



# Washington

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

Washington's bioscience industry has grown by nearly 12 percent since 2018, just outpacing national industry growth to reach 43,546 jobs in 2021 across more than 2,600 state business establishments. Washington's largest bioscience industry subsector—research, testing and medical laboratories, has a specialized employment concentration with a location quotient of 1.32 and more than 21,000 jobs. Washington is a strong performer in components of the bioscience innovation ecosystem—in the top tier of states in NIH funding levels and in venture capital investments to bioscience companies. Venture capital investments in state bioscience companies have increased steadily and significantly in recent years and in 2021 totaled \$2.1 billion.

## Bioscience Performance Metrics

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

Metric	Washington	United States	Quintile
<b>Bioscience Industry, 2021</b>			
Bioscience Industry Employment	43,546	2,135,704	II
Bioscience Industry Location Quotient	0.90	n/a	III
Bioscience Industry Establishments	2,638	127,389	II
<b>Academic Bioscience R&amp;D Expenditures, FY 2020</b>			
Bioscience R&D (\$ thousands)	\$1,196,166	\$51,108,737	II
Bioscience Share of Total R&D	71%	63%	II
Bioscience R&D Per Capita	\$155	\$154	II
<b>NIH Funding, FY 2021</b>			
Funding (\$ thousands)	\$1,402,615	\$34,751,109	I
Funding Per Capita	\$181	\$105	I
<b>Bioscience Venture Capital Investments, 2018-21 (\$ millions)</b>			
	\$5,696.69	\$197,674.54	I
<b>Bioscience-Related Patents, 2018-21</b>			
	3,474	153,072	II

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.

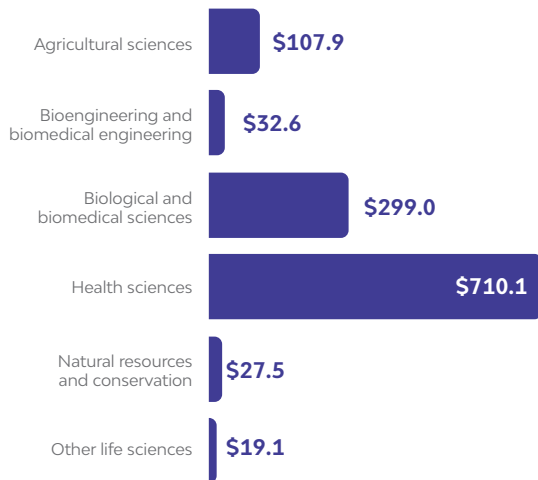
Industry Subsector		Washington		United States	
		2021	2018–2021 Change	2021	2018–2021 Change
Agricultural Feedstock and Industrial Biosciences	Establishments	44	8.7%	1,948	10.0%
	Employment	850	-6.1%	69,573	1.9%
	<i>Location Quotient</i>	0.54		n/a	
	Average Annual Wage	\$64,432	10.9%	\$91,989	13.1%
Bioscience- Related Distribution	Establishments	1,310	24.5%	62,697	14.7%
	Employment	10,808	7.3%	602,589	6.6%
	<i>Location Quotient</i>	0.79		n/a	
	Average Annual Wage	\$106,622	15.3%	\$121,606	15.0%
Medical Devices and Equipment	Establishments	227	12.1%	10,268	17.4%
	Employment	6,816	0.9%	398,847	5.5%
	<i>Location Quotient</i>	0.75		n/a	
	Average Annual Wage	\$115,302	21.3%	\$98,481	8.7%
Pharmaceuticals	Establishments	186	44.7%	5,973	34.7%
	Employment	3,543	15.8%	344,839	11.9%
	<i>Location Quotient</i>	0.45		n/a	
	Average Annual Wage	\$99,218	33.0%	\$126,153	10.3%
Research, Testing, and Medical Laboratories	Establishments	871	29.2%	46,503	34.5%
	Employment	21,529	18.6%	719,856	19.3%
	<i>Location Quotient</i>	1.32		n/a	
	Average Annual Wage	\$140,106	-2.0%	\$147,396	22.0%
Total Bioscience Industry	Establishments	2,638	25.8%	127,389	22.3%
	Employment	43,546	11.8%	2,135,704	11.0%
	<i>Location Quotient</i>	0.90		n/a	
	Average Annual Wage	\$123,108	7.8%	\$125,750	16.4%
Total Private Sector	Establishments	265,796	8.8%	10,665,643	9.3%
	Employment	2,803,849	-0.2%	123,376,557	-1.5%
	<i>Location Quotient</i>	1.00		n/a	
	Average Annual Wage	\$84,068	26.3%	\$67,826	18.9%

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

## Bioscience Research in Washington

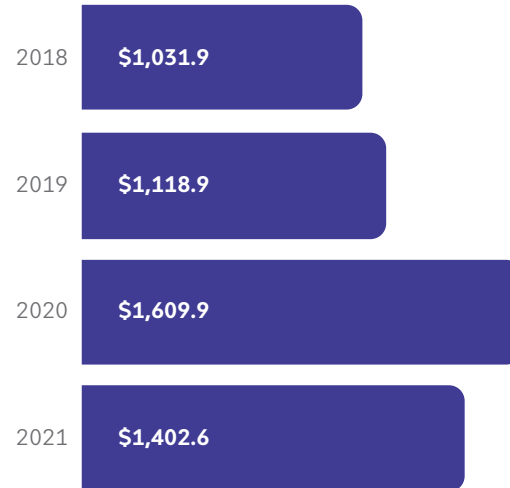
### Bioscience Academic R&D Expenditures

