

# UMass Research & Expenditures Report

**FY 2020**

Office of the President, Institutional Research



University of Massachusetts

Amherst • Boston • Dartmouth • Lowell • Medical School • UMassOnline

# Table of Contents

## □ KEY HIGHLIGHTS

- KEY HIGHLIGHTS 1-2

## □ FY 2016 – FY 2020

- UMASS SYSTEM 3
- UMASS AMHERST 4
- UMASS BOSTON 5
- UMASS DARTMOUTH 6
- UMASS LOWELL 7
- UMASS MEDICAL SCHOOL 8
- UMASS PRESIDENT'S OFFICE 9

## □ TOTAL R&D EXPENDITURES BY FIELD FY 2020

- UMASS SYSTEM 10
- UMASS AMHERST 11
- UMASS BOSTON 12
- UMASS DARTMOUTH 13
- UMASS LOWELL 14
- UMASS MEDICAL SCHOOL 15
- UMASS PRESIDENT'S OFFICE 16

## □ FEDERAL GOVERNMENT AGENCY SOURCES FY 2020 17

# Key Highlights



**\$687M**

UMass Total R&D Expenditures FY 2020

 **0.5%**

1-Year Change in UMass Total R&D Expenditures (vs. FY 2019)

 **9.2%**

5-Year Change in UMass Total R&D Expenditures (vs. FY 2015)



**#3\***

State Ranking among MA universities in R&D Expenditures FY 2019




**\$636M**

UMass STEM R&D Expenditures FY 2020

 **0.7%**

1-Year Change in UMass STEM R&D Expenditures (vs. FY 2019)



**53%**

Percent of all R&D Expenditures from Life Sciences FY 2020



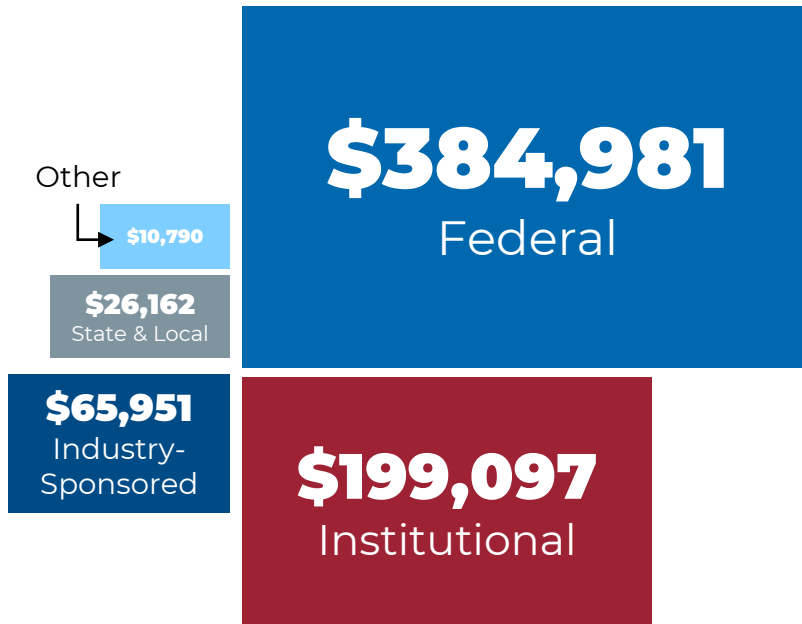
**68%\***

Percent of Total MA R&D Expenditures from Harvard, MIT, & UMass FY 2019

\* R&D expenditures data for state FY 2020 is currently not available.

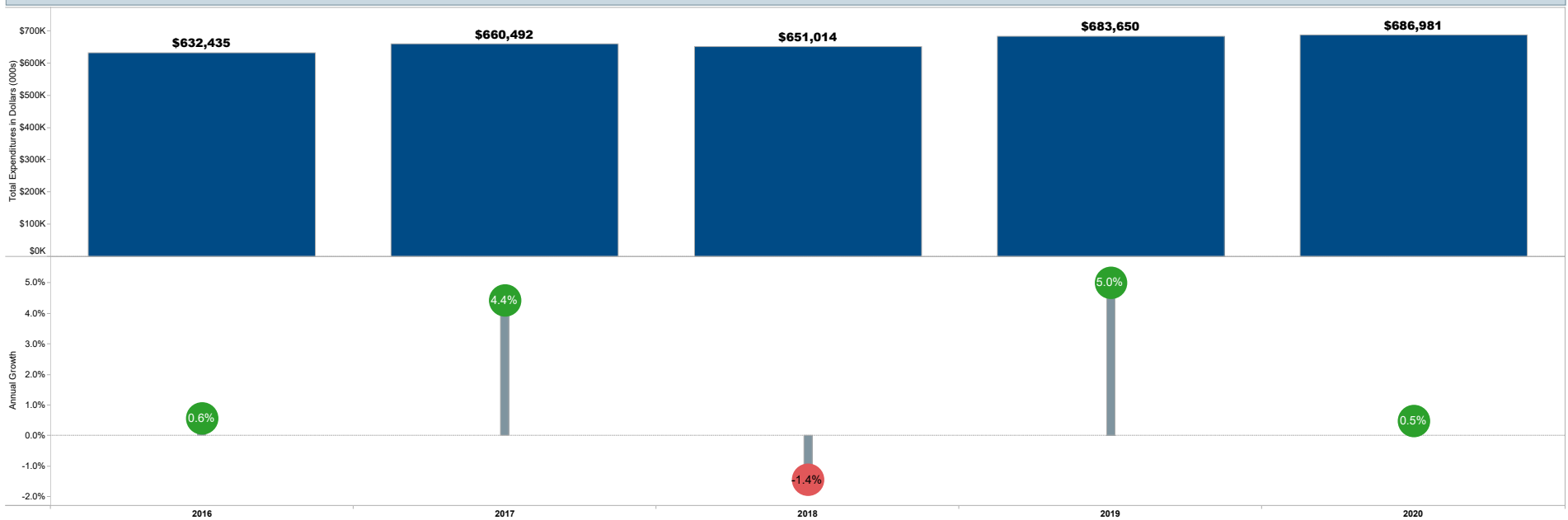
# Key Highlights

## UMASS SOURCE OF FUNDING FY2020 (IN THOUSANDS)



Source	1-Year % Change (vs. FY 2019)	5-Year % Change (vs. FY 2015)
Federal	▲1%	▲8%
State & Local	▼1%	▼37%
Industry Sponsored	▲1%	▲27%
Institutional	▲1%	▲15%
Other	▼14%	▲87%

