

TEconomy/BIO

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

**Wyoming**

Wyoming’s bioscience industry employed 945 in 2014 while operating 130 business establishments across the state. The state industry has increased employment by 7 percent since 2012. The largest bioscience subsector is agricultural feedstock and chemicals, which also has a specialized employment concentration in Wyoming with a location quotient of 2.23 or 123 percent greater concentration in the state economy relative to the national average. Average wages for bioscience workers in Wyoming were nearly \$96,000 per year, more than twice the average across the state’s private sector. Research funding from NIH to Wyoming institutions increased in 2015 and totaled \$10.5 million.

**Bioscience Performance Metrics**

Summary of State Performance in Selected Bioscience-related Metrics

Metric	Wyoming	United States	Quintile
<b>Bioscience Industry, 2014</b>			
Bioscience Industry Employment	945	1,655,680	V
Bioscience Industry Location Quotient	0.30	n/a	V
Bioscience Industry Establishments	130	77,283	V
<b>Academic Bioscience R&amp;D Expenditures, FY 2014</b>			
Bioscience R&D (\$ thousands)	\$19,583	\$38,873,926	V
Bioscience Share of Total R&D	40%	61%	V
Bioscience R&D Per Capita	\$34	\$122	V
<b>NIH Funding, FY 2015</b>			
Funding (\$ thousands)	\$10,460	\$22,869,746	V
Funding Per Capita	\$18	\$71	V
<b>Bioscience Venture Capital Investments, 2012–15 (\$ millions)</b>	\$0.0	\$48,742.10	V
<b>Bioscience and Related Patents, 2012–15</b>	117	101,026	V

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.



Wyoming

Industry Subsector	Wyoming		United States	
	2014	2012–2014 Change	2014	2012–2014 Change
<b>Agricultural Feedstock and Chemicals</b>				
Establishments	5	0.0%	1,811	2.2%
Employment	326	4.9%	77,545	1.5%
Location Quotient	2.23		n/a	
Direct-Effect Employment Multiplier	15.2		18.4	
Total Employment Impact	4,954		1,432,125	
Average Annual Wage	\$105,121	23.9%	\$80,640	6.3%
<b>Bioscience-Related Distribution</b>				
Establishments	83	-9.2%	37,833	2.8%
Employment	309	15.0%	452,325	2.3%
Location Quotient	0.36		n/a	
Direct-Effect Employment Multiplier	2.5		3.0	
Total Employment Impact	769		1,358,820	
Average Annual Wage	\$119,474	83.9%	\$90,458	6.2%
<b>Drugs and Pharmaceuticals</b>				
Establishments	9	12.5%	3,301	8.0%
Employment	189	12.5%	293,353	3.2%
Location Quotient	0.34		n/a	
Direct-Effect Employment Multiplier	8.5		11.0	
Total Employment Impact	1,606		3,242,627	
Average Annual Wage	\$64,366	29.0%	\$117,524	10.3%
<b>Medical Devices and Equipment</b>				
Establishments	10	42.9%	7,636	5.5%
Employment	27	-17.7%	349,045	-0.1%
Location Quotient	0.04		n/a	
Direct-Effect Employment Multiplier	3.4		4.6	
Total Employment Impact	90		1,596,802	
Average Annual Wage	\$50,435	-47.7%	\$79,537	5.1%
<b>Research, Testing, and Medical Laboratories</b>				
Establishments	23	-9.3%	26,702	10.2%
Employment	95	-8.6%	483,412	3.4%
Location Quotient	0.10		n/a	
Direct-Effect Employment Multiplier	2.4		3.1	
Total Employment Impact	229		1,554,719	
Average Annual Wage	\$61,417	20.2%	\$97,485	6.8%
<b>Total Bioscience Industry</b>				
Establishments	130	-5.0%	77,283	5.7%
Employment	945	7.0%	1,655,680	2.2%
Location Quotient	0.30		n/a	
Direct-Effect Employment Multiplier	5.3		5.5	
Total Employment Impact	4,992		9,185,094	
Average Annual Wage	\$95,722	39.5%	\$94,543	7.2%
<b>Total Private Sector</b>				
Establishments	24,035	0.2%	8,937,672	2.7%
Employment	218,032	2.7%	116,018,300	4.4%
Average Annual Wage	\$46,403	4.7%	\$51,148	4.3%

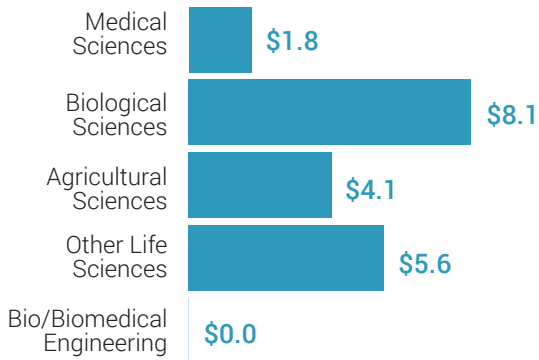
Note: U.S. employment metrics include Puerto Rico.



