
**OFFICE OF RESEARCH AND PROJECT
ADMINISTRATION**

**ANNUAL REPORT OF
SPONSORED PROGRAM ACTIVITIES
FISCAL YEAR 2019**



Introduction

We are pleased to present the Office of Research and Project Administration (ORPA) Annual Report for Fiscal Year 2019 ending June 30th, 2019, which showcases the University of Rochester's outstanding ability to attract external support for research and other sponsored programs activities year after year in an increasingly difficult environment. Revenue from sponsored program activities, vital to sustaining research and graduate programs, remains an essential component of the University's current fund expenditures and general budget.

This report is divided between proposals submitted and awards made, and expenditure statistics. The proposal and award statistics will, when looked at over a particular period of time, provide an indication of funding trends. Since expenditures typically follow funding received, those statistics not only provide an indication of the level of expenditure for research, training, and other associated sponsored program activities at the University, but also a basis for comparison with other colleges and universities nationwide and within New York State. The expenditures reported may differ slightly from the University's end-of-year financial statements. These differences are reconciled by various ledger adjustments and other transfers not shown in this report.

The validity of this report depends on how useful end users find it. To this end, comments about the report and suggestions for future improvements are welcomed at resadmin@orpa.rochester.edu

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Proposal and Award Activity

The School of Medicine and Dentistry submits the majority of proposals and, as is also indicated in the award statistics, receives the majority of sponsored program funding. On an overall University basis **1,673** new, continuation, supplemental, and renewal proposals were submitted in FY 2019 and **1,892** awards were received for sponsored program funding.

NOTE: All dollars throughout this report are in thousands

Chart A
Dollar Value of Proposals Submitted - FY 2019

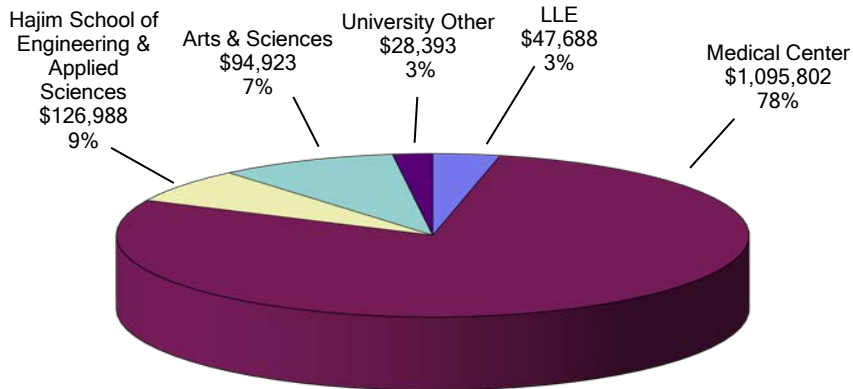
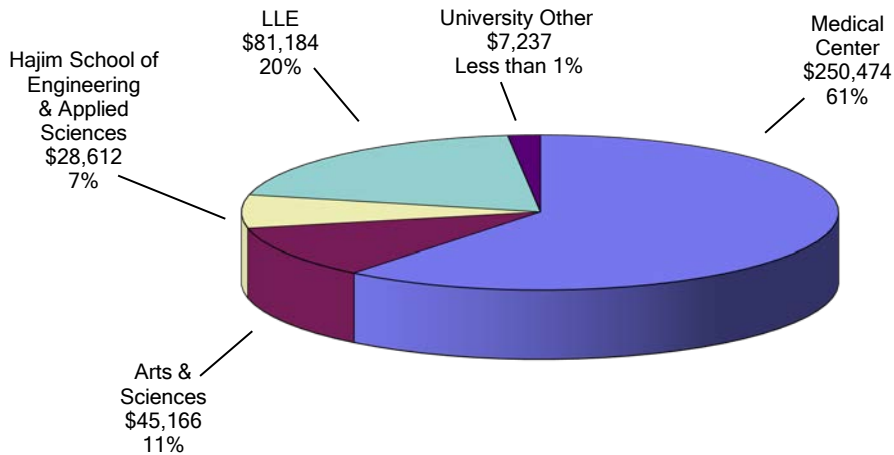
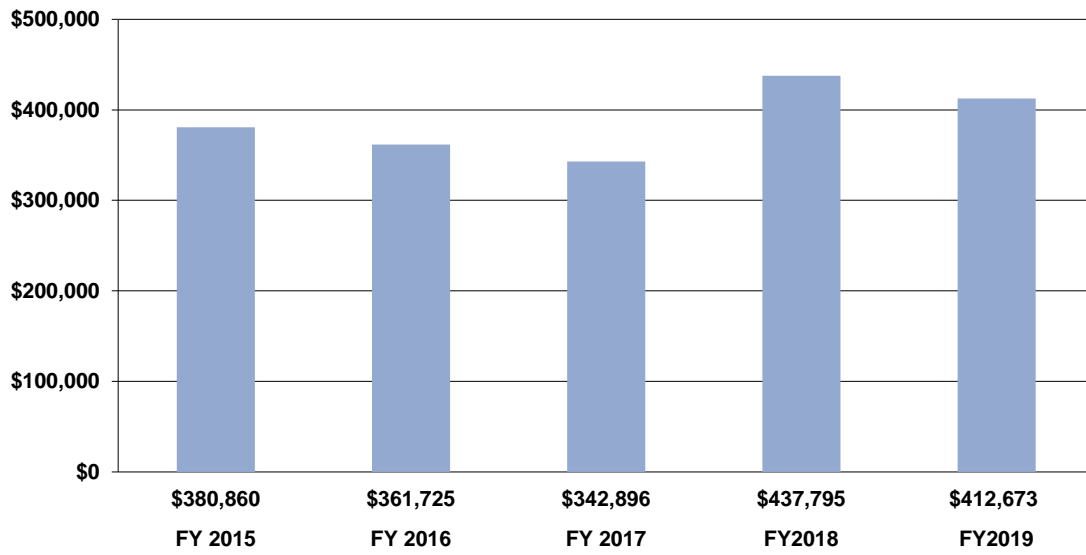


Chart B
Awards Dollars Received - FY 2019



Please note: The 2019 proposal and award figures shown on pages 3 - 11 of this report were current as of December 30, 2019 and may be subject to change as necessary.

