



Photo by: Richard Wainscoat, IFA

PREPARED BY

 UNIVERSITY OF HAWAII SYSTEM
OFFICE OF RESEARCH SERVICES

FOR THE PERIOD OF JULY 1, 2016 THROUGH JUNE 30, 2017

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Dear Colleagues:

The University of Hawai'i's (UH) extramural awards totaled \$387 million in FY2017, representing an almost flat to slight decrease of 1 percent from the previous year's tally. Like many of our counterpart universities in recent years, we are experiencing unaccustomed peaks and troughs in funding – a direct consequence of federal budget cuts, the lingering effects of sequestration and other uncertainties in Washington, D.C.

Despite the significant reductions in federal support that have put a strain on research institutions across the country, UH is doing its best to weather the storm through the dedicated efforts of our talented research faculty and support staff. Here are some highlights of FY2017:

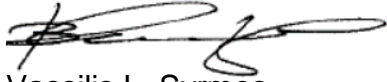
- The Hawai'i Natural Energy Institute received an award from the Office of Naval Research for its Asia-Pacific Research Initiative for Sustainable Energy Systems (APRISES).
- UH Hilo received two separate awards from the National Science Foundation (NSF) for research on tropical ecosystems.
- The UH Cancer Center's Multi Ethnic Cohort Study received an award from the National Cancer Institute.
- UH West O'ahu received an award from the U.S. Department of Education for its PIKO project.
- The UH Community Colleges received numerous awards from the U.S. Department of Education, NSF and the Hawai'i State departments of Human Services, Transportation, and Labor & Industrial Relations for its programs.

Earlier this year, UH published a research and innovation long range plan for our 10-campus system to use as a roadmap to help better navigate the evolving research landscape. Included were various thought-provoking strategies and initiatives, including the possible formation of cutting-edge interdisciplinary teams to successfully compete for multi-million dollar research awards.

And speaking of initiatives, our continuing efforts in support of the Hawai'i Innovation Initiative is gaining further momentum. In June, Governor David Ige signed into law two key legislative measures that removed restrictive statutes that limited UH's ability to participate in technology transfer and commercialization activities – and will now enable us to remain competitive with our peer research institutions. Astronomy, space exploration, disaster management and cybersecurity will be the topics of conversation at our highly successful *Future Focus* innovation conference in October, with over 200 participants expected to attend.

As the University of Hawai'i heads into the future, the UH research enterprise will continue to serve as the "tip of the spear" – as a driver of innovation, knowledge and economic development in Hawai'i and around the world. Thank you for your continued hard work and dedication – and for making the UH research enterprise 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: FY 2017 Awards by Sponsor (in millions)

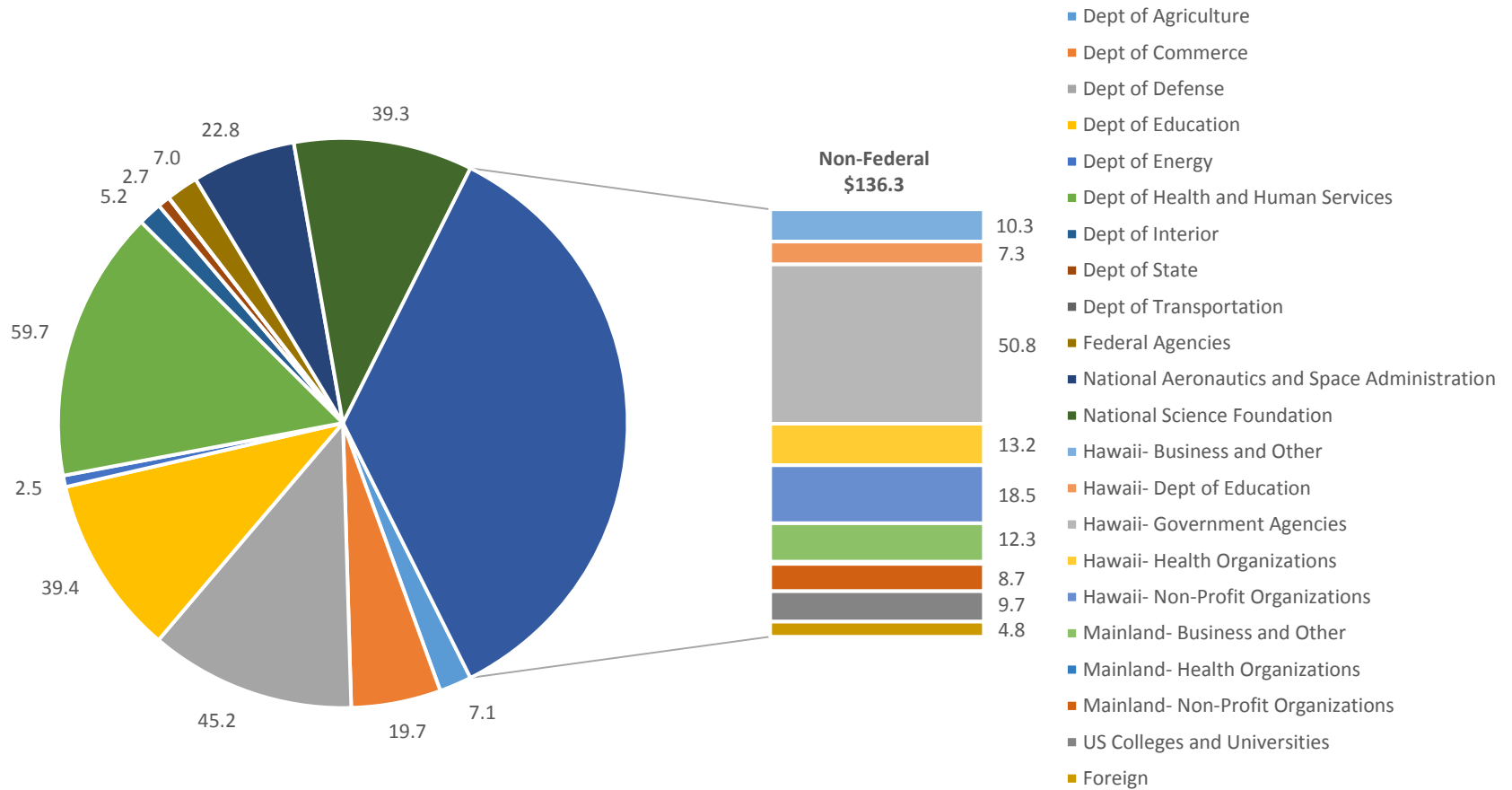


Figure 1: FY 2017 Awards Summary by Sponsor Type

Sponsor Type	Award Count	Amount Awarded
Dept. of Agriculture	58	7,104,681
Dept. of Commerce	85	19,746,151
Dept. of Defense	92	45,153,420
Dept. of Education	72	39,355,136
Dept. of Energy	7	2,454,683
Dept. of Health and Human Services	121	59,662,559
Dept. of Interior	76	5,240,402
Dept. of State	2	2,741,488
Dept. of Transportation	2	138,907
Other Federal Agencies	17	7,032,735
National Aeronautics and Space Administration	93	22,811,204
National Science Foundation	109	39,285,739
Hawaii - Business and Other	62	10,338,044
Hawaii - Dept. of Education	20	7,260,253
Hawaii - Government Agencies	390	50,826,152
Hawaii - Health Organizations	38	13,215,267
Hawaii - Non-Profit Organizations	282	18,483,113
Mainland - Business and Other	61	12,276,122
Mainland - Health Organizations	7	737,744
Mainland - Non-Profit Organizations	96	8,685,769
US Colleges and Universities	137	9,696,994
Foreign	59	4,755,142
Grand Total	1,886	387,001,705

