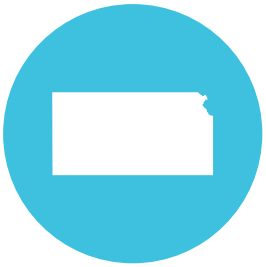


TEConomy/BIO

The Value of Bioscience Innovation in Growing Jobs and Improving Quality of Life 2016

Kansas

Kansas' bioscience industry is growing, and in 2014 reached more than 14,000 jobs in 836 business establishments. The state has experienced net job growth of 5.6 percent since 2012 with gains contributed by three of the five major industry subsectors, including double-digit job growth in drugs and pharmaceuticals (up 13 percent). Kansas has a specialized employment concentration in its agricultural feedstock and chemicals subsector and is nearly specialized in its employment concentration in research, testing, and medical labs. State bioscience firms have received nearly $118 million in venture capital investments since 2012, with the majority of this funding directed toward animal biotechnologies. In bioscience patents, Kansas' 760 patents issued since 2012 have primarily been in medical and surgical devices; drugs and pharmaceuticals; and agbioscience technologies.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metric	Kansas	United States	Quintile
Bioscience Industry, 2014			
Bioscience Industry Employment	14,202	1,655,680	III
Bioscience Industry Location Quotient	0.89	n/a	III
Bioscience Industry Establishments	836	77,283	IV
Academic Bioscience R&D Expenditures, FY 2014			
Bioscience R&D ($ thousands)	$314,526	$38,873,926	III
Bioscience Share of Total R&D	65%	61%	II
Bioscience R&D Per Capita	$108	$122	III
NIH Funding, FY 2015			
Funding ($ thousands)	$85,731	$22,869,746	IV
Funding Per Capita	$29	$71	IV
Bioscience Venture Capital Investments, 2012–15 ($ millions)	$117.6	$48,742.10	III
Bioscience and Related Patents, 2012–15	760	101,026	III

State ranking figures for bioscience performance metrics are calculated as quintiles, where:
top quintile — I II III IV V — bottom quintile

For source notes, see end of State Profile.

Kansas

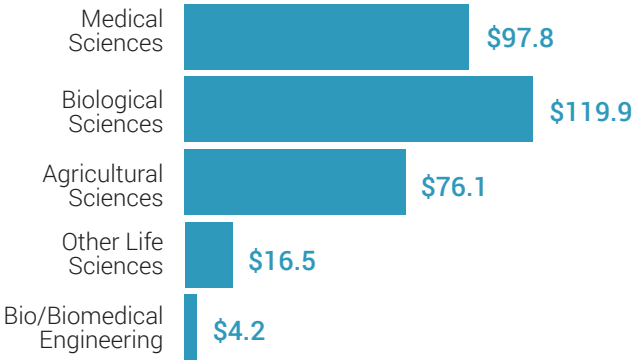
Industry Subsector	Kansas		United States	
	2014	2012–2014 Change	2014	2012–2014 Change
Agricultural Feedstock and Chemicals				
Establishments	33	17.9%	1,811	2.2%
Employment	1,051	18.9%	77,545	1.5%
Location Quotient	1.41		n/a	
Direct-Effect Employment Multiplier	18.5		18.4	
Total Employment Impact	19,462		1,432,125	
Average Annual Wage	$60,628	6.1%	$80,640	6.3%
Bioscience-Related Distribution				
Establishments	477	-1.8%	37,833	2.8%
Employment	4,522	-0.8%	452,325	2.3%
Location Quotient	1.04		n/a	
Direct-Effect Employment Multiplier	2.9		3.0	
Total Employment Impact	12,930		1,358,820	
Average Annual Wage	$80,061	11.2%	$90,458	6.2%
Drugs and Pharmaceuticals				
Establishments	25	19.0%	3,301	8.0%
Employment	2,317	13.0%	293,353	3.2%
Location Quotient	0.82		n/a	
Direct-Effect Employment Multiplier	10.0		11.0	
Total Employment Impact	23,246		3,242,627	
Average Annual Wage	$61,201	8.6%	$117,524	10.3%
Medical Devices and Equipment				
Establishments	42	0.0%	7,636	5.5%
Employment	844	-2.7%	349,045	-0.1%
Location Quotient	0.25		n/a	
Direct-Effect Employment Multiplier	4.1		4.6	
Total Employment Impact	3,482		1,596,802	
Average Annual Wage	$45,477	1.8%	$79,537	5.1%
Research, Testing, and Medical Laboratories				
Establishments	259	10.8%	26,702	10.2%
Employment	5,468	7.5%	483,412	3.4%
Location Quotient	1.18		n/a	
Direct-Effect Employment Multiplier	2.8		3.1	
Total Employment Impact	15,061		1,554,719	
Average Annual Wage	$60,748	-0.9%	$97,485	6.8%
Total Bioscience Industry				
Establishments	836	3.2%	77,283	5.7%
Employment	14,202	5.6%	1,655,680	2.2%
Location Quotient	0.89		n/a	
Direct-Effect Employment Multiplier	5.1		5.5	
Total Employment Impact	73,119		9,185,094	
Average Annual Wage	$66,055	5.1%	$94,543	7.2%
Total Private Sector				
Establishments	80,485	1.4%	8,937,672	2.7%
Employment	1,113,878	3.5%	116,018,300	4.4%
Average Annual Wage	$43,528	4.1%	$51,148	4.3%