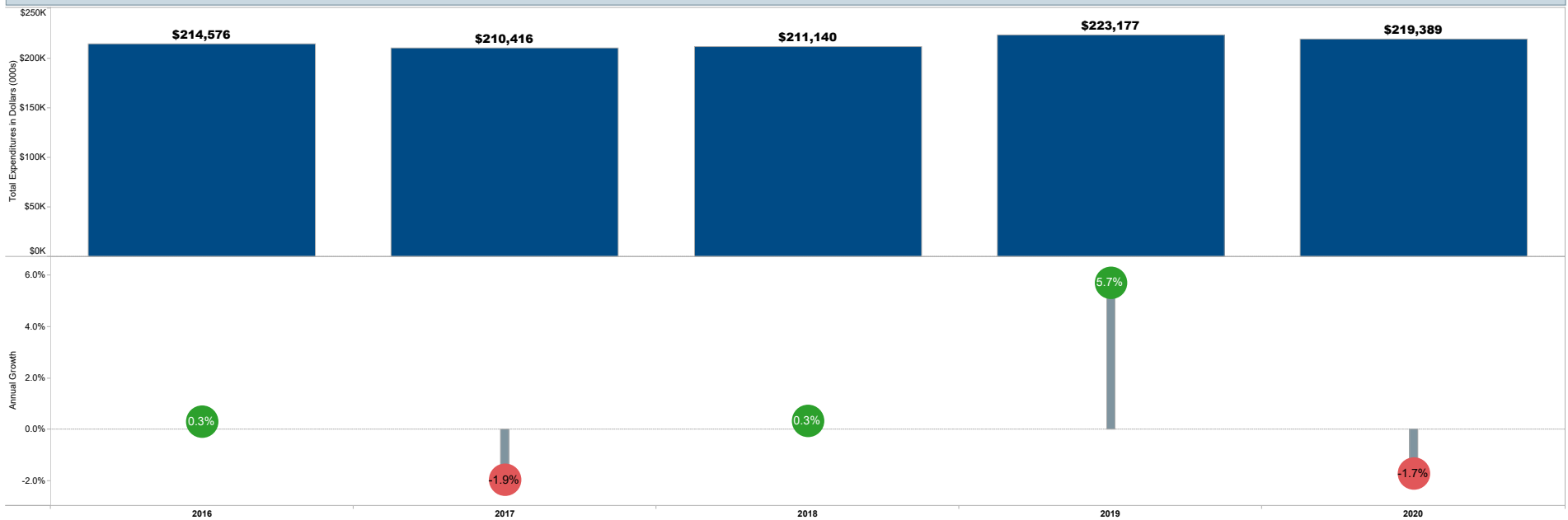
**UMass System Total R&D Expenditures FY 2016 - FY 2020**



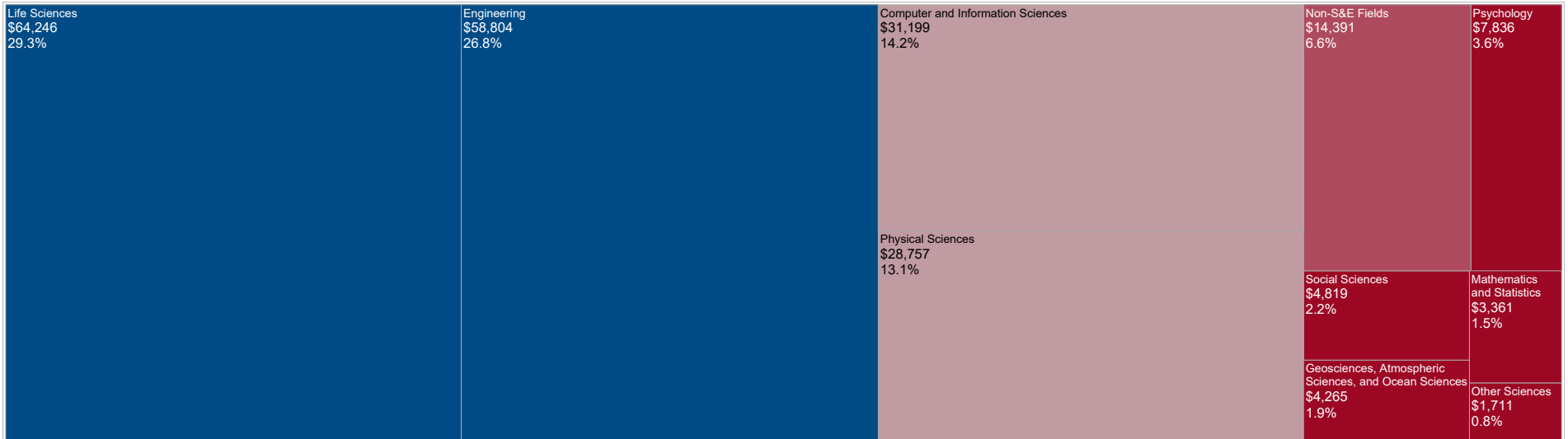
**UMass System Total R&D Expenditure by R&D Field Group FY 2020**



### Amherst Total R&D Expenditures FY 2016 - FY 2020



### Amherst Total R&D Expenditure by R&D Field Group FY 2020



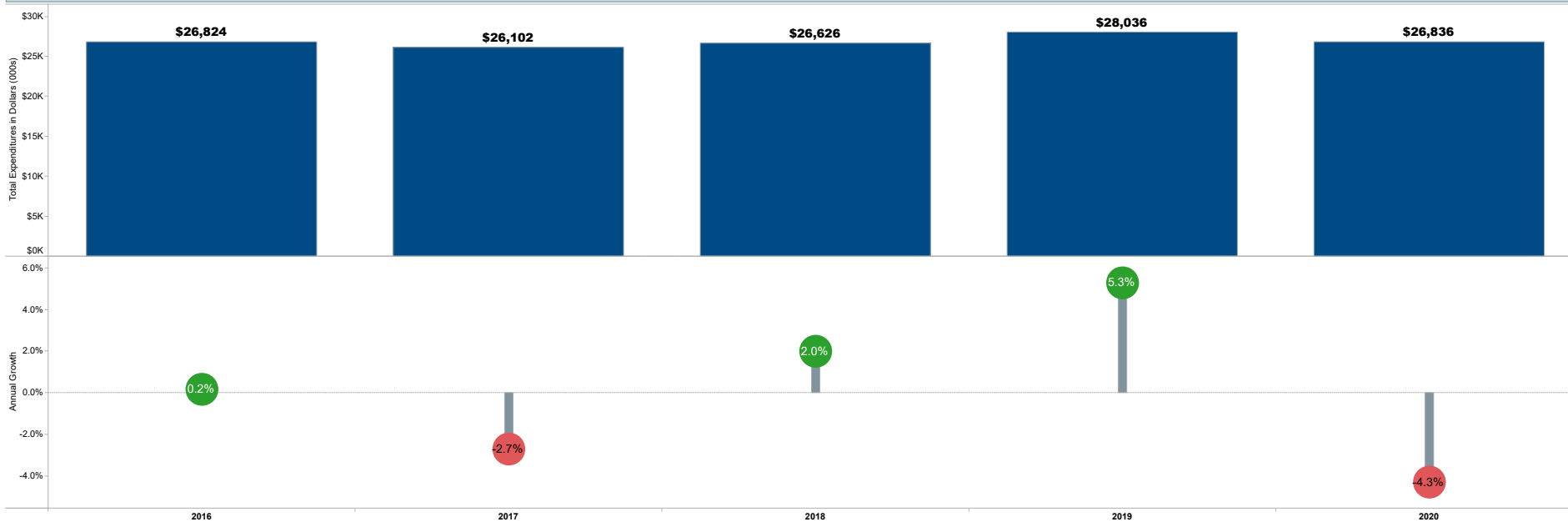
**Boston Total R&D Expenditures FY 2016 - FY 2020**



