals; bioscience-related distribution; and medical devices and equipment. State bioscience companies have increased employment by 6.6 percent since 2007 with three subsectors contributing job gains during this 5-year period. Since 2009, South Dakota inventors have been issued 146 patents in bioscience-related classifications including biotechnology, surgical and medical instruments, and biochemistry.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metric	South Dakota	United States	Quintile
Bioscience Industry, 2012			
Bioscience Industry Employment	5,175	1,619,746	IV
Bioscience Industry Location Quotient	1.08	n/a	II
Bioscience Industry Establishments	374	73,088	IV
Academic Bioscience R&D Expenditures, FY 2012			
Bioscience R&D (\$ thousands)	\$64,946	\$38,139,876	V
Bioscience Share of Total R&D	52%	61%	III
Bioscience R&D Per Capita	\$77	\$119	IV
NIH Funding, FY 2013			
Funding (\$ thousands)	\$20,586	\$22,293,255	V
Funding Per Capita	\$24	\$70	IV
Bioscience Venture Capital Investments, 2009–13 (\$ millions)	\$14.9	\$49,401.7	IV
Bioscience and Related Patents, 2009–13	146	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.

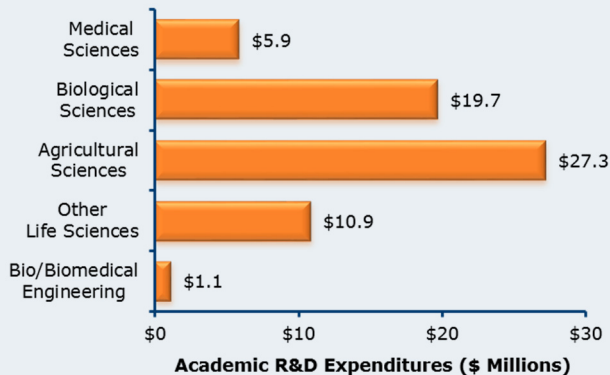
For source notes, see end of State Profile.

Industry Subsector	South Dakota		United States	
	2012	2007-2012 Change	2012	2007-2012 Change
Agricultural Feedstock & Chemicals				
Establishments	26	0.0%	1,772	5.2%
Employment	838	12.2%	76,404	-1.0%
Location Quotient	3.71		n/a	
Direct-Effect Employment Multiplier	14.0		18.1	
Total Employment Impact	11,731		1,382,637	
Average Annual Wage	\$75,562	-11.4%	\$75,828	14.2%
Bioscience-Related Distribution				
Establishments	284	22.3%	36,793	1.4%
Employment	2,269	19.5%	442,016	-3.9%
Location Quotient	1.61		n/a	
Direct-Effect Employment Multiplier	2.4		2.7	
Total Employment Impact	5,527		1,199,015	
Average Annual Wage	\$58,067	13.8%	\$85,188	11.5%
Drugs and Pharmaceuticals				
Establishments	1	-56.5%	3,057	12.0%
Employment	14	-92.1%	284,331	-10.9%
Location Quotient	0.02		n/a	
Direct-Effect Employment Multiplier	7.9		9.9	
Total Employment Impact	108		2,673,265	
Average Annual Wage	\$41,769	-18.3%	\$106,576	13.9%
Medical Devices and Equipment				
Establishments	13	0.0%	7,235	12.0%
Employment	1,631	-2.3%	349,432	1.4%
Location Quotient	1.58		n/a	
Direct-Effect Employment Multiplier	3.0		3.9	
Total Employment Impact	4,864		1,318,459	
Average Annual Wage	\$55,681	10.4%	\$75,695	10.7%
Research, Testing, and Medical Laboratories				
Establishments	50	30.4%	24,231	31.0%
Employment	422	15.8%	467,563	9.7%
Location Quotient	0.30		n/a	
Direct-Effect Employment Multiplier	2.3		2.7	
Total Employment Impact	958		1,284,196	
Average Annual Wage	\$85,687	4.5%	\$91,248	15.9%
Total Bioscience Industry				
Establishments	374	19.9%	73,088	11.4%
Employment	5,175	6.6%	1,619,746	-0.4%
Location Quotient	1.08		n/a	
Direct-Effect Employment Multiplier	4.0		4.9	
Total Employment Impact	20,821		7,857,572	
Average Annual Wage	\$62,360	6.7%	\$88,202	12.8%
Total Private Sector				
Establishments	29,023	4.3%	8,699,564	-0.5%
Employment	329,144	2.0%	111,137,206	-3.1%
Average Annual Wage	\$36,316	16.1%	\$49,130	11.1%

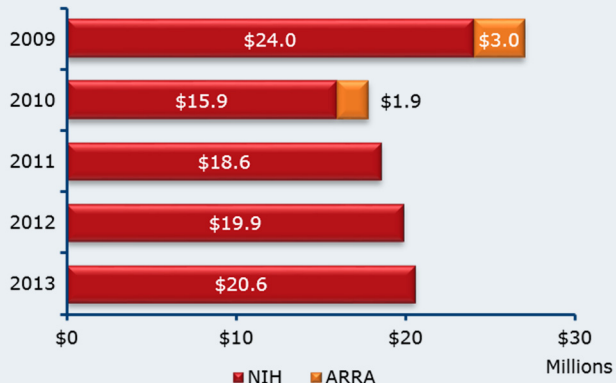
Note: U.S. employment metrics include Puerto Rico. Estimates of total impacts do not include Puerto Rico.

