



UNIVERSITY OF HAWAII SYSTEM
OFFICE OF RESEARCH SERVICES

ANNUAL REPORT 2019

EXTRAMURAL
AWARDS
AND
EXPENDITURES

FOR THE PERIOD OF
JULY 1, 2018 THROUGH JUNE 30, 2019

Table of Contents

Letter from Vice President for Research and Innovation Vassilis L. Syrmos 1

Proposals and Awards

Chart 1: Awards by Sponsor 3

Figure 1: Contract and Grant Awards Summary by Sponsor Type 4

Chart 2: Breakdown of Federal and Non-Federal Awards – Five Year Comparison 5

Figure 2: Summary of Federal and Non-Federal Awards 5

Chart 3a: Non-Federal Awards by Fiscal Year – Five Year Comparison 6

Chart 3b: Federal Awards by Fiscal Year – Five Year Comparison 7

Figure 3: Total Contract and Grant Awards Received – Five Year Comparison 8

Chart 4: Number of Proposals Submitted – Prior Year Comparison 9

Chart 5: Total Dollar Amount of Proposals Submitted – Prior Year Comparison 10

Figure 4: Proposal Summary by Source of Funding – Prior Year Comparison 11

Chart 6: Total Contract and Grant Awards – Ten Year Comparison 12

Figure 5: Total Contract and Grant Awards Summary – Ten Year Comparison 12

Figure 6: Top Individual Awards 13

Figure 7: Top Fifty Principal Investigators in Award Dollars 14

Chart 7: Contract and Grant Awards by Campus 15

Chart 8: UH Manoa – Contract and Grant Awards by College/Department 16

Chart 9: UH Hilo – Contract and Grant Awards by College/Department 17

Figure 8: Contract and Grant Awards Summary by Campus 18

Figure 9a: UH Manoa – Contract and Grant Awards Summary by College/Department 19

Figure 9b: UH Hilo – Contract and Grant Awards Summary by College/Department 23

Expenditures

Chart 10: Total Contract and Grant Expenditures by Source of Funds – Prior Year Comparison 24

Figure 10: Total Contract and Grant Expenditures by Source of Funds – Prior Year Comparison 25

Chart 11: Total Contract and Grant Expenditures by Program Type and Source of Funds 26

Figure 11: Total Contract and Grant Expenditures by Program Type and Source of Funds 27

Chart 12: Total FTE Paid from Contract and Grant Funds 28

Figure 12: Total FTE Paid from Contract and Grant Funds 29

Chart 13: Breakdown of Facilities and Administrative Costs by Major Category – FY 2016 Base Year 30

Chart 14: Total Royalties Received from University Patents – Five Year Comparison 31

Figure 13: Total Royalties Received from University Patents – Five Year Comparison 32

Appendix 1: Extramural Award Sponsors 34

Dear Colleagues:

During the last few years, the University of Hawai'i (UH) like most research institutions across the country -- has had to endure the ebbs and flows in the extramural funding arena. Earlier hits by sequestration, uncertainties in funding by federal agencies, budget cuts and the realignment of R&D funding priorities have all contributed to some very challenging times for all of us in the research community.

In spite of this difficult environment, our faculty, support staff and students "stayed the course" and as a result of their hard work and dedication – I am pleased to report that for the first time since FY2015, UH's extramural funding has exceeded the \$400 million mark, totaling \$421.8 million for FY2019. This represents an increase of 9.2% over the previous year's tally of \$386.3 million. Here are some examples of campuses contributing to this year's increases:

- UH System: FY2019 \$48.3M; FY2018: \$35.6M – **35.8% increase**
- UH Mānoa: FY2019 \$314.5; FY 2018 \$301.1M – **4.5% increase**
- UH Hilo: FY2019 \$17.1M; FY2018 \$12.9M – **32.7% increase**
- UH West O'ahu: FY2019 \$8.2M; FY2018 \$6.0M – **36.0% increase**
- UH Community Colleges + UH Maui College: FY2019 \$33.6M; FY2018 \$30.6M – **9.7% increase**

I would also like to point out that our federal funding in FY2019 increased to \$280.4 million from \$247.7 million in FY2018, representing a 13.2% jump. Here are a few highlights from around our ten-campus UH System:

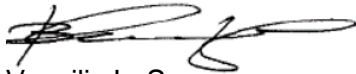
- The University of Hawai'i at Mānoa received an award from the National Institutes of Health's Centers of Biomedical Research Excellence (COBRE). The prestigious multi-year grant will fund five junior researchers on studying the interface between environmental microbiomes and human health – focusing on two critical and intertwined health problems: the deteriorating environment and the current spread of diseases.
- The University of Hawai'i at Hilo received an award from the National Science Foundation for a Natural Sciences Division project that will study how animal numbers and presence are affected by the selection of certain plant species used to restore degraded lands. Certain plant species with specific traits may help direct and engineer the species of animals attracted to restored sites to create a healthier ecosystem.
- The University of Hawai'i at West O'ahu received an award from the National Science Foundation's Tribal Colleges and Universities Program (TCUP) for its Pūko'a Kani 'Āina project. The project will enhance STEM education and create a STEM ecosystem at UH West O'ahu by providing a STEM pipeline from high schools, community colleges and from its own campus to careers and post baccalaureate education. The program will also provide critical assistance to help Native Hawaiian students via critical transition points to ensure retention and persistence.
- The University of Hawai'i Maui College received an award by the National Science Foundation for its Project Kaihuwa'a. Designed to improve the success of low-income

STEM students in Hawai'i, the project will recruit, graduate and transfer low-income students (including Native Hawaiians), provide 120 annual scholarships and help to build capacity for the UH Maui College STEM department to bolster student outcomes.

As we prepare for the upcoming 2020 legislative session, UH will be working collaboratively with key innovation and business leaders, as well as our legislative supporters, to remove the "sunset" clause on two vital laws that currently allow UH to participate in technology transfer and commercialization activities, keeping us competitive with our peer research institutions.

The University of Hawai'i will continue to be a driver of innovation, knowledge and economic development both locally and globally. This is all made possible by your dedication to the UH research enterprise and I thank you for making it a large part of your DNA.

Sincerely,

A handwritten signature in black ink, appearing to read 'Vassilis L. Syrmos', with a stylized flourish at the end.

Vassilis L. Syrmos
Vice President for Research and Innovation

Chart 1: Awards by Sponsor
(in millions)

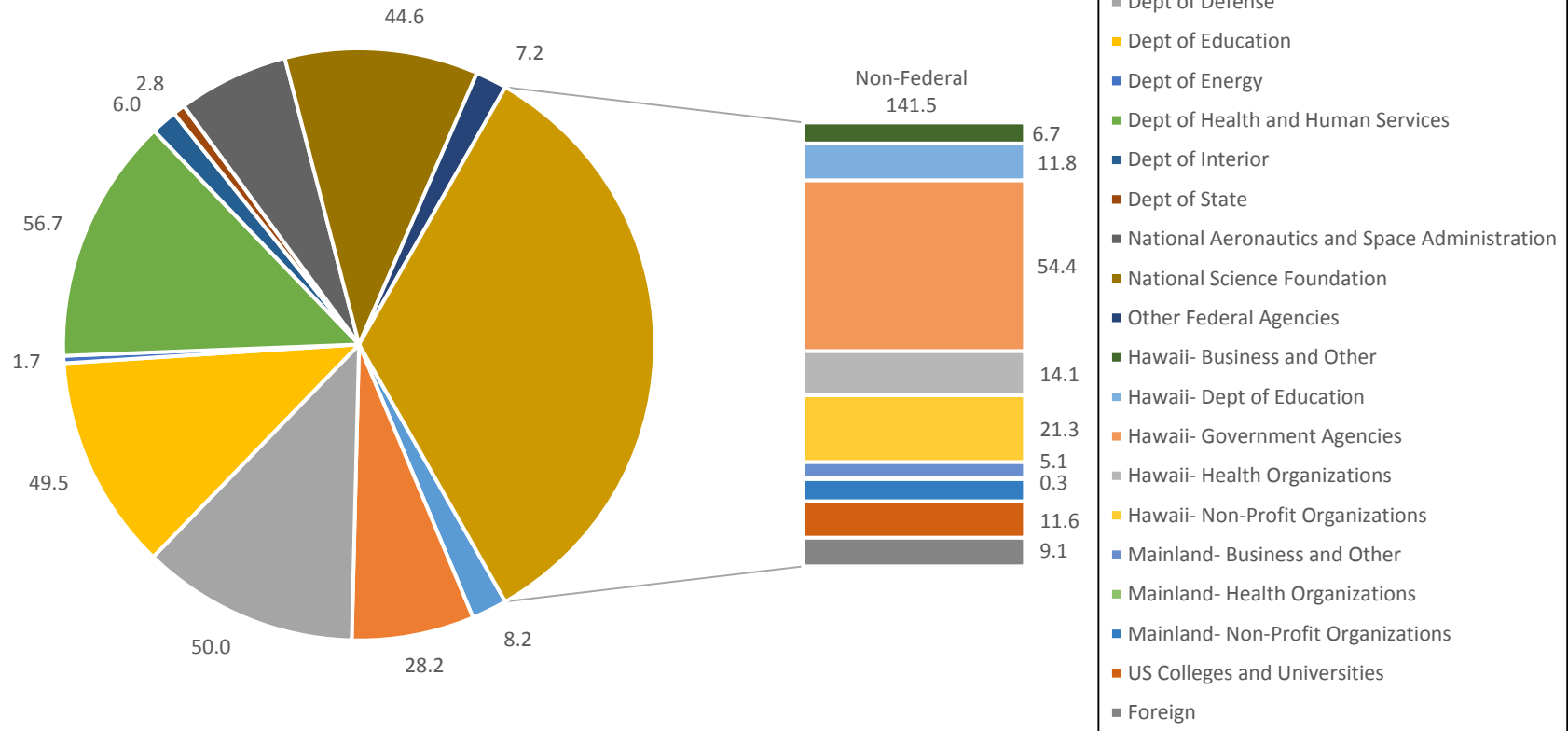


Figure 1: Contract and Grant Awards Summary by Sponsor Type

Sponsor Type	Award Count	Amount Awarded
Dept of Agriculture	63	8,222,884
Dept of Commerce	89	28,181,538
Dept of Defense	80	49,966,996
Dept of Education	102	49,540,646
Dept of Energy	5	1,658,015
Dept of Health and Human Services	117	56,714,095
Dept of Interior	59	5,952,633
Dept of State	1	2,775,000
National Aeronautics and Space Administration	95	25,529,759
National Science Foundation	110	44,634,050
Other Federal Agencies	12	7,236,476
Hawaii- Business and Other	69	6,734,322
Hawaii- Dept of Education	24	11,796,600
Hawaii- Government Agencies	362	54,354,585
Hawaii- Health Organizations	36	14,101,752
Hawaii- Non-Profit Organizations	336	21,301,837
Mainland- Business and Other	78	5,129,155
Mainland- Health Organizations	5	262,863
Mainland- Non-Profit Organizations	79	7,064,790
US Colleges and Universities	149	11,618,287
Foreign	54	9,075,877
Grand Total	1,925	421,852,160

**Chart 2: Breakdown of Federal and Non-Federal Awards
Five Year Comparison**

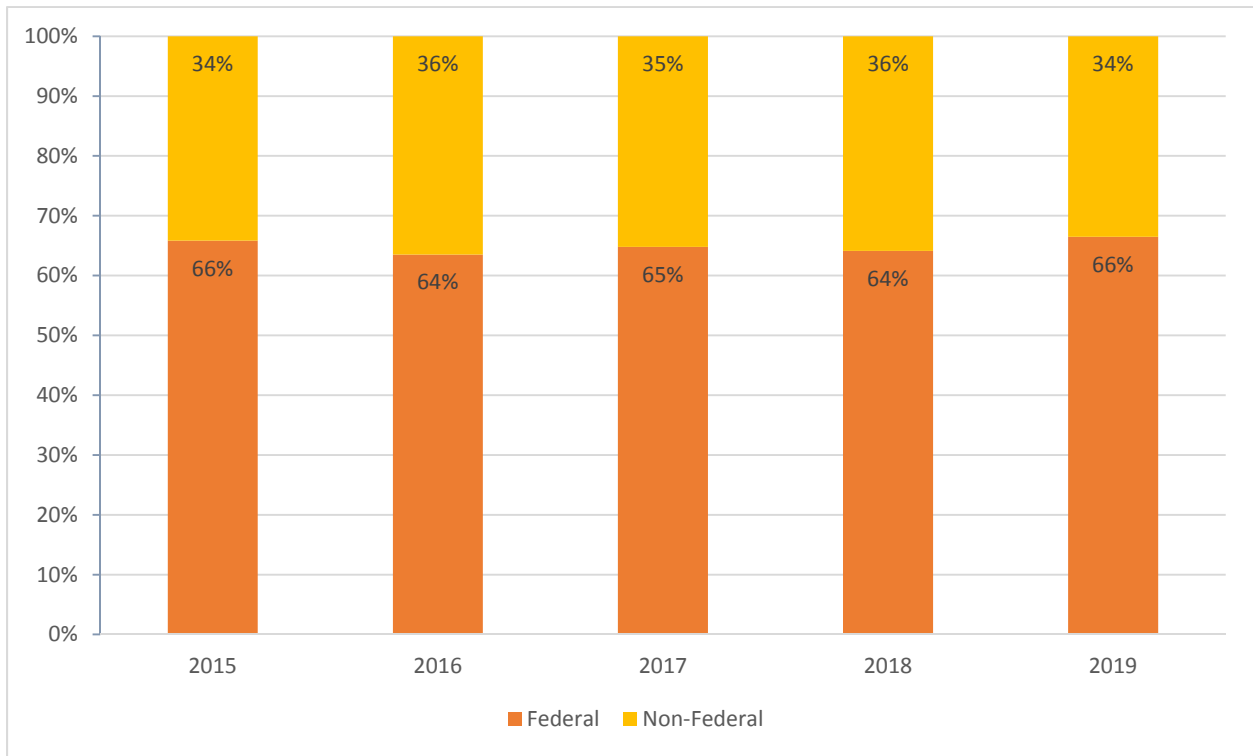


Figure 2: Summary of Federal and Non-Federal Awards

Source of Funding	FY 2015 Amount Awarded	FY 2016 Amount Awarded	FY 2017 Amount Awarded	FY 2018 Amount Awarded	FY 2019 Amount Awarded
Federal	280,181,968	248,575,207	250,727,105	247,741,514	280,412,092
Non-Federal	145,468,370	142,759,321	136,274,600	138,570,189	141,440,068
Total	425,650,338	391,334,528	387,001,705	386,311,703	421,852,160