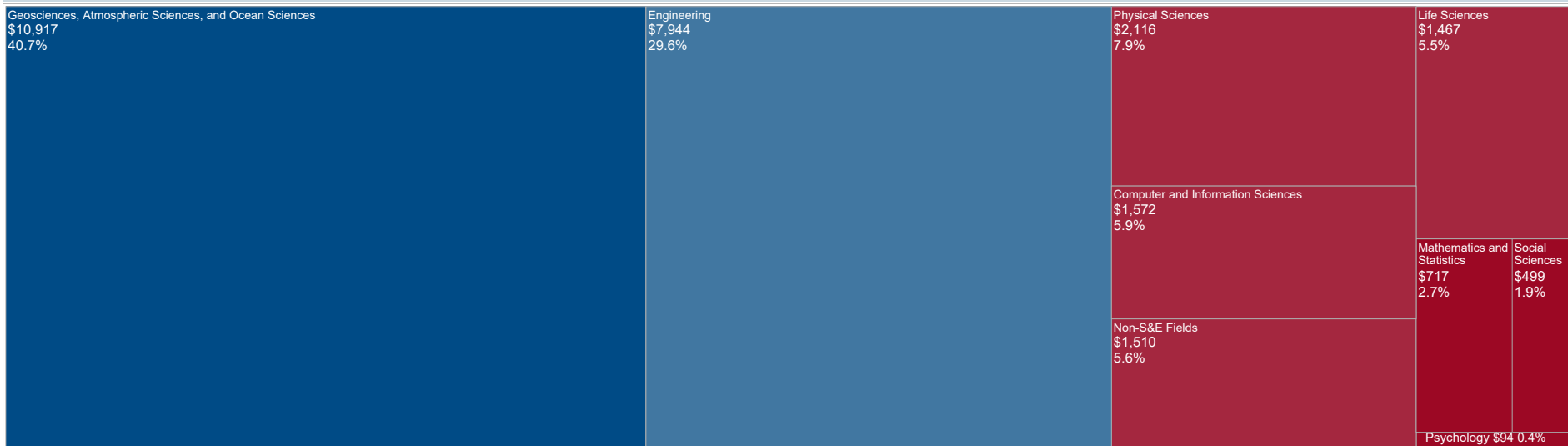
**Boston Total R&D Expenditure by R&D Field Group FY 2020**

<b>Non-S&amp;E Fields</b> \$27,392 42.7%	<b>Social Sciences</b> \$12,734 19.8%	<b>Psychology</b> \$4,361 6.8%	<b>Geosciences, Atmospheric Sciences, and Ocean Sciences</b> \$3,848 6.0%	
	<b>Life Sciences</b> \$8,950 13.9%	<b>Physical Sciences</b> \$3,584 5.6%	<b>Computer and Information Sciences</b> \$1,242 1.9%	<b>Engineering</b> \$1,206 1.9%
			<b>Other Sciences</b> \$453 0.7%	<b>Mathematics and Statistics</b> \$449 0.7%

