



Florida’s bioscience industry is large and growing. State firms have increased employment by 4.3 percent since 2014 to reach just over 87,000 jobs in 2016. These firms operate 6,198 business establishments, a physical footprint that has grown by nearly 4 percent since 2014. The industry has multiple strengths with a specialized employment concentration in bioscience-related distribution 28 percent above the national average (location quotient is 1.28) and with a strong concentration in agricultural feedstock and industrial biosciences (location quotient is 1.12). Florida’s universities spent \$1.3 billion on bioscience-related R&D in 2016. State inventors are associated with 5,100 patents awarded from 2014 through 2017 in bioscience-related technology classes, a volume that places Florida in the top tier of states in patent activity.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metric	Florida	United States	Quintile
Bioscience Industry, 2016			
Bioscience Industry Employment	87,061	1,743,639	I
Bioscience Industry Location Quotient	0.83	n/a	III
Bioscience Industry Establishments	6,198	85,702	I
Academic Bioscience R&D Expenditures, FY 2016			
Bioscience R&D (\$ thousands)	\$1,313,580	\$41,972,205	II
Bioscience Share of Total R&D	59%	62%	III
Bioscience R&D Per Capita	\$64	\$130	V
NIH Funding, FY 2017			
Funding (\$ thousands)	\$649,938	\$26,150,485	II
Funding Per Capita	\$31	\$80	IV
Bioscience Venture Capital Investments, 2014-17 (\$ millions)	\$903.72	\$66,168.62	II
Bioscience and Related Patents, 2014-17	5,100	102,862	I

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	Florida		United States	
	2016	2014-2016 Change	2016	2014-2016 Change
Agricultural Feedstock and Industrial Biosciences				
Establishments	135	-4.3%	1,709	-3.2%
Employment	4,560	-0.6%	68,027	-1.2%
Location Quotient	1.12		n/a	
Direct-Effect Employment Multiplier	8.12			
Total Employment Impact	37,038			
Average Annual Wage	\$78,860	2.5%	\$80,961	2.7%
Bioscience-Related Distribution				
Establishments	3,018	-2.0%	39,149	3.8%
Employment	36,155	3.2%	469,640	3.7%
Location Quotient	1.28		n/a	
Direct-Effect Employment Multiplier	2.52			
Total Employment Impact	91,149			
Average Annual Wage	\$97,334	6.5%	\$93,677	2.7%
Drugs and Pharmaceuticals				
Establishments	290	22.4%	3,754	13.7%
Employment	5,741	19.1%	299,113	2.0%
Location Quotient	0.32		n/a	
Direct-Effect Employment Multiplier	7.15			
Total Employment Impact	41,053			
Average Annual Wage	\$74,403	7.0%	\$113,815	-3.2%
Medical Devices and Equipment				
Establishments	662	0.8%	8,083	5.9%
Employment	16,437	-3.7%	359,293	2.9%
Location Quotient	0.76		n/a	
Direct-Effect Employment Multiplier	3.18			
Total Employment Impact	52,281			
Average Annual Wage	\$66,143	3.8%	\$84,746	6.5%
Research, Testing and Medical Laboratories				
Establishments	2,094	12.9%	33,007	13.1%
Employment	24,168	10.1%	547,566	8.2%
Location Quotient	0.74		n/a	
Direct-Effect Employment Multiplier	2.44			
Total Employment Impact	58,862			
Average Annual Wage	\$75,096	10.0%	\$106,942	5.5%
Total Bioscience Industry				
Establishments	6,198	3.9%	85,702	7.7%
Employment	87,061	4.3%	1,743,639	4.4%
Location Quotient	0.83		n/a	
Direct-Effect Employment Multiplier	3.22			
Total Employment Impact	280,383			
Average Annual Wage	\$82,792	6.7%	\$98,961	3.1%
Total Private Sector				
Establishments	643,302	3.6%	9,243,034	3.4%
Employment	7,258,704	7.9%	120,884,570	4.2%
Average Annual Wage	\$46,332	5.2%	\$53,354	4.3%

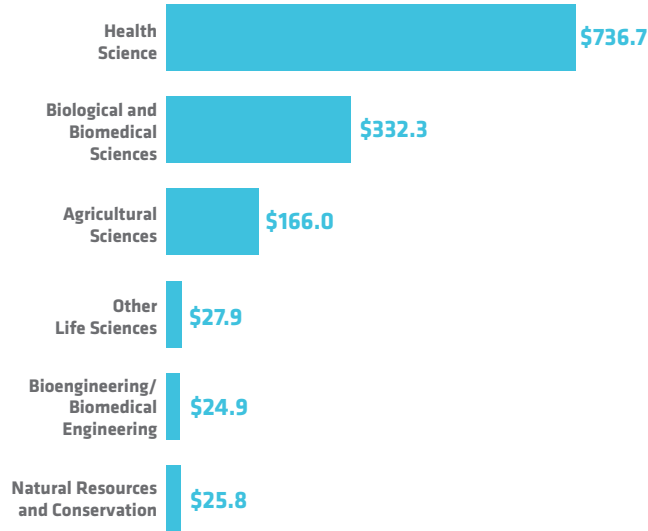
Note: U.S. employment metrics include Puerto Rico.