**Chart 2: Breakdown of Federal and Non-Federal Awards
FYs 2013 to 2017**

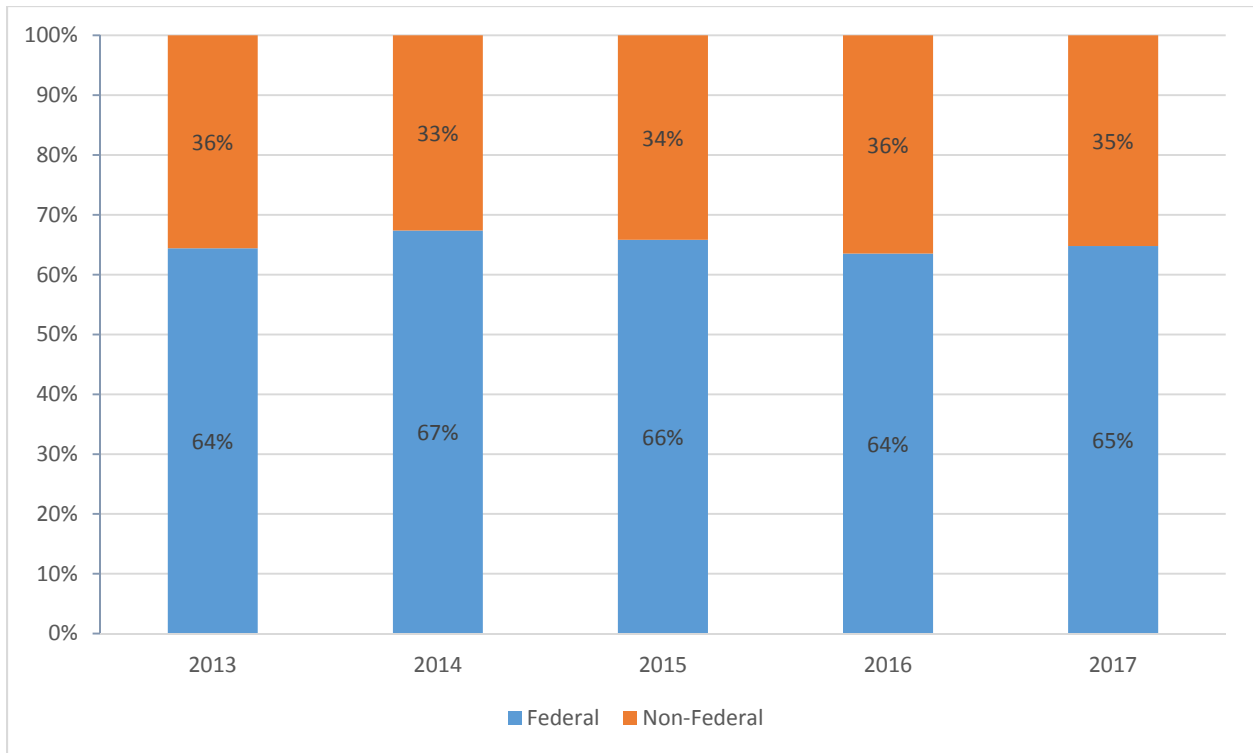
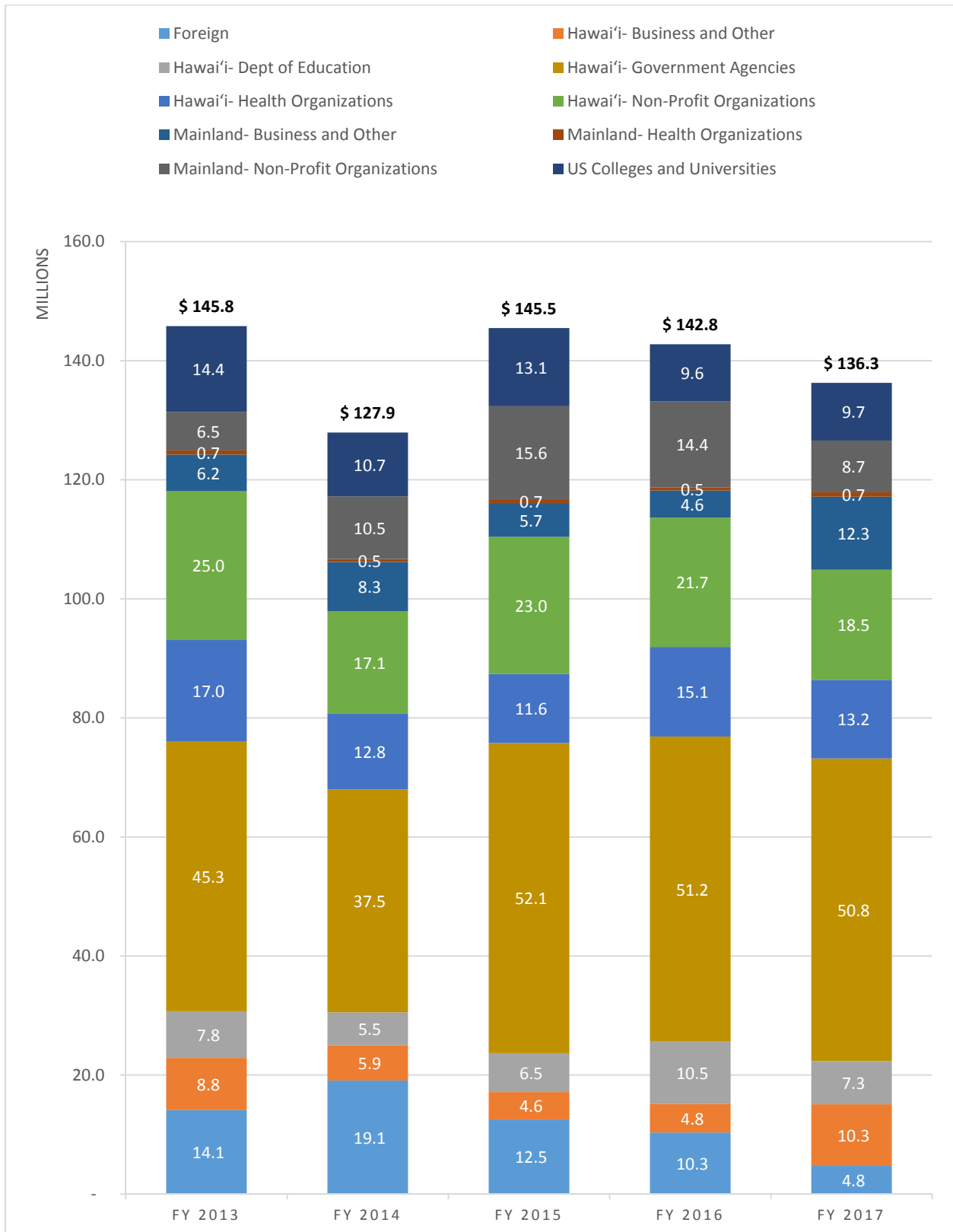


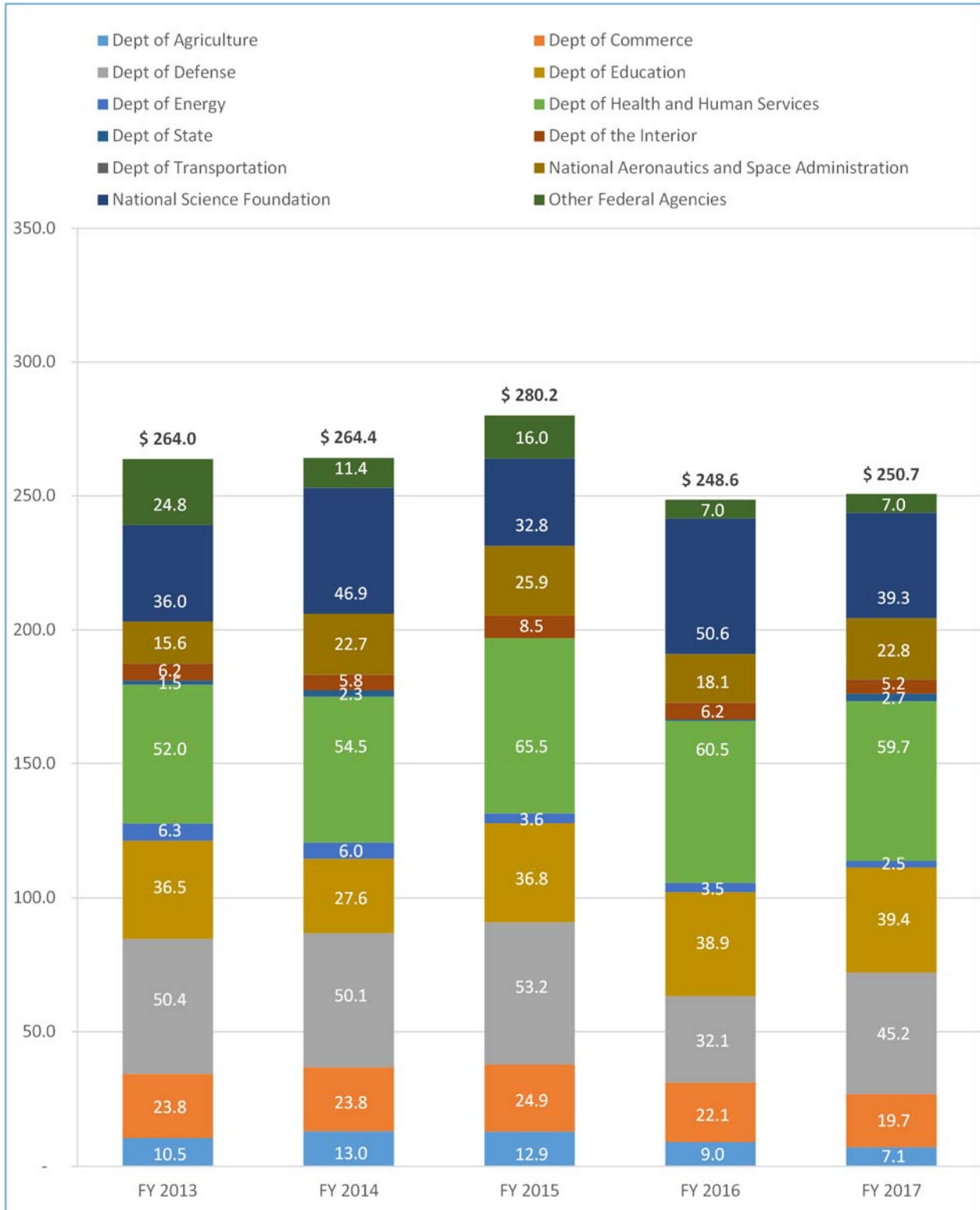
Figure 2: Summary of Federal and Non-Federal Awards