Note: U.S. employment metrics include Puerto Rico.

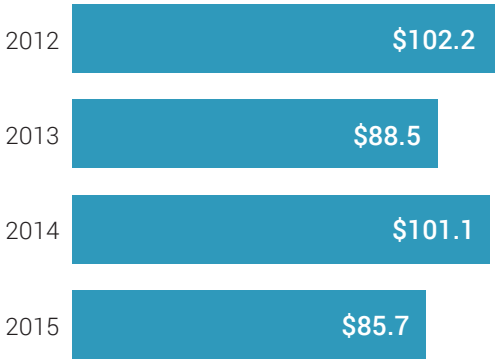
Kansas

Bioscience Research in Kansas

Bioscience Academic R&D Expenditures
$ Millions
FY 2014

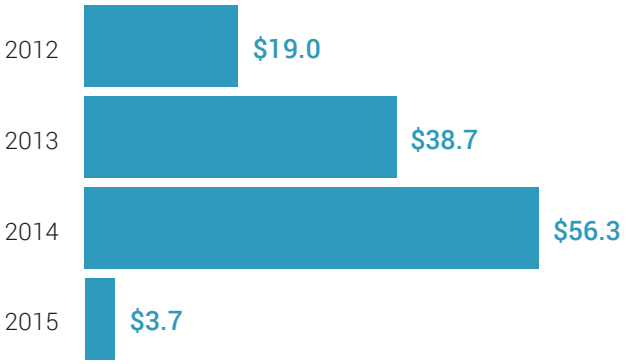


NIH Awards
$ Millions
FY 2012-2015

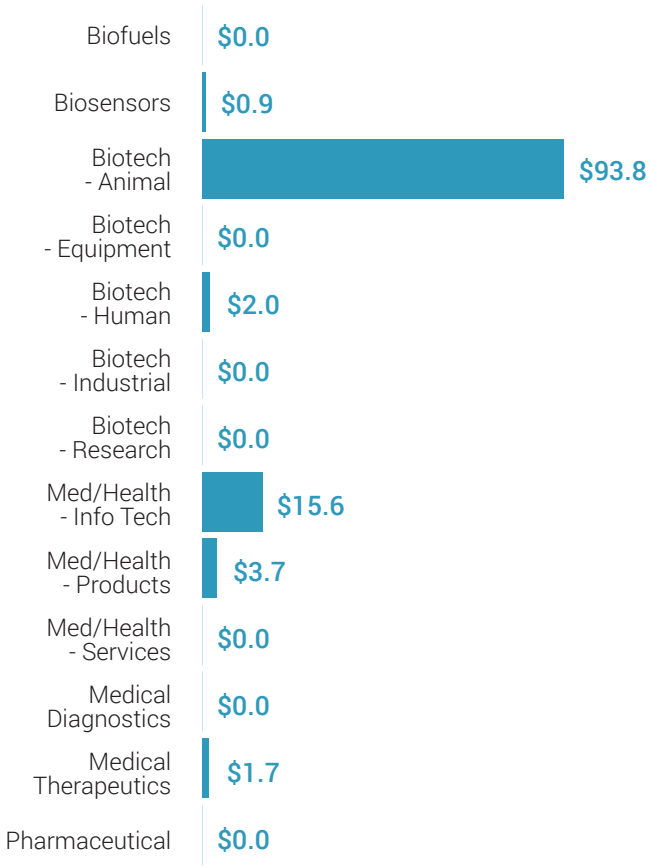


Bioscience Venture Capital in Kansas

Bioscience-Related Venture Capital Investments
$ Millions
2012-2015

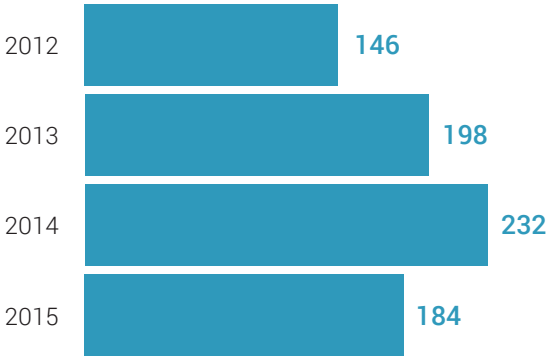


Bioscience-Related Venture Capital Investments by Segment
$ Millions