Chart 3a: Non-Federal Awards by Fiscal Year Five Year Comparison

(in millions)

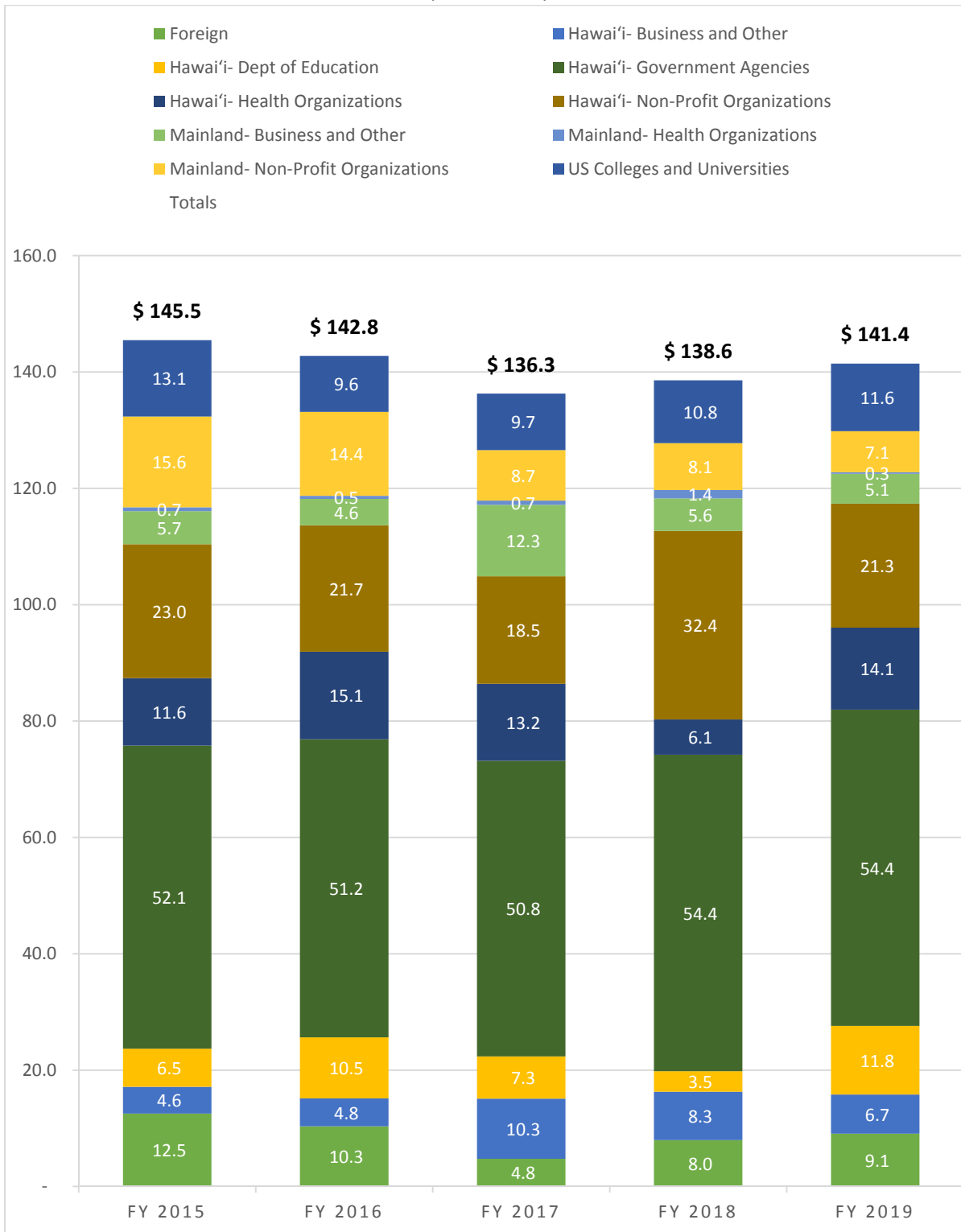
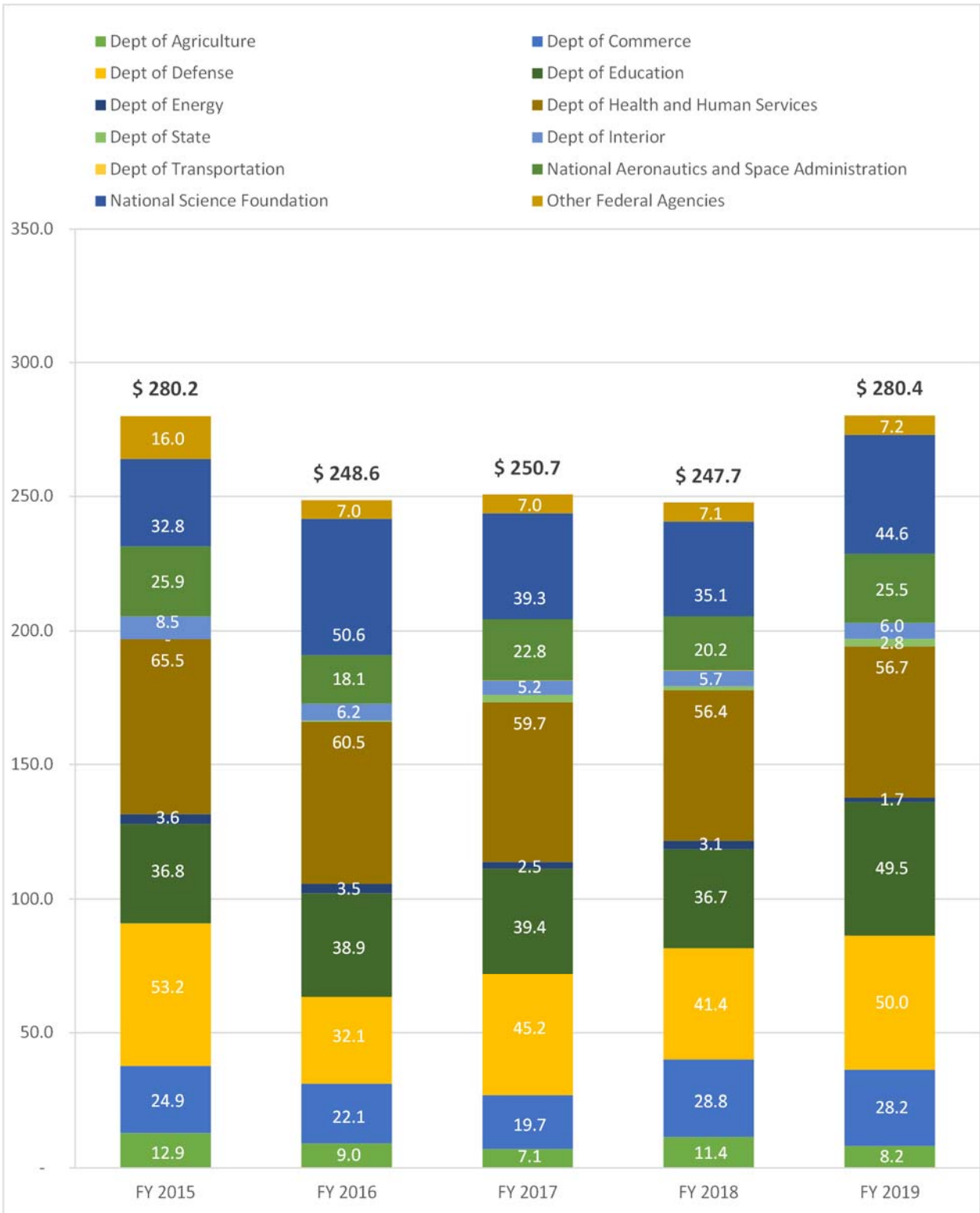


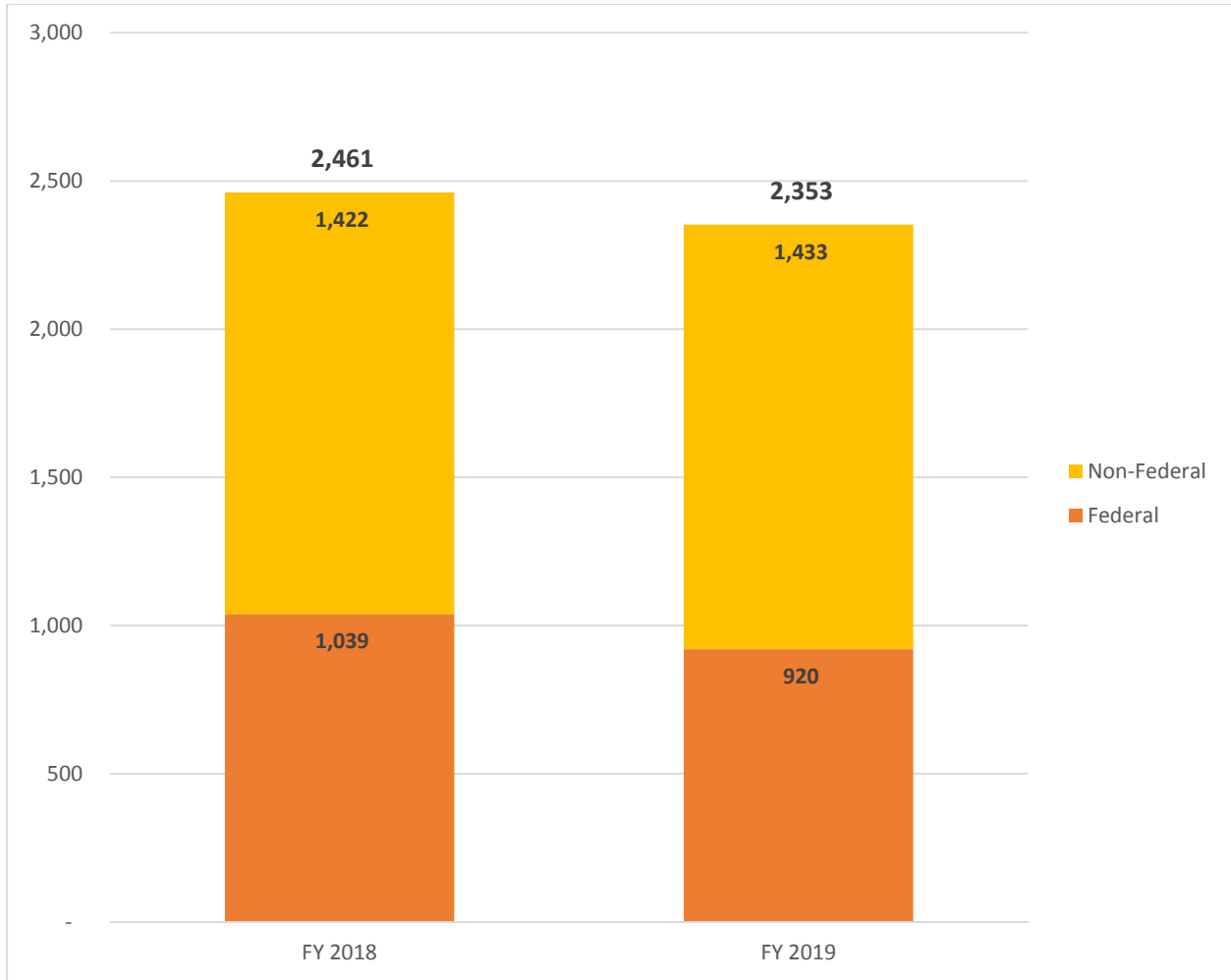
Chart 3b: Federal Awards by Fiscal Year
Five Year Comparison
(in millions)



**Figure 3: Total Contract and Grant Awards Received
Five Year Comparison**

Source of Funding		FY 2015		FY 2016		FY 2017		FY 2018		FY 2019	
		Amount Awarded	% of Total	Amount Awarded	% of Total	Amount Awarded	% of Total	Amount Awarded	% of Total	Amount Awarded	% of Total
Federal	Dept of Agriculture	12,885,870	3%	9,025,934	2%	7,104,681	2%	11,433,935	3%	8,222,884	2%
	Dept of Commerce	24,909,828	6%	22,140,488	6%	19,746,151	5%	28,794,795	7%	28,181,538	7%
	Dept of Defense	53,176,313	12%	32,051,837	8%	45,153,420	12%	41,426,235	11%	49,966,996	12%
	Dept of Education	36,808,161	9%	38,931,435	10%	39,355,136	10%	36,737,371	10%	49,540,646	12%
	Dept of Energy	3,649,991	1%	3,452,402	1%	2,454,683	1%	3,145,417	1%	1,658,015	0%
	Dept of Health and Human Services	65,517,844	15%	60,546,030	15%	59,662,559	15%	56,358,106	15%	56,714,095	13%
	Dept of State	-	0%	499,247	0%	2,741,488	1%	1,550,000	0%	2,775,000	1%
	Dept of Interior	8,505,102	2%	6,188,553	2%	5,240,402	1%	5,737,236	1%	5,952,633	1%
	Dept of Transportation	-	0%	75,000	0%	138,907	0%	164,625	0%	-	0%
	National Aeronautics and Space Administration	25,912,694	6%	18,106,716	5%	22,811,204	6%	20,167,908	5%	25,529,759	6%
	National Science Foundation	32,835,093	8%	50,584,187	13%	39,285,739	10%	35,078,731	9%	44,634,050	11%
Other Federal Agencies	15,981,072	4%	6,973,378	2%	7,032,735	2%	7,147,155	2%	7,236,476	2%	
Federal Total	280,181,968	66%	248,575,207	64%	250,727,105	65%	247,741,514	64%	280,412,092	66%	
Non-Federal	Foreign	12,538,417	3%	10,348,765	3%	4,755,142	1%	7,984,175	2%	9,075,877	2%
	Hawaii- Business and Other	4,604,200	1%	4,785,442	1%	10,338,044	3%	8,321,278	2%	6,734,322	2%
	Hawaii- Dept of Education	6,548,702	2%	10,492,291	3%	7,260,253	2%	3,513,321	1%	11,796,600	3%
	Hawaii- Government Agencies	52,087,837	12%	51,241,567	13%	50,826,152	13%	54,395,732	14%	54,354,585	13%
	Hawaii- Health Organizations	11,605,915	3%	15,056,100	4%	13,215,267	3%	6,067,920	2%	14,101,752	3%
	Hawaii- Non-Profit Organizations	23,008,349	5%	21,714,557	6%	18,483,113	5%	32,407,127	8%	21,301,837	5%
	Mainland- Business and Other	5,686,262	1%	4,553,990	1%	12,276,122	3%	5,572,124	1%	5,129,155	1%
	Mainland- Health Organizations	656,742	0%	531,480	0%	737,744	0%	1,443,529	0%	262,863	0%
	Mainland- Non-Profit Organizations	15,607,861	4%	14,414,632	4%	8,685,769	2%	8,065,294	2%	7,064,790	2%
	US Colleges and Universities	13,124,085	3%	9,620,497	2%	9,696,994	3%	10,799,689	3%	11,618,287	3%
Non-Federal Total	145,468,370	34%	142,759,321	36%	136,274,600	35%	138,570,189	36%	141,440,068	34%	
Grand Total	425,650,338	100%	391,334,528	100%	387,001,705	100%	386,311,703	100%	421,852,160	100%	