**Dartmouth Total R&D Expenditures FY 2016 - FY 2020**

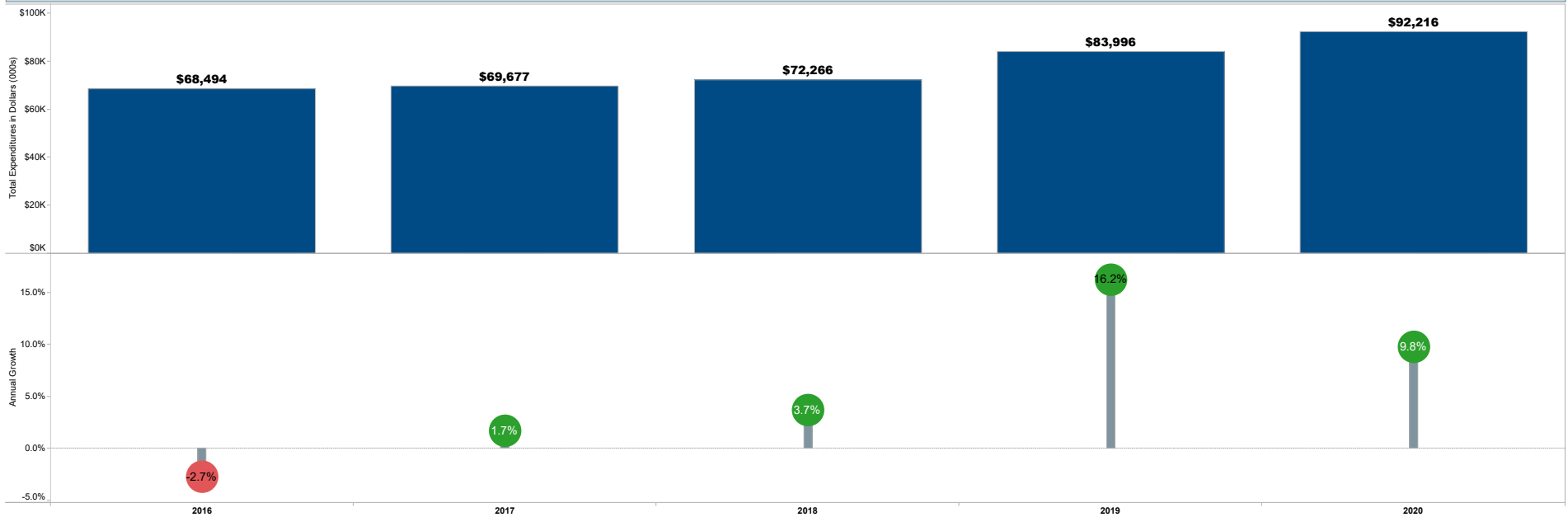


**Dartmouth Total R&D Expenditure by R&D Field Group FY 2020**

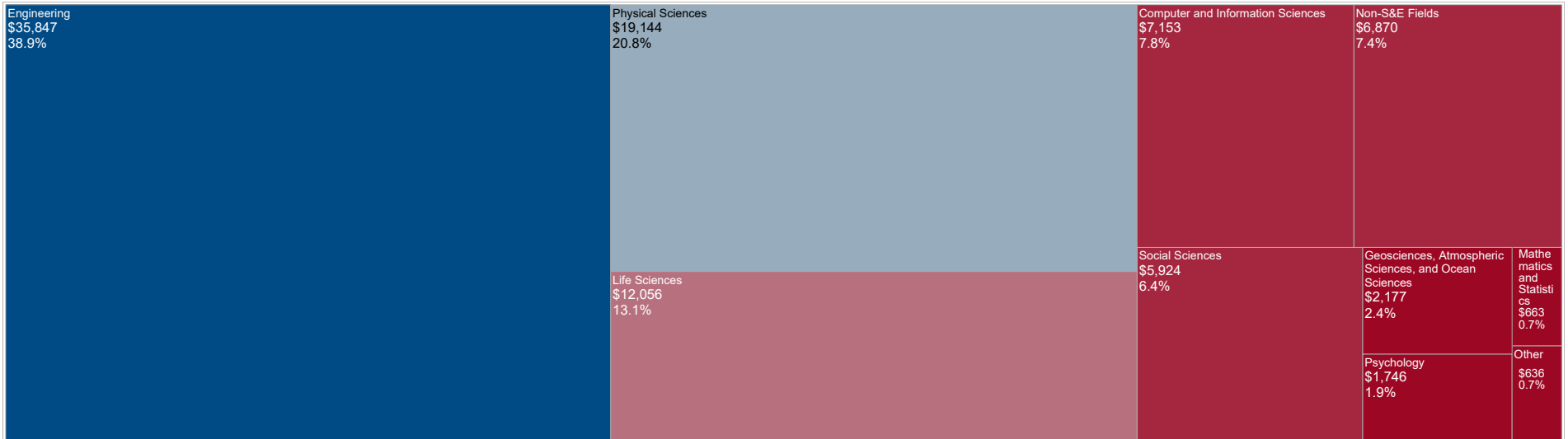




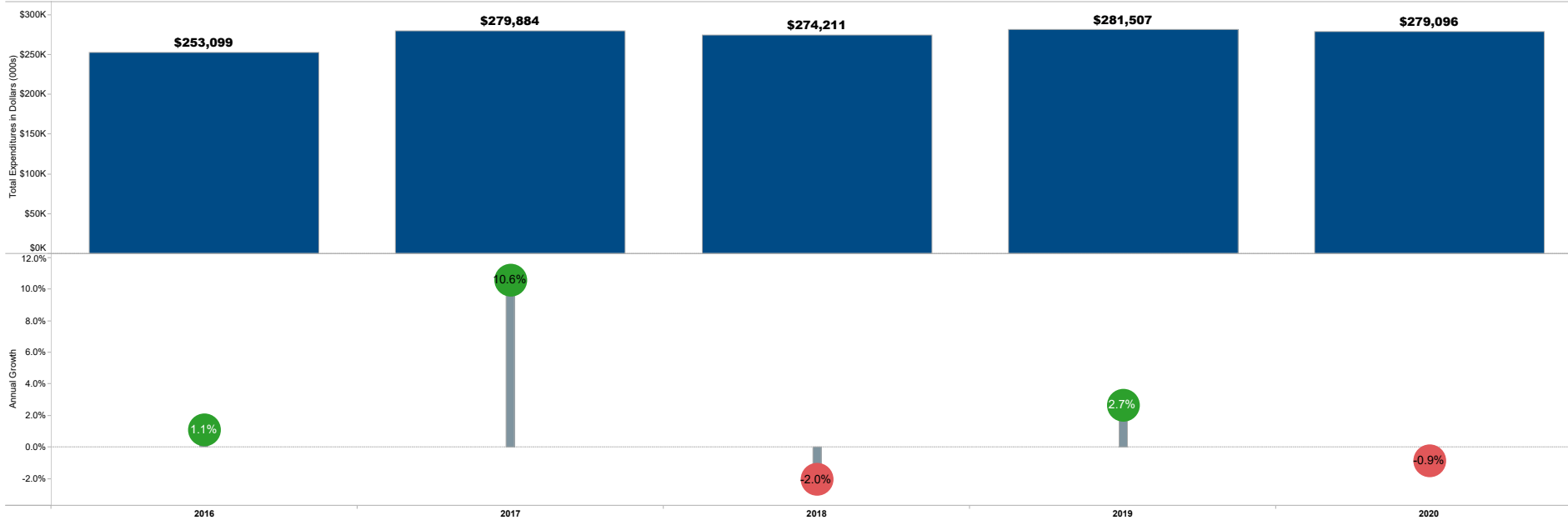
**Lowell Total R&D Expenditures FY 2016 - FY 2020**



**Lowell Total R&D Expenditure by R&D Field Group FY 2020**



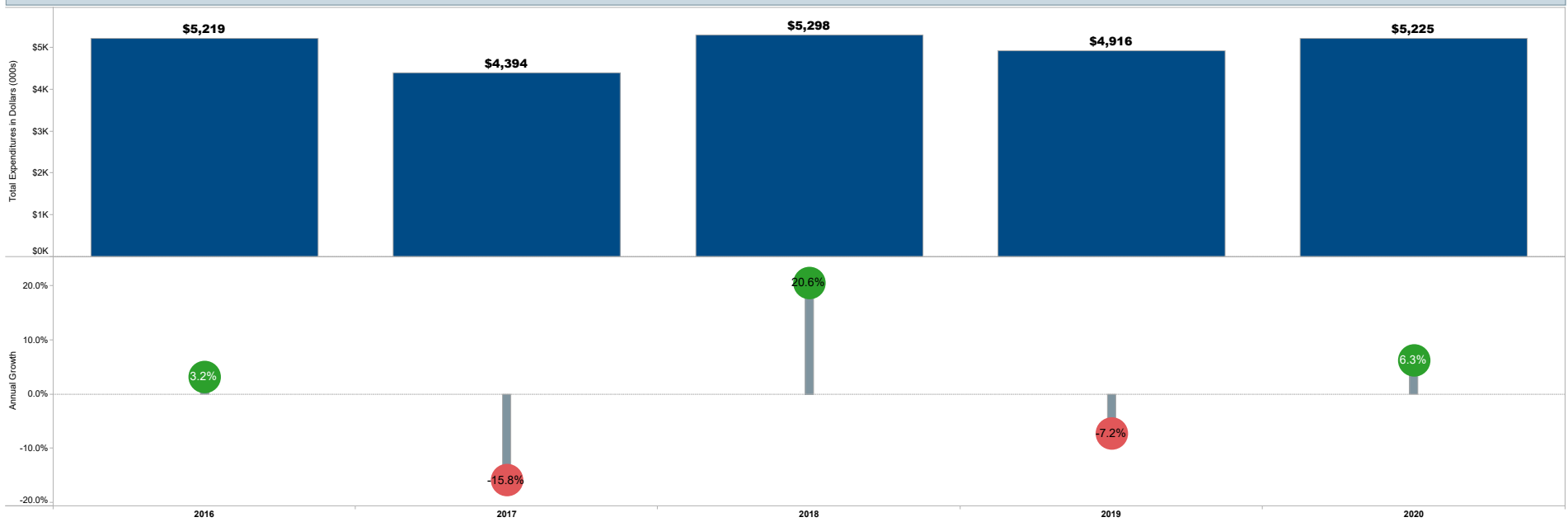
**Medical School Total R&D Expenditures FY 2016 - FY 2020**



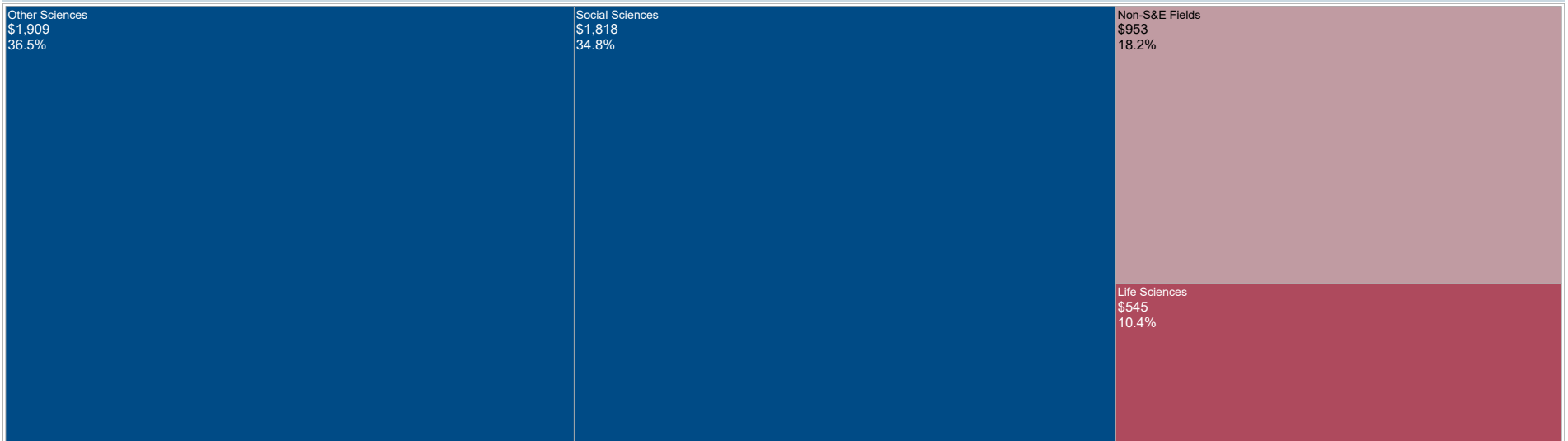
**Medical School Total R&D Expenditure by R&D Field Group FY 2020**