2012-2015

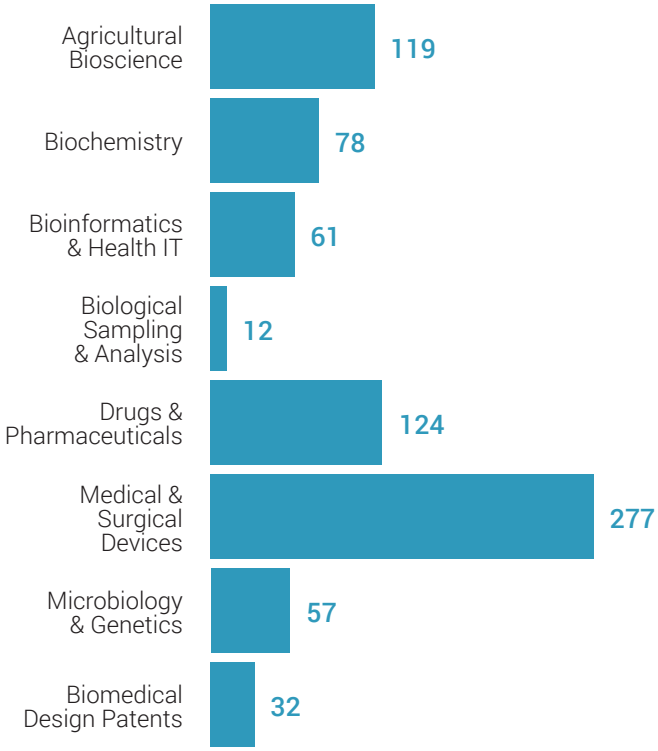


Bioscience Patents in Kansas

Bioscience-Related U.S. Patents
2012-2015



Bioscience-Related U.S. Patents by Segment
2012-2015



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).

Venture Capital: Thomson Reuters Thomson ONE venture capital database.

Patents: U.S. Patent & Trademark Office data from Thomson Reuters Thomson Innovation patent analysis database.

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

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