Chart C
Award Dollars Received During Last Five Fiscal Years



Source: UR-Coeus Sponsored Programs Management Database

The first two tables that follow provide information on a college, school or division basis for proposals submitted and awards received in the five most recent fiscal years. It should be noted that the proposal amounts include funds requested for the entire project period of the proposed activity, which could be two years or more, as well as one year amounts for continuation proposals and singular projects. Awarded amounts, however, indicate only amounts actually received during FY 2019, regardless of whether additional funds are anticipated over the life of the project. Additionally, neither of the tables includes funds requested or received for direct student financial aid. On an annual basis, both the dollar values of proposals submitted and awards received should be viewed with some caution, as those actions are dependent upon program announcements, funding trends, availability of funds, and timing of award actions.

Table 1
Proposals - Total Amount Requested By College/School/Company

College/School/Company	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Medical Center					
Medicine and Dentistry	\$921,265	\$898,720	\$920,906	\$990,421	\$1,063,918
Nursing	18,918	18,713	13,572	30,581	31,530
Hospitals and Clinics	416	235	250	363	279
Medical Center Administration	11,540	6,122	506	1,650	75
Subtotal URM	952,139	923,790	935,234	1,023,015	1,095,802
Arts, Sciences and Engineering					
Arts and Sciences	184,912	126,415	102,569	141,222	94,923
Hajim School of Engineering & Applied Sciences	184,137	89,638	135,924	109,021	126,988
Subtotal for AS&E	369,049	216,053	238,493	250,243	221,911
Laboratory for Laser Energetics	4,307	75,040	375,764	126,801	47,688
Other Schools and Companies					
Eastman Institute for Oral Health	0	4,783	3,110	15,387	10,984
Warner School of Education	6,902	5,682	2,180	6,983	6,056
Memorial Art Gallery	18	119	787	364	1,705
Simon School of Business	0	50	300	0	123
Eastman School of Music	14	68	0	678	875
University Other	6,798	5,673	3,094	7,025	8,650
Subtotal Other	13,732	16,374	9,471	30,437	28,393
Total University	\$1,339,227	\$1,231,257	\$1,558,962	\$1,430,496	\$1,393,794
Number of Proposals Submitted	1,943	1,937	1,686¹	1,686	1,673

Source: UR-Coeus Sponsored Programs Management Database

¹NIH continuation proposals are no longer processed through ORPA, but instead are incorporated in the Research Project Proposal Report that is submitted electronically by the Principal Investigator via the NIH Commons

Table 2
Awards - Annual Funding Received By College/School/Company

College/School/Company	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Medical Center					
Medicine and Dentistry	\$229,151	\$224,822	\$227,728	\$236,254	\$243,762
Nursing	2,890	3,854	3,245	5,083	4,589
Hospitals and Clinics	463	264	115	299	355
Medical Center Administration	3,771	3,425	1,661	-41	1,769
Subtotal URM	236,275	232,365	232,749	241,595	250,475
Arts, Sciences and Engineering					
Arts and Sciences	30,452	31,006	36,616	38,308	45,166
Hajim School of Engineering & Applied Sciences	18,505	22,327	22,290	29,162	28,612
Subtotal AS & E	48,957	53,333	58,906	67,470	73,778
Laboratory for Laser Energetics	88,383	68,000	43,231	111,573	81,184
Other Schools and Companies					
Eastman Institute for Oral Health	0	2,061	2,240	3,243	3,092
Warner School of Education	1,272	3,770	2,740	4,922	1,589
Memorial Art Gallery	29	119	287	70	363
Simon School of Business	-196	50	0	100	0
Eastman School of Music	0	39	0	23	10
University Other	6,140	1,987	2,744	8,799	2,182
Subtotal Other	7,245	8,027	8,010	17,157	7,236
Total University	\$380,860	\$361,725	\$342,896	\$437,795	\$412,673
Number of Awards Received	1,854	1,898	1,859	1,891	1,892

Source: UR-Coeus Sponsored Programs Management Database

Notes for Tables 1 and 2:

- In Table 1, amounts requested include the entire project period of the proposal for new or competing renewal proposals and may fluctuate due to large program requests
- Funding received in Table 2 indicates actual amount awarded which is usually for periods of one year or less. Future year commitments are not included
- The Wilmot Cancer Institute within SMD saw a doubling of funding received from \$6.6M to \$13.6M.
- The College of Arts and Sciences experienced a significant 19 percent increase in funding, driven largely by increases in funding for the Institute of Data Science, The Department of Chemistry, The Center for Visual Science, and the Dean's Office. Data Science has been designated a priority for strategic planning, as evidenced by the 125 percent increase from \$1M in FY18 to \$2.25M in FY 2019.
- The Warner School of Education had a sizable downturn in funding in FY19 after three years of significant growth
- University Other includes Rush Rhees Library, Susan B. Anthony Center, and University Central Administration
- Number of Awards Received includes continuation awards