**Presidents Office Total R&D Expenditures FY 2016 - FY 2020**



**Presidents Office Total R&D Expenditure by R&D Field Group FY 2020**



**UMass System - FY 2020 Total Expenditures by Field (Federal and Non-Federal)**

<b>Field Category</b>	<b>Field Group</b>	<b>Field</b>	<b>Federal</b>	<b>Non Federal</b>	<b>Grand Total</b>
<b>Grand Total</b>			<b>\$384,981</b>	<b>\$302,000</b>	<b>\$686,981</b>
<b>SCI &amp; ENG FIELDS</b>	<b>Engineering</b>	Aerospace, Aeronautical, and Astronautical Engineering	\$0	\$0	\$0
		Bioengineering and Biomedical Engineering	\$2,626	\$2,777	\$5,403
		Chemical Engineering	\$16,546	\$18,388	\$34,934
		Civil Engineering	\$8,022	\$10,911	\$18,933
		Electrical, Electronic, and Communications Engineering	\$8,963	\$12,871	\$21,834
		Industrial and Manufacturing Engineering	\$0	\$0	\$0
		Mechanical Engineering	\$7,982	\$10,314	\$18,296
		Metallurgical and Materials Engineering	\$0	\$0	\$0
		Other Engineering	\$2,083	\$2,318	\$4,401
	<b>Physical Sciences</b>	Astronomy and Astrophysics	\$3,241	\$1,597	\$4,838
		Chemistry	\$13,014	\$10,424	\$23,438
		Materials Science	\$0	\$16	\$16
		Other Physical Sciences	\$0	\$0	\$0
		Physics	\$15,722	\$9,587	\$25,309
	<b>Geosciences, Atmospheric Sciences, and Ocean Sciences</b>	Atmospheric Science and Meteorology	\$861	\$1,712	\$2,573
		Geological and Earth Sciences	\$4,188	\$1,151	\$5,339
		Ocean Sciences and Marine Sciences	\$3,311	\$9,968	\$13,279
		Other Geosciences, Atmospheric Sciences, and Ocean Sciences	\$0	\$16	\$16
	<b>Mathematics and Statistics</b>	Mathematics and Statistics	\$2,346	\$2,844	\$5,190
	<b>Computer and Information Sciences</b>	Computer and Information Sciences	\$21,828	\$19,338	\$41,166
	<b>Life Sciences</b>	Agricultural	\$10,229	\$6,265	\$16,494
		Biological and Biomedical Sciences	\$118,944	\$55,588	\$174,532
		Health Sciences	\$71,653	\$42,089	\$113,742
		Natural Resources and Conservation	\$3,796	\$5,406	\$9,202
		Other Life Sciences	\$34,233	\$18,157	\$52,390
	<b>Psychology</b>	Psychology	\$8,548	\$5,489	\$14,037
	<b>Social Sciences</b>	Anthropology	\$522	\$910	\$1,432
		Economics	\$375	\$1,774	\$2,149
		Other Social Sciences	\$1,905	\$5,428	\$7,333
		Political Science and Government	\$499	\$3,577	\$4,076
		Sociology, Demography, and Population Studies	\$5,240	\$5,564	\$10,804
	<b>Other Sciences</b>	Other Sciences	\$327	\$4,382	\$4,709
	<b>NON-SCI &amp; ENG FIELDS</b>	<b>Non-S&amp;E Fields</b>	Business Management and Business Administration	\$330	\$4,494
Communication and Communications Technologies			\$78	\$245	\$323
Education			\$15,068	\$17,807	\$32,875
Humanities			\$387	\$5,071	\$5,458
Law			\$68	\$27	\$95
Other Non-Science and Engin.			\$1,825	\$4,100	\$5,925
Social Work			\$0	\$718	\$718
Visual and Performing Arts			\$221	\$677	\$898

**Amherst - FY 2020 Total Expenditures by Field (Federal and Non-Federal)**

Field Category	Field Group	Field	Federal	Non Federal	Grand Total
<b>Grand Total</b>			<b>\$116,170</b>	<b>\$103,219</b>	<b>\$219,389</b>
<b>SCI &amp; ENG FIELDS</b>	<b>Engineering</b>	Aerospace, Aeronautical, and Astronautical Engineering	\$0	\$0	\$0
		Bioengineering and Biomedical Engineering	\$459	\$652	\$1,111
		Chemical Engineering	\$11,993	\$9,959	\$21,952
		Civil Engineering	\$6,424	\$7,785	\$14,209
		Electrical, Electronic, and Communications Engineering	\$4,796	\$5,862	\$10,658
		Industrial and Manufacturing Engineering	\$0	\$0	\$0
		Mechanical Engineering	\$4,229	\$4,686	\$8,915
		Metallurgical and Materials Engineering	\$0	\$0	\$0
		Other Engineering	\$734	\$1,225	\$1,959
	<b>Physical Sciences</b>	Astronomy and Astrophysics	\$3,241	\$1,597	\$4,838
		Chemistry	\$10,044	\$4,948	\$14,992
		Materials Science	\$0	\$0	\$0
		Other Physical Sciences	\$0	\$0	\$0
		Physics	\$4,976	\$3,951	\$8,927
	<b>Geosciences, Atmospheric Sciences, and Ocean Sciences</b>	Atmospheric Science and Meteorology	\$0	\$1,437	\$1,437
		Geological and Earth Sciences	\$2,803	\$25	\$2,828
		Ocean Sciences and Marine Sciences	\$0	\$0	\$0
		Other Geosciences, Atmospheric Sciences, and Ocean Sciences	\$0	\$0	\$0
	<b>Mathematics and Statistics</b>	Mathematics and Statistics	\$2,093	\$1,268	\$3,361
	<b>Computer and Information Sciences</b>	Computer and Information Sciences	\$16,804	\$14,395	\$31,199
	<b>Life Sciences</b>	Agricultural	\$10,229	\$6,225	\$16,454
		Biological and Biomedical Sciences	\$15,754	\$10,152	\$25,906
		Health Sciences	\$6,464	\$3,583	\$10,047
		Natural Resources and Conservation	\$3,689	\$3,808	\$7,497
		Other Life Sciences	\$27	\$4,315	\$4,342
	<b>Psychology</b>	Psychology	\$5,429	\$2,407	\$7,836
	<b>Social Sciences</b>	Anthropology	\$173	\$437	\$610
		Economics	\$375	\$754	\$1,129
		Other Social Sciences	\$287	\$793	\$1,080
		Political Science and Government	\$227	\$268	\$495
		Sociology, Demography, and Population Studies	\$969	\$536	\$1,505
	<b>Other Sciences</b>	Other Sciences	\$327	\$1,384	\$1,711
	<b>NON-SCI &amp; ENG FIELDS</b>	<b>Non-S&amp;E Fields</b>	Business Management and Business Administration	\$303	\$1,247
Communication and Communications Technologies			\$0	\$124	\$124
Education			\$1,333	\$2,746	\$4,079
Humanities			\$9	\$2,498	\$2,507
Law			\$68	\$27	\$95
Other Non-Science and Engin.			\$1,794	\$3,583	\$5,377
Social Work			\$0	\$542	\$542
Visual and Performing Arts			\$117	\$0	\$117