Source of Funding	FY 2013 Amount Awarded	FY 2014 Amount Awarded	FY 2015 Amount Awarded	FY 2016 Amount Awarded	FY 2017 Amount Awarded
Federal	263,980,647	264,380,218	280,181,968	248,575,207	250,727,105
Non-Federal	145,802,671	127,934,737	145,468,370	142,759,321	136,274,600
Total	409,783,318	392,314,955	425,650,338	391,334,528	387,001,705

**Chart 3a: Non-Federal Awards by Fiscal Year (in millions)
FYs 2013 to 2017**



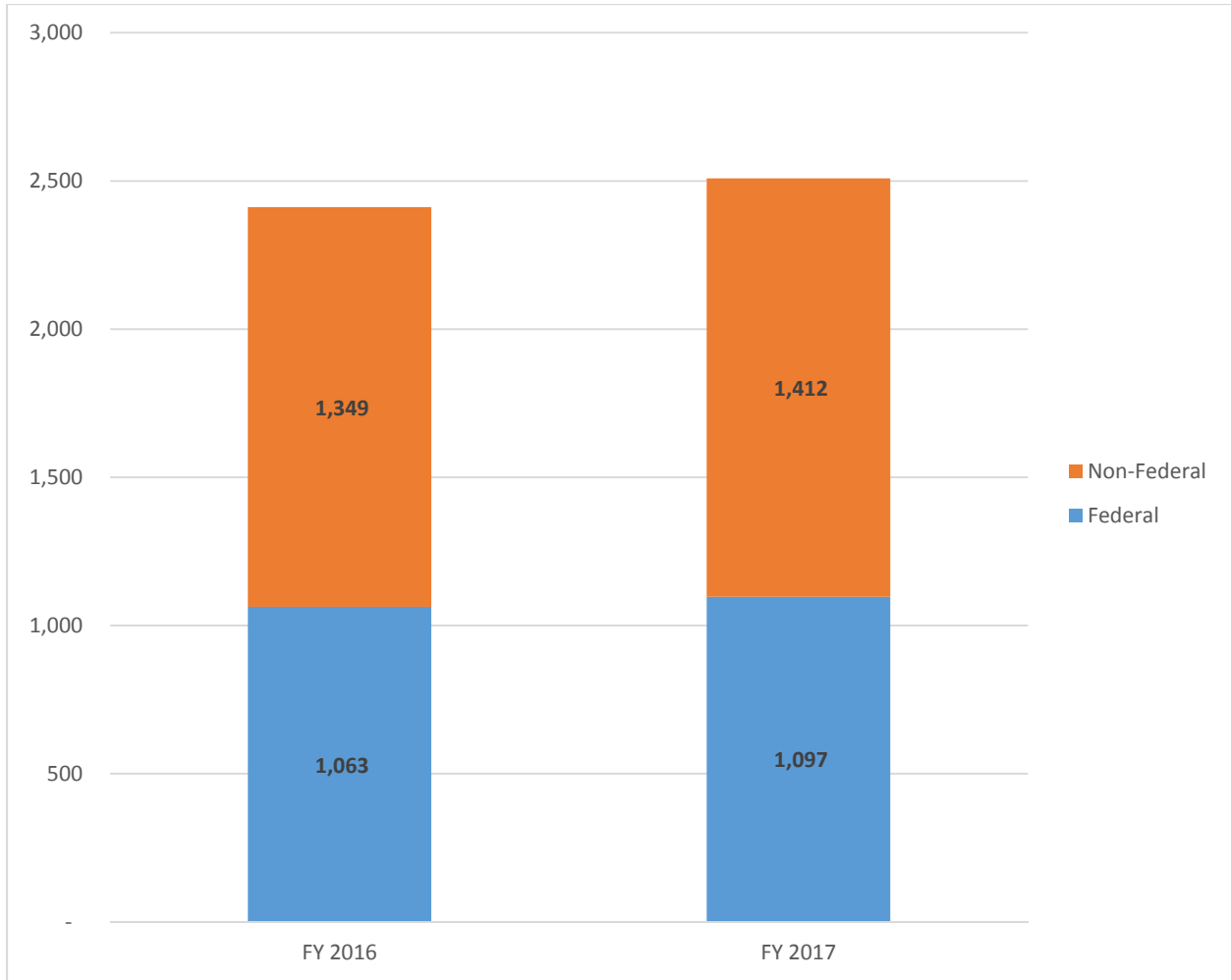
**Chart 3b: Federal Awards by Fiscal Year (in millions)
FYs 2013 to 2017**



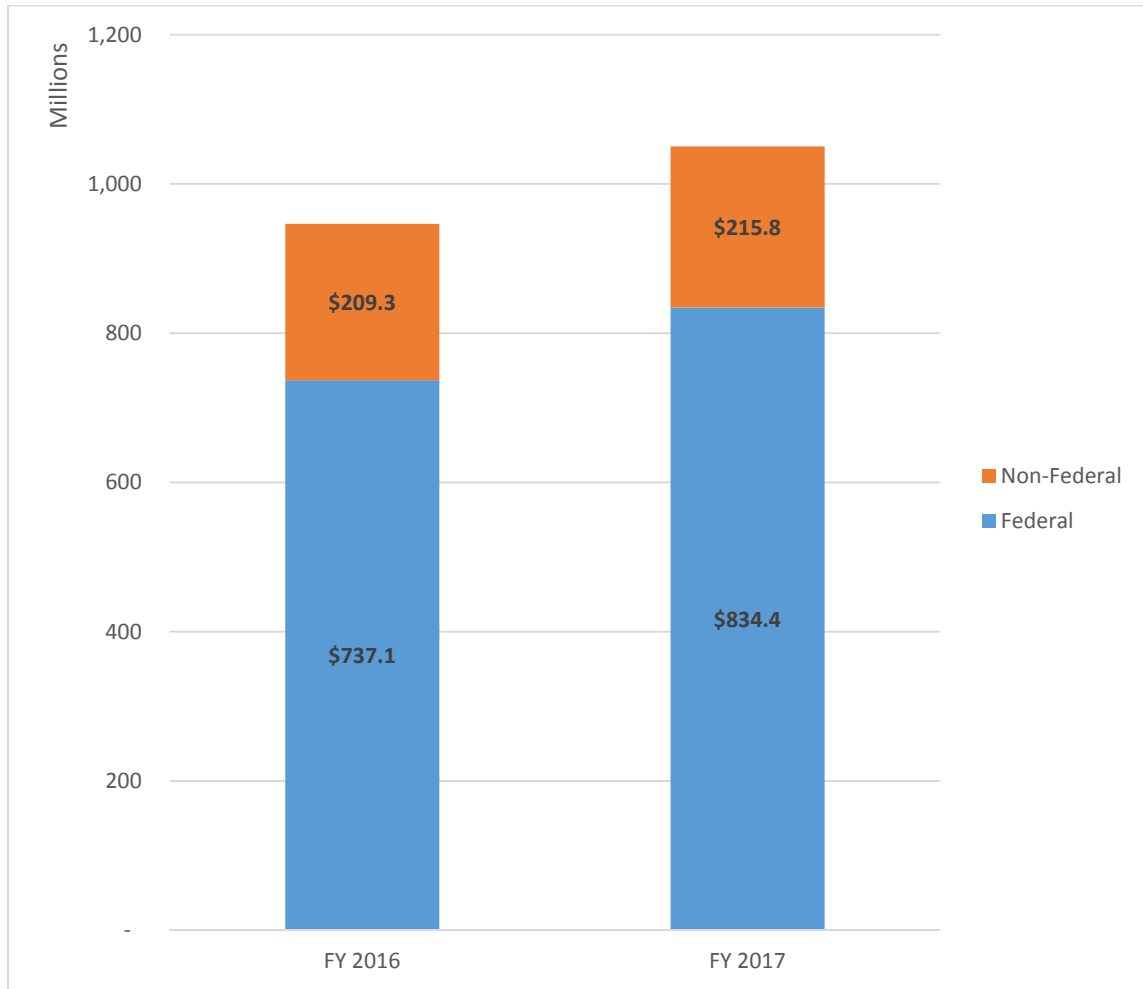
**Figure 3: Total Awards Received
FYs 2013 to 2017**