Chart D

Awards - Sponsored Program Funding by Agency Type - FY 2019

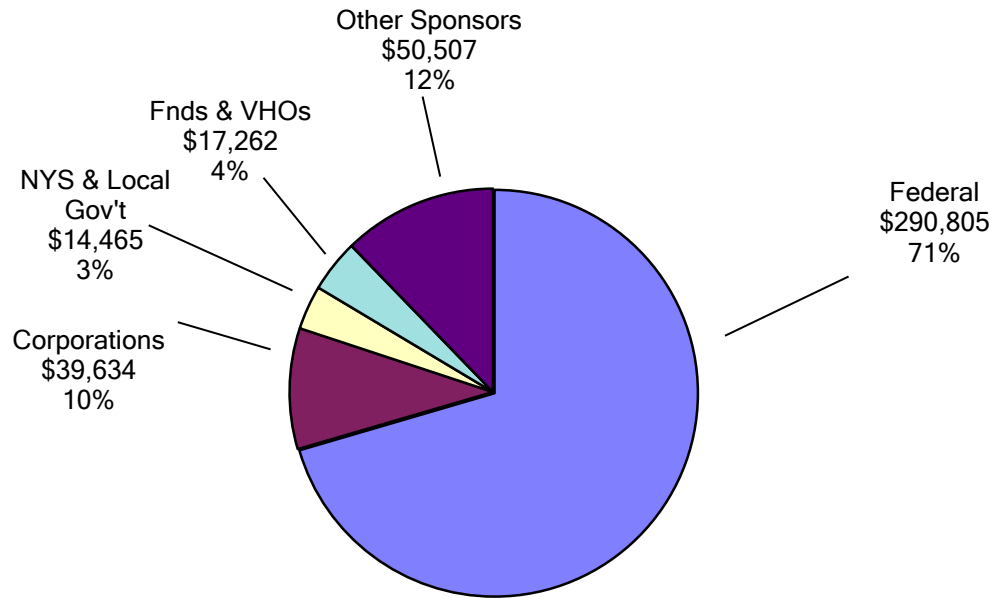


Table 3
Sponsored Program Funding by Agency Type

Agency Type	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Federal	\$280,190	\$262,043	\$241,709	\$330,396	\$290,805
Corporations	30,228	26,520	26,812	26,910	39,634
NY State & Local Government	15,409	22,676	17,417	16,717	14,465
Foundations & Voluntary Health Organizations	14,188	14,454	14,987	16,250	17,262
Other Sponsors ¹	40,845	36,032	41,971	47,522	50,507
TOTAL	\$380,860	\$361,725	\$342,896	\$437,795	\$412,673

Source: UR-Coeus Sponsored Programs Management Database

¹Other sponsors include national laboratories and other non-profit institutions (including subcontracts from other colleges and universities). The majority of these funds result from federal funding to a primary sponsor for whom the University is a sub-recipient.

Table 3.1

Sponsored Program Funding by Federal Agency

Federal Agency	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Health and Human Services (excluding NIH)	\$11,452	\$10,008	\$11,110	\$9,323	\$10,758
NIH	157,784	156,263	151,243	169,793	165,380
Total Health and Human Services	169,236	166,271	162,353	179,116	176,139
Department of Energy	86,299	69,443	47,074	113,306	79,452
Department of Defense	4,329	4,581	8,380	7,995	10,808
National Science Foundation	16,360	17,354	17,970	24,389	18,805
Department of Education	2,248	2,429	3,775	3,472	3,109
National Aeronautics and Space Administration	1,361	1,222	1,778	1,203	1,839
NEA/NEH ¹	60	289	89	174	130
Other Federal Sponsors	297	454	290	741	523
TOTAL	\$280,190	\$262,043	\$241,709	\$330,396	\$290,805

Source: UR-Coeus Sponsored Programs Management Database

¹National Endowment for the Arts/National Endowment for the Humanities

As indicated in Chart D on page 7, the federal government is the primary source of sponsored program funding. However, the University receives significant funding from other sources also.

Table 4
Sponsors Awarding \$1,000,000 or More Annually - FY 2019

Sponsor	Number of Awards	Total \$\$ Awarded
National Institutes of Health	408	\$165,544,776
Department of Energy	25	\$79,542,654
National Science Foundation	95	\$17,764,049
Department of Defense	33	\$10,807,827
New York State	51	\$10,695,128
Biogen, Inc.	12	\$7,640,330
Health Research Inc.	15	\$7,523,125
Centers for Disease Control and Prevention	5	\$5,166,635
Monroe County	5	\$3,508,210
Health Research Services Administration	9	\$3,200,065
U.S Department of Education	14	\$3,108,881
Facebook Technologies,LLC	6	\$2,809,239
Huntington Study Group	4	\$2,522,115
Michael J. Fox Foundation	10	\$2,040,746
NYSTAR	1	\$2,000,000
Fred Hutchinson Cancer Research Center	13	\$1,909,036
Northwestern University	2	\$1,851,157
SUNY Research Foundation	1	\$1,772,205
CHDI Foundation	2	\$1,757,838
NASA	12	\$1,751,833
Boston Scientific Corporation	5	\$1,470,512
Merck	6	\$1,407,626
Lawrence Berkeley National Lab	2	\$1,395,000
Lawrence Livermore National Lab	7	\$1,160,463
Kite Pharma	6	\$1,152,176
Massachusetts General Hospital	19	\$1,149,679
Substance Abuse & Mental Health Services	2	\$1,122,243
American Heart Association	23	\$1,104,734
NYS Energy Research & Development Authority	3	\$1,050,000

Source: UR-Coeus Sponsored Programs Management Database

Table 5 provides information on the number of active projects in University colleges, schools or other units. This number encompasses all types of sponsored activities and may include awards received prior to FY 2019 that were active at any point during FY 2019. This table does not include funding for undergraduate financial aid.

Table 5
Summary of Projects Active at any Point in FY 2019
by College/School/Company

College/School/Company	Number of Active Projects
Medical Center	
Medicine & Dentistry	1,886
Nursing	26
Strong Memorial Hospital	8
Medical Center Administration	5
Arts, Sciences, and Engineering	
Arts & Sciences	307
Hajim School of Engineering and Applied Sciences	241
Other Schools and Companies	
Laboratory for Laser Energetics	30
Eastman Institute for Oral Health ¹	19
Warner School of Education	21
Memorial Art Gallery	13
Simon School of Business	2
Eastman School of Music	4
River Campus General	12
University General	4
Total Active Projects	2,578

Source: UR-COEUS Sponsored Programs Management Database

¹Previously reported under Medical Center Administration

The table below illustrates the breakdown of awards by purpose. Research remains the primary component of sponsored program awards. In contrast to the expenditure figures reported later in this report, sponsored program award statistics do not include financial aid.

Table 6
Total Sponsored Program Awards by Purpose

Purpose	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Research ¹	\$318,520	\$294,521	\$284,921	\$363,951	\$343,949
Fellowships & Training	28,847	30,458	25,067	29,808	28,595
Clinical Drug Trials ²	13,757	13,433	12,801	13,171	16,632
Libraries & Museums	249	387	356	509	761
Conference & Travel	315	458	328	414	283
Equipment	899	1,644	754	10,885	2,534
Miscellaneous Activities	18,273	20,824	18,669	19,057	19,919
Total	\$380,860	\$361,725	\$342,896	\$437,795	\$412,473

Source: UR-Coeus Sponsored Programs Management Database

¹The Medical Center accounts for 61% of all externally sponsored research funding. Of that amount, roughly half is related to clinical research, according to the Clinical Research Resource Inventory, a survey of principal investigators at the Medical Center. Clinical research is defined by NIH as research conducted with human subjects or on material of human origin for which an investigator directly interacts with human subjects. It also includes epidemiological and behavioral studies and outcomes research and health services research.