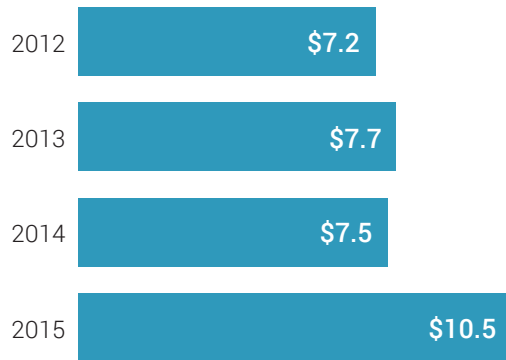
# Wyoming

## Bioscience Research in Wyoming

Bioscience Academic R&D Expenditures  
\$ Millions  
FY 2014



NIH Awards  
\$ Millions  
FY 2012-2015

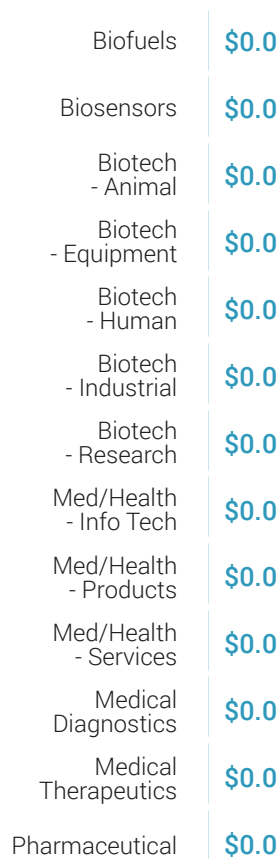


## Bioscience Venture Capital in Wyoming

Bioscience-Related Venture  
Capital Investments  
\$ Millions  
2012-2015



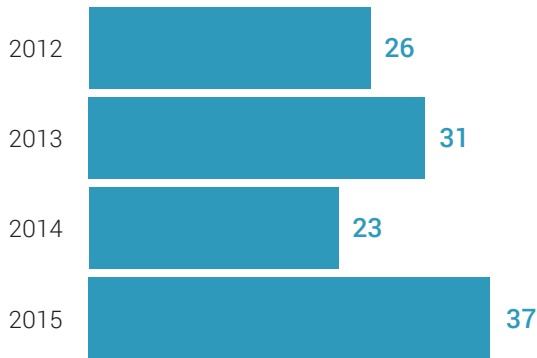
Bioscience-Related Venture  
Capital Investments by Segment  
\$ Millions  
2012-2015



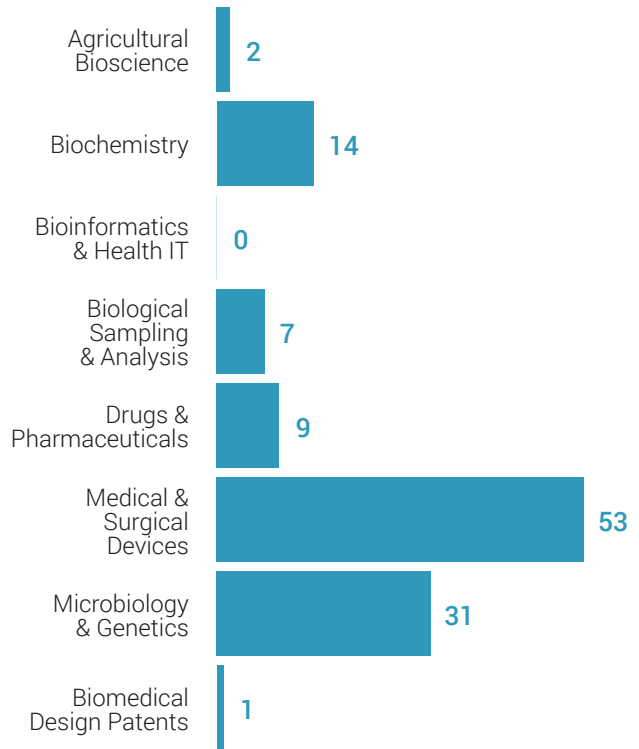


Bioscience Patents in Wyoming

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.