**Chart 4: Number of Proposals Submitted
Prior Year Comparison**



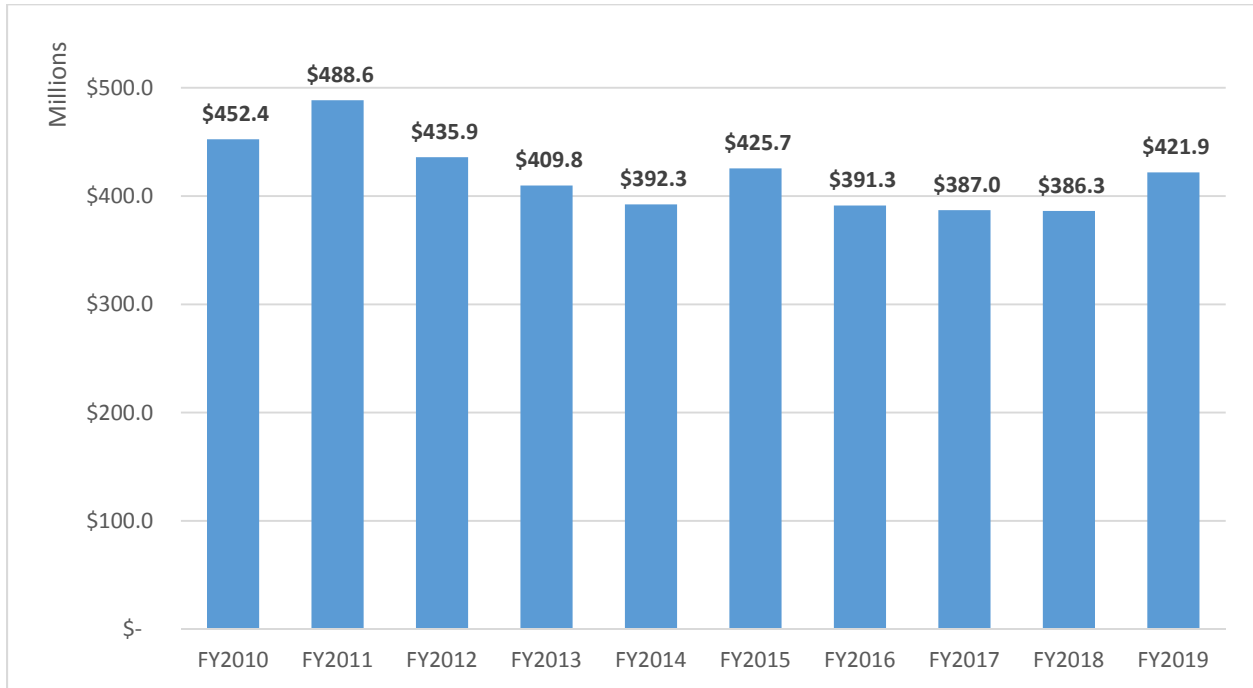
**Chart 5: Total Dollar Amount of Proposals Submitted
Prior Year Comparison**
(in millions)



**Figure 4: Proposal Summary by Source of Funding
Prior Year Comparison**

Source of Funding		FY 2018		FY 2019	
		Proposals Submitted	Requested Amount	Proposals Submitted	Requested Amount
Federal	Dept of Agriculture	115	33,697,357	89	34,105,880
	Dept of State	4	6,799,087	2	4,368,532
	Dept of Health and Human Services	205	377,830,439	163	265,668,044
	Dept of Commerce	127	62,934,149	85	29,886,994
	Dept of Defense	99	82,100,756	82	75,600,653
	Dept of Energy	20	15,474,736	24	31,196,668
	Dept of the Interior	53	5,766,967	54	14,534,247
	Dept of Transportation	2	215,000		
	Dept of Education	23	22,323,489	31	52,814,202
	National Aeronautics and Space Administration	125	42,451,807	117	88,746,798
	National Science Foundation	216	174,691,315	237	144,145,203
	Other Federal Agencies	50	13,058,801	36	15,643,093
Federal Total	1,039	837,343,903	920	756,710,314	
Non-Federal	Hawaii- Business and Other	79	9,800,729	80	7,518,918
	Hawaii- Dept of Education	26	4,788,471	24	12,327,869
	Hawaii- Government Agencies	381	61,895,890	396	80,044,959
	Hawaii- Health Organizations	45	9,867,940	47	23,283,258
	Hawaii- Non-Profit Organizations	352	34,728,674	379	25,009,051
	Mainland- Business and Other	118	16,518,893	97	12,669,580
	Mainland- Health Organizations	27	8,562,788	20	6,070,180
	Mainland- Non-Profit Organizations	146	20,075,665	134	19,488,997
	US Colleges and Universities	177	41,898,790	193	77,713,239
	Foreign	71	11,677,932	63	16,579,396
Non-Federal Total	1,422	219,815,772	1,433	280,705,447	
Grand Total	2,461	1,057,159,675	2,353	1,037,415,761	

Chart 6: Total Contract and Grant Awards – 10 Year comparison
(in millions)



**Figure 5: Total Contract and Grant Awards Summary
10 Year Comparison**

Year	Total Awarded	% Change	Year	Total Awarded	% Change
FY2010	452,408,669	9.2%	FY 2015	425,650,338	8.5%
FY2011	488,597,908	8.0%	FY 2016	391,334,528	-8.1%
FY2012	435,874,967	-10.8%	FY 2017	387,001,705	-1.1%
FY2013	409,783,318	-6.0%	FY2018	386,311,703	-0.2%
FY2014	392,314,955	-4.3%	FY2019	421,852,160	9.2%

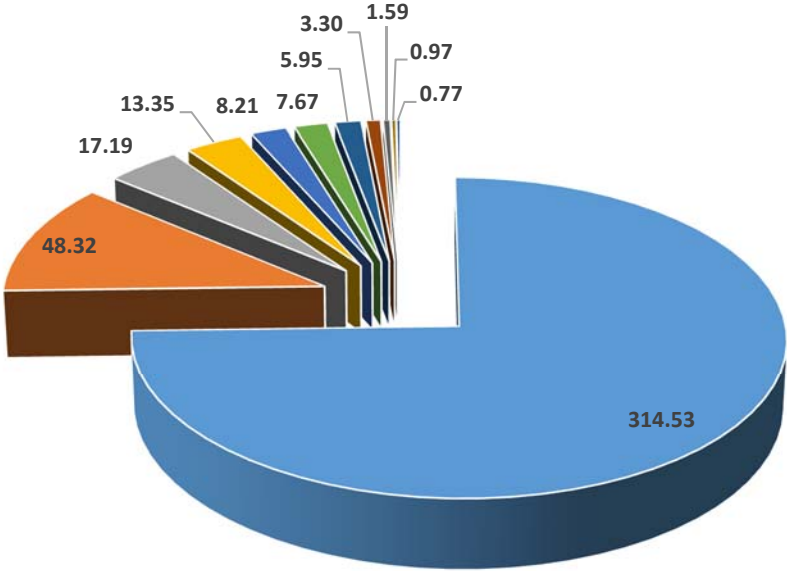
Figure 6: Top Individual Awards

Award Amount	PI Name	Department	Award Sponsor	Title
12,550,327	David Lassner	Office of the Vice President for Research and Innovation	DEFENSE, DEPT-DEPUTY UNDR SECRETARY OF DEF	University of Hawaii Pacific Disaster Center (UoH PDC) Cooperative Agreement
6,749,061	Alexander Shor	School of Ocean and Earth Science and Technology	NATIONAL SCIENCE FOUNDATION	R/V Kilo Moana Ship Operations 2018-2022
6,250,301	Richard Rocheleau	School of Ocean and Earth Science and Technology	DEFENSE, DEPT-NAVY OFC OF NAVAL RSCH	Asia Pacific Research Initiative for Sustainable Energy Systems 2018 (APRISES18)
5,820,895	Patrick Stephen Cross	Office of the Vice President for Research and Innovation	DEFENSE, DEPT-NAVY NAVAL FAC ENGRG COMMAND	Extended Research Support to the U.S. Navy Wave Energy Test Site (WETS)
5,367,000	Gwen Jacobs	Office of the VP for Information Tech/Chief Info Officer	NATIONAL SCIENCE FOUNDATION	EPSCoR RII Track 1: Ike Wai: Insuring Hawaii's Water Future
5,222,000	David Duffy	College of Natural Sciences	DEFENSE, DEPT- US ARMY CORPS OF ENGINEERS	Oahu and Makua Implementation of Endangered Species Management, US Army Garrison, Hawaii
5,000,000	Kenneth Chambers	Institute for Astronomy	NATIONAL AERONAUT & SPACE ADM	A Wide Area Survey for Near Earth Objects with the Pan-STARRS PS1 and PS2 System
5,000,000	Karl Eujung Kim	College of Social Sciences	HOMELAND SECURITY, DEPT-FEMA	National Disaster Preparedness Training Center
4,852,971	Jerris Hedges	John A. Burns School of Medicine	HEALTH & HUMAN SVC, DEPT-NIH-FED NATL INST MIN HLTH & DISP	Ola HAWAII
4,678,594	John Rayner	Institute for Astronomy	NATIONAL AERONAUT & SPACE ADM	Operations and Maintenance of the Infrared Telescope Facility (IRTF) for NASA Headquarters
4,443,472	Nathan Murata	College of Education	EDUCATION, DEPT-HI	For the Certification of Special Education Teachers

Figure 7: Top Fifty Principal Investigators in Award Dollars

Rank	Investigator	Total Awarded	Unit
1	David Lassner	24,818,267	President, University of Hawai'i System
2	David Duffy	19,152,636	College of Natural Sciences
3	Douglas Scott Luther	12,518,304	School of Ocean and Earth Science and Technology
4	Alexander Shor	11,500,743	School of Ocean and Earth Science and Technology
5	Richard Rocheleau	7,550,301	School of Ocean and Earth Science and Technology
6	Lui Hokoana	7,344,811	Chancellor, UH Maui College
7	Karl Eujung Kim	6,861,000	College of Social Sciences
8	Clifford Morden	6,365,755	College of Natural Sciences
9	Patrick Stephen Cross	5,820,895	Office of the Vice President for Research and Innovation
10	Nathan Murata	5,638,496	College of Education
11	Darren Lerner	5,569,876	School of Ocean and Earth Science and Technology
12	Gwen Jacobs	5,367,000	Office of the VP for Information Tech/Chief Info Officer
13	Kenneth Chambers	5,060,000	Institute for Astronomy
14	Loic Le Marchand	5,028,587	University of Hawaii Cancer Center
15	Jerris Hedges	4,932,971	John A. Burns School of Medicine
16	Ardis Eschenberg	4,865,131	Chancellor, Windward Community College
17	John Rayner	4,828,786	Institute for Astronomy
18	Stephen A Schatz	4,529,325	Office of the VP for Academic Planning and Policy
19	Judy Oliveira	4,390,096	Chancellor, UH West Oahu
20	Ivica Zalud	4,221,716	John A. Burns School of Medicine
21	Margaret McFall-Ngai	3,951,389	School of Ocean and Earth Science and Technology
22	Robert Nichols	3,813,930	John A. Burns School of Medicine
23	Mary Jo Noonan	3,535,489	College of Education
24	Anthony Guerrero	3,262,285	John A. Burns School of Medicine
25	Michael Hamnett	3,229,746	College of Social Sciences
26	David Karl	3,224,393	School of Ocean and Earth Science and Technology
27	Kelley Withy	3,149,347	John A. Burns School of Medicine
28	John A Shepherd	2,929,864	University of Hawaii Cancer Center
29	Melissa Iwamoto	2,745,389	School of Ocean and Earth Science and Technology
30	Robert Wright	2,687,347	School of Ocean and Earth Science and Technology
31	Mariana Gerschenson	2,616,481	John A. Burns School of Medicine
32	David Napoleon	2,610,615	Chancellor, Kapiolani Community College
33	William Ward	2,503,445	John A. Burns School of Medicine
34	Leonard Dover Woods	2,461,984	Vice Chancellor for Student Affairs
35	Luke P Flynn	2,447,807	School of Ocean and Earth Science and Technology
36	Randall F Holcombe	2,381,563	University of Hawaii Cancer Center
37	Kenneth Nakamura	2,379,464	John A. Burns School of Medicine
38	Eric Folk	2,312,395	College of Education
39	Michael Melzer	2,183,840	College of Tropical Agriculture and Human Resources
40	Jonathon McKee	2,111,893	Chancellor, UH Maui College
41	Sharon Ziegler	2,079,445	Vice Chancellor for Research
42	Maenette Benham	2,050,572	Chancellor, UH West Oahu
43	Philip R Thompson	1,956,953	School of Ocean and Earth Science and Technology
44	James Ferguson	1,926,100	School of Ocean and Earth Science and Technology
45	Anita L Lopez	1,907,500	School of Ocean and Earth Science and Technology
46	Kenric M Murayama	1,898,550	John A. Burns School of Medicine
47	Pohai Liana Kukea Shultz	1,890,766	College of Education
48	Klaus Hodapp	1,842,641	Institute for Astronomy
49	Mark Lane	1,813,054	Chancellor, Leeward Community College
50	Brenda Yukari Hernandez	1,801,457	University of Hawaii Cancer Center