²The Wilmot Cancer Institute accounted for 78% of the increase in clinical trials, as part of the goal of achieving and re-establishing the URM as an NCI-designated cancer center.

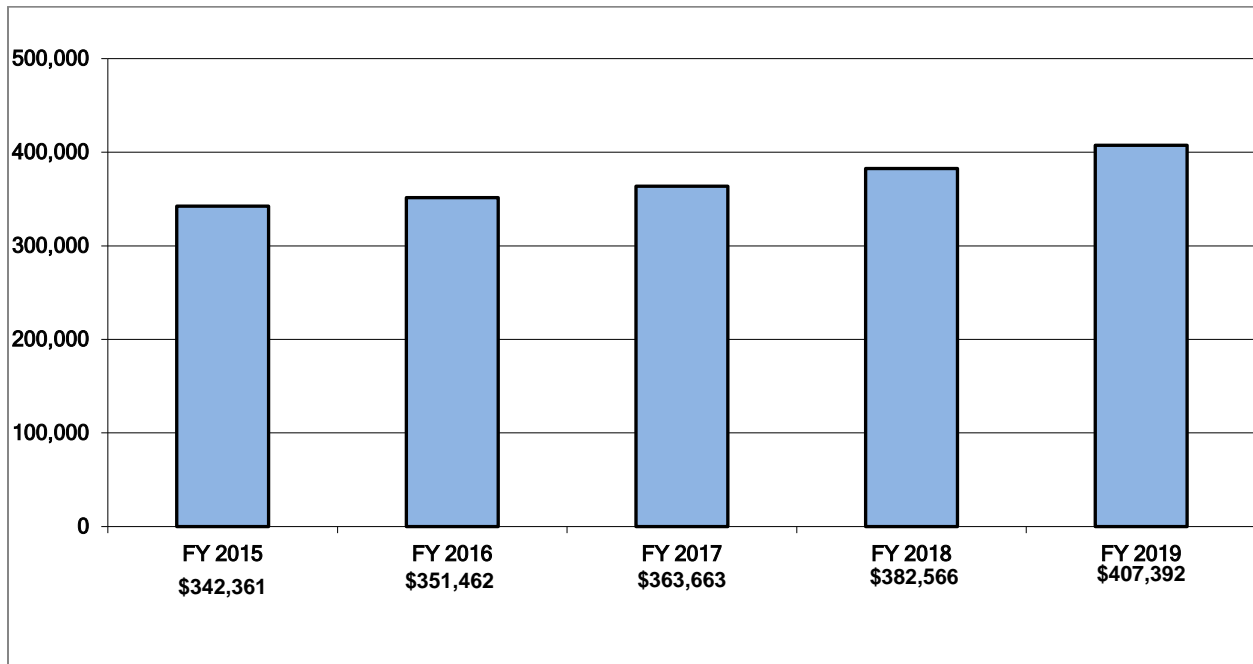
Note: Due to the manner in which some FAO's have been set up in URF, some expenditures for the SMD cost Centers that appear above are being reported in HSEAS due to the SMD investigator's collaboration on projects awarded to HSEAS investigators.

Overview of Sponsored Programs Expenditures

In Fiscal Year 2019, the University of Rochester expended in excess of \$407 million for sponsored activities, an increase of 6.50 percent from Fiscal Year 2018.

Chart E

Sponsored Program Expenditures - Total University (Dollars in thousands)



Source: UR Financials

Table 7.1 and supporting tables provide a breakdown of expenditures by college, school or division

Table 7.1

Total Sponsored Program Expenditures by College/School/Company

School/Company	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<u>Medical Center</u>					
School of Medicine and Dentistry	\$206,321	\$214,612	\$217,228	\$221,516	\$228,874
School of Nursing	2,437	2,707	3,585	3,997	4,386
Hospitals and Clinics	161	273	418	312	302
Medical Center Administration ¹	3,258	2,978	593	2,013	314
Total URMC	212,177	220,570	221,824	227,838	233,876
<u>Arts & Sciences & Engineering</u>					
Arts and Sciences	33,840	34,226	35,561	36,404	37,845
Hajim School of Engineering and Applied Sciences	17,745	17,690	18,696	26,956	30,624
Total AS&E	51,585	51,916	54,257	63,360	68,469
Laboratory for Laser Energetics	66,372	67,157	72,942	75,817	88,903
<u>Other Schools and Companies</u>					
Warner School of Education	3,056	2,631	2,979	2,575	2,741
Eastman Institute for Oral Health ²	0	1,325	2,620	2,809	2,885
Memorial Art Gallery	42	117	217	255	253
Simon School of Business	58	28	0	48	0
Eastman School of Music	494	542	552	537	556
University Other ³	8,577	7,176	8,272	9,327	9,709
Total Other	12,227	11,819	14,640	15,551	16,144
Total University	\$342,361	\$351,462	\$363,663	\$382,566	\$407,392

Source: UR Financials

¹Includes Directors Office, UR Medical Faculty Group, Miner Library, Medical Center Finance, and some of Health Sciences (formerly Center for Community Health and Prevention) grants

²Previously reported under Medical Center Administration

³Includes funding for undergraduate student financial aid and Central Administration offices

Table 7.2.1
Total Sponsored Program Expenditures - Arts & Sciences
By Cost Center

