

Oklahoma



Oklahoma’s bioscience companies employed more than 8,500 in 2012 while operating 974 business establishments across the state. The state’s two largest component subsectors are bioscience-related distribution and research, testing, and medical labs. While Oklahoma’s bioscience industry had an overall employment decline since 2007, three of five industry subsectors added jobs—agricultural feedstock and chemicals; research, testing, and medical labs; and drugs and pharmaceuticals. Average annual wages for Oklahoma bioscience workers exceeded \$68,000 in 2012, 63 percent greater than that for the overall state private sector. Oklahoma inventors have been issued 358 patents in bioscience-related classes since 2009, these have been focused largely in biochemistry, drugs and pharmaceuticals, and surgical and medical instruments.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metric	Oklahoma	United States	Quintile
Bioscience Industry, 2012			
Bioscience Industry Employment	8,523	1,619,746	IV
Bioscience Industry Location Quotient	0.48	n/a	V
Bioscience Industry Establishments	974	73,088	III
Academic Bioscience R&D Expenditures, FY 2012			
Bioscience R&D (\$ thousands)	\$201,615	\$38,139,876	IV
Bioscience Share of Total R&D	49%	61%	IV
Bioscience R&D Per Capita	\$52	\$119	V
NIH Funding, FY 2013			
Funding (\$ thousands)	\$87,851	\$22,293,255	IV
Funding Per Capita	\$23	\$70	V
Bioscience Venture Capital Investments, 2009–13 (\$ millions)	\$68.9	\$49,401.7	III
Bioscience and Related Patents, 2009–13	358	100,238	IV

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

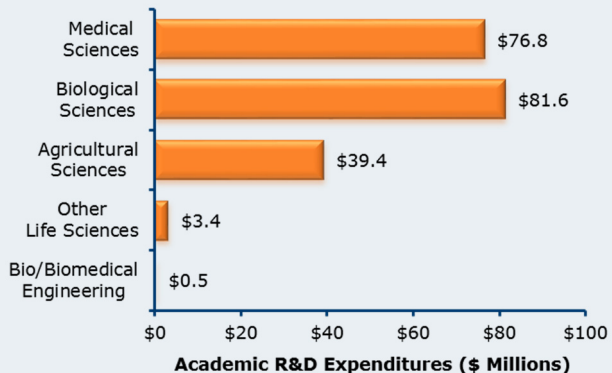
For source notes, see end of State Profile.

Industry Subsector	Oklahoma		United States	
	2012	2007–2012 Change	2012	2007–2012 Change
Agricultural Feedstock & Chemicals				
Establishments	14	0.0%	1,772	5.2%
Employment	881	60.2%	76,404	-1.0%
Location Quotient	1.05		n/a	
Direct-Effect Employment Multiplier	14.4		18.1	
Total Employment Impact	12,677		1,382,637	
Average Annual Wage	\$66,296	8.5%	\$75,828	14.2%
Bioscience-Related Distribution				
Establishments	629	-18.9%	36,793	1.4%
Employment	3,960	-17.7%	442,016	-3.9%
Location Quotient	0.93		n/a	
Direct-Effect Employment Multiplier	2.5		2.7	
Total Employment Impact	10,025		1,199,015	
Average Annual Wage	\$78,682	14.3%	\$85,188	11.5%
Drugs and Pharmaceuticals				
Establishments	27	42.1%	3,057	12.0%
Employment	364	163.8%	284,331	-10.9%
Location Quotient	0.12		n/a	
Direct-Effect Employment Multiplier	7.7		9.9	
Total Employment Impact	2,798		2,673,265	
Average Annual Wage	\$80,897	21.7%	\$106,576	13.9%
Medical Devices and Equipment				
Establishments	78	1.3%	7,235	12.0%
Employment	831	-22.1%	349,432	1.4%
Location Quotient	0.22		n/a	
Direct-Effect Employment Multiplier	3.2		3.9	
Total Employment Impact	2,635		1,318,459	
Average Annual Wage	\$56,914	22.1%	\$75,695	10.7%
Research, Testing, and Medical Laboratories				
Establishments	227	26.4%	24,231	31.0%
Employment	2,486	3.0%	467,563	9.7%
Location Quotient	0.48		n/a	
Direct-Effect Employment Multiplier	2.3		2.7	
Total Employment Impact	5,768		1,284,196	
Average Annual Wage	\$54,138	10.3%	\$91,248	15.9%
Total Bioscience Industry				
Establishments	974	-8.5%	73,088	11.4%
Employment	8,523	-5.1%	1,619,746	-0.4%
Location Quotient	0.48		n/a	
Direct-Effect Employment Multiplier	3.9		4.9	
Total Employment Impact	33,043		7,857,572	
Average Annual Wage	\$68,213	13.0%	\$88,202	12.8%
Total Private Sector				
Establishments	98,819	5.4%	8,699,564	-0.5%
Employment	1,221,014	0.3%	111,137,206	-3.1%
Average Annual Wage	\$41,768	17.8%	\$49,130	11.1%