Source of Funding		FY 2013		FY 2014		FY 2015		FY 2016		FY 2017	
		Amount Awarded	% of Total	Amount Awarded	% of Total	Amount Awarded	% of Total	Amount Awarded	% of Total	Amount Awarded	% of Total
Federal	Dept of Agriculture	10,544,569	3%	13,040,882	3%	12,885,870	3%	9,025,934	2%	7,104,681	2%
	Dept of Commerce	23,827,535	6%	23,781,052	6%	24,909,828	6%	22,140,488	6%	19,746,151	5%
	Dept of Defense	50,425,587	12%	50,125,047	13%	53,176,313	12%	32,051,837	8%	45,153,420	12%
	Dept of Education	36,529,862	9%	27,645,649	7%	36,808,161	9%	38,931,435	10%	39,355,136	10%
	Dept of Energy	6,309,014	2%	6,008,761	2%	3,649,991	1%	3,452,402	1%	2,454,683	1%
	Dept of Health and Human Services	51,969,432	13%	54,540,150	14%	65,517,844	15%	60,546,030	15%	59,662,559	15%
	Dept of State	1,546,397	0%	2,335,534	1%	-	0%	499,247	0%	2,741,488	1%
	Dept of the Interior	6,210,569	2%	5,847,479	1%	8,505,102	2%	6,188,553	2%	5,240,402	1%
	Dept of Transportation	124,784	0%	10,000	0%	-	0%	75,000	0%	138,907	0%
	National Aeronautics and Space Administration	15,615,148	4%	22,702,185	6%	25,912,694	6%	18,106,716	5%	22,811,204	6%
	National Science Foundation	36,047,795	9%	46,939,627	12%	32,835,093	8%	50,584,187	13%	39,285,739	10%
	Other Federal Agencies	24,829,955	6%	11,403,852	3%	15,981,072	4%	6,973,378	2%	7,032,735	2%
	Federal Total		263,980,647	64%	264,380,218	67%	280,181,968	66%	248,575,207	64%	250,727,105
Non-Federal	Foreign	14,126,278	3%	19,089,519	5%	12,538,417	3%	10,348,765	3%	4,755,142	1%
	Hawaii- Business and Other	8,758,859	2%	5,931,549	2%	4,604,200	1%	4,785,442	1%	10,338,044	3%
	Hawaii- Dept of Education	7,845,769	2%	5,519,860	1%	6,548,702	2%	10,492,291	3%	7,260,253	2%
	Hawaii- Government Agencies	45,346,358	11%	37,455,983	10%	52,087,837	12%	51,241,567	13%	50,826,152	13%
	Hawaii- Health Organizations	17,011,127	4%	12,781,158	3%	11,605,915	3%	15,056,100	4%	13,215,267	3%
	Hawaii- Non-Profit Organizations	24,980,130	6%	17,105,305	4%	23,008,349	5%	21,714,557	6%	18,483,113	5%
	Mainland- Business and Other	6,153,313	2%	8,310,778	2%	5,686,262	1%	4,553,990	1%	12,276,122	3%
	Mainland- Health Organizations	706,981	0%	505,858	0%	656,742	0%	531,480	0%	737,744	0%
	Mainland- Non-Profit Organizations	6,484,735	2%	10,512,867	3%	15,607,861	4%	14,414,632	4%	8,685,769	2%
	Miscellaneous	-	0%	-	0%	-	0%	-	0%	-	0%
	US Colleges and Universities	14,389,121	4%	10,721,860	3%	13,124,085	3%	9,620,497	2%	9,696,994	3%
Non-Federal Total		145,802,671	36%	127,934,737	33%	145,468,370	34%	142,759,321	36%	136,274,600	35%
Grand Total		409,783,318	100%	392,314,955	100%	425,650,338	100%	391,334,528	100%	387,001,705	100%

**Chart 4a: Number of Proposals Submitted
FYs 2016 and 2017**



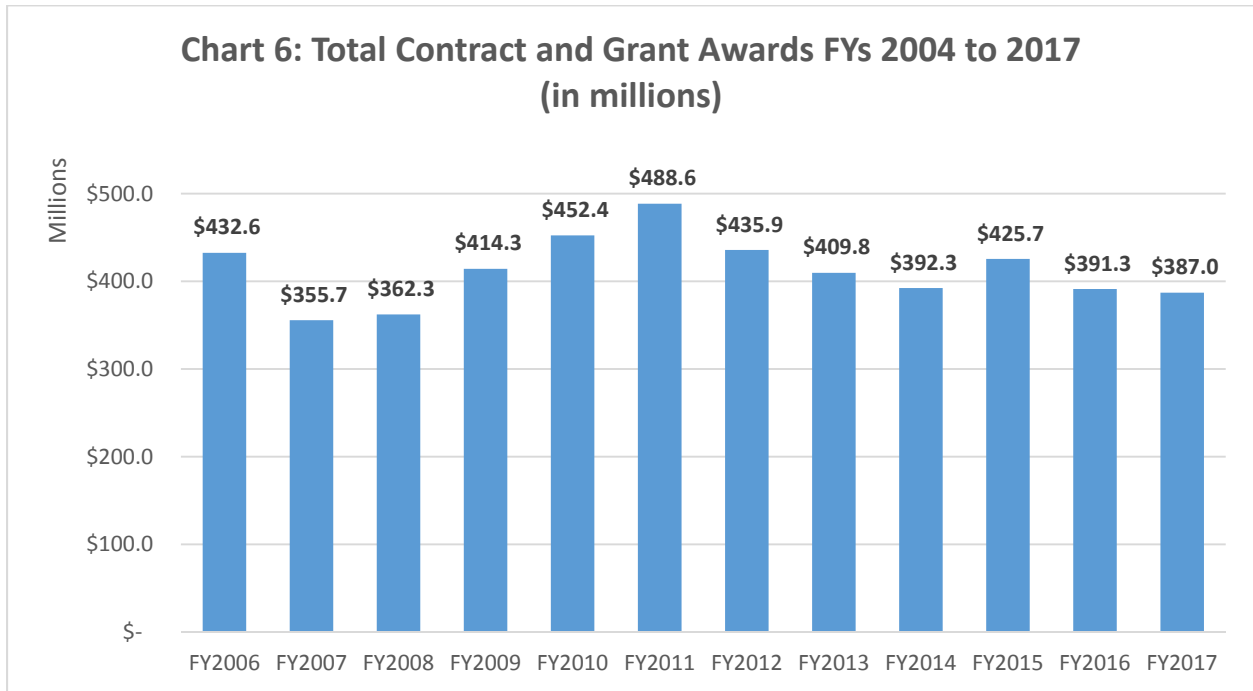
**Chart 4b: Total Dollar Amount of Proposals Submitted (in millions)
FYs 2016 and 2017**



**Figure 4: Proposal Summary by Source of Funding
FYs 2016 and 2017**

Source of Funding		FY 2016		FY 2017	
		Proposals Submitted	Requested Amount	Proposals Submitted	Requested Amount
Federal	Dept of Agriculture	78	12,149,231	115	44,301,826
	Dept of State	6	2,085,947	5	4,417,035
	Dept of Health and Human Services	166	181,408,031	200	311,448,092
	Dept of Commerce	112	46,484,696	112	45,019,133
	Dept of Defense	70	137,304,930	71	77,270,623
	Dept of Energy	15	9,650,735	10	4,500,410
	Dept of the Interior	64	5,483,979	76	7,977,393
	Dept of Transportation	5	479,491	3	249,625
	Dept of Education	66	91,726,907	69	100,304,828
	Other Federal Agencies	53	11,641,664	38	11,957,386
	National Aeronautics and Space Administration	97	38,373,435	109	92,127,025
	National Science Foundation	331	200,266,917	289	134,820,980
Federal Total		1,063	737,055,963	1,097	834,394,356
Non-Federal	Foreign	65	10,741,760	80	8,548,097
	Hawaii- Business and Other	60	13,407,421	79	11,501,718
	Hawaii- Dept of Education	16	6,686,739	26	7,052,830
	Hawaii- Government Agencies	398	62,782,525	411	65,961,782
	Hawaii- Health Organizations	42	9,825,502	38	14,293,118
	Hawaii- Non-Profit Organizations	318	27,024,682	336	23,676,793
	Mainland- Business and Other	99	12,974,558	91	14,156,983
	Mainland- Health Organizations	34	7,209,105	27	7,862,160
	Mainland- Non-Profit Organizations	146	19,610,497	148	20,797,745
	US Colleges and Universities	171	39,074,378	176	41,913,878
Non-Federal Total		1,349	209,337,167	1,412	215,765,104
Grand Total		2,412	946,393,130	2,509	1,050,159,460

**Chart 5: Total Awards (in millions)
FYs 2006 to 2017**



**Figure 5: Total Awards Summary
FYs 2006 to 2017**

Year	Total Awarded	% Change	Year	Total Awarded	% Change
FY2006	432,594,275	23%	FY2012	435,874,967	-11%
FY2007	355,724,605	-18%	FY2013	409,783,318	-6%
FY2008	362,289,909	2%	FY2014	392,314,955	-4%
FY2009	414,260,208	14%	FY 2015	425,650,338	8%
FY2010	452,408,669	9%	FY 2016	391,334,528	-8%
FY2011	488,597,908	8%	FY 2017	387,001,705	-1%