Arts and Sciences	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Dean's Office	\$211	\$614	\$531	\$550	\$683
Anthropology	0	0	39	28	79
Art and Art History	35	0	0	0	8
Biology	4,729	5,706	6,540	7,650	6,709
Brain & Cognitive Sciences	3,735	3,995	4,100	3,192	1,826
Chemistry	5,310	4,180	4,224	4,158	4,500
Clinical and Social Sciences in Psychology	6,509	5,877	4,789	5,803	6,103
Dance Program	0	0	4	0	0
Dean of Students	0	0	225	30	0
Earth and Environmental Sciences	1,711	2,053	2,383	2,347	2,342
English	51	84	46	45	73
Ain Center for Entrepreneurship	4	71	0	0	0
History	0	4	17	49	60
Institute for Data Science	0	0	1,928	1,439	2,199
Kearns Center	797	559	581	43	12
Linguistics	26	25	92	24	9
Mathematics	371	490	310	362	232
McNair Program	242	203	191	223	-45
Modern Languages and Culture	0	0	0	2	0
Music	0	0	0	0	41
Physics and Astronomy	5,636	5,833	6,078	6,773	9,011
Religion	0	1	24	162	35
Skalny Center for Polish/European Studies	39	60	63	61	62
Susan B Anthony Institute for Gender Studies	9	1	0	0	0
Center for Visual Sciences	4,421	4,449	3,345	3,336	3,748
Wallis Institute of Political Economy	4	21	51	127	158
Subtotal A & S	33,840	34,226	35,561	36,404	37,845

Source: UR Financials

Table 7.2.2
Total Sponsored Program Expenditures - Engineering & Applied Sciences
By Department/Cost Center

Engineering & Applied Sciences	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Dean's Office Arts and Science	-9	0	473	471	361
Dean's Office HSEAS			0	4,262	5,069
Biomedical Engineering	2,075	2,571	2,818	3,693	4,216
Center for Emerging & Innovative	1,525	1,442	1,664	1,463	847
Center for Medical Technology	0	0	5	0	0
Chemical Engineering	761	788	494	519	982
Computer Science	2,646	2,874	2,553	3,015	3,606
Electrical & Computer Engineering	3,029	2,736	2,725	3,708	4,110
Institute for Data Science	63	791	51	84	81
Mechanical Engineering	2,520	1,075	732	1,125	1,782
Del Monte Neuromedicine Institute	0	0	0	0	2
Institute of Optics	5,135	5,413	6,947	8,400	9,444
Pathology and Lab Medicine	0	0	9	13	0
Imaging Sciences	0	0	8	10	1
Surgery	0	0	-9	0	0
Ophthalmology	0	0	-4	0	0
Orthopaedics	0	0	230	193	124
Subtotal HSEAS	\$17,745	\$17,690	\$18,696	\$26,956	\$30,625
Total AS & E	\$51,585	\$51,916	\$54,257	\$63,360	\$68,470

Source: UR Financials

Note: Due to the manner in which some FAO's have been set up in URF, some expenditures for the SMD cost centers that appear above are being reported in HSEAS due to the SMD investigator's collaboration on projects awarded to HSEAS investigators.

Table 7.2.3
Total Sponsored Program Expenditures - School of Medicine and Dentistry
By Department/Cost Center

Medicine and Dentistry	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Dean for Research	\$28	\$309	\$0	\$0	\$7
Anesthesiology	2,134	2,640	2,552	2,765	2,442
Biochemistry and Biophysics	6,713	6,710	5,815	5,299	5,865
Biomedical Engineering	2,501	1,251	927	1,180	1,649
Biomedical Genetics	4,971	3,737	2,457	3,057	5,537
Biostatistics and Computational Biology	6,459	3,344	1,550	1,115	2,034
Brain and Cognitive Sciences	0	0	0	11	15
Cancer Center	5,865	5,985	8,206	7,261	11,416
Center for Human Experimental Therapeutics	7,783	10,438	11,646	10,361	10,008
Center for Experiential Learning	98	113	20	3	0
Center for Neural Development and Disease	3,834	3,686	3,851	3,447	3,105
Center for Oral Biology	2,158	2,384	2,139	1,800	1,995
Center for Pediatric Biomedical Research	2,550	2,309	2,287	1,893	1,327
Center for Translational Neuromedicine	7,173	6,846	6,746	7,162	6,320
Center for Vaccine Biology	9,638	10,926	10,917	11,463	12,170
Center for Visual Science	0	0	0	54	197
Clinical Dentistry	0	223	66	-22	113
Clinical and Translational Science Institute	5,383	5,636	7,400	9,471	10,768
Development Center for AIDS Research	1,666	1,767	1,545	1,694	908
Dermatology	2,354	1,864	1,225	1,999	3,194
Eastman Institute for Oral Health ¹	1,101	0	0	0	0
Emergency Medicine	1,429	1,122	1,168	1,165	1,917
Environmental Medicine	10,366	8,860	9,399	10,037	8,642
Family Medicine	2,698	2,398	2,323	1,163	1,221
Imaging Sciences	506	352	308	194	180
Medicine	33,065	34,763	34,647	33,348	30,401

(Continued on next page)

¹Expenditures for the Community Dentistry Outreach Programs of the Eastman Institute for Oral Health were previously reported under Medical Center Administration

Note: Due to the manner in which expenditures are reported in UR Financials, some cost centers may appear in more than one division

Medicine and Dentistry cont'd	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Microbiology and Immunology	5,663	6,865	8,563	8,109	7,354
Neurobiology and Anatomy	3,721	4,344	4,581	6,549	7,854
Neurology	12,101	14,844	12,919	13,375	14,501
Delmonte Neuromedicine Institute	0	0	0	26	149
Neurosurgery	666	255	275	317	255
Obstetrics and Gynecology	1,566	2,467	2,969	2,928	2,870
Ophthalmology	4,199	4,208	3,985	5,299	6,022
Orthopaedics	4,305	5,747	5,782	6,512	6,675
Otolaryngology	604	462	664	757	951
Pathology and Lab Medicine	3,069	3,283	3,465	2,836	1,602
Pediatrics	21,894	22,296	21,342	21,173	19,788
Pharmacology and Physiology	6,293	7,291	6,210	6,141	7,832
Physical Medicine and Rehab	23	21	41	11	16
Psychiatry	10,171	10,961	12,840	15,530	14,827
Public Health Sciences (formerly Department of Community and Preventive Medicine)	3,978	3,915	4,333	3,880	6,775
Radiation Oncology	1,197	872	394	551	608
Surgery	4,963	7,955	8,591	8,093	8,359
Urology	442	390	397	494	506
SMD Other ²	630	773	410	409	499
Total SMD	\$206,321	\$214,61	\$217,228	\$221,516	\$228,874