Chart 7: Contract and Grant Awards by Campus
(in millions)



- University of Hawai'i at Manoa
- University of Hawai'i System
- University of Hawai'i at Hilo
- University of Hawai'i Maui College
- University of Hawai'i at West O'ahu
- Windward Community College
- Kapi'olani Community College
- Leeward Community College
- Honolulu Community College
- Kaua'i Community College
- Hawai'i Community College

Chart 8: UH Manoa - Contract and Grant Awards by College/Department

(in millions)

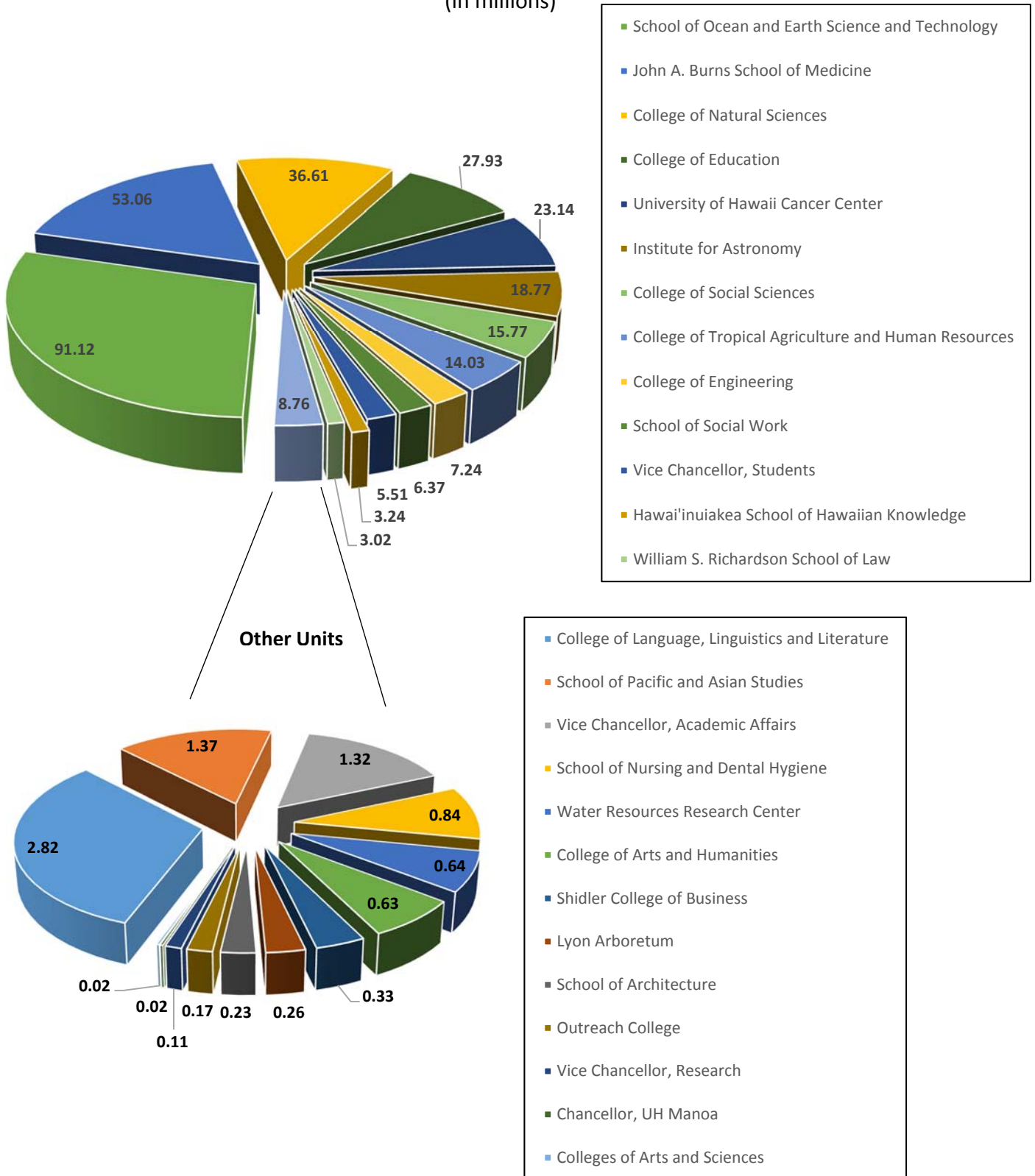
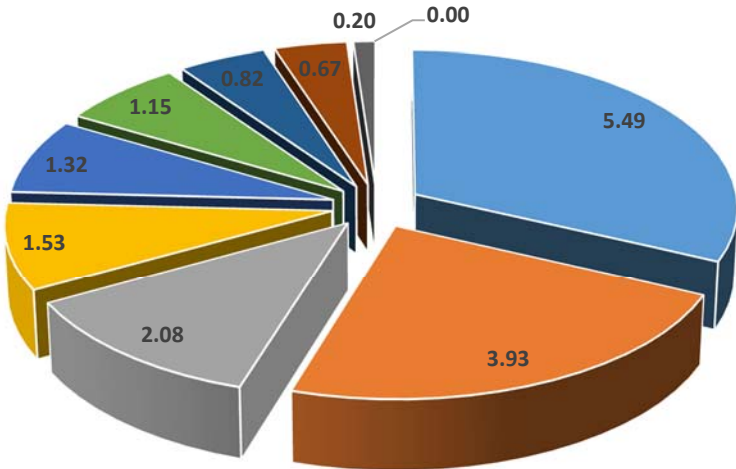


Chart 9: UH Hilo - Contract and Grant Awards by College/Department
(in millions)



- College of Arts and Sciences
- Vice Chancellor for Student Affairs
- Vice Chancellor for Research
- College of Agriculture, Forestry and Natural Resource Mgt
- Ka Haka'Ula O Ke'Elilikolani-UHH
- Chancellor, UH Hilo
- Hawaii Small Business Development Center
- College of Pharmacy
- Imiloa Astronomy Center Of Hawaii
- Vice Chancellor for Administrative Affairs

Figure 8: Contract and Grant Awards Summary by Campus

Campus	Award Amount	Award Count	% of Total
Hawai'i Community College	766,655	10	0.5%
Honolulu Community College	1,594,061	10	0.5%
Kapi'olani Community College	5,950,760	24	1.2%
Kaua'i Community College	971,368	5	0.3%
Leeward Community College	3,303,870	8	0.4%
University of Hawai'i at Hilo	17,187,152	136	7.1%
University of Hawai'i at Manoa	314,529,807	1,575	81.8%
University of Hawai'i at West O'ahu	8,210,429	20	1.0%
University of Hawai'i Maui College	13,347,013	41	2.1%
University of Hawai'i System	48,321,884	73	3.8%
Windward Community College	7,669,161	23	1.2%
Grand Total	421,852,160	1,925	100.0%

**Figure 9a: UH Manoa - Contract and Grant Awards Summary
by College/Department**

UH Manoa College/Department	Award Amount	Award Count	% of Total
Chancellor, UH Manoa	18,500	1	0.06%
Chancellor, UH Manoa	18,500	1	0.06%
College of Arts and Humanities	631,332	26	1.65%
Art and Art History	87,446	4	0.25%
History (UH Manoa)	36,755	2	0.13%
Music (UH Manoa)	74,218	8	0.51%
Philosophy (UH Manoa)	1,000	1	0.06%
Theatre and Dance	30,120	3	0.19%
UHM Uehiro Academy for Philosophy and Ethics in Education	203,692	4	0.25%
College of Arts and Humanities	184,000	3	0.19%
Religion (UH Manoa)	14,101	1	0.06%
College of Education	27,932,378	77	4.89%
Center on Disability Studies/University Affiliated Pgms	11,787,886	40	2.54%
College of Education	7,301,949	9	0.57%
Curriculum Research and Development Group	3,099,706	16	1.02%
Department of Curriculum Studies	578,985	1	0.06%
Department of Educational Foundations	70,000	1	0.06%
Department of Kinesiology and Rehabilitation Science	532,823	3	0.19%
Department of Special Education	3,807,276	4	0.25%
Institute for Teacher Education	752,727	2	0.13%
Department of Educational Psychology	1,026	1	0.06%
College of Engineering	7,240,729	49	3.11%
Civil and Environmental Engineering	1,796,246	9	0.57%
College of Engineering	625,710	3	0.19%
Electrical Engineering	2,883,783	18	1.14%
Mechanical Engineering	1,510,184	17	1.08%
Hawaii Center for Advanced Communications	100,032	1	0.06%
Hawaii Space Flight Laboratory	324,774	1	0.06%
College of Language, Linguistics and Literature	2,817,523	28	1.78%
Center for Language and Technology	825,521	3	0.19%
College of Language, Linguistics and Literature	98,413	1	0.06%
Department of East Asian Languages and Literature	1,191,763	4	0.25%
Department of English	3,263	1	0.06%
Department of Linguistics	507,698	11	0.70%
Department of Second Language Studies	77,932	5	0.32%
Dept of Languages and Literatures of Europe and the Americas	8,563	2	0.13%
Department of Indo-Pacific Languages	104,370	1	0.06%
College of Natural Sciences	36,609,301	236	14.98%
Department of Biology (Biology Program)	2,661,252	11	0.70%
Department of Botany	26,135,975	168	10.67%
Department of Chemistry	2,167,759	12	0.76%

Department of Mathematics	591,378	7	0.44%
Department of Microbiology	659,114	3	0.19%
Department of Physics and Astronomy	2,291,084	21	1.33%
Information and Computer Sciences	1,575,748	13	0.83%
College of Natural Sciences	526,991	1	0.06%
College of Social Sciences	15,766,251	99	6.29%
College of Social Sciences	276,665	6	0.38%
Department of Anthropology	150,193	3	0.19%
Economics (UH Manoa)	179,603	3	0.19%
Geography (UH Manoa)	921,647	10	0.63%
Psychology (UH Manoa)	1,627,846	11	0.70%
School of Communications	262,990	4	0.25%
Social Science Research Institute	5,045,332	52	3.30%
Sociology (UH Manoa)	55,000	2	0.13%
Urban and Regional Planning	7,246,975	8	0.51%
College of Tropical Agriculture and Human Resources	14,032,537	158	10.03%
Agricultural Diagnostic Service Center	151,073	1	0.06%
Center on the Family	224,041	7	0.44%
College of Tropical Agriculture and Human Resources	1,613,147	6	0.38%
Cooperative Extension	284,042	2	0.13%
Family and Consumer Sciences	241,698	3	0.19%
Hawaii County	814,319	14	0.89%
Human Nutrition, Food and Animal Sciences	1,841,979	17	1.08%
Kauai County	19,300	2	0.13%
Maui County	198,649	5	0.32%
Molecular Biosciences and Bioengineering	1,611,103	8	0.51%
Natural Resources and Environmental Mgt (NREM)	997,095	28	1.78%
Oahu County	895,705	6	0.38%
Office of The Assoc Dean for Academic and Student Affairs	495,840	5	0.32%
Plant and Environmental Protection Sciences	4,095,347	40	2.54%
Hawai'iinuiakea School of Hawaiian Knowledge	3,238,552	6	0.38%
Hawai'iinuiakea School of Hawaiian Knowledge	2,182,177	4	0.25%
Kamakakuokalani Center for Hawaiian Studies	15,000	1	0.06%
Kawaihuelani Center for Hawaiian Language	1,041,375	1	0.06%
Institute for Astronomy	18,772,579	82	5.21%
Institute for Astronomy	18,772,579	82	5.21%
John A. Burns School of Medicine	53,062,041	190	12.06%
Associate Dean for Academic Affairs	1,356,250	5	0.32%
Department of Anatomy, Biochemistry, and Physiology	2,514,854	16	1.02%
Department of Cell and Molecular Biology	4,326,205	15	0.95%
Department of Complementary and Alternative Medicine	2,427,219	8	0.51%
Department of Family Medicine and Community Health	1,753,667	11	0.70%
Department of Geriatric Medicine	2,745,856	6	0.38%
Department of Medicine	2,194,714	23	1.46%
Department of Native Hawaiian Health	2,367,725	16	1.02%
Department of Obstetrics, Gynecology and Women's Health	4,544,707	9	0.57%