Figure 6: FY 2017 Top Individual Awards

Award Amount	PI Name	Department	Award Sponsor	Title
8,657,555	Richard Rocheleau	Hawaii Natural Energy Institute (HNEI)	DEFENSE, DEPT-NAVY OFC OF NAVAL RSCH	Asia Pacific Research Initiative for Sustainable Energy Systems 2016 (APRISES16)
5,077,978	Risa Ellen Dickson	Office of the VP for Academic Planning and Policy	KAMEHAMEHA SCHOOLS	Makalapua Na'auao - UH/Kamehameha Schools Partnership Pilot
5,000,000	Karl E Kim	Urban and Regional Planning	HOMELAND SECURITY, DEPT-FEMA	National Disaster Preparedness Training Center (NDPTC)
4,028,616	Alexander Shor	School of Ocean and Earth Science and Technology	NATIONAL SCIENCE FOUNDATION	R/V Kilo Moana Ship Operations 2012-2016
3,951,900	Ivica Zalud	Department of Obstetrics, Gynecology and Women's Health	UNIVERSITY CLINICAL EDUCATIONAL & RSCH ASSOC (UCERA)	REIMBURSEMENT AGREEMENT FY2017 - SF17-UCERA-OBGYN
3,863,910	Loic Le Marchand	Cancer Etiology	HEALTH & HUMAN SVC, DEPT-NIH-FED NATL CANCER INST	Understanding Ethnic Differences in Cancer: The Multiethnic Cohort Study
3,850,123	John Rayner	Institute for Astronomy	NATIONAL AERONAUT & SPACE ADM	Operations and Maintenance of the Infrared Telescope Facility (IRTF)
3,747,990	Patrick S Cross	Applied Research Laboratory	DEFENSE, DEPT-NAVY NAVAL FAC ENGRG COMMAND	Additional Tasking for ARL/HNEI Wave Energy Test site (WETS) Research
3,410,868	Mark Merrifield	Joint Institute for Marine and Atmospheric Research (JIMAR)	COMMERCE, DEPT-NATL NOAA-FED	2016 Sustaining Healthy Coastal Ecosystems
3,350,874	Robert Nichols	John A. Burns School of Medicine	HEALTH & HUMAN SVC, DEPT-NIH-FED NTL INST GEN MED SCI	INBRE II: Hawaii Statewide Research and Education Partnership (HSREP)
3,000,000	Alexander Shor	School of Ocean and Earth Science and Technology	NATIONAL SCIENCE FOUNDATION	R/V Kilo Moana Ship Operations 2012-2016
3,000,000	David Lassner	Applied Research Laboratory	DEFENSE, DEPT-AIR FORCE RESEARCH LABORATORY	Maui High Performance Computing Center Solutions to Pacific Theater HPC & C41 Requirements

Figure 7: FY 2017 Top 50 Principal Investigators in Total Award Dollars

Rank	Investigator	Total Amount Awarded	Unit
1	David Lassner	25,312,760	President, University of Hawai'i System
2	David Duffy	17,658,373	College of Natural Sciences
3	Mark Merrifield	14,323,448	School of Ocean and Earth Science and Technology
4	Alexander Shor	9,820,231	School of Ocean and Earth Science and Technology
5	Richard Rocheleau	8,756,555	School of Ocean and Earth Science and Technology
6	Loic Le Marchand	8,364,466	University of Hawaii Cancer Center
7	Jared Acoba	8,347,399	University of Hawaii Cancer Center
8	Clifford Morden	6,825,111	College of Natural Sciences
9	Ardis Eschenberg	5,371,825	Chancellor, Windward Community College
10	Karl E Kim	5,236,000	College of Social Sciences
11	John Rayner	5,123,619	Institute for Astronomy
12	Risa Ellen Dickson	5,077,978	Office of the VP for Academic Planning and Policy
13	Richard Wainscoat	5,000,000	Institute for Astronomy
14	William Ward	4,423,195	John A. Burns School of Medicine
15	Judy Oliveira	4,397,758	Chancellor, UH West Oahu
16	Ivica Zalud	4,381,776	John A. Burns School of Medicine
17	Karen Lee	4,193,437	Office of the VP for Academic Planning and Policy
18	Kay Fukuda	4,030,280	Vice Chancellor, Students
19	Patrick S Cross	3,747,990	Office of the Vice President for Research and Innovation
20	Robert Nichols	3,444,924	John A. Burns School of Medicine
21	Richard Yanagihara	3,206,985	John A. Burns School of Medicine
22	Anthony Guerrero	3,091,143	John A. Burns School of Medicine
23	Marla Berry	2,978,631	John A. Burns School of Medicine
24	Thomas Ernst	2,849,015	John A. Burns School of Medicine
25	Michael Bell	2,819,449	School of Ocean and Earth Science and Technology
26	Kelley Withy	2,771,655	John A. Burns School of Medicine
27	David Napoleon	2,729,832	Chancellor, Kapiolani Community College
28	Donald Young	2,619,637	College of Education
29	Jerris Hedges	2,545,151	John A. Burns School of Medicine
30	Craig Smith	2,408,706	School of Ocean and Earth Science and Technology
31	Neal Palafox	2,340,740	John A. Burns School of Medicine
32	Patrick Hart	2,266,550	College of Arts and Sciences
33	Kelly Roberts	2,235,917	College of Education
34	Axel T Lehrer	2,185,816	John A. Burns School of Medicine
35	Kenneth Nakamura	2,093,169	John A. Burns School of Medicine
36	Mark Lane	2,059,888	Chancellor, Leeward Community College
37	Kenneth Kaneshiro	2,016,083	School of Ocean and Earth Science and Technology
38	Darren Lerner	1,977,483	School of Ocean and Earth Science and Technology
39	Bruce Shiramizu	1,949,740	John A. Burns School of Medicine
40	Kenric M Murayama	1,940,386	John A. Burns School of Medicine
41	Leonard Woods	1,890,610	Vice Chancellor for Student Affairs
42	Lee Stein	1,860,888	Chancellor, UH Maui College
43	Ralph Shohet	1,856,584	John A. Burns School of Medicine
44	Kuulei Rodgers	1,834,947	School of Ocean and Earth Science and Technology
45	Joe Ramos	1,808,314	University of Hawaii Cancer Center
46	David Karl	1,758,748	School of Ocean and Earth Science and Technology
47	Pohai Kukea Shultz	1,749,710	College of Education
48	Yingfei Dong	1,734,256	College of Engineering
49	Matthew Church	1,709,818	School of Ocean and Earth Science and Technology
50	Aida Wen	1,689,682	John A. Burns School of Medicine

Chart 6: FY 2017 Total Awards by Campus (in millions)

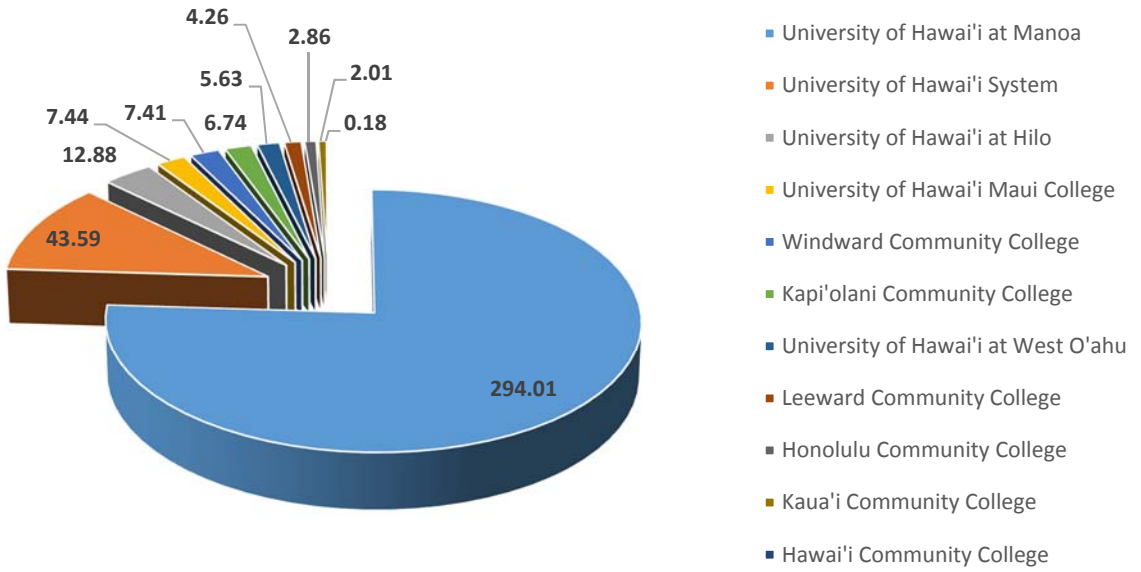


Chart 7: UH Manoa – Awards by College/Department (in millions)