Bioscience Research in South Dakota

Bioscience Academic R&D Expenditures, FY 2012

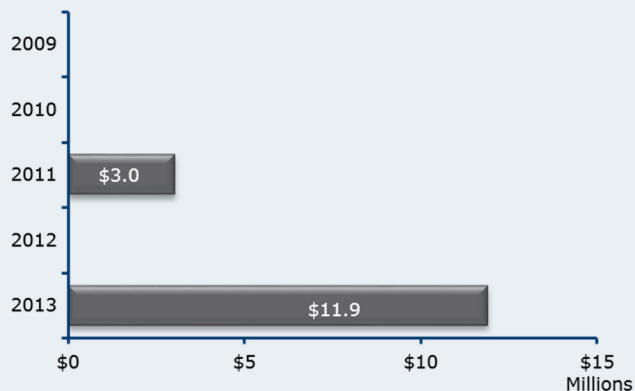


NIH Awards, 2009–2013

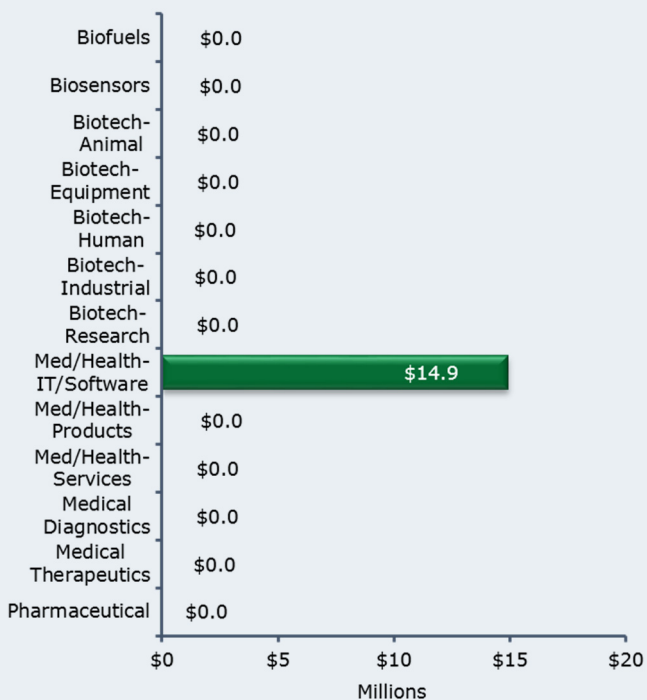


Bioscience Venture Capital in South Dakota

Bioscience-Related Venture Capital Investments, 2009–2013

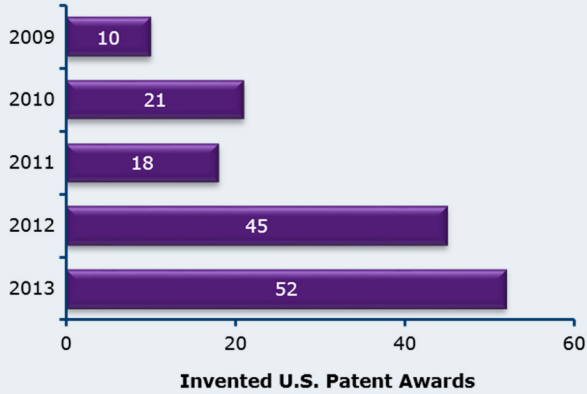


Bioscience-Related Venture Capital Investments by Segment, 2009–2013

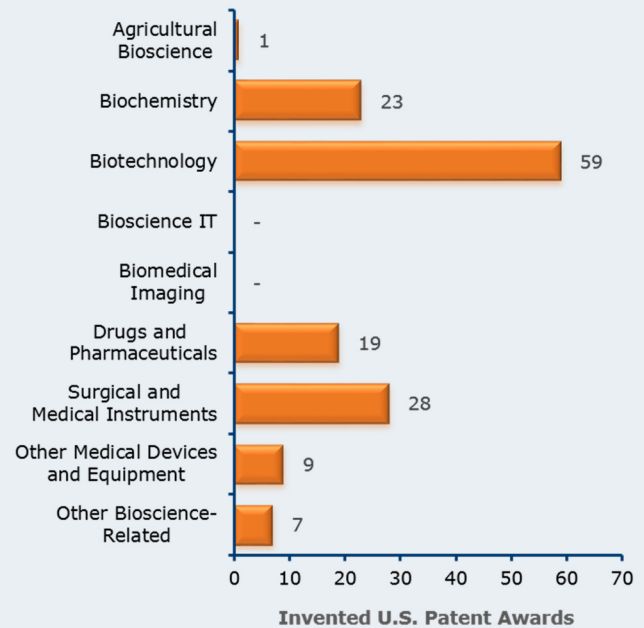


Bioscience Patents in South Dakota

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.