



# South Dakota

The U.S. Bioscience Industry: Fostering Innovation and Driving America's Economy Forward

South Dakota's bioscience industry has a specialized concentration of employment, diverse industry strengths, and is growing. In 2021, the state's bioscience industry employed 7,427 in 718 business establishments. South Dakota bioscience firms have increased their employment base by 12 percent since 2018 with four of the five major industry subsectors contributing to the overall industry job gains. The state has strengths in several bioscience subsectors, with specialized employment concentrations in agricultural feedstock and industrial biosciences; bioscience-related distribution; and in medical device and equipment manufacturing. South Dakota's research universities had \$69 million in bioscience-related R&D expenditures in 2020.

## Bioscience Performance Metrics

### Summary of State Performance in Selected Bioscience-related Metrics

Metric	South Dakota	United States	Quintile
<b>Bioscience Industry, 2021</b>			
Bioscience Industry Employment	7,427	2,135,704	IV
Bioscience Industry Location Quotient	1.20	n/a	II
Bioscience Industry Establishments	718	127,389	IV
<b>Academic Bioscience R&amp;D Expenditures, FY 2020</b>			
Bioscience R&D (\$ thousands)	\$69,088	\$51,108,737	V
Bioscience Share of Total R&D	65%	63%	III
Bioscience R&D Per Capita	\$78	\$154	V
<b>NIH Funding, FY 2021</b>			
Funding (\$ thousands)	\$20,793	\$34,751,109	V
Funding Per Capita	\$23	\$105	V
<b>Bioscience Venture Capital Investments, 2018-21 (\$ millions)</b>			
	\$43.93	\$197,674.54	V
<b>Bioscience-Related Patents, 2018-21</b>			
	214	153,072	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.

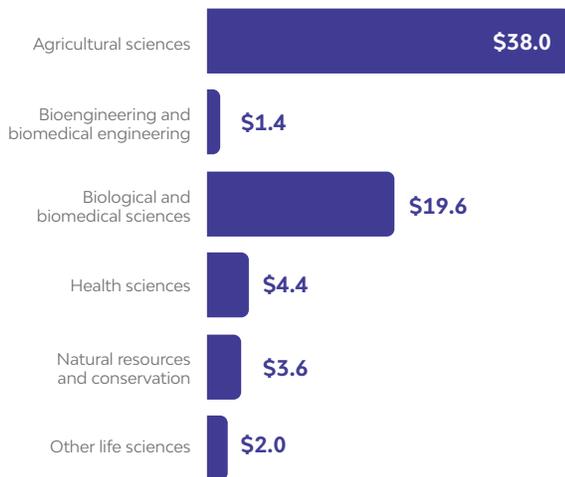
Industry Subsector		South Dakota		United States	
		2021	2018–2021 Change	2021	2018–2021 Change
Agricultural Feedstock and Industrial Biosciences	Establishments	25	-6.5%	1,948	10.0%
	Employment	921	-0.8%	69,573	1.9%
	<i>Location Quotient</i>	4.57		n/a	
	Average Annual Wage	\$75,287	18.6%	\$91,989	13.1%
Bioscience-Related Distribution	Establishments	584	19.9%	62,697	14.7%
	Employment	3,481	12.7%	602,589	6.6%
	<i>Location Quotient</i>	2.00		n/a	
	Average Annual Wage	\$86,123	16.4%	\$121,606	15.0%
Medical Devices and Equipment	Establishments	11	-27.9%	10,268	17.4%
	Employment	2,216	14.6%	398,847	5.5%
	<i>Location Quotient</i>	1.92		n/a	
	Average Annual Wage	\$70,591	10.0%	\$98,481	8.7%
Pharmaceuticals	Establishments	4	45.5%	5,973	34.7%
	Employment	35	215.4%	344,839	11.9%
	<i>Location Quotient</i>	0.04		n/a	
	Average Annual Wage	\$72,624	2.3%	\$126,153	10.3%
Research, Testing, and Medical Laboratories	Establishments	94	49.7%	46,503	34.5%
	Employment	775	16.3%	719,856	19.3%
	<i>Location Quotient</i>	0.37		n/a	
	Average Annual Wage	\$84,811	20.2%	\$147,396	22.0%
Total Bioscience Industry	Establishments	718	20.7%	127,389	22.3%
	Employment	7,427	12.1%	2,135,704	11.0%
	<i>Location Quotient</i>	1.20		n/a	
	Average Annual Wage	\$79,945	15.4%	\$125,750	16.4%
Total Private Sector	Establishments	34,127	9.1%	10,665,643	9.3%
	Employment	356,877	1.1%	123,376,557	-1.5%
	<i>Location Quotient</i>	1.00		n/a	
	Average Annual Wage	\$51,788	18.5%	\$67,826	18.9%