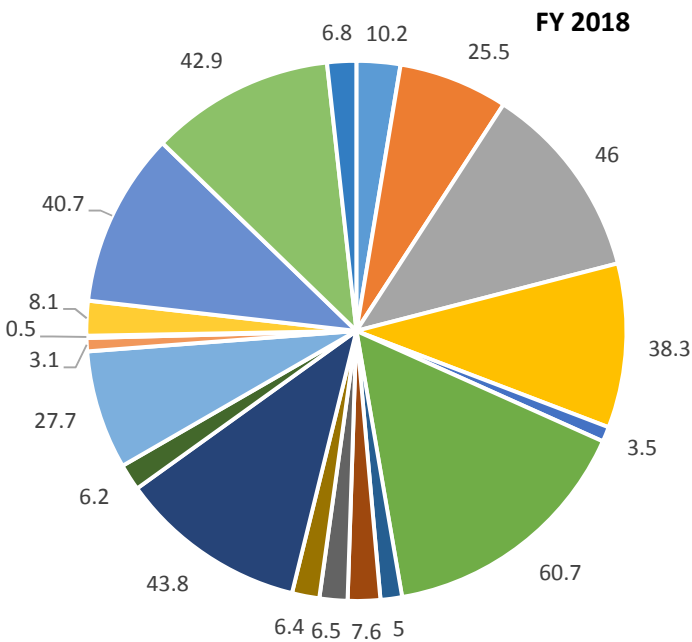
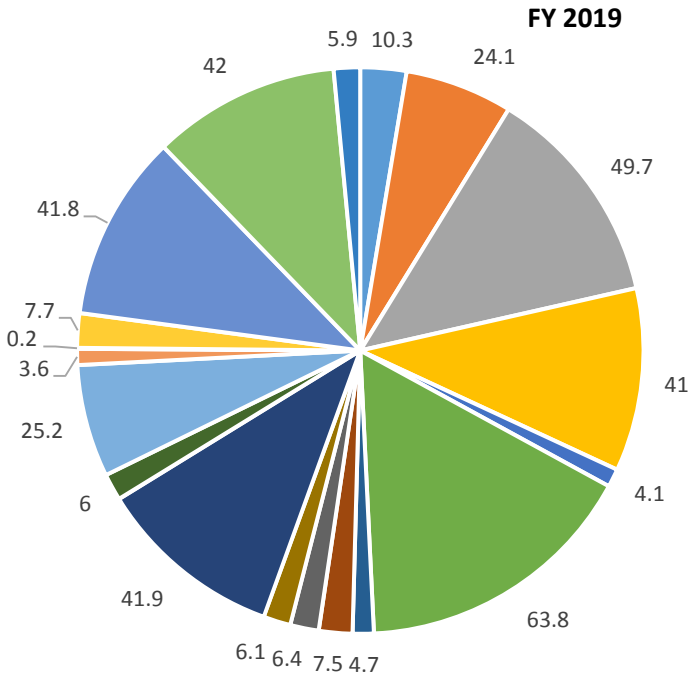
Department of Pediatrics	5,231,460	16	1.02%
Department of Psychiatry	5,031,083	10	0.63%
Department of Surgery	1,938,550	11	0.70%
Department of Tropical Medicine, Medical Micro and Pharm	3,901,983	30	1.90%
Institute for Biogenesis Research	2,387,607	2	0.13%
John A. Burns School of Medicine	9,640,161	11	0.70%
Native Hawaiian Center of Excellence	700,000	1	0.06%
Lyon Arboretum	255,585	6	0.38%
Lyon Arboretum	255,585	6	0.38%
Outreach College	167,295	7	0.44%
Community Programs	98,679	5	0.32%
Outreach College	68,616	2	0.13%
School of Architecture	230,565	2	0.13%
School of Architecture	230,565	2	0.13%
School of Nursing and Dental Hygiene	839,543	9	0.57%
Department of Nursing	803,733	7	0.44%
School of Nursing and Dental Hygiene	35,810	2	0.13%
School of Ocean and Earth Science and Technology	91,118,186	364	23.11%
Center for Microbial Oceanography, Research and Edu (C-MORE)	4,256,556	10	0.63%
Department of Atmospheric Sciences	711,449	8	0.51%
Department of Ocean and Resources Engineering	1,312,825	8	0.51%
Department of Oceanography	5,323,267	36	2.29%
Hawaii Institute of Geophysics and Planetology (HIGP)	10,431,509	66	4.19%
Hawaii Institute of Marine Biology (HIMB)	6,139,984	49	3.11%
Hawaii Natural Energy Institute (HNEI)	9,174,636	12	0.76%
International Pacific Research Center (IPRC)	3,433,810	22	1.40%
Joint Institute for Marine and Atmospheric Research (JIMAR)	19,255,606	53	3.37%
Pacific Biosciences Research Center	7,081,651	38	2.41%
School of Ocean and Earth Science and Technology	13,558,093	13	0.83%
Sea Grant College Program	6,288,450	22	1.40%
University Marine Center/Ship Operations	1,776,250	3	0.19%
Earth Sciences	2,374,100	24	1.52%
School of Pacific and Asian Studies	1,371,262	14	0.89%
Center for Japanese Studies	412,082	5	0.32%
Center for Korean Studies	213,853	5	0.32%
Center for Southeast Asian Studies	280,500	1	0.06%
School of Pacific and Asian Studies	464,827	3	0.19%
School of Social Work	6,368,791	46	2.92%
Center on Aging	918,252	6	0.38%
Dept of Public Health Sciences and Epidemiology	436,870	8	0.51%
Office of Public Health Studies	4,460,287	21	1.33%
School of Social Work	553,382	11	0.70%
University of Hawaii Cancer Center	23,137,759	89	5.65%
Cancer Biology	3,462,004	19	1.21%
Cancer Epidemiology	11,903,090	43	2.73%

Cancer Prevention in the Pacific	976,348	5	0.32%
Translational and Clinical Research	1,318,036	5	0.32%
University of Hawaii Cancer Center	5,478,281	17	1.08%
Vice Chancellor, Academic Affairs	1,318,498	11	0.70%
Graduate Education	660,858	2	0.13%
International & Exch Prog	58,516	1	0.06%
Library (UH Manoa)	171,105	5	0.32%
Undergraduate Education	428,019	3	0.19%
Vice Chancellor, Research	105,000	3	0.19%
Vice Chancellor, Research	105,000	3	0.19%
Vice Chancellor, Students	5,514,530	18	1.14%
Health & Wellness	39,305	2	0.13%
Student Equity Excel & Diversity	4,539,907	11	0.70%
Vice Chancellor, Students	20,000	1	0.06%
Women's Center	915,318	4	0.25%
Water Resources Research Center	638,833	12	0.76%
Water Resources Research Center	638,833	12	0.76%
William S. Richardson School of Law	3,016,620	39	2.48%
William S. Richardson School of Law	3,016,620	39	2.48%
Shidler College of Business	325,617	3	0.19%
Department of Information Technology Management	325,617	3	0.19%
Grand Total	314,529,807	1,575	100.00%

**Figure 9b: UH Hilo - Contract and Grant Awards Summary
by College/Department**

UH Hilo College/Department	Award Amount	Award Count	% of Total
Chancellor, UH Hilo	1,148,825	2	1.47%
Chancellor, UH Hilo	1,148,825	2	1.47%
College of Agriculture, Forestry and Natural Resource Mgt	1,527,095	13	9.56%
College of Agriculture, Forestry and Natural Resource Mgt	745,820	9	6.62%
Pacific Aquaculture and Coastal Resources Ctr	781,275	4	2.94%
College of Arts and Sciences	5,492,465	38	27.94%
Anthropology (UH Hilo)	715,269	2	1.47%
Biology (UH Hilo)	197,971	3	2.21%
Chemistry (UH Hilo)	393,775	1	0.74%
College of Arts and Sciences	335,994	2	1.47%
Geography (UH Hilo)	556,079	5	3.68%
Marine Science	583,805	3	2.21%
Mathematics (UH Hilo)	8,400	1	0.74%
Natural Sciences Division	1,570,359	10	7.35%
Physics and Astronomy	333,851	3	2.21%
Social Sciences Division	399,934	5	3.68%
Tropical Conservation Biology and Environmental Science	397,028	3	2.21%
College of Pharmacy	672,673	13	9.56%
College of Pharmacy	117,547	4	2.94%
Pharmaceutical Sciences	399,744	4	2.94%
Pharmacy Practice	155,382	5	3.68%
Hawaii Small Business Development Center	818,278	5	3.68%
Hawaii Small Business Development Center	818,278	5	3.68%
Imiloa Astronomy Center Of Hawaii	195,978	4	2.94%
Imiloa Astronomy Center Of Hawaii	195,978	4	2.94%
Ka Haka'Ula O Ke'Elikelani-UHH	1,324,631	10	7.35%
Hale Kuamo'o Center	853,706	4	2.94%
Ka Haka'Ula O Ke'Elikelani-UHH	470,925	6	4.41%
Vice Chancellor for Administrative Affairs	2,250	1	0.74%
Vice Chancellor for Administrative Affairs	2,250	1	0.74%
Vice Chancellor for Research	2,079,445	26	19.12%
Vice Chancellor for Research	2,079,445	26	19.12%
Vice Chancellor for Student Affairs	3,925,512	24	17.65%
Center For Gifted And Talented Native Hawaiian Children	717,054	3	2.21%
Vice Chancellor for Student Affairs	3,208,458	21	15.44%
Grand Total	17,187,152	136	100.00%

Chart 10: Total Contract and Grant Expenditures by Source of Funds
Prior Year Comparison
 (in millions)



**Figure 10: Total Contract and Grant Expenditures by Source of Funds
Prior Year Comparison**

Source of Funds	FY 2018	% of Total	FY 2019	% of Total
Department of Agriculture	\$ 10,165,191.03	3%	\$ 10,341,843.10	3%
Department of Commerce	\$ 25,497,165.29	7%	\$ 24,118,609.13	6%
Department of Defense	\$ 45,984,233.40	12%	\$ 49,737,966.96	13%
Department of Education	\$ 38,332,548.70	10%	\$ 40,977,845.61	10%
Department of Energy	\$ 3,475,577.70	1%	\$ 4,078,333.16	1%
Department of Health and Human Services	\$ 60,674,403.34	16%	\$ 63,808,343.75	16%
Department of Homeland Security	\$ 5,000,906.79	1%	\$ 4,739,877.91	1%
National Science Foundation	\$ 40,678,267.03	10%	\$ 41,817,238.27	11%
Other Federal	\$ 42,895,276.00	11%	\$ 42,027,814.74	11%
Foreign	\$ 7,553,867.42	2%	\$ 7,470,833.04	2%
Hawai'i - Business and Other	\$ 6,455,302.65	2%	\$ 6,421,826.97	2%
Hawai'i - Dept of Education	\$ 6,448,338.07	2%	\$ 6,072,764.00	2%
Hawai'i - Government Agencies	\$ 43,833,291.71	11%	\$ 41,914,145.57	11%
Hawai'i - Health Organizations	\$ 6,174,202.40	2%	\$ 5,980,183.75	2%
Hawai'i - Non-Profit Organizations	\$ 27,720,163.41	7%	\$ 25,166,319.91	6%
Mainland - Business and Other	\$ 3,066,627.13	1%	\$ 3,619,300.61	1%
Mainland - Health Organizations	\$ 491,356.48	0%	\$ 214,519.33	0%
Mainland - Non-Profit Organizations	\$ 8,100,926.19	2%	\$ 7,705,884.68	2%
U.S. Colleges and Universities	\$ 6,774,354.49	2%	\$ 5,941,680.46	2%
GRAND TOTAL	\$ 389,321,999.23	100%	\$ 392,155,330.95	100%

Summary:

- The largest source is the Department of Health and Human Services (16% of the total), followed by the Department of Defense (13% of the total).

Chart 11: Total Contract and Grant Expenditures by Program Type and Source of Funds
(in millions)