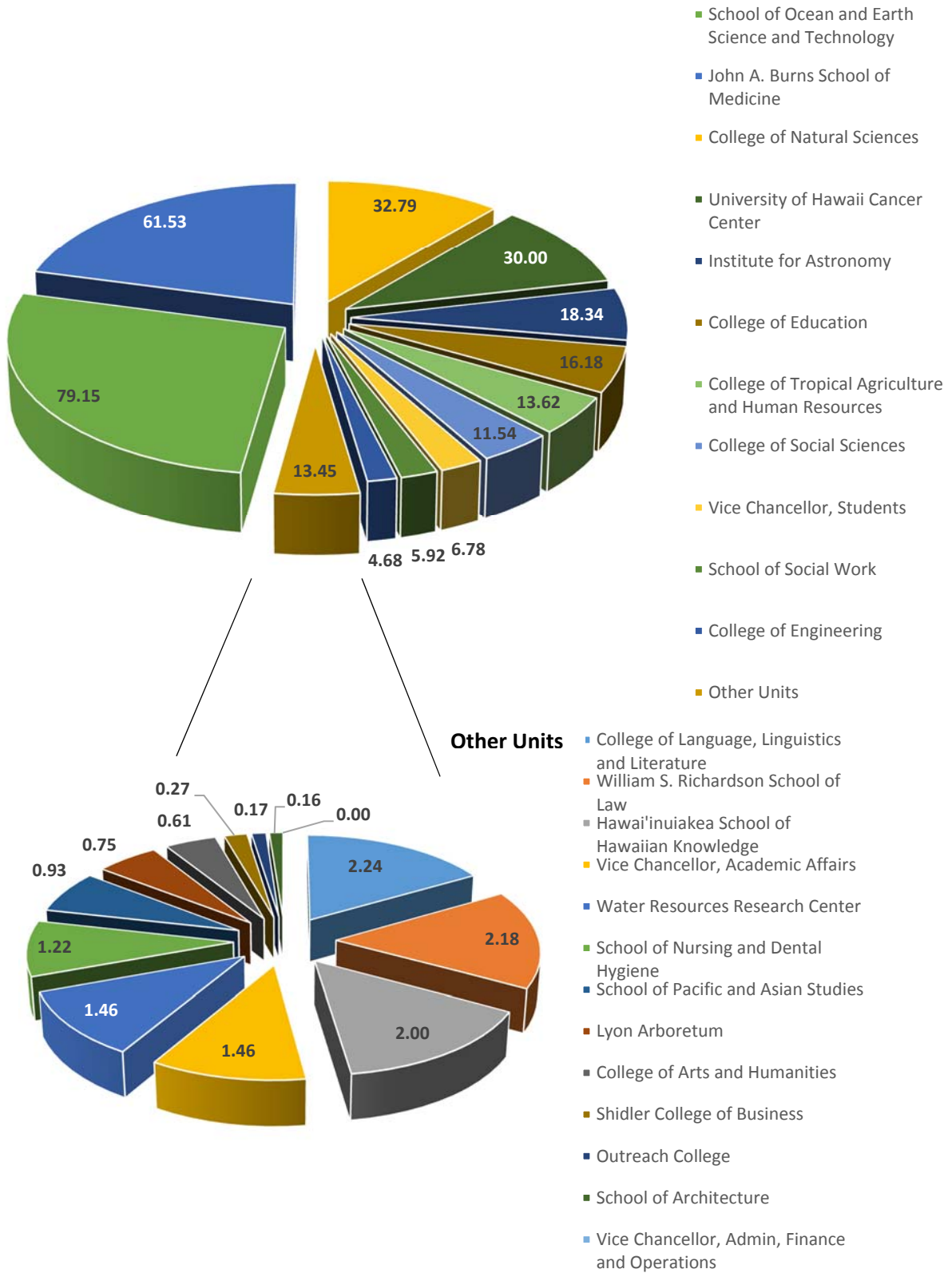


Chart 8: UH Hilo – Awards by College / Department (in millions)

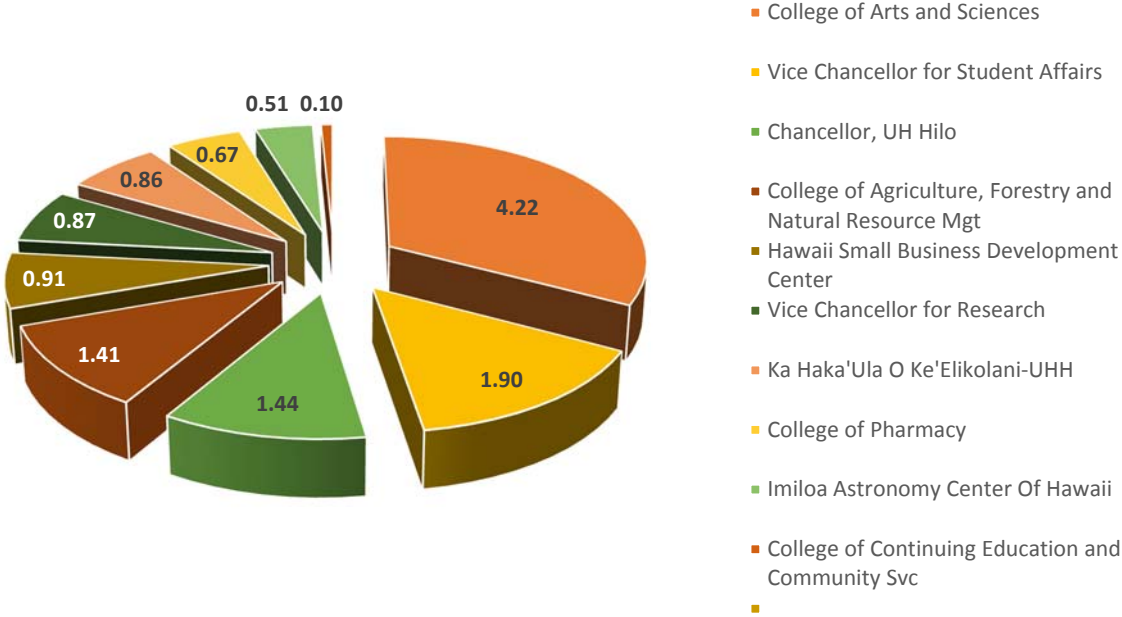


Figure 8a: Awards Summary by Campus

Campus	Award Amount	Award Count	% of Total
Hawai'i Community College	179,897	7	0.0%
Honolulu Community College	2,864,032	15	0.7%
Kapi'olani Community College	6,736,316	22	1.7%
Kaua'i Community College	2,007,725	8	0.5%
Leeward Community College	4,260,373	13	1.1%
University of Hawai'i at Hilo	12,881,686	141	3.3%
University of Hawai'i at Manoa	294,006,559	1,545	76.0%
University of Hawai'i at West O'ahu	5,631,172	13	1.5%
University of Hawai'i Maui College	7,440,725	32	1.9%
University of Hawai'i System	43,587,143	67	11.3%
Windward Community College	7,406,077	23	1.9%
Grand Total	387,001,705	1,886	100.0%

Figure 8b: UH Manoa – Awards Summary by College/Department

UH Manoa College/Department	Award Amount	Award Count	% of Total
College of Arts and Humanities	614,377	17	0.2%
Art and Art History	5,290	1	0.0%
College of Arts and Humanities	91,000	2	0.0%
History (UH Manoa)	60,000	1	0.0%
Music (UH Manoa)	66,576	4	0.0%
Philosophy (UH Manoa)	286,765	5	0.1%
Religion (UH Manoa)	74,501	1	0.0%
Theatre and Dance	8,245	2	0.0%
UHM Uehiro Academy for Philosophy and Ethics in Education	22,000	1	0.0%
College of Education	16,177,466	55	5.5%
Center on Disability Studies/University Affiliated Pgms	7,600,889	27	2.6%
College of Education	4,389,863	7	1.5%
Curriculum Research and Development Group	2,200,503	10	0.7%
Department of Curriculum Studies	1,348,883	5	0.5%
Department of Educational Psychology	83,722	2	0.0%
Department of Kinesiology and Rehabilitation Science	305,510	2	0.1%
Department of Special Education	233,096	1	0.1%
Institute for Teacher Education	15,000	1	0.0%
College of Engineering	4,680,411	38	1.6%
Civil and Environmental Engineering	909,967	11	0.3%
College of Engineering	518,245	4	0.2%
Electrical Engineering	2,709,247	17	0.9%
Hawaii Center for Advanced Communications	(38,500)	-	0.0%
Mechanical Engineering	581,452	6	0.2%
College of Language, Linguistics and Literature	2,243,734	28	0.8%
Center for Language and Technology	4,170	2	0.0%
College of Language, Linguistics and Literature	702,548	3	0.2%
Department of East Asian Languages and Literature	1,210,302	6	0.4%
Department of English	35,500	4	0.0%
Department of Linguistics	288,684	11	0.1%
Dept of Languages and Literatures of Europe and the Americas	2,530	2	0.0%