\$ Millions, FY 2020



### NIH Awards

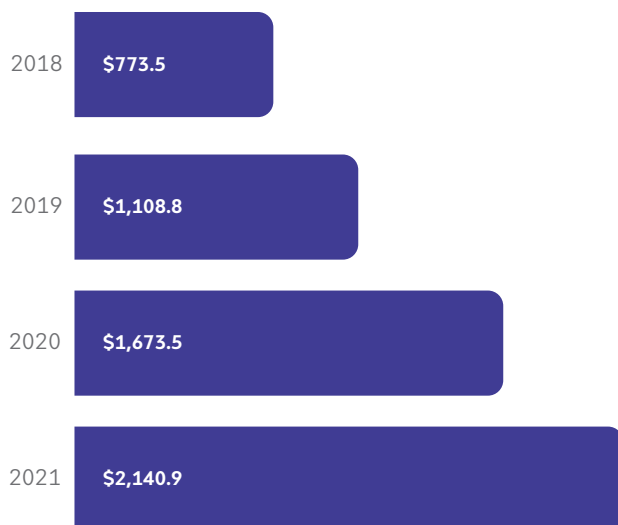
\$ Millions, FY 2018-2021



## Bioscience Venture Capital in Washington

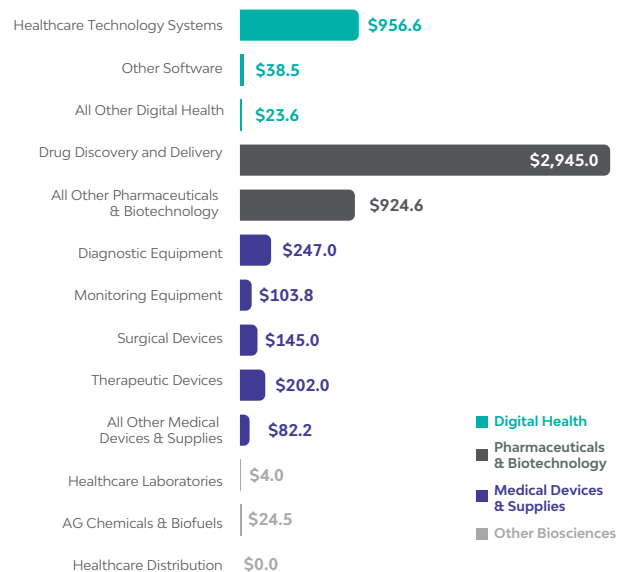
### Bioscience-Related Venture Capital Investments

\$ Millions, 2018-2021



### Bioscience-Related Venture Capital Investments by Segment

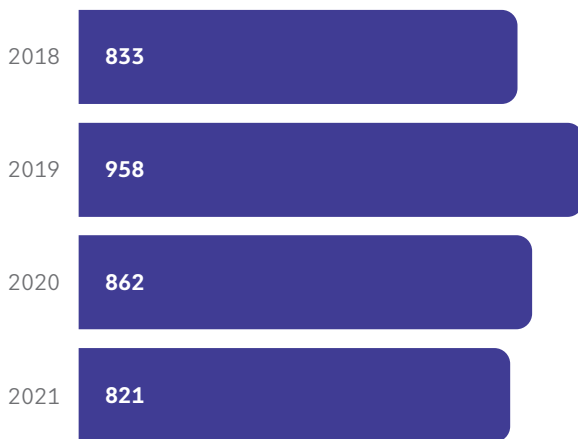
\$ Millions, 2018-2021



## Bioscience Patents in Washington

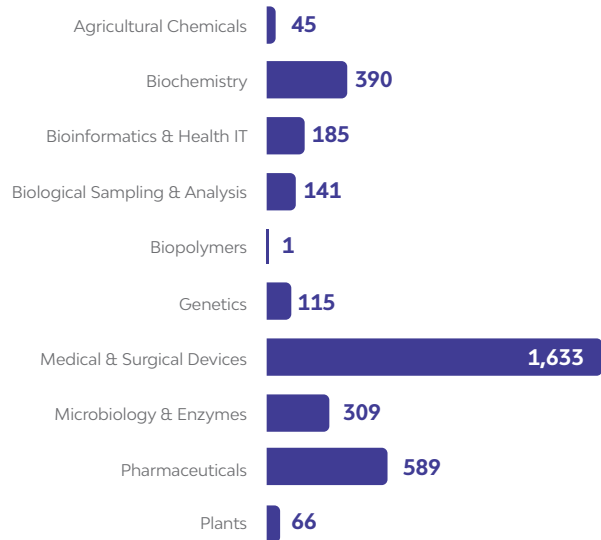
### Bioscience-Related U.S. Patents

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.*