**Boston - FY 2020 Total Expenditures by Field (Federal and Non-Federal)**

Field Category	Field Group	Field	Federal	Non Federal	Grand Total
<b>Grand Total</b>			<b>\$27,575</b>	<b>\$36,644</b>	<b>\$64,219</b>
<b>SCI &amp; ENG FIELDS</b>	<b>Engineering</b>	Aerospace, Aeronautical, and Astronautical Engineering	\$0	\$0	\$0
		Bioengineering and Biomedical Engineering	\$0	\$0	\$0
		Chemical Engineering	\$0	\$0	\$0
		Civil Engineering	\$0	\$0	\$0
		Electrical, Electronic, and Communications Engineering	\$547	\$390	\$937
		Industrial and Manufacturing Engineering	\$0	\$0	\$0
		Mechanical Engineering	\$0	\$0	\$0
		Metallurgical and Materials Engineering	\$0	\$0	\$0
		Other Engineering	\$0	\$269	\$269
	<b>Physical Sciences</b>	Astronomy and Astrophysics	\$0	\$0	\$0
		Chemistry	\$1,706	\$664	\$2,370
		Materials Science	\$0	\$0	\$0
		Other Physical Sciences	\$0	\$0	\$0
		Physics	\$533	\$681	\$1,214
	<b>Geosciences, Atmospheric Sciences, and Ocean Sciences</b>	Atmospheric Science and Meteorology	\$40	\$58	\$98
		Geological and Earth Sciences	\$807	\$563	\$1,370
		Ocean Sciences and Marine Sciences	\$631	\$1,733	\$2,364
		Other Geosciences, Atmospheric Sciences, and Ocean Sciences	\$0	\$16	\$16
	<b>Mathematics and Statistics</b>	Mathematics and Statistics	\$14	\$435	\$449
	<b>Computer and Information Sciences</b>	Computer and Information Sciences	\$525	\$717	\$1,242
	<b>Life Sciences</b>	Agricultural	\$0	\$40	\$40
		Biological and Biomedical Sciences	\$2,827	\$1,783	\$4,610
		Health Sciences	\$1,591	\$1,729	\$3,320
		Natural Resources and Conservation	\$107	\$873	\$980
		Other Life Sciences	\$0	\$0	\$0
	<b>Psychology</b>	Psychology	\$2,198	\$2,163	\$4,361
	<b>Social Sciences</b>	Anthropology	\$349	\$473	\$822
		Economics	\$0	\$223	\$223
		Other Social Sciences	\$235	\$2,769	\$3,004
		Political Science and Government	\$272	\$2,856	\$3,128
		Sociology, Demography, and Population Studies	\$2,625	\$2,932	\$5,557
	<b>Other Sciences</b>	Other Sciences	\$0	\$453	\$453
	<b>NON-SCI &amp; ENG FIELDS</b>	<b>Non-S&amp;E Fields</b>	Business Management and Business Administration	\$0	\$990
Communication and Communications Technologies			\$0	\$6	\$6
Education			\$12,298	\$12,402	\$24,700
Humanities			\$166	\$1,013	\$1,179
Law			\$0	\$0	\$0
Other Non-Science and Engin.			\$0	\$114	\$114
Social Work			\$0	\$176	\$176
Visual and Performing Arts			\$104	\$123	\$227

**Dartmouth - FY 2020 Total Expenditures by Field (Federal and Non-Federal)**

Field Category	Field Group	Field	Federal	Non Federal	Grand Total
<b>Grand Total</b>			<b>\$6,506</b>	<b>\$20,330</b>	<b>\$26,836</b>
<b>SCI &amp; ENG FIELDS</b>	<b>Engineering</b>	Aerospace, Aeronautical, and Astronautical Engineering	\$0	\$0	\$0
		Bioengineering and Biomedical Engineering	\$147	\$1,067	\$1,214
		Chemical Engineering	\$0	\$0	\$0
		Civil Engineering	\$806	\$1,461	\$2,267
		Electrical, Electronic, and Communications Engineering	\$782	\$2,014	\$2,796
		Industrial and Manufacturing Engineering	\$0	\$0	\$0
		Mechanical Engineering	\$435	\$1,232	\$1,667
		Metallurgical and Materials Engineering	\$0	\$0	\$0
		Other Engineering	\$0	\$0	\$0
	<b>Physical Sciences</b>	Astronomy and Astrophysics	\$0	\$0	\$0
		Chemistry	\$200	\$1,401	\$1,601
		Materials Science	\$0	\$16	\$16
		Other Physical Sciences	\$0	\$0	\$0
		Physics	\$75	\$424	\$499
	<b>Geosciences, Atmospheric Sciences, and Ocean Sciences</b>	Atmospheric Science and Meteorology	\$0	\$0	\$0
		Geological and Earth Sciences	\$0	\$2	\$2
		Ocean Sciences and Marine Sciences	\$2,680	\$8,235	\$10,915
		Other Geosciences, Atmospheric Sciences, and Ocean Sciences	\$0	\$0	\$0
	<b>Mathematics and Statistics</b>	Mathematics and Statistics	\$239	\$478	\$717
	<b>Computer and Information Sciences</b>	Computer and Information Sciences	\$448	\$1,124	\$1,572
	<b>Life Sciences</b>	Agricultural	\$0	\$0	\$0
		Biological and Biomedical Sciences	\$253	\$1,137	\$1,390
		Health Sciences	\$0	\$77	\$77
		Natural Resources and Conservation	\$0	\$0	\$0
		Other Life Sciences	\$0	\$0	\$0
	<b>Psychology</b>	Psychology	\$0	\$94	\$94
	<b>Social Sciences</b>	Anthropology	\$0	\$0	\$0
		Economics	\$0	\$4	\$4
		Other Social Sciences	\$1	\$371	\$372
		Political Science and Government	\$0	\$18	\$18
		Sociology, Demography, and Population Studies	\$0	\$105	\$105
	<b>Other Sciences</b>	Other Sciences	\$0	\$0	\$0
	<b>NON-SCI &amp; ENG FIELDS</b>	<b>Non-S&amp;E Fields</b>	Business Management and Business Administration	\$0	\$11
Communication and Communications Technologies			\$0	\$115	\$115
Education			\$440	\$719	\$1,159
Humanities			\$0	\$0	\$0
Law			\$0	\$0	\$0
Other Non-Science and Engin.			\$0	\$213	\$213
Social Work			\$0	\$0	\$0
Visual and Performing Arts			\$0	\$12	\$12