Source: UR Financials

¹Prior to FY 2017, expenditures for the Center for Community Health and Prevention were reported under Medical Center Administration

²Includes Medical Student Financial Affairs Office, Offices for Medical Education and Medical Center Finance Office

Table 7.2.4
Total Sponsored Program Expenditures - School of Medicine and Dentistry
Department of Medicine by Unit/Cost Center

Cost Center	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Aab Cardiovascular Research Institute	5,236	5,008	5,360	5,752	7,275
Cardiology (Heart and Vascular)	6,921	8,854	7,657	3,010	1,161
Endocrinology	668	449	828	566	601
Gastroenterology	339	390	256	317	337
General Medicine	148	286	52	0	0
Heart Research Follow Up Program	0	43	1,333	2,989	3,043
Hematology/Oncology	0	86	177	160	62
Highland Hospital	339	231	235	123	0
Hospital	1,039	832	5	0	10
Immunology	2,013	1,482	1,550	1,811	2,406
Infectious Diseases	10,227	11,338	11,773	13,153	10,052
Monroe Community Hospital	1,007	855	825	820	997
Nephrology	1,719	1,276	1,454	1,607	1,848
Palliative Care	100	124	173	255	173
Pulmonary	3,309	3,509	2,970	2,785	2,436
Total Department of Medicine	\$33,065	\$34,763	\$34,647	\$33,348	\$30,401

Source: UR Financials

Direct Costs and F&A Costs Expenditures

The University recovers the costs of its sponsored program expenditures in two ways; direct costs and facilities & administrative (F&A) costs, sometimes referred to as indirect costs. F&A costs cover expenses associated with conducting sponsored program activities such as utilities, building maintenance, etc. Table 8 and Table 8.1 indicate the breakdown by college, school or division for these two cost categories.

Expenditures vary from year to year because of changes in the government's interests and needs, and types of programs. F&A recovery is subject to variation by sponsor as well as to changes in the university's federally negotiated rate, types of direct costs supported by sponsors, (e.g., salaries vs. equipment), amounts subcontracted to other institutions, and cost allowability as determined by federal regulations and audit practices.

**Table 8
Direct Cost Expenditures**

College/Company	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<u>Medical Center</u>					
Medicine & Dentistry	\$155,790	\$164,535	\$164,531	\$166,567	\$172,760
Nursing	1,977	2,256	2,975	3,192	3,445
Hospitals and Clinics	1,043	860	409	296	286
Medical Center Administration	2,915	1,890	503	2,003	0
<u>Arts, Sciences and Engineering</u>					
Arts and Science	25,955	27,022	27,707	28,591	29,884
Hajim School of Engineering & Applied	13,586	12,909	14,483	21,676	24,320
<u>Other Schools and Companies</u>					
Laboratory for Laser Energetics	51,279	51,752	55,473	58,197	71,090
Eastman Institute for Oral Health ¹	0	990	1,915	2,068	2,266
Warner School of Education	2,856	2,404	2,724	2,266	2,404
Simon School of Business	38	28	0	48	0
Eastman School of Music	494	540	549	536	556
Memorial Art Gallery	42	117	217	255	251
University Other	8,584	7,299	8,157	9,112	9,783
Total University Direct Costs	\$264,559	\$272,602	\$279,644	\$294,807	\$317,045

Source: UR Financials

¹Previously reported under Medical Center Administration

**Table 8.1
Facilities & Administrative Costs Recovery**

College/Company	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<u>Medical Center</u>					
Medicine & Dentistry	\$49,641	\$50,284	\$52,698	\$54,949	\$56,114
Nursing	461	451	609	805	941
Hospitals and Clinics	8	10	9	16	16
Medical Center Administration	341	284	90	11	0
<u>Arts, Sciences and Engineering</u>					
Arts and Sciences	7,897	7,835	7,854	7,813	7,961
Hajim School of Engineering & Applied Sciences	4,139	3,990	4,212	5,280	6,304
<u>Other Schools and Companies</u>					
Laboratory for Laser Energetics	15,093	15,405	17,469	17,619	17,813
Eastman Institute for Oral Health ¹	0	335	705	740	618
Warner School of Education	200	227	256	310	337
Simon School of Business	20	0	0	0	0
Eastman School of Music	0	2	3	0	1
Memorial Art Gallery	0	0	0	0	2
University Other	2	37	44	216	240
Total University F&A Costs	\$77,802	\$78,860	\$84,019	\$87,759	\$90,347

Source: UR Financials

¹Previously reported under Medical Center Administration

While the federal government is the primary source of sponsored program funding, the University receives project support from many other sponsors. The chart below and accompanying Table 9 and 9.1 indicate the total University expenditures by type of funding agency.