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

Bioscience Research in Oklahoma

Bioscience Academic R&D Expenditures, FY 2012



NIH Awards, 2009–2013

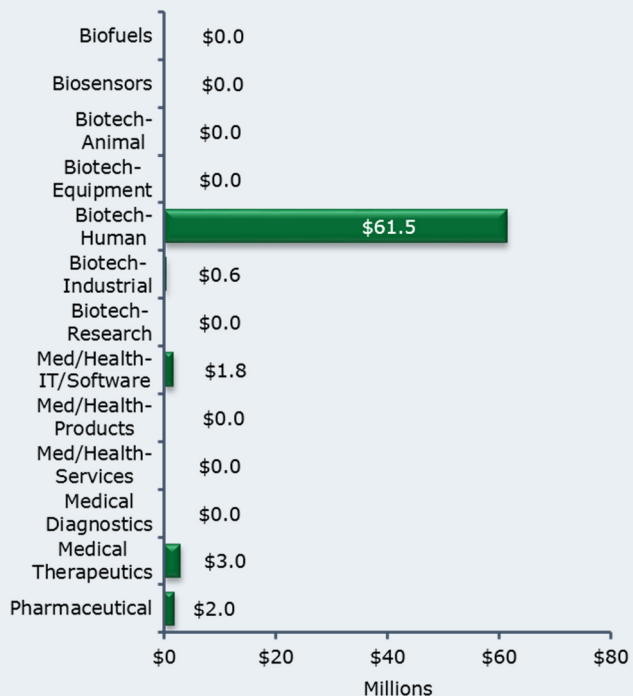


Bioscience Venture Capital in Oklahoma

Bioscience-Related Venture Capital Investments, 2009–2013

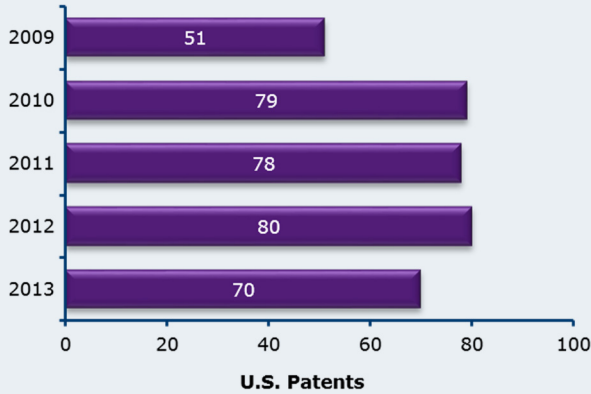


Bioscience-Related Venture Capital Investments by Segment, 2009–2013

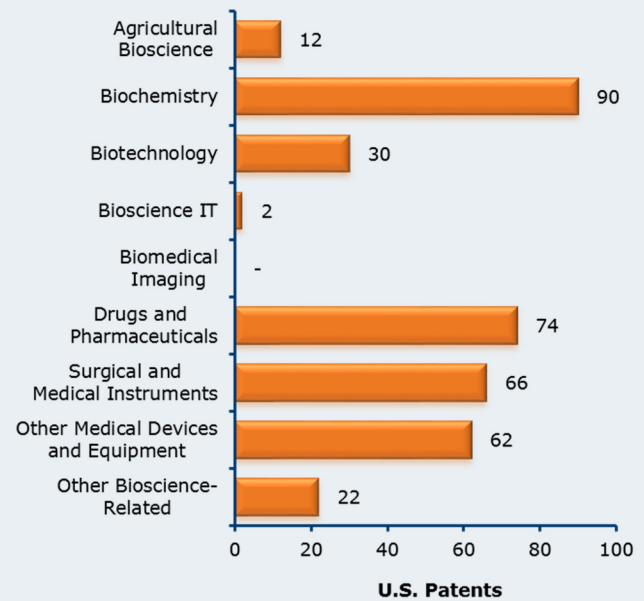


Bioscience Patents in Oklahoma

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.