**Lowell - FY 2020 Total Expenditures by Field (Federal and Non-Federal)**

Field Category	Field Group	Field	Federal	Non Federal	Grand Total
<b>Grand Total</b>			<b>\$41,304</b>	<b>\$50,912</b>	<b>\$92,216</b>
<b>SCI &amp; ENG FIELDS</b>	<b>Engineering</b>	Aerospace, Aeronautical, and Astronautical Engineering	\$0	\$0	\$0
		Bioengineering and Biomedical Engineering	\$2,020	\$1,058	\$3,078
		Chemical Engineering	\$4,553	\$8,429	\$12,982
		Civil Engineering	\$792	\$1,665	\$2,457
		Electrical, Electronic, and Communications Engineering	\$2,838	\$4,605	\$7,443
		Industrial and Manufacturing Engineering	\$0	\$0	\$0
		Mechanical Engineering	\$3,318	\$4,396	\$7,714
		Metallurgical and Materials Engineering	\$0	\$0	\$0
		Other Engineering	\$1,349	\$824	\$2,173
	<b>Physical Sciences</b>	Astronomy and Astrophysics	\$0	\$0	\$0
		Chemistry	\$1,064	\$3,411	\$4,475
		Materials Science	\$0	\$0	\$0
		Other Physical Sciences	\$0	\$0	\$0
		Physics	\$10,138	\$4,531	\$14,669
	<b>Geosciences, Atmospheric Sciences, and Ocean Sciences</b>	Atmospheric Science and Meteorology	\$821	\$217	\$1,038
		Geological and Earth Sciences	\$578	\$561	\$1,139
		Ocean Sciences and Marine Sciences	\$0	\$0	\$0
		Other Geosciences, Atmospheric Sciences, and Ocean Sciences	\$0	\$0	\$0
	<b>Mathematics and Statistics</b>	Mathematics and Statistics	\$0	\$663	\$663
	<b>Computer and Information Sciences</b>	Computer and Information Sciences	\$4,051	\$3,102	\$7,153
	<b>Life Sciences</b>	Agricultural	\$0	\$0	\$0
		Biological and Biomedical Sciences	\$3,156	\$2,367	\$5,523
		Health Sciences	\$1,417	\$3,781	\$5,198
		Natural Resources and Conservation	\$0	\$725	\$725
		Other Life Sciences	\$0	\$610	\$610
	<b>Psychology</b>	Psychology	\$921	\$825	\$1,746
	<b>Social Sciences</b>	Anthropology	\$0	\$0	\$0
		Economics	\$0	\$237	\$237
		Other Social Sciences	\$1,382	\$1,424	\$2,806
		Political Science and Government	\$0	\$371	\$371
		Sociology, Demography, and Population Studies	\$1,639	\$871	\$2,510
	<b>Other Sciences</b>	Other Sciences	\$0	\$636	\$636
<b>NON-SCI &amp; ENG FIELDS</b>	<b>Non-S&amp;E Fields</b>	Business Management and Business Administration	\$27	\$2,246	\$2,273
		Communication and Communications Technologies	\$0	\$0	\$0
		Education	\$997	\$1,109	\$2,106
		Humanities	\$212	\$1,560	\$1,772
		Law	\$0	\$0	\$0
		Other Non-Science and Engin.	\$31	\$146	\$177
		Social Work	\$0	\$0	\$0
		Visual and Performing Arts	\$0	\$542	\$542



**Medical School - FY 2020 Total Expenditures by Field (Federal and Non-Federal)**

Field Category	Field Group	Field	Federal	Non Federal	Grand Total
<b>Grand Total</b>			<b>\$192,938</b>	<b>\$86,158</b>	<b>\$279,096</b>
<b>SCI &amp; ENG FIELDS</b>	<b>Engineering</b>	Aerospace, Aeronautical, and Astronautical Engineering	\$0	\$0	\$0
		Bioengineering and Biomedical Engineering	\$0	\$0	\$0
		Chemical Engineering	\$0	\$0	\$0
		Civil Engineering	\$0	\$0	\$0
		Electrical, Electronic, and Communications Engineering	\$0	\$0	\$0
		Industrial and Manufacturing Engineering	\$0	\$0	\$0
		Mechanical Engineering	\$0	\$0	\$0
		Metallurgical and Materials Engineering	\$0	\$0	\$0
		Other Engineering	\$0	\$0	\$0
	<b>Physical Sciences</b>	Astronomy and Astrophysics	\$0	\$0	\$0
		Chemistry	\$0	\$0	\$0
		Materials Science	\$0	\$0	\$0
		Other Physical Sciences	\$0	\$0	\$0
		Physics	\$0	\$0	\$0
	<b>Geosciences, Atmospheric Sciences, and Ocean Sciences</b>	Atmospheric Science and Meteorology	\$0	\$0	\$0
		Geological and Earth Sciences	\$0	\$0	\$0
		Ocean Sciences and Marine Sciences	\$0	\$0	\$0
		Other Geosciences, Atmospheric Sciences, and Ocean Sciences	\$0	\$0	\$0
	<b>Mathematics and Statistics</b>	Mathematics and Statistics	\$0	\$0	\$0
	<b>Computer and Information Sciences</b>	Computer and Information Sciences	\$0	\$0	\$0
	<b>Life Sciences</b>	Agricultural	\$0	\$0	\$0
		Biological and Biomedical Sciences	\$96,954	\$40,149	\$137,103
		Health Sciences	\$61,778	\$32,777	\$94,555
		Natural Resources and Conservation	\$0	\$0	\$0
		Other Life Sciences	\$34,206	\$13,232	\$47,438
	<b>Psychology</b>	Psychology	\$0	\$0	\$0
	<b>Social Sciences</b>	Anthropology	\$0	\$0	\$0
		Economics	\$0	\$0	\$0
		Other Social Sciences	\$0	\$0	\$0
		Political Science and Government	\$0	\$0	\$0
		Sociology, Demography, and Population Studies	\$0	\$0	\$0
	<b>Other Sciences</b>	Other Sciences	\$0	\$0	\$0
<b>NON-SCI &amp; ENG FIELDS</b>	<b>NON-S&amp;E Fields</b>	Business Management and Business Administration	\$0	\$0	\$0
		Communication and Communications Technologies	\$0	\$0	\$0
		Education	\$0	\$0	\$0
		Humanities	\$0	\$0	\$0
		Law	\$0	\$0	\$0
		Other Non-Science and Engin.	\$0	\$0	\$0
		Social Work	\$0	\$0	\$0
		Visual and Performing Arts	\$0	\$0	\$0

**Presidents Office - FY 2020 Total Expenditures by Field (Federal and Non-Federal)**

Field Category	Field Group	Field	Federal	Non Federal	Grand Total
<b>Grand Total</b>			<b>\$488</b>	<b>\$4,737</b>	<b>\$5,225</b>
<b>SCI &amp; ENG FIELDS</b>	<b>Engineering</b>	Aerospace, Aeronautical, and Astronautical Engineering	\$0	\$0	\$0
		Bioengineering and Biomedical Engineering	\$0	\$0	\$0
		Chemical Engineering	\$0	\$0	\$0
		Civil Engineering	\$0	\$0	\$0
		Electrical, Electronic, and Communications Engineering	\$0	\$0	\$0
		Industrial and Manufacturing Engineering	\$0	\$0	\$0
		Mechanical Engineering	\$0	\$0	\$0
		Metallurgical and Materials Engineering	\$0	\$0	\$0
		Other Engineering	\$0	\$0	\$0
	<b>Physical Sciences</b>	Astronomy and Astrophysics	\$0	\$0	\$0
		Chemistry	\$0	\$0	\$0
		Materials Science	\$0	\$0	\$0
		Other Physical Sciences	\$0	\$0	\$0
		Physics	\$0	\$0	\$0
	<b>Geosciences, Atmospheric Sciences, and Ocean Sciences</b>	Atmospheric Science and Meteorology	\$0	\$0	\$0
		Geological and Earth Sciences	\$0	\$0	\$0
		Ocean Sciences and Marine Sciences	\$0	\$0	\$0
		Other Geosciences, Atmospheric Sciences, and Ocean Sciences	\$0	\$0	\$0
	<b>Mathematics and Statistics</b>	Mathematics and Statistics	\$0	\$0	\$0
	<b>Computer and Information Sciences</b>	Computer and Information Sciences	\$0	\$0	\$0
	<b>Life Sciences</b>	Agricultural	\$0	\$0	\$0
		Biological and Biomedical Sciences	\$0	\$0	\$0
		Health Sciences	\$403	\$142	\$545
		Natural Resources and Conservation	\$0	\$0	\$0
		Other Life Sciences	\$0	\$0	\$0
	<b>Psychology</b>	Psychology	\$0	\$0	\$0
	<b>Social Sciences</b>	Anthropology	\$0	\$0	\$0
		Economics	\$0	\$556	\$556
		Other Social Sciences	\$0	\$71	\$71
		Political Science and Government	\$0	\$64	\$64
		Sociology, Demography, and Population Studies	\$7	\$1,120	\$1,127
	<b>Other Sciences</b>	Other Sciences	\$0	\$1,909	\$1,909
<b>NON-SCI &amp; ENG FIELDS</b>	<b>Non-S&amp;E Fields</b>	Business Management and Business Administration	\$0	\$0	\$0
		Communication and Communications Technologies	\$78	\$0	\$78
		Education	\$0	\$831	\$831
		Humanities	\$0	\$0	\$0
		Law	\$0	\$0	\$0
		Other Non-Science and Engin.	\$0	\$44	\$44
		Social Work	\$0	\$0	\$0
		Visual and Performing Arts	\$0	\$0	\$0