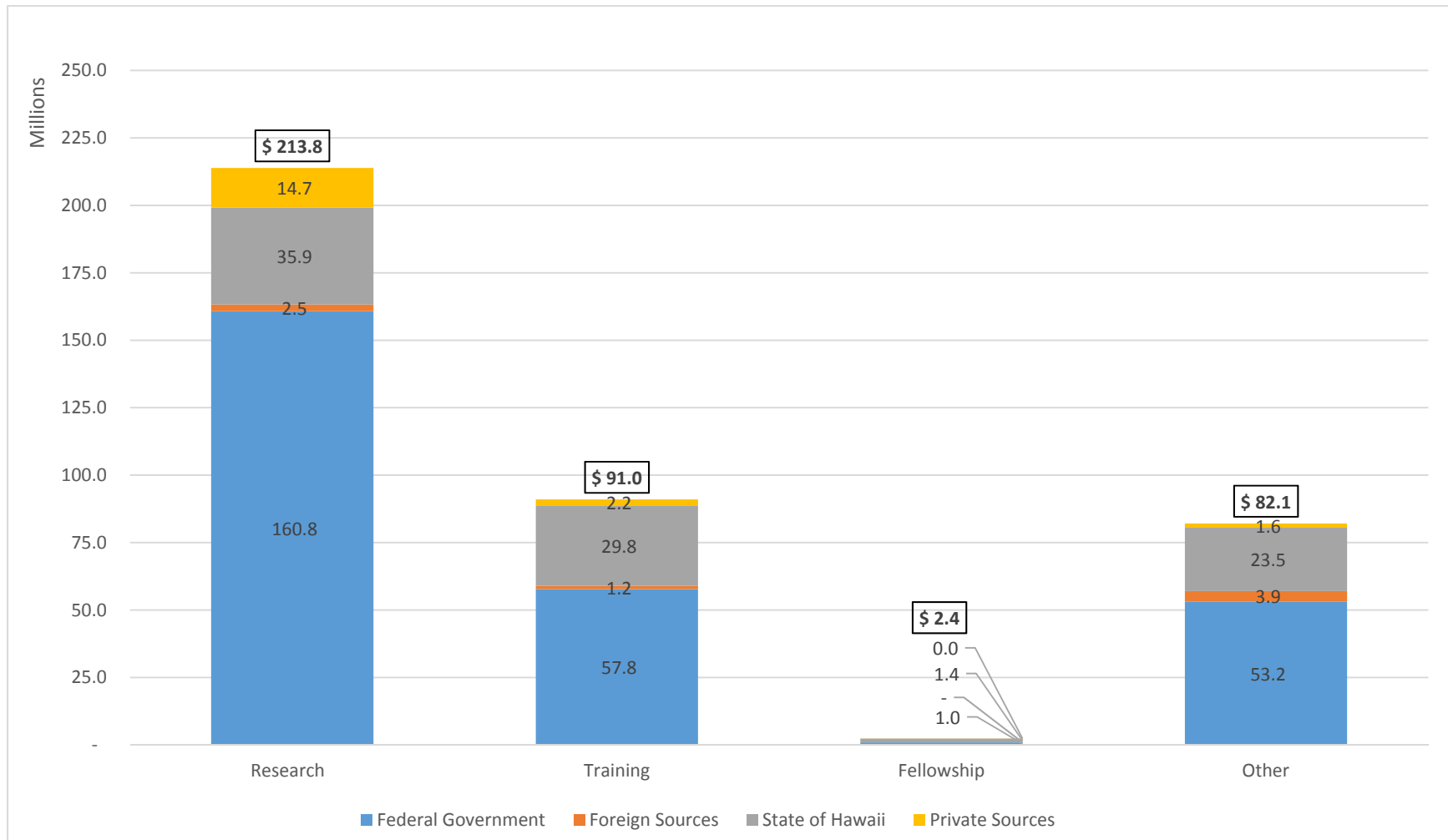
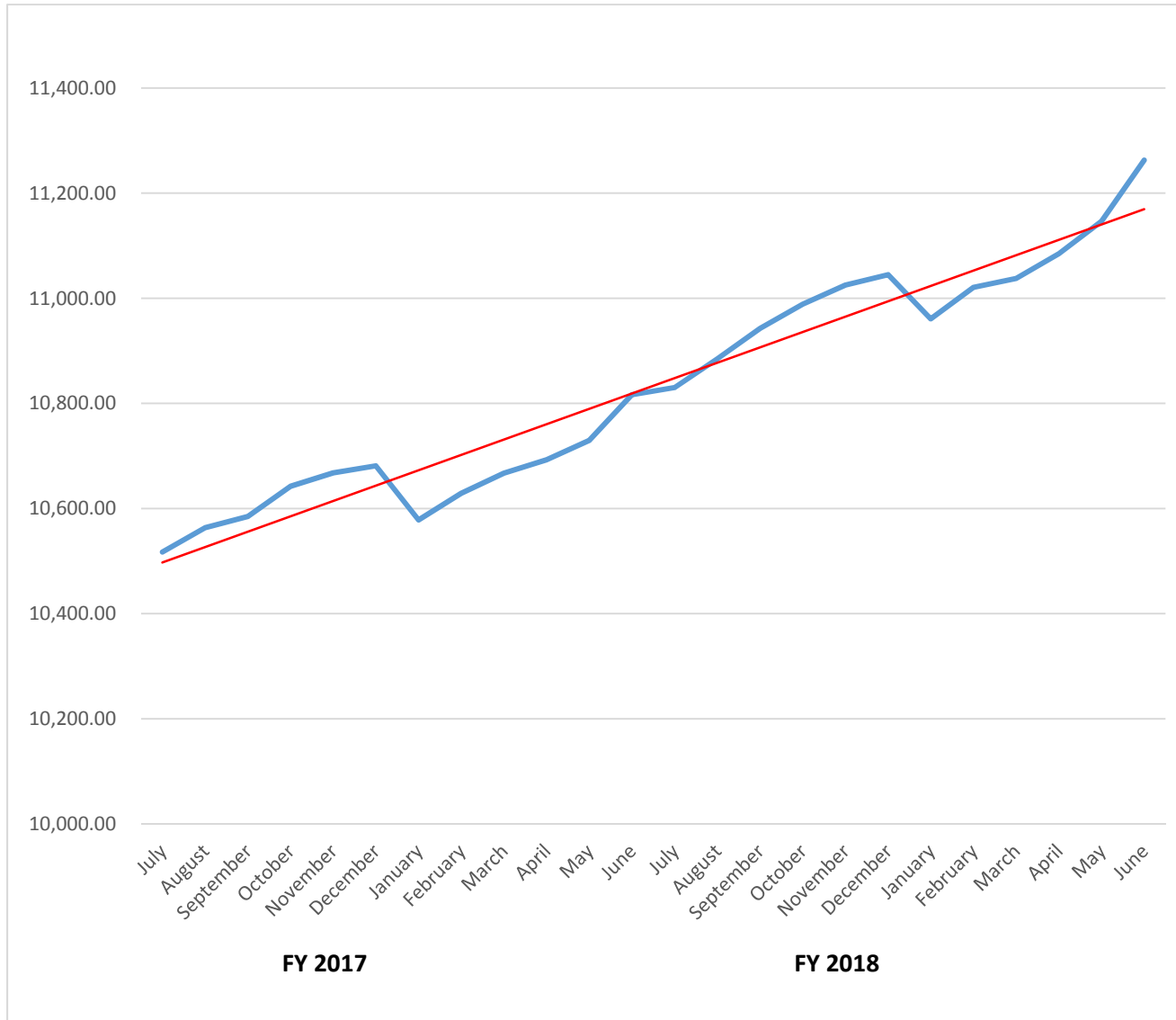


Figure 11: Total Contract and Grant Expenditures by Program Type and Source of Funds

	Source of Funding	Research	Training	Fellowship	Other	Total	% of total
Federal Government	Department of Agriculture	6,922,433	2,792,161		627,249	10,341,843	3%
	Department of Commerce	18,629,257	352,892	73,142	5,063,318	24,118,609	6%
	Department of Defense - Air Force	8,179,010				8,179,010	2%
	Department of Defense - Army	1,867,548	486,179		4,219,857	6,573,584	2%
	Department of Defense - Navy	22,646,863	101,154		1,254,361	24,002,378	6%
	Department of Education	845,280	30,551,414		9,581,151	40,977,846	10%
	Department of Energy	3,899,527	178,806			4,078,333	1%
	Department of Health and Human Services	49,779,696	9,712,729	53,166	4,262,752	63,808,344	16%
	Department of Homeland Security		4,739,878			4,739,878	1%
	Department of Interior	6,395,746	1,249		1,409,950	7,806,944	2%
	Department of State	1,521,829	108,863		34,091	1,664,783	0%
	Department of Transportation	389,173			259,208	648,382	0%
	Department of Veterans Affairs		120,373			120,373	0%
	Environmental Protection Agency	114,295	7,085		188,153	309,532	0%
	National Aeronautics and Space Administration	12,088,666	1,117,488	(3,091)	11,613,908	24,816,970	6%
National Science Foundation	24,642,941	6,683,701	723,485	9,767,111	41,817,238	11%	
Other Department of Defense	10,736,613	237,893	-	8,490	10,982,995	3%	
Other Federal	478,477	851,977	-	5,330,377	6,660,831	2%	
Federal Government Total		169,137,354	58,043,843	846,701	53,619,975	281,647,873	72%
Foreign Sources	Foreign Sources	2,359,079	1,138,261		3,973,492	7,470,833	2%
Foreign Sources Total		2,359,079	1,138,261	-	3,973,492	7,470,833	2%
State of Hawaii	Hawai'i - Business and Other	1,991,475	2,693,769	1,171,960	564,622	6,421,827	2%
	Hawai'i - Department of Education		5,587,659		485,105	6,072,764	2%
	Hawai'i - Government Agencies	21,704,990	7,748,957		12,460,199	41,914,146	11%
	Hawai'i - Health Organizations	725,142	4,760,003		495,039	5,980,184	2%
	Hawai'i - Non- Profit Organizations	8,602,986	11,126,947	126,997	5,309,391	25,166,320	6%
State of Hawaii Total		33,024,593	31,917,335	1,298,957	19,314,356	85,555,240	22%
Private Sources	Mainland - Business and Other	2,150,480	205,504		1,263,317	3,619,301	1%
	Mainland - Health Organizations	194,640	7,158		12,720	214,519	0%
	Mainland - Non-Profit Organizations	4,899,055	1,830,074	2,329	974,427	7,705,885	2%
	U.S. Colleges and Universities	4,632,423	250,960		1,058,298	5,941,680	2%
Private Sources Total		11,876,598	2,293,696	2,329	3,308,762	17,481,385	4%
Grand Total		216,397,624	93,393,135	2,147,987	80,216,585	392,155,331	100%

**Chart 12: Total FTE Paid from Contract and Grant Funds
Prior Year Comparison**

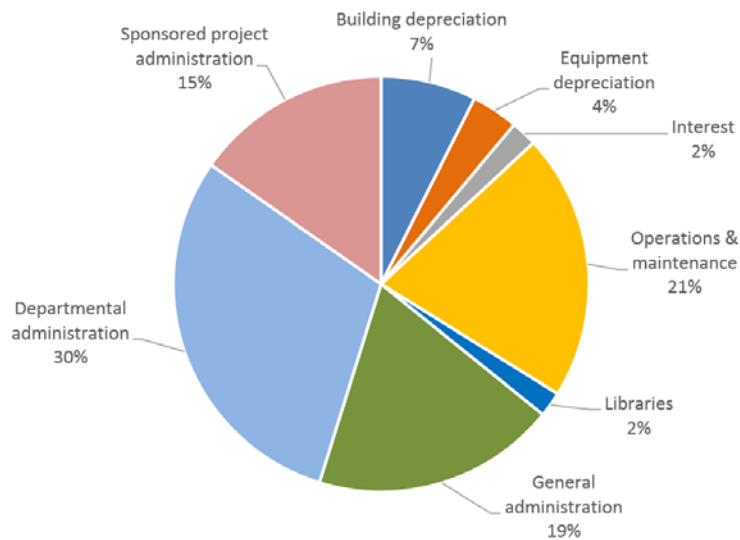


**Figure 12: Total FTE Paid from Contract and Grant Funds
Prior Year Comparison**

Month	Year to Date FY 18	Year to Date FY 19
July	10,517.38	10,830.16
August	10,563.66	10,885.06
September	10,584.97	10,942.67
Monthly Average Q1	10,555.34	10,885.96
October	10,642.38	10,988.80
November	10,668.01	11,025.19
December	10,681.43	11,044.89
Monthly Average Q2	10,663.94	11,019.63
January	10,578.49	10,960.72
February	10,628.99	11,020.73
March	10,667.28	11,037.83
Monthly Average Q3	10,624.92	11,006.43
April	10,692.88	11,084.84
May	10,729.86	11,146.54
June	10,816.58	11,262.71
Monthly Average Q4	10,746.44	11,164.70
Monthly Average FY	10,647.66	11,019.18
Change (Number)		371.52
Change (Percent)		3.49%

Note: FTE includes University of Hawai'i and Research Corporation of the University of Hawai'i

Chart 13: Breakdown of Facilities and Administrative Costs by Major Category FY 2016 Base Year



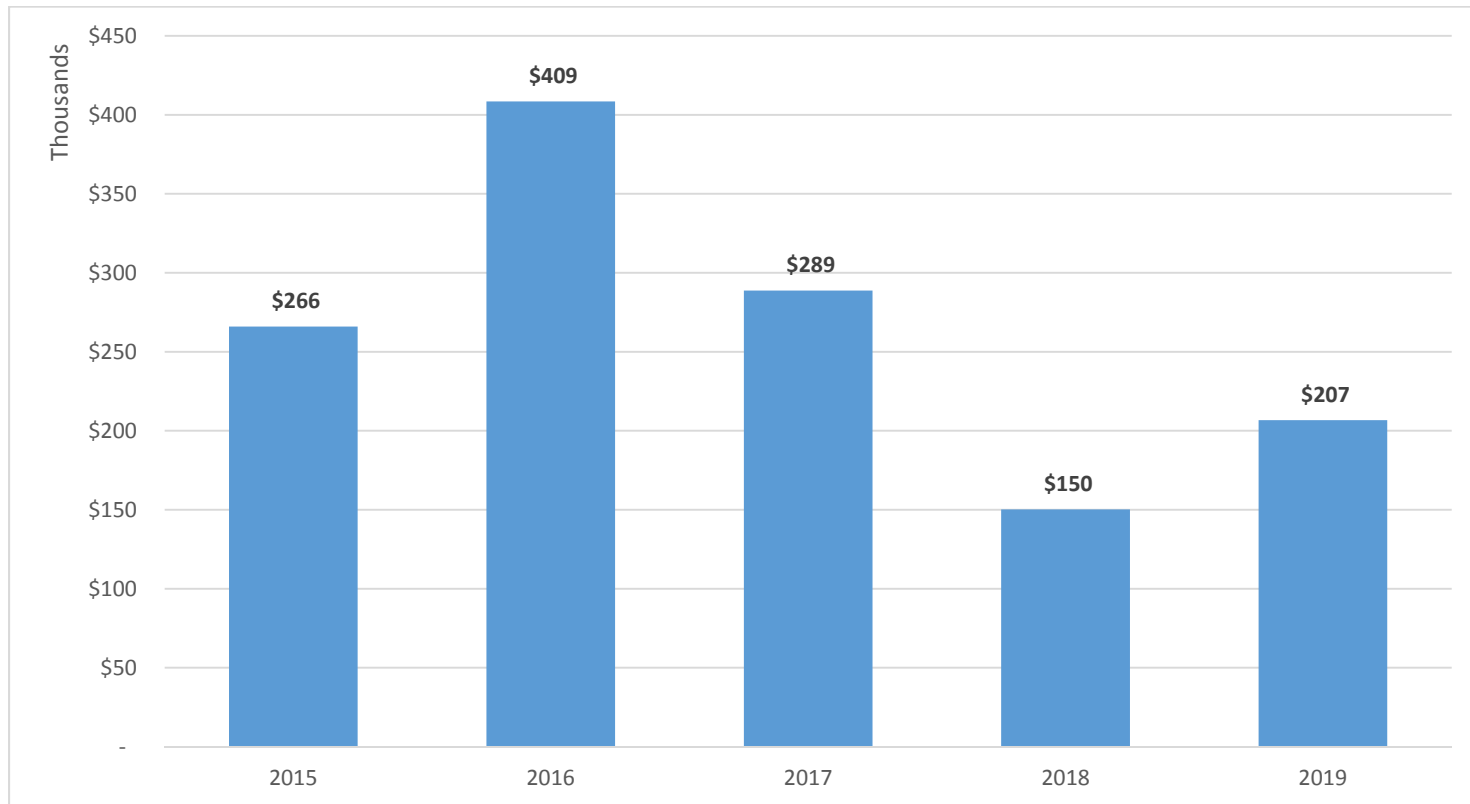
In a typical year, roughly a third of the University of Hawai'i's overhead for sponsored projects maintains its facilities for supporting sponsored activity and roughly two-thirds supports central and departmental sponsored activity administration. About 30% of the total F&A represents administration of sponsored activity with schools, colleges, and research units. These funds are used by deans and directors to support fiscal administrators and other staff who assist faculty with sponsored activity – including grant proposal preparation and budget management.

The pie chart represents the proportion of actual overhead costs during the UH's last F&A base year (FY 2016). Thirty-four percent of the F&A funds represented costs of providing centralized research administration and compliance services, such as research accounting and analysis, human resources, payroll, purchasing, Office of Research Services, Human Studies, Institutional Animal Care, and Research Corporation of the University of Hawai'i. Of the 36% spent on facilities, about 58% was spent on operations and maintenance of existing sponsored activity space, including paying for such costs as utilities, hazardous materials disposal, and janitorial services. The remainder paid for repairs and renovations of buildings, 'debt service' (interest), major equipment replacement, and support for the libraries.