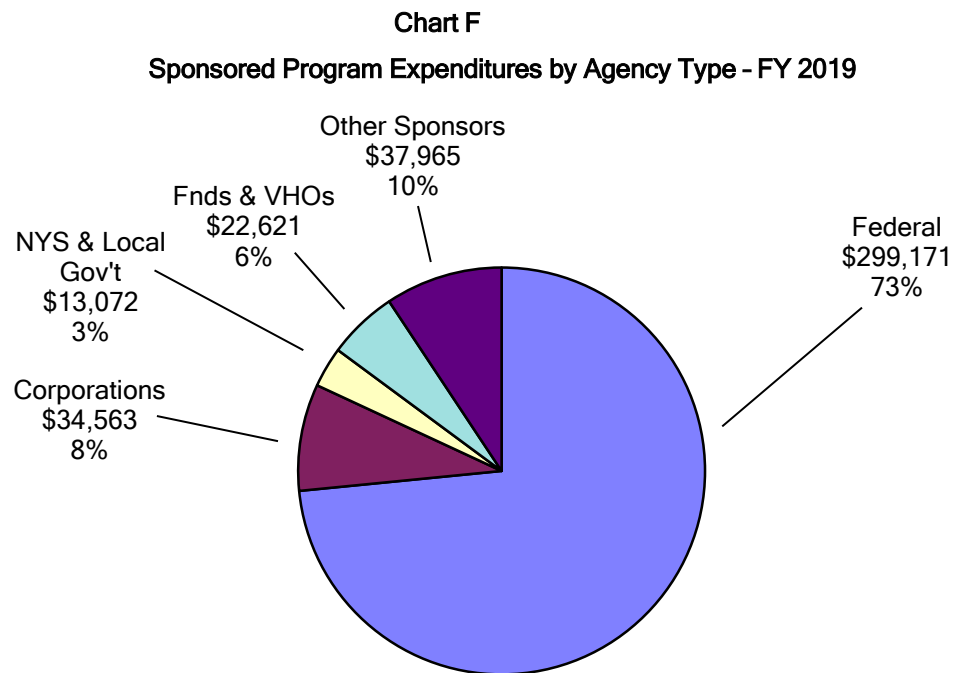


Table 9
Sponsored Program Expenditures by Agency Type

Agency Type	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Federal	\$257,368	\$265,989	\$266,049	\$281,455	\$299,171
Corporations	25,912	29,499	33,268	27,901	34,563
NY State & Local Government	17,730	15,026	16,511	14,166	13,072
Foundations & Voluntary Health Organizations	23,101	23,025	21,776	23,682	22,621
Other Sponsors ¹	18,250	17,923	26,059	35,362	37,965
TOTAL	\$342,361	\$351,462	\$363,663	\$382,566	\$407,392

Source: UR Financials

¹Other sponsors include national laboratories and other non-profit institutions (including subcontracts from other colleges and universities). The majority of these funds result from federal funding to a primary sponsor for whom the University is a subrecipient.

Table 9.1
Sponsored Program Expenditures by Federal Agency

Federal Agency	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Health and Human Services (includes NIH)	\$158,799	\$164,634	\$160,155	\$166,982	\$165,927
Department of Energy	67,852	67,307	72,924	78,373	92,186
Department of Defense	5,544	4,614	5,116	6,068	9,022
National Science Foundation	13,299	15,194	14,624	16,890	19,110
Department of Education	9,299	9,737	10,902	11,563	10,679
National Aeronautics and Space Administration	1,810	1,719	1,752	1,099	1,656
Other Federal Sponsors	765	2,784	576	480	591
TOTAL	\$257,368	\$265,989	\$266,049	\$281,455	\$299,171

Source: UR Financials

The chart below and its supporting Table 10 indicate the expenditure of funds by major cost element.

Chart G

Sponsored Program Expenditures by Cost Element

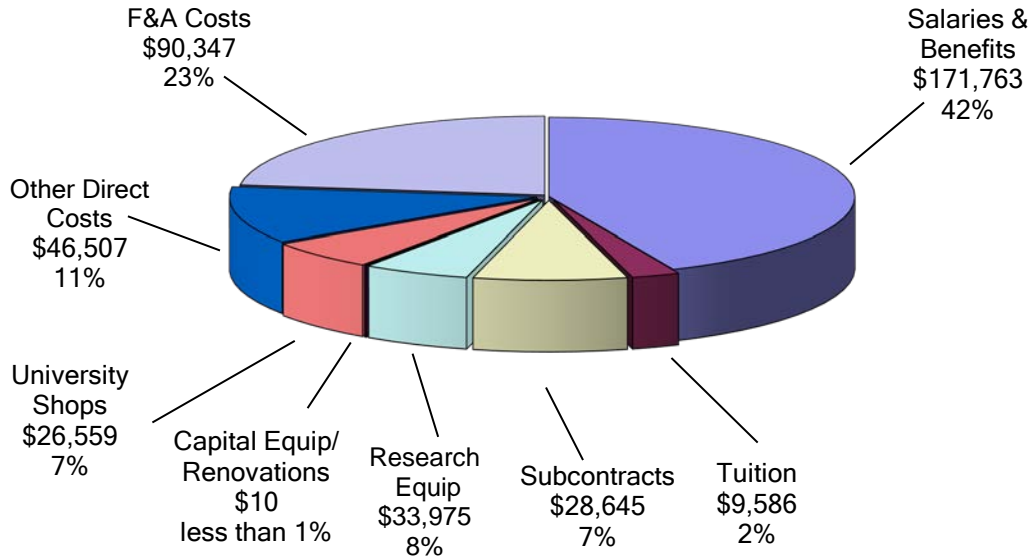


Table 10

Sponsored Program Expenditures by Cost Element

Cost Element	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Salaries & Benefits	\$156,746	\$156,985	\$161,433	\$165,924	\$171,763
Tuition	10,051	9,878	10,156	9,639	9,586
Subcontracts	23,989	32,784	30,488	30,881	28,645
Research Equipment	13,971	11,306	14,671	21,365	33,975
Capital Equipment/Renovations	874	256	228	324	10
University Shops	15,376	19,797	20,659	22,434	26,559
Other Direct Costs ¹	43,552	41,596	42,010	44,240	46,507
Total Direct Costs	264,559	272,602	279,645	294,807	317,045
Facilities & Administrative Costs	77,802	78,860	84,018	87,759	90,347
TOTAL	\$342,361	\$351,462	\$363,663	\$382,566	\$407,392

Source: UR Financials

¹"Other Direct Costs" includes adjustment made for "Other Expense Credits" category, which represents transfers and other adjustments in Financial Accounting Objects (FAOs)

The University's Ranking Among Its Peers

Note: FY 2018 is the latest data available online at the time of this printing.