**FY 2016 - FY 2020 R&D Expenditures in Dollars (000s) by Source - Details**

Source	Campus Name	Fiscal Year					
		2015	2016	2017	2018	2019	2020
<b>Federal</b>	<b>Amherst</b>	\$103,417	\$106,269	\$108,871	\$110,654	\$117,359	\$116,170
	<b>Boston</b>	\$28,653	\$30,608	\$29,934	\$30,412	\$25,083	\$27,575
	<b>Dartmouth</b>	\$7,321	\$6,548	\$7,370	\$7,156	\$7,353	\$6,506
	<b>Lowell</b>	\$31,059	\$27,694	\$29,471	\$30,086	\$35,309	\$41,304
	<b>Medical School</b>	\$183,588	\$181,446	\$200,232	\$194,953	\$197,388	\$192,938
	<b>Presidents Office</b>	\$1,445	\$1,124	\$721	\$643	\$488	\$488
	<b>UMASS System</b>	<b>\$355,483</b>	<b>\$353,689</b>	<b>\$376,599</b>	<b>\$373,904</b>	<b>\$382,980</b>	<b>\$384,981</b>
<b>State &amp; Local</b>	<b>Amherst</b>	\$26,172	\$25,021	\$21,257	\$9,620	\$12,409	\$7,779
	<b>Boston</b>	\$4,394	\$5,388	\$6,990	\$2,075	\$2,369	\$3,325
	<b>Dartmouth</b>	\$1,327	\$1,864	\$1,976	\$1,751	\$1,603	\$1,644
	<b>Lowell</b>	\$3,215	\$2,300	\$2,583	\$4,523	\$6,390	\$8,471
	<b>Medical School</b>	\$4,615	\$1,646	\$160	\$82	\$477	\$1,410
	<b>Presidents Office</b>	\$2,071	\$2,870	\$2,688	\$3,309	\$3,226	\$3,533
	<b>UMASS System</b>	<b>\$41,794</b>	<b>\$39,089</b>	<b>\$35,654</b>	<b>\$21,360</b>	<b>\$26,474</b>	<b>\$26,162</b>
<b>Institutional</b>	<b>Amherst</b>	\$69,756	\$65,358	\$65,698	\$72,017	\$70,889	\$75,307
	<b>Boston</b>	\$24,456	\$22,886	\$27,949	\$23,998	\$28,163	\$25,435
	<b>Dartmouth</b>	\$17,478	\$17,189	\$15,104	\$16,119	\$17,421	\$16,761
	<b>Lowell</b>	\$28,958	\$31,572	\$31,014	\$31,612	\$36,658	\$35,980
	<b>Medical School</b>	\$32,641	\$35,713	\$42,064	\$44,237	\$43,238	\$45,329
	<b>Presidents Office</b>	\$483	\$544	\$367	\$318	\$240	\$285
	<b>UMASS System</b>	<b>\$173,772</b>	<b>\$173,262</b>	<b>\$182,196</b>	<b>\$188,301</b>	<b>\$196,609</b>	<b>\$199,097</b>
<b>Other</b>	<b>Amherst</b>	\$1,886	\$2,007	\$1,225	\$1,313	\$3,508	\$3,551
	<b>Boston</b>	\$381	\$434	\$326	\$345	\$620	\$191
	<b>Dartmouth</b>	\$84	\$187	\$234	\$249	\$232	\$264
	<b>Lowell</b>	\$950	\$831	\$314	\$1,406	\$1,084	\$1,898
	<b>Medical School</b>	\$2,433	\$3,022	\$2,900	\$4,092	\$7,085	\$4,811
	<b>Presidents Office</b>	\$22	\$25	\$4	\$7	\$61	\$75
	<b>UMASS System</b>	<b>\$5,756</b>	<b>\$6,506</b>	<b>\$5,003</b>	<b>\$7,412</b>	<b>\$12,590</b>	<b>\$10,790</b>
<b>Industry-Sponsored : Business</b>	<b>Amherst</b>	\$7,393	\$8,336	\$8,016	\$9,381	\$10,026	\$7,702
	<b>Boston</b>	\$1,499	\$1,291	\$1,279	\$1,413	\$1,675	\$2,075
	<b>Dartmouth</b>	\$365	\$831	\$557	\$909	\$1,140	\$1,354
	<b>Lowell</b>	\$4,634	\$4,775	\$4,841	\$3,588	\$3,460	\$3,263
	<b>Medical School</b>	\$9,452	\$11,483	\$14,324	\$12,585	\$16,386	\$15,073
	<b>Presidents Office</b>	\$221	\$180	\$39	\$266	\$323	\$242
	<b>UMASS System</b>	<b>\$23,564</b>	<b>\$26,896</b>	<b>\$29,056</b>	<b>\$28,142</b>	<b>\$33,010</b>	<b>\$29,709</b>
<b>Industry-Sponsored : Nonprofit organizations</b>	<b>Amherst</b>	\$5,278	\$7,585	\$5,349	\$8,155	\$8,986	\$8,880
	<b>Boston</b>	\$2,991	\$3,616	\$3,541	\$3,230	\$4,108	\$5,618
	<b>Dartmouth</b>	\$201	\$205	\$861	\$442	\$287	\$307
	<b>Lowell</b>	\$1,568	\$1,322	\$1,454	\$1,051	\$1,095	\$1,300
	<b>Medical School</b>	\$17,609	\$19,789	\$20,204	\$18,262	\$16,933	\$19,535
	<b>Presidents Office</b>	\$814	\$476	\$575	\$755	\$578	\$602
	<b>UMASS System</b>	<b>\$28,461</b>	<b>\$32,993</b>	<b>\$31,984</b>	<b>\$31,895</b>	<b>\$31,987</b>	<b>\$36,242</b>
<b>Grand Total</b>	<b>\$628,830</b>	<b>\$632,435</b>	<b>\$660,492</b>	<b>\$651,014</b>	<b>\$683,650</b>	<b>\$686,981</b>	