The University of Hawai'i received approximately \$52.0 million in F&A cost reimbursements in FY 2019. Each campus received 75% of the recovered F&A generated by its faculty through the Research and Training Revolving Fund (RTRF) allocation. The PI's college or research unit at the University of Hawai'i at Mānoa generally receives 50% of the recovered F&A costs. These funds are used at the discretion of the chancellors, deans and directors to support research and training in their units.

F&A cost reimbursements are related to UH expenditures. When the UH develops its biennial budget, it starts with an estimate of the total revenues available for that biennium, including state funding, tuition, F&A cost reimbursement, and interest and investment income. All these funding sources are combined to pay for the UH's operating expenses, including F&A costs related to research and other sponsored agreements.

Chart 14: Total Royalties Received from University Patents
Five Year Comparison
(in thousands)



**Figure 13: Total Royalties Received from University Patents
Five Year Comparison**

Fiscal Year	Royalties
2015	\$ 265,974
2016	\$ 408,513
2017	\$ 288,752
2018	\$ 150,172
2019	\$ 206,687
Total Royalties	\$ 1,320,098

Appendix 1: Extramural Award Sponsors

FEDERAL

DA-DEPT OF AGRICULTURE

AGRICULTURE, DEPT - ANIMAL AND PLANT HEALTH INSPECTION SERVICE
AGRICULTURE, DEPT, FOREST SVC-FED
AGRICULTURE, DEPT-AGRI RSCH SVC-FED
AGRICULTURE, DEPT-FED
AGRICULTURE, DEPT-FOREIGN AGRICULTURAL SERVICE
AGRICULTURE, DEPT-NATL INS FOOD AND AGRICULTURE
AGRICULTURE, DEPT-NATRL RES SVC-FED

DEPT OF STATE

STATE, DEPT-US AGENCY INTL DEV-FED USAID

DHHS-DEPT OF HEALTH AND HUMAN SERVICES

HEALTH & HUMAN SVC, DEPT-ADMIN FOR COMM LIVING
HEALTH & HUMAN SVC, DEPT-ADMIN ON AGING
HEALTH & HUMAN SVC, DEPT-CDC-NATL INST FOR OCCUPATIONAL SAFETY & HEALTH
HEALTH & HUMAN SVC, DEPT-CTR DIS CTRL-FED
HEALTH & HUMAN SVC, DEPT-FED
HEALTH & HUMAN SVC, DEPT-HRSA-FED
HEALTH & HUMAN SVC, DEPT-HRSA-FED MATERNAL & CHILD HLTH
HEALTH & HUMAN SVC, DEPT-HRSA-FED OFC RURAL HEALTH POL
HEALTH & HUMAN SVC, DEPT-NIH-FED
HEALTH & HUMAN SVC, DEPT-NIH-FED NATL CANCER INST
HEALTH & HUMAN SVC, DEPT-NIH-FED NATL HEART LUNG & BLD INST
HEALTH & HUMAN SVC, DEPT-NIH-FED NATL INST MIN HLTH & DISP
HEALTH & HUMAN SVC, DEPT-NIH-FED NTL INST ALLERGY/INF DIS
HEALTH & HUMAN SVC, DEPT-NIH-FED NTL INST DIAB DIG KIDN DIS
HEALTH & HUMAN SVC, DEPT-NIH-FED NTL INST DRUG ABUSE
HEALTH & HUMAN SVC, DEPT-NIH-FED NTL INST ENV HLTH SCI
HEALTH & HUMAN SVC, DEPT-NIH-FED NTL INST GEN MED SCI
HEALTH & HUMAN SVC, DEPT-NIH-FED NTL INST MENTAL HLTH

HEALTH & HUMAN SVC, DEPT-NIH-FED NTL LIBRARY OF MED
HEALTH & HUMAN SVC, DEPT-NIH-FED OFFICE OF DIRECTOR
HEALTH & HUMAN SVC, DEPT-SUB ABUSE/MNTL HLTH SVC-FED
HEALTH & HUMAN SVC, DEPT-NIH-FED NTL INST CHLD HLTH&HUM DEV
HEALTH&HUMAN SVC, DEPT-NIH-FED NTL INST NEURO DIS&STROKE

DOC-DEPT OF COMMERCE

COMMERCE, DEPT-ECONOMIC DEV ADM-FED
COMMERCE, DEPT-MINORITY BUSN DEV AGENCY-FED
COMMERCE, DEPT-NATL NOAA-FED
COMMERCE, DEPT-NATL NOAA-FED NATL OCEAN SVC
COMMERCE, DEPT-NATL NOAA-FED NATL WEATHER SVC
COMMERCE, DEPT-NATL NOAA-FED SEA GRANT COLL PGM
COMMERCE, DEPT-NOAA/NATL MARINE FISHERIES SVC
WESTERN PACIFIC REGIONAL FISHERY MGT COUNCIL

DOD-DEPARTMENT OF DEFENSE

DEFENSE, DEPT- US ARMY CORPS OF ENGINEERS
DEFENSE, DEPT. - U.S. ARMY RESEARCH OFFICE
DEFENSE, DEPT-AIR FORCE
DEFENSE, DEPT-AIR FORCE OFC OF SCI RSCH
DEFENSE, DEPT-AIR FORCE RESEARCH LABORATORY
DEFENSE, DEPT-ARMY
DEFENSE, DEPT-ARMY RESEARCH LABORATORY
DEFENSE, DEPT-DEPUTY UNDR SECRETARY OF DEF
DEFENSE, DEPT-NATIONAL SECURITY AGY
DEFENSE, DEPT-NAVY
DEFENSE, DEPT-NAVY NAVAL FAC ENGRG COMMAND
DEFENSE, DEPT-NAVY NAVAL SURFACE WARFARE CTR
DEFENSE, DEPT-NAVY OFC OF NAVAL RSCH
DEFENSE, DEPT-NAVY SPACE & NAVAL WARFARE SYS CTR PACIFIC
DEFENSE, DEPT-NAVY US NAVAL OBSERVATORY
DEFENSE, DEPT-WASHINGTON HEADQUARTERS SVCS

DOE-DEPT OF ENERGY

ENERGY, DEPT
ENERGY, DEPT. OF - BASIC ENERGY SCIENCES
DOI-DEPT OF INTERIOR

INTERIOR, DEPT-FISH & WILDLIFE SVC
INTERIOR, DEPT-NATIONAL PARK SVC
INTERIOR, DEPT-PACIFIC ISLANDS CLIMATE SCIENCE CTR
INTERIOR, DEPT-UNITED STATES GEO SURVEY

ED-DEPT OF EDUCATION

EDUCATION, DEPT-FED
EDUCATION, DEPT-FED FULBRIGHT HAYS PGM
EDUCATION, DEPT-FED INTL & FOREIGN LANG ED
EDUCATION, DEPT-FED OFC OF POSTSEC ED
EDUCATION, DEPT-FED OFC OF SPECIAL ED & REHAB SVCS
EDUCATION, DEPT-FED REHAB SVCS ADMIN
EDUCATION, DEPT-FED STUDENT SUPP SVCS PGM
EDUCATION, DEPT-FED TALENT SEARCH PGM

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

NATIONAL AERONAUT & SPACE ADM
NATL AERONAUTICS & SPACE ADM-AMES RESEARCH CTR

NATIONAL SCIENCE FOUNDATION

NATIONAL SCIENCE FOUNDATION

OTHER FEDERAL AGENCIES

ENVIRONMENTAL PROTECTION AGENCY
HOMELAND SECURITY, DEPT-FEMA
JAPAN UNITED STATES FRIENDSHIP COMMISSION
JUSTICE, DEPT-OFFICE JUSTICE PROG
NATIONAL ENDOWMENT FOR THE HUMANITIES
SMALL BUSINESS ADMINISTRATION
SOCIAL SECURITY ADMINISTRATION
VETERANS AFFAIRS, DEPT-FED

NON-FEDERAL

FOREIGN

GUAM, GOVERNMENT - GUAM HOMELAND SECURITY
PACIFIC YOUTH AND COMMUNITY DEVELOPMENT
ACADEMY KOREAN STUDIES
AICHI UNIVERSITY
AMERICAN SAMOA COMMUNITY CANCER COALITION
AMERICAN SAMOA, GOVERNMENT
AMERICAN SAMOA, GOVERNMENT- DEPARTMENT OF
EDUCATION
AOYAMA GAKUIN UNIVERSITY
BAYER AG
CHUO UNIVERSITY
DSM NUTRITIONAL PRODUCTS AG
EMBASSY OF FRANCE

ENCORED TECHNOLOGIES KOREA INC.
ENVRIPLUS
FEDERATED STATES MICRONESIA
FUKADA SALVAGE AND MARINE WORKS COMPANY, LTD.
GUAM, GOVERNMENT - PUBLIC HEALTH AND SOCIAL
SERVICES
GUAM, UNIVERSITY OF
HAPSMOBILE
HUBEI JING BRAND CO., LTD.
INTERNATIONAL UNION CONSERVATION OF NATURE
(IUCN)
JAPAN AGENCY MARINE-EARTH SCIENCE AND
TECHNOLOGY
JAPAN NUS CO. LTD.
KOREA INSTITUTE OF OCEAN SCIENCE & TECHNOLOGY
KOREA RESEARCH INSTITUTE OF SHIPS AND OCEAN
ENGINEERING
KOSRAE COMMUNITY HEALTH CENTER
KYOTO SEIKA UNIVERSITY
LITERATURE TRANSLATION INSTITUTE OF KOREA
LONDON, UNIVERSITY OF
MARSHALL ISLANDS, COLLEGE OF
MEIJI UNIVERSITY
MELBOURNE, THE UNIVERSITY OF
NESTEC LTD RESEARCH CENTRE
OKINAWA RESEARCH CENTER ON LONGEVITY SCIENCES
PALAU NATIONAL MARINE SANCTUARY
PEKING UNIVERSITY HEALTH SCIENCES CENTER
REPUBLIC MARSHALL ISLANDS
REPUBLIC PALAU
RYUKYUS, UNIVERSITY OF
TEIN*COOPERATION CENTER
VIIV HEALTHCARE
WASEDA UNIVERSITY
HAWAII- BUSINESS AND OTHER
ADNOVIV LLC
ADVANCED SILICON CARBIDE MATERIALS, LLC
AHA PUNANA LEO INC
ALU LIKE INC
BISHOP MUSEUM
CARDAX PHARMACEUTICALS INC
EAST WEST CENTER DBA OF CCTI B/W EAST AND WEST,
INC.
HANAHAUOLI SCHOOL

HILO FISH COMPANY, INC.
HUI NO KE OLA PONO, INC.
IOLANI SCHOOL
JUN INNOVATIONS
KAMEHAMEHA SCHOOLS
KE KULA 'O NAWAHIOKALANI'OPU'U IKI PUBLIC CHARTER
SCHOOL
MAKAI OCEAN ENGINEERING INC
MALAMA KAHALAWAI INC
MAUI COUNTY COMMUNITY TELEVISION
NORTH STAR SCIENTIFIC CORPORATION
OCEANIT LABORATORIES INC
'OHU'OHU KO'OLAU INC
PACIFIC BIODIESEL
PACIFIC RADIATION ONCOLOGY INC
SUSTAINABLE RESOURCES GROUP INTERNATIONAL
TOWILL, R.M. CORPORATION
ULUPALAKUA RANCH
ULUPONO INITIATIVE
VERNON OI
HAWAII- DEPT OF EDUCATION
EDUCATION, DEPT-HI
EDUCATION, DEPT-HI-PRINCESS NAHIENAENA
ELEMENTARY SCHOOL
HAWAII- GOVERNMENT AGENCIES
HEALTH, DEPT-HI OFFICE OF ENVIRONMENTAL QUALITY
CONTROL
AGRICULTURE, DEPT-HI
ATTORNEY GENERAL, DEPT-HI
BUSINESS, ECON DEV & TOUR, DPT
BUSINESS, ECONOMIC DEV&TOUR-OFC OF PLANNING
CITY & COUNTY HONOLULU
CITY & COUNTY HONOLULU DEPT OF PARKS & REC
CITY AND COUNTY HONOLULU DEPARTMENT OF
ENVIRONMENTAL SERVICES
COUNTY HAWAII DEPT OF RESEARCH AND DEVELOPMENT
COUNTY KAUAI
COUNTY MAUI DEPARTMENT OF ENVIRONMENTAL
MANAGEMENT
COUNTY MAUI DEPT OF WATER SUPPLY
COUNTY MAUI OFC OF ECON DEVEL
COUNTY MAUI PLANNING DEPT
DEFENSE, DEPT-HI - HI ARMY NATL GUARD
DEFENSE, DEPT-HI-HAWAII EMERGENCY MGMT AGENCY