UH Manoa College/Department	Award Amount	Award Count	% of Total
College of Natural Sciences	32,794,485	273	11.2%
College of Natural Sciences	16,000	1	0.0%
Department of Biology (Biology Program)	507,068	11	0.2%
Department of Botany	25,332,592	205	8.6%
Department of Chemistry	1,104,514	11	0.4%
Department of Mathematics	530,355	3	0.2%
Department of Microbiology	403,645	3	0.1%
Department of Physics and Astronomy	3,519,262	25	1.2%
Information and Computer Sciences	1,381,049	14	0.5%
College of Social Sciences	11,544,031	74	3.9%
College of Social Sciences	81,320	2	0.0%
Department of Anthropology	229,622	4	0.1%
Economics (UH Manoa)	182,557	6	0.1%
Ethnic Studies	21,902	3	0.0%
Geography (UH Manoa)	361,210	5	0.1%
Political Science (UH Manoa)	78,969	2	0.0%
Psychology (UH Manoa)	985,023	7	0.3%
School of Communications	106,300	3	0.0%
Social Science Research Institute	4,196,620	35	1.4%
Social Sciences Public Policy Center	2,500	1	0.0%
Sociology (UH Manoa)	29,079	2	0.0%
Urban and Regional Planning	5,236,000	3	1.8%
Womens Studies	32,929	1	0.0%
College of Tropical Agriculture and Human Resources	13,619,801	150	4.6%
Agricultural Diagnostic Service Center	134,440	1	0.0%
Center on the Family	442,624	6	0.2%
College of Tropical Agriculture and Human Resources	689,212	6	0.2%
Cooperative Extension	229,092	1	0.1%
Family and Consumer Sciences	252,622	4	0.1%
Hawaii County	283,352	11	0.1%
Human Nutrition, Food and Animal Sciences	507,128	10	0.2%
Kauai County	13,800	1	0.0%
Maui County	289,629	7	0.1%
Molecular Biosciences and Bioengineering	483,039	4	0.2%
Natural Resources and Environmental Mgt (NREM)	1,967,310	30	0.7%
Oahu County	845,361	5	0.3%

UH Manoa College/Department	Award Amount	Award Count	% of Total
Office of The Assoc Dean for Academic and Student Affairs	1,714,131	4	0.6%
Plant and Environmental Protection Sciences	4,417,113	42	1.5%
Tropical Plant and Soil Science	1,350,948	18	0.5%
Hawai'inuiakea School of Hawaiian Knowledge	1,996,314	6	0.7%
Hawai'inuiakea School of Hawaiian Knowledge	1,925,179	5	0.7%
Kamakakuokalani Center for Hawaiian Studies	71,135	1	0.0%
Institute for Astronomy	18,339,284	67	6.2%
Institute for Astronomy	18,339,284	67	6.2%
John A. Burns School of Medicine	61,527,128	222	20.9%
Department of Anatomy, Biochemistry, and Physiology	476,898	5	0.2%
Department of Cell and Molecular Biology	4,540,604	12	1.5%
Department of Complementary and Alternative Medicine	2,771,655	11	0.9%
Department of Family Medicine and Community Health	1,369,653	10	0.5%
Department of Geriatric Medicine	2,783,168	6	0.9%
Department of Medicine	8,691,796	40	3.0%
Department of Native Hawaiian Health	3,405,808	23	1.2%
Department of Obstetrics, Gynecology and Women's Health	5,342,031	23	1.8%
Department of Pediatrics	6,654,639	19	2.3%
Department of Psychiatry	4,744,291	8	1.6%
Department of Surgery	2,016,386	10	0.7%
Department of Tropical Medicine, Medical Micro and Pharm	7,281,297	36	2.5%
Institute for Biogenesis Research	4,576,530	4	1.6%
John A. Burns School of Medicine	6,189,867	14	2.1%
Native Hawaiian Center of Excellence	682,505	1	0.2%
Lyon Arboretum	752,957	10	0.3%
Lyon Arboretum	752,957	10	0.3%
Outreach College	165,214	9	0.1%
Community Programs	87,900	6	0.0%
Non-Credit Programs (UH Manoa)	3,714	1	0.0%
Outreach College	73,600	2	0.0%
School of Architecture	163,646	2	0.1%
School of Architecture	163,646	2	0.1%

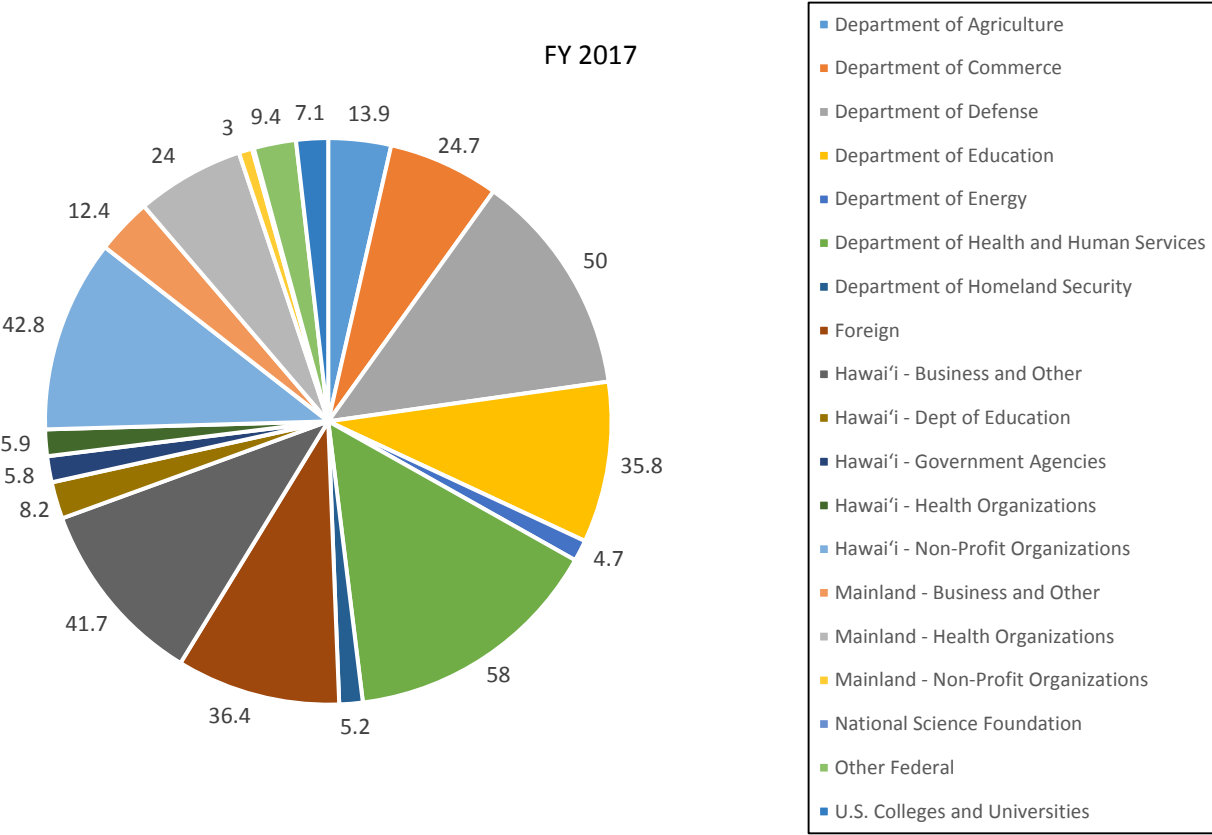
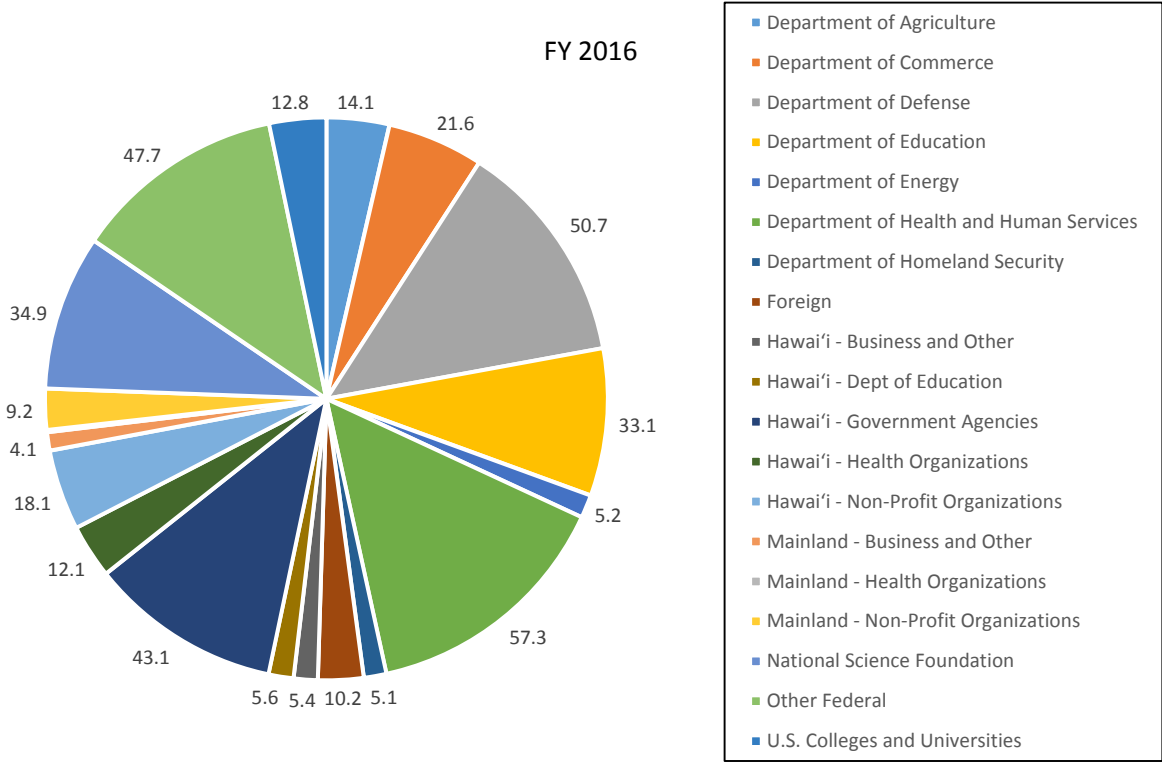
UH Manoa College/Department	Award Amount	Award Count	% of Total
School of Nursing and Dental Hygiene	1,223,898	9	0.4%
Department of Nursing	1,150,507	6	0.4%
School of Nursing and Dental Hygiene	73,391	3	0.0%
School of Ocean and Earth Science and Technology	79,154,444	370	26.9%
Center for Microbial Oceanography, Research and Edu (C-MORE)	2,018,067	6	0.7%
Department of Atmospheric Sciences	3,672,408	10	1.2%
Department of Geology and Geophysics	2,891,391	31	1.0%
Department of Ocean and Resources Engineering	963,254	7	0.3%
Department of Oceanography	9,883,486	39	3.4%
Hawaii Institute of Geophysics and Planetology (HIGP)	8,378,171	73	2.8%
Hawaii Institute of Marine Biology (HIMB)	4,327,999	33	1.5%
Hawaii Natural Energy Institute (HNEI)	10,016,631	11	3.4%
International Pacific Research Center (IPRC)	3,259,908	21	1.1%
Joint Institute for Marine and Atmospheric Research (JIMAR)	15,431,191	60	5.2%
Pacific Biosciences Research Center	3,997,257	41	1.4%
School of Ocean and Earth Science and Technology	9,880,231	12	3.4%
Sea Grant College Program	4,434,450	26	1.5%
School of Pacific and Asian Studies	934,209	14	0.3%
Center for Chinese Studies	228,099	6	0.1%
Center for Japanese Studies	229,850	2	0.1%
Center for Korean Studies	202,860	3	0.1%
Center for Pacific Islands Studies	228,000	1	0.1%
Center for Southeast Asian Studies	239,400	1	0.1%
School of Pacific and Asian Studies	(194,000)	1	-0.1%
School of Social Work	5,923,941	44	2.0%
Center on Aging	153,480	3	0.1%
Dept of Public Health Sciences and Epidemiology	610,546	9	0.2%
Office of Public Health Studies	3,686,713	19	1.3%
School of Social Work	1,473,202	13	0.5%
Shidler College of Business	269,596	2	0.1%
Department of Management and Industrial Relations	210,000	1	0.1%
Shidler College of Business	59,596	1	0.0%