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

## Bioscience Research in South Dakota

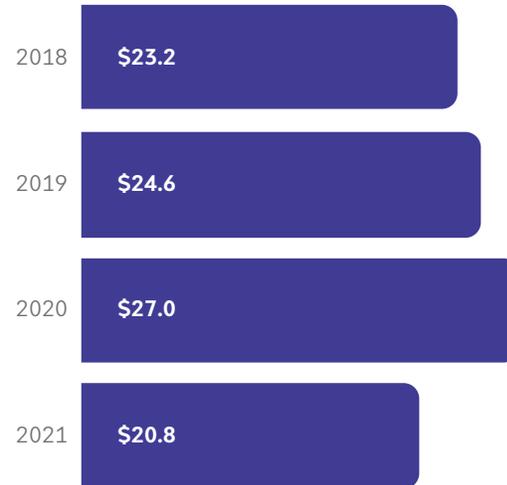
### Bioscience Academic R&D Expenditures

\$ Millions, FY 2020



### NIH Awards

\$ Millions, FY 2018-2021



## Bioscience Venture Capital in South Dakota

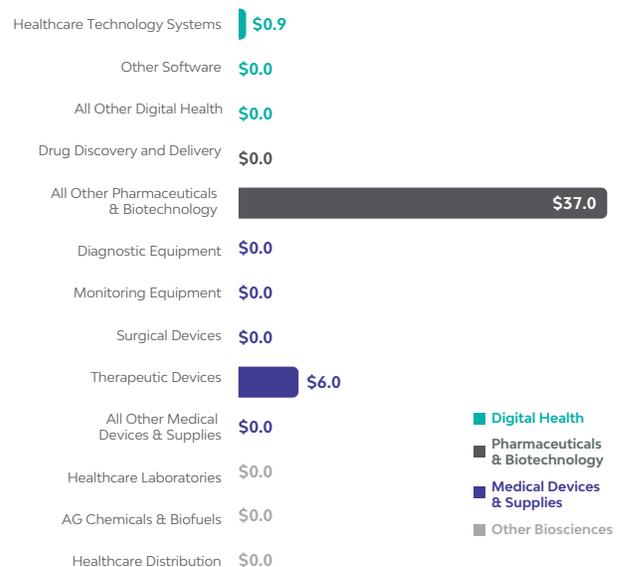
### Bioscience-Related Venture Capital Investments

\$ Millions, 2018-2021



### Bioscience-Related Venture Capital Investments by Segment

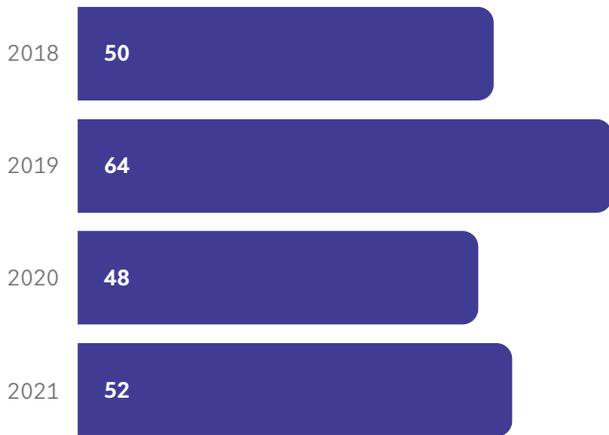
\$ Millions, 2018-2021



## Bioscience Patents in South Dakota

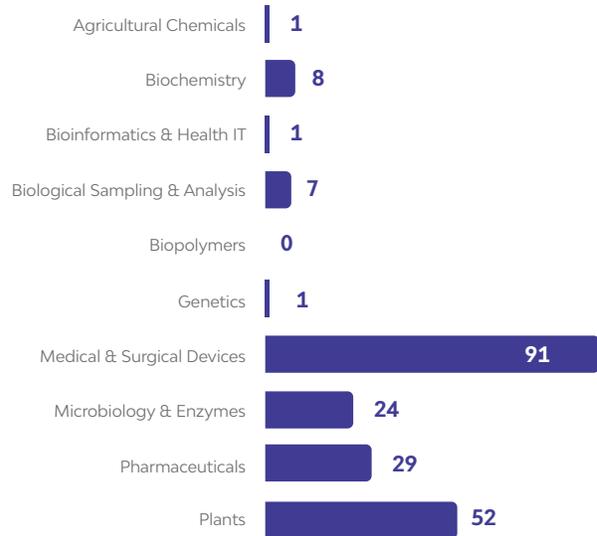
### Bioscience-Related U.S. Patents

2018-2021



### Bioscience-Related U.S. Patents by Segment

2018-2021



## Source Notes

**Employment, Establishments and Wages:** U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW), enhanced by Lightcast (Datarun 2022.3).

**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:** PitchBook Data, Inc.

**Patents:** U.S. Patent & Trademark Office data from Clarivate Analytics' Derwent Innovation patent analysis database.

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