GOVERNOR, OFFICE OF - STATE OF HAWAII
HAWAII STATE FOUNDATION ON CULTURE AND THE ARTS
HAWAII TOURISM AUTHORITY
HAWAIIAN AFFAIRS, OFFICE OF
HAWAIIAN HOME LANDS, DEPT-HI
HEALTH, DEPT-ALCOHOL & DRUG ABUSE DIV-HI
HEALTH, DEPT-CHILD/ADOLESC MENTAL HLTH DIV-HI
HEALTH, DEPT-CHRONIC DISEASE PREVENTION & HEALTH
PROMOTION DIV-HI
HEALTH, DEPT-DEVELOPMENTAL DC-HI
HEALTH, DEPT-EXEC OFF AGING-HI
HEALTH, DEPT-FAMILY HLTH SVC DIV-HI
HEALTH, DEPT-HAZARD EVAL & EMERGENCY RESPONSE
HEALTH, DEPT-HI
HEALTH, DEPT-HI CLEAN WATER BRANCH
HEALTH, DEPT-HI HARM REDUCTION SERVICES BRANCH
HEALTH, DEPT-HI MATERNAL AND CHILD HEALTH BRANCH
HEALTH, DEPT-HI SAFE DRINKING WATER BRANCH
HEALTH, DEPT-HI-OFFICE OF LANGUAGE ACCESS
HEALTH, DEPT-OFFICE OF PLANNING, POLICY, AND
PROGRAM DEV-HI
HEALTH, DEPT-STATE HEALTH PLANNING &
DEVELOPMENT AGENCY-HI
HUMAN SERVICES, DEPT-DIVISION OF VOCATIONAL
REHABILITATION
HUMAN SERVICES, DEPT-HI
HUMAN SERVICES, DEPT-HI BENEFITS, EMPLOYMENT &
SUPPORT SERVICES
HUMAN SERVICES, DEPT-OYS-HI
JUDICIARY-HI
LABOR & INDUSTRIAL RELATION, DPT-HI (DLIR)
LAND & NATURAL RES, DPT-AQUAT (DLNR)
LAND & NATURAL RES, DPT-BOATING & OCEAN REC
(DLNR)
LAND & NATURAL RES, DPT-FORST (DLNR)
LAND & NATURAL RES, DPT-INVASIVE SPEC (DLNR)
LAND & NATURAL RES, DPT-STATE HISTORIC
PRESERVATION DIV
LAND & NATURAL RES, DPT-STATE PARKS (DLNR)
LAND & NATURAL RESOURCES, DEPT (DLNR)
LAND & NATURAL RESOURCES, DEPT (DLNR)
ENGINEERING DIV
LAND & NATURAL RESOURCES, DEPT (DLNR) KAULULANI
GR PGM

LAND & NATURAL RESOURCES, DEPT (DLNR) OFC CONS
COAST LDS
LAND & NATURAL RESOURCES, DEPT (DLNR)-
COMMUNICATIONS OFFICE
LAND & NATURAL RESOURCES, DEPT (DLNR)-LAND DIV
NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY
PUBLIC SAFETY, DEPT-HI
TRANSPORTATION, DEPT-HI
WATER SUPPLY, BOARD OF

HAWAII- HEALTH ORGANIZATIONS

HAWAII MEDICAL SRVC ASSN FOUNDATION
KAISER PERMANENTE - HAWAII
KALIHI-PALAMA HEALTH CENTER
KAPIOLANI MED CTR FOR WOMEN & CHILDREN
KAPIOLANI MEDICAL SPECIALIST
KUAKINI MEDICAL CENTER
PACIFIC IN VITRO FERTILIZATION INSTITUTE
QUEEN'S MEDICAL CENTER
STRAUB CLINIC & HOSPITAL
UNIVERSITY CLINICAL EDUCATIONAL & RSCH ASSOC
(UCERA)
WAIANAEO COAST COMPREHENSIVE HEALTH CTR

HAWAII- NON-PROFIT ORGANIZATIONS

ADVENTIST HEALTH CASTLE
AMERICAN ASSOCIATION OF UNIVERSITY WOMEN -
HONOLULU
BIG ISLAND RESOURCE CONSERVATION & DEV COUNCIL
INC.
CATHOLIC CHARITIES HAWAII
CHUN FOUNDATION
COALITION DRUG-FREE HAWAII
EPIC OHANA, INC
GENERAL CONTRACTORS ASSOC HI EDUCATIONAL
FOUNDATION
HAWAII ALLIANCE FOR COMMUNITY BASED ECONOMIC
DEVELOPMENT (HACBED)
HAWAII CANCER CONSORTIUM
HAWAII CHILDREN'S ACTION NETWORK
HAWAII COMMUNITY FOUNDATION DANIEL K INOUE
INSTITUTE FD
HAWAII COMMUNITY FOUNDATION GEIST FDTN
HAWAII COMMUNITY FOUNDATION INGEBORG VF MCKEE
FUND
HAWAII COMMUNITY FOUNDATION MEDICAL RESEARCH
HAWAII FARM BUREAU FEDERATION

HAWAII HEALTH AND HARM REDUCTION CENTER
(FORMERLY KNOWN AS THE CHOW PROJECT)
HAWAII JUSTICE FOUNDATION
HAWAII LEADERSHIP FORUM
HAWAII PRIMARY CARE ASSOCIATION
HUI MALAMA OLA NA OIWI
INSTITUTE FOR HUMAN SERVICES
INSTITUTE NATIVE PACIFIC EDUC & CULTURE
KAUAI ISLAND UTILITY COOPERATIVE
KE OLA MAMO
KOKUA KALIHI VALLEY
LEGAL AID SOCIETY OF HAWAII
MALAMA LEARNING CENTER
MALAMA O MANOA
NATIVE HAWAIIAN EDUCATION ASSOCIATION
OLELO
PACIFIC AMERICAN FOUNDATION
PACIFIC MARINE LIFE FOUNDATION
ROSHAN CULTURAL HERITAGE INSTITUTE
SACRED HEARTS ACADEMY
THE LEARNING COALITION
THE OUTDOOR CIRCLE
UNIVERSITY HAWAII FOUNDATION
UNIVERSITY HEALTH PARTNERS
WAIKIKI BEACH SPECIAL IMPROVEMENT DISTRICT ASSN
WAIKIKI HEALTH
WAIPA FOUNDATION
WORLD INDIGENOUS NATIONS UNIVERSITY HAWAII
PASIFIKA

MAINLAND- BUSINESS AND OTHER

ALUTIIQ COMMERCIAL ENTERPRISES
AMERICA VIEW
ASSOCIATION OF AMERICAN COLLEGES AND UNIVERSITIES
BATTELLE ENERGY ALLIANCE, LLC
BROOKHAVEN NATIONAL LABORATORY
EAST & WEST INC-MAINLAND
ELI LILLY & COMPANY
ENVIRONMENTAL DEFENSE
ESSENTIAL TEACHING AND LEARNING PD LLC
EXTENSION FOUNDATION
GE HEALTHCARE
GENENTECH INC
GEODYNAMICS LLC

GHP SOLUTIONS, LLC
GOODMAN TECHNOLOGIES, LLC
HOLOGIC, INC
ICF INCORPORATED, LLC
JET PROPULSION LAB-JPL
LAWRENCE LIVERMORE NATL LAB
LEIDOS
LEIDOS BIOMEDICAL RESEARCH, INC.
MALIN SPACE SCIENCE SYSTEMS
NATIONAL CONFERENCE OF STATE LEGISLATURES
PAJARITO POWDER, LLC
PRAXIS INC.
PREDICTIVE SCIENCE INC.
SANDIA NATIONAL LABORATORIES
SEBELA PHARMACEUTICALS
SMITHSONIAN ASTROPHYSICAL OBSERVATORY
SOCIETY OF EXPLORATION GEOPHYSICISTS
SPACE TELESCOPE SCIENCE INSTITUTE
TELEDYNE BROWN ENGINEERING
TREVI SYSTEMS
URSUS MEDICAL DESIGNS LLC
VENCORE
VITALANT RESEARCH INSTITUTE (FORMERLY BLOOD
SYSTEMS RESEARCH INSTITUTE)
WESTERN INTERSTATE COMMISSION FOR HIGHER
EDUCATION (WICHE)
WOODS HOLE OCEANOGRAPHIC INSTITUTION
WYLE LABORATORIES, INC.

MAINLAND- HEALTH ORGANIZATIONS

AMERICAN CANCER SOCIETY
BRIGHAM AND WOMEN'S HOSPITAL, INC.
HUTCHINSON (FRED) CANCER RESRCH CTR
RIVERSIDE RESEARCH INSTITUTE

MAINLAND- NON-PROFIT ORGANIZATIONS

ALEX'S LEMONADE STAND FOUNDATION
ALLIANCE FOR SUSTAINABLE ENERGY, LLC
AMERICAN ASSN OF UNIVERSITY WOMEN
AMERICAN ASSOCIATION ADV SCIENCE
AMERICAN BIRD CONSERVANCY
AMERICAN COUNCIL OF LEARNED SOCIETIES
AMERICAN PSYCHIATRIC ASSOCIATION
ANHEUSER-BUSCH COMPANIES- AH BUSCH FDTN

ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL OF
CHICAGO
ASSOCIATION OF FISH AND WILDLIFE AGENCIES
ASSOCIATION UNIVERSITIES RESEARCH IN ASTRONOMY,
INC.
ASSOCIATION UNIVERSITY CENTER DISABILITIES
BATTELLE MEMORIAL INSTITUTE
BAY AREA ENVIRONMENTAL RESEARCH INSTITUTE
BETA PHI MU HONOR SOCIETY
BRITTON FUND INC
CALIFORNIA ASSOCIATION RESEARCH IN ASTRONOMY
(KECK)
CAMPUS COMPACT OF THE MOUNTAIN WEST
CASEY, ANNIE E., FOUNDATION
CIVIC NATION
COMMONWEALTH OF NORTHERN MARIANAS ISLANDS-
COMMONWEALTH HEALTHCARE CORPORATION
CONSERVATION INTERNATIONAL
CSU FULLERTON AUXILIARY SERVICE CORPORATION
DUKE UNIVERSITY
HENRY M. JACKSON FOUNDATION FOR THE
ADVANCEMENT OF MILITARY MEDICINE
INSTITUTE INTERNATIONAL EDUCATION
ISLAND CONSERVATION
JOHNSON (ROBERT WOOD) FOUNDATION
KRELL INSTITUTE
LOWELL OBSERVATORY
MD ANDERSON CANCER CENTER
MOTT (CHARLES STEWART) FOUNDATION
NATIONAL ACADEMY OF EDUCATION
NATIONAL ASIAN PACIFIC CENTER ON AGING
NATIONAL FISH & WILDLIFE FOUNDATION
NATIONAL FOUR-H COUNCIL (4-H)
NATIONAL MARINE SANCTUARY FOUNDATION
NATURE CONSERVANCY, THE
OCEAN FOUNDATION
PEW CHARITABLE TRUSTS
RESEARCH CORP FOR SCIENCE ADVANCEMENT
RESEARCH FOUNDATION STATE UNIV NY
SEATTLE INSTITUTE FOR BIOMEDICAL & CLINICAL
RESEARCH
SETI INSTITUTE
SILICON VALLEY COMMUNITY FOUNDATION
SIMONS FOUNDATION

SOCIETY FOR CONSERVATION BIOLOGY
TMT INTERNATIONAL OBSERVATORY LLC
TRUTH INITIATIVE
UNIVERSITIES SPACE RESEARCH ASSN
UNIVERSITY CORP ATMOSPHERIC RSCH
WESTERN STATES ART FEDERATION (WESTAF)
WISTAR INSTITUTE

US COLLEGES AND UNIVERSITIES

ALASKA FAIRBANKS, UNIVERSITY OF
ARIZONA STATE UNIVERSITY
ARIZONA, UNIVERSITY OF
ARKANSAS, UNIVERSITY OF
BAYLOR COLLEGE OF MEDICINE
BD OF REGENTS OF UNIVERSITY SYS OF GA-GEORGIA
INSTITUTE OF TECHNOLOGY
CALIFORNIA BERKELEY, UNIVERSITY OF
CALIFORNIA DAVIS, UNIVERSITY OF
CALIFORNIA INST OF TECHNOLOGY
CALIFORNIA LOS ANGELES, UNIV
CALIFORNIA MERCED, UNIVERSITY OF
CALIFORNIA SAN DIEGO, UNIV
CALIFORNIA SAN DIEGO, UNIV-SCRIPPS INST OF OCEAN
CALIFORNIA SAN FRANCISCO, UNIV
CALIFORNIA SANTA BARBARA, UNIV
CALIFORNIA SANTA CRUZ, UNIV
COLORADO DENVER, UNIVERSITY OF
COLORADO STATE UNIVERSITY
CORNELL UNIVERSITY
DAKOTA STATE UNIVERSITY
DREXEL UNIVERSITY
EMORY UNIVERSITY
FLORIDA STATE UNIVERSITY
FLORIDA, UNIVERSITY OF CENTRAL
GEORGE WASHINGTON UNIVERSITY
HARVARD UNIVERSITY
HAWAII PACIFIC UNIVERSITY
INDIANA UNIVERSITY
JOHNS HOPKINS UNIVERSITY
KANSAS STATE UNIVERSITY
LANGUAGE LEARNING PGM-UNIV MICHIGAN

MARYLAND, UNIVERSITY OF
MIAMI UNIVERSITY (OHIO)
MICHIGAN STATE UNIVERSITY
MICHIGAN, UNIVERSITY OF
MINNESOTA, UNIVERSITY OF
MISSOURI-ST. LOUIS, UNIVERSITY OF
MONTANA STATE UNIVERSITY
MOREHOUSE SCHOOL OF MEDICINE
NEVADA LAS VEGAS, UNIVERSITY OF
NEW YORK UNIVERSITY
NORTH CAROLINA STATE UNIVERSITY
NORTHEASTERN UNIVERSITY
NOTRE DAME, UNIVERSITY OF
OREGON HEALTH SCIENCES UNIVERSITY
OREGON STATE UNIVERSITY
PITTSBURGH, UNIVERSITY OF
PORTLAND STATE UNIVERSITY
PRINCETON UNIVERSITY
PURDUE UNIVERSITY
REGENTS OF THE UNIVERSITY OF MICHIGAN
RUTGERS, STATE UNIVERSITY OF NEW JERSEY
SOUTHERN CALIFORNIA, UNIVERSITY OF
STANFORD UNIVERSITY
TEXAS-SAN ANTONIO, UNIVERSITY OF
THE ADMINISTRATORS OF THE TULANE EDUCATIONAL
FUND
THE BOARD OF REGENTS OF THE UNIVERSITY SYSTEM OF
GEORGIA BY AND ON BEHALF OF GEORGIA STATE
UNIVERSITY
THE TRUSTEES OF COLUMBIA UNIVERSITY IN THE CITY OF
NEW YORK
UNIVERSITY OF MASSACHUSETTS LOWELL
UTAH STATE UNIVERSITY
VANDERBILT UNIVERSITY MEDICAL CENTER
WASHINGTON STATE UNIVERSITY
WASHINGTON, UNIVERSITY OF
WAYNE STATE UNIVERSITY
WEST VIRGINIA UNIVERSITY
WISCONSIN-MADISON, UNIVERSITY OF