By Federally Financed Research and Development Expenditures		
1	Johns Hopkins University	\$2,251,097
2	University of Washington	989,221
3	University of Michigan	849,123
4	Stanford University	711,443
5	University of North Carolina at Chapel Hill	701,169
6	University of Pennsylvania	688,313
7	Columbia University	686,338
8	University of California, San Francisco	669,470
9	Georgia Institute of Technology	654,877
10	University of Pittsburgh	649,166
11	Duke University	645,259
12	University of California, San Diego	635,888
13	Harvard University	587,584
14	University of California, Los Angeles	576,076
15	University of Wisconsin at Madison	574,048
16	Pennsylvania State University	565,348
17	Yale University	552,242
18	Washington University at St. Louis	506,006
19	University of Southern California	501,893
20	Massachusetts Institute of Technology	479,654
21	Ohio State University	474,994
22	Vanderbilt University	471,625
23	Cornell University	470,020
24	Northwestern University	469,525
25	University of Minnesota	464,300
26	New York University	416,143
27	University of Texas, Austin	405,131
28	Icahn School of Medicine at Mt. Sinai	398,656
29	Emory University	393,647
30	University of Colorado, Boulder	391,817
31	University of Alabama, Birmingham	373,360

By Federally Financed Research and Development Expenditures

32	University of California, Davis	360,018
33	University of Maryland, College Park	356,489
34	University of Florida	355,517
35	University of Illinois, Urbana-Champaign	353,710
36	Rutgers University	350,912
37	Case Western Reserve University	349,177
38	Texas A&M University	333,768
39	University of Colorado, Denver	331,945
40	University of California, Berkeley	329,464
41	Michigan State University	328,618
42	University of Utah	307,844
43	University of Chicago	303,175
44	Baylor College of Medicine	300,098
45	University of Arizona	291,767
46	University of Rochester	285,330

¹Expenditure statistics are reported to the National Science Foundation by the University and are based on year-end accounting reports for a given fiscal year

Source: Table 23, Federally financed higher education R&D expenditures

National Science Foundation/National Center for Science and Engineering Statistics, Higher Education Research and Development Survey

The University's Ranking In New York State among Public and Private Institutions

Note: FY 2018 is the latest data available online at the time of this printing.

By Federally Financed Research and Development Expenditures		FY 2018
1	Columbia University	\$686,338
2	Cornell University	470,020
3	New York University	416,143
4	Icahn School of Medicine at Mt. Sinai	398,656
5	University of Rochester	285,330

The University also has two departments ranked in the top 10 in FY 2018 NIH funding¹

Top 10 Departments in NIH Funding FY 2017 - 2018 ¹		
	FY 2017	FY 2018
Department of Orthopaedics	5	4
Public Health Sciences	5	8

In addition, the School of Nursing jumped 5 spots from 26th to 21st.

¹This is the latest data available from this source

Note: The fiscal year represented is the federal government's, which consists of the period October 1 - September 30.

Source: Blue Ridge Institute for Medical Research

Overview of Material Transfer Activity

As a general definition, a Material Transfer Agreement (hereinafter MTA) is a contract executed between two entities which outlines the rights and responsibilities of each party that arise due to the transfer of materials for research purposes from one party to the other. The MTA will dictate how the materials and the results from using the materials can be used, along with other significant terms, conditions and obligations. Typically, there is a minimal to no fee associated with such a transfer.

The Material Transfer function within ORPA also includes responsibility for the review and negotiation of any Confidential Disclosure Agreement (CDA) that binds the University, as well as Data Use Agreements (DUAs) and Visiting Scientist Agreements (VSAs).

Table 11

	FY18	FY19
Total # of CDA	355	323
Total # of DUA	70	119
Total # of MTA	244	235
Total # of Agreements	688	677
Total Adjusted (CDA, MTA, DUA)	669	677
Average Agreements per Month	56	56
Total MTAs with Domestic	193	186
Total MTAs with International	61	49
Total MTAs with Domestic Non-profit	169	151
Total MTAs with Domestic For-profit	24	35
Total MTAs with International Non-profit	56	42
Total MTAs with International For-profit	5	7
Total CDAs with Domestic Non-profit	31	36
Total CDAs with Domestic For-profit	287	240
Total CDAs with International Non-profit	1	1
Total CDAs with International For-profit	36	46
Total DUAs with Domestic Non-profit	54	96
Total DUAs with Domestic For-profit	11	19
Total DUAs with International Non-profit	5	4
Total DUAs with International For-profit	0	0

Outlook for FY 2020

Two months after the start of the FY2020 fiscal year, Congress has passed a two year spending agreement for all thirteen FY 2020 spending bills, and President Trump signed it into law on December 20th. The final agreement includes much more funding for research programs than that requested in the White House budget, which sought to cut basic and applied research expenditures by 14 percent.

The Department of Defense (DOD) remains by far the largest contributor to federal R&D. The Pentagon is a major funder of mathematics, engineering, and computer science studies. Legislators restored and increased funding for DOD's university basic research initiatives by 11 percent or \$43 million above FY 2019 levels. Peer-reviewed medical research received \$1.4 billion or \$200 million increase above last year's funding.

The second largest supporter of R&D and the world's largest funder of basic biomedical research is the National Institutes of Health (NIH) within the Department of Health and Human Services (DHHS). NIH accounts for more than 95 percent of total HHS R&D funding. Under the new law, NIH will receive a \$2.6 billion or 6.5 percent boost overall, with every institute receiving at least a 3.3 percent increase above FY 2019, but some receiving much more. One of those institutes is the National Institute on Aging, which got a 14.9 percent increase, with \$330 million going to prioritize Alzheimer's research. The Centers for Disease Control and Prevention (CDC) was granted a more than \$600 million increase above FY 2019. After years of pushback, the FY 2020 budget will include \$12.5 million for firearm injury and mortality prevention research to NIH and another \$12.5 million to CDC. The Patient-Centered Outcomes Research Institute (PCORI) got a 10 year reauthorization.

The Office of Science within the Department of Energy (DOE), which provides most of the funding for basic research, would see a 6.3 percent increase above FY 2019. Congress again rejected the President's proposal to eliminate the Advanced Research Projects Agency-Energy (ARPA-E) within DOE, and instead gave it a 17 percent increase. Two other programs within the DOE that would see a sizable increase are the Energy Efficiency and Renewables with a 17.3 percent increase and the National Nuclear Security Administration (NNSA) with a 19 percent increase.

The National Science Foundation (NSF) did not make out as well as some of the other federal agencies. NSF's overall budget received \$8.28 billion, an increase of 2.5%. Its research budget, by far the biggest piece, would grow by 3.4% to 6.74 billion.

At the National Oceanic and Atmospheric Administration, climate research programs get a \$10.5 million boost to \$169.5 million, \$82 million above the President's request.

The National Aeronautics and Space Administration (NASA) will get \$22.6 billion in overall funding. Included in that amount is \$600 million for lunar lander work, significantly less than the administration's request of \$1 billion.

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