Bioscience Research in Florida

Bioscience Academic R&D Expenditures

\$ Millions

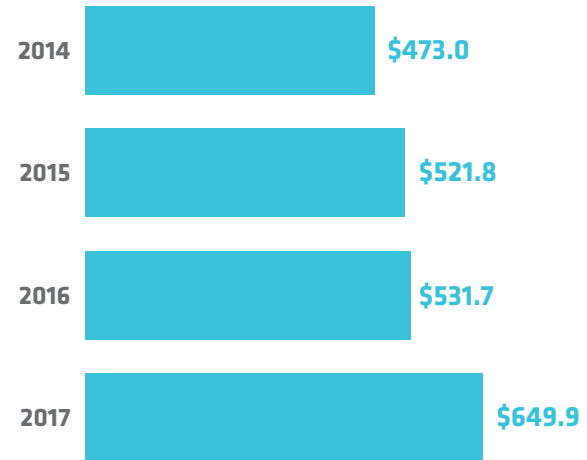
FY 2016



NIH Awards

\$ Millions

FY 2014-2017

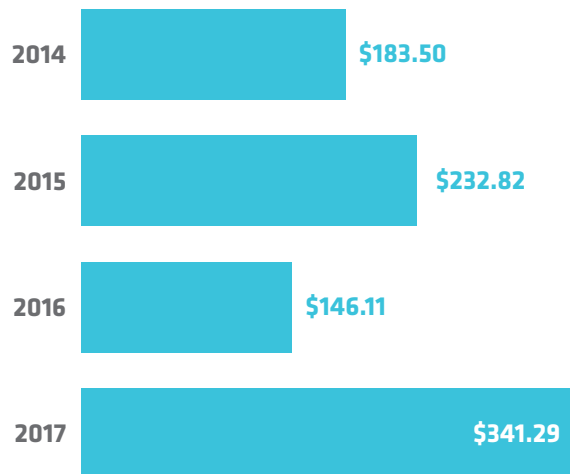


Bioscience Venture Capital in Florida

Bioscience-Related Venture Capital Investments

\$ Millions

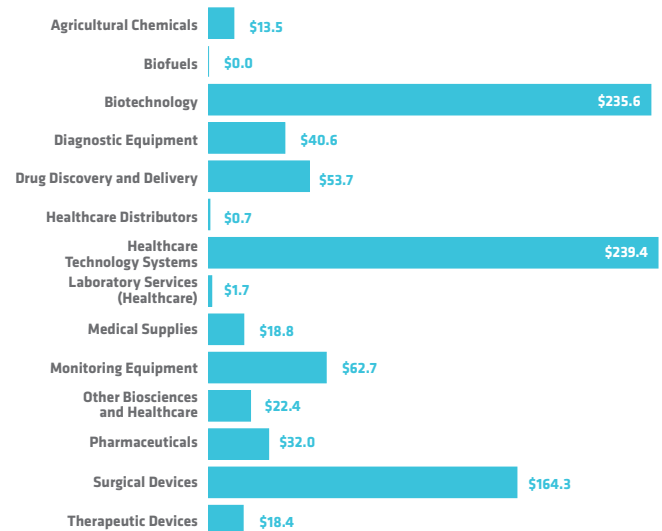
2014-2017



Bioscience-Related Venture Capital Investments by Segment

\$ Millions

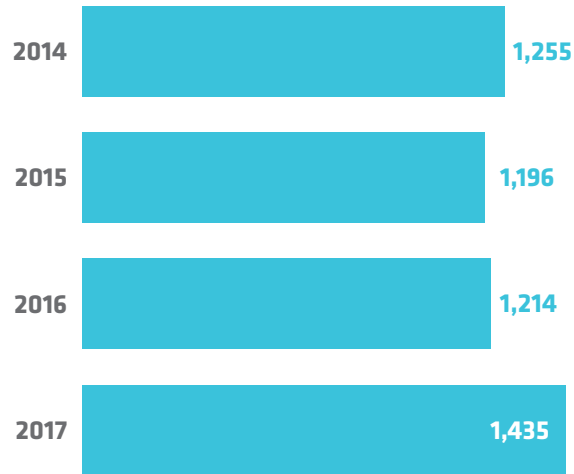
2014-2017



Bioscience Patents in Florida

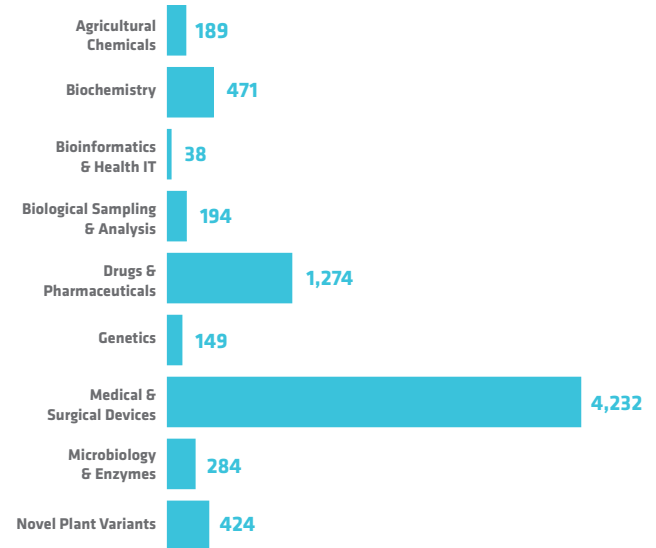
Bioscience-Related U.S. Patents

2014-2017



Bioscience-Related U.S. Patents by Segment

2014-2017



Source Notes

Employment, Establishments and Wages: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW), enhanced file from IMPLAN.

Employment Multipliers: IMPLAN 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: 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.