UH Manoa College/Department	Award Amount	Award Count	% of Total
University of Hawaii Cancer Center	29,999,976	84	10.2%
Cancer Etiology	11,962,232	30	4.1%
Clinical Sciences	10,044,494	16	3.4%
Natural Products	3,742,805	20	1.3%
Social and Behavioral Sciences	660,562	4	0.2%
University of Hawaii Cancer Center	3,589,883	14	1.2%
Vice Chancellor, Academic Affairs	1,463,442	8	0.5%
Graduate Education	862,500	2	0.3%
International & Exch Prog	54,582	1	0.0%
Library (UH Manoa)	52,719	2	0.0%
UH Press	90,000	1	0.0%
Undergraduate Education	403,641	2	0.1%
Vice Chancellor, Admin, Finance and Operations	4,807	1	0.0%
Buildings & Grounds Management	4,807	1	0.0%
Vice Chancellor, Students	6,778,650	15	2.3%
Student Equity Excel & Diversity	6,050,754	12	2.1%
Women's Center	727,896	3	0.2%
Water Resources Research Center	1,458,277	11	0.5%
Water Resources Research Center	1,458,277	11	0.5%
William S. Richardson School of Law	2,176,471	36	0.7%
William S. Richardson School of Law	2,176,471	36	0.7%
Grand Total	294,006,559	1,545	100.0%

Figure 8c: UH Hilo – Awards Summary by College/Department

UH Hilo College/Department	Award Amount	Award Count	% of Total
Chancellor, UH Hilo	1,436,257	8	11.1%
Chancellor, UH Hilo	1,436,257	8	11.1%
College of Agriculture, Forestry and Natural Resource Mgt	1,409,810	18	10.9%
College of Agriculture, Forestry and Natural Resource Mgt	1,059,889	12	8.2%
Pacific Aquaculture and Coastal Resources Ctr	349,921	6	2.7%
College of Arts and Sciences	4,215,798	41	32.7%
Anthropology (UH Hilo)	407,080	3	3.2%
Biology (UH Hilo)	186,804	4	1.5%
College of Arts and Sciences	275,000	1	2.1%
Geography (UH Hilo)	158,502	4	1.2%
Geology-Geophysics	1,100	1	0.0%
Humanities Division	21,920	2	0.2%
Mathematics (UH Hilo)	7,000	1	0.1%
Natural Sciences Division	2,900,818	19	22.5%
Physics and Astronomy	145,513	2	1.1%
School of Nursing	12,061	2	0.1%
Social Sciences Division	100,000	2	0.8%
College of Continuing Education and Community Svc	99,931	3	0.8%
College of Continuing Education and Community Svc	99,931	3	0.8%
College of Pharmacy	667,726	11	5.2%
College of Pharmacy	89,645	4	0.7%
Pharmaceutical Sciences	553,556	5	4.3%
Pharmacy Practice	24,525	2	0.2%
Hawaii Small Business Development Center	909,979	7	7.1%
Hawaii Small Business Development Center	909,979	7	7.1%
Imiloa Astronomy Center Of Hawaii	505,336	9	3.9%
Imiloa Astronomy Center Of Hawaii	505,336	9	3.9%
Ka Haka'Ula O Ke'Elitolani-UHH	860,980	7	6.7%
Hale Kuamo'o Center	100,000	1	0.8%
Ka Haka'Ula O Ke'Elitolani-UHH	760,980	6	5.9%
Vice Chancellor for Research	874,009	24	6.8%
Vice Chancellor for Research	874,009	24	6.8%
Vice Chancellor for Student Affairs	1,901,860	13	14.8%
Center For Gifted And Talented Native Hawaiian Children	7,250	2	0.1%
Upward Bound	817,377	4	6.3%
Vice Chancellor for Student Affairs	1,077,233	7	8.4%
Grand Total	12,881,686	141	100.0%

**Chart 9: Total Award Expenditures by Source of Funds (in millions)
FYs 2016 and 2017**



**Figure 9: Total Award Expenditures by Source of Funds
FYs 2016 and 2017**

Source of Funds	FY 2016	% of Total	FY 2017	% of Total
Department of Agriculture	\$ 14,142,650.17	4%	\$ 13,894,152.59	4%
Department of Commerce	\$ 21,609,517.04	6%	\$ 24,659,352.27	6%
Department of Defense	\$ 50,699,634.71	13%	\$ 50,008,941.19	13%
Department of Education	\$ 33,119,583.86	8%	\$ 35,796,701.94	9%
Department of Energy	\$ 5,232,275.42	1%	\$ 4,677,877.19	1%
Department of Health and Human Services	\$ 57,280,832.73	15%	\$ 58,042,845.34	15%
Department of Homeland Security	\$ 5,103,423.90	1%	\$ 5,204,186.19	1%
National Science Foundation	\$ 34,910,031.98	9%	\$ 36,396,678.70	9%
Other Federal	\$ 47,650,994.60	12%	\$ 41,698,817.70	11%
Foreign	\$ 10,172,939.44	3%	\$ 8,239,015.47	2%
Hawai'i - Business and Other	\$ 5,370,518.43	1%	\$ 5,819,879.13	1%
Hawai'i - Dept of Education	\$ 5,634,532.42	1%	\$ 5,945,201.69	2%
Hawai'i - Government Agencies	\$ 43,118,833.92	11%	\$ 42,838,587.73	11%
Hawai'i - Health Organizations	\$ 12,077,216.67	3%	\$ 12,441,344.57	3%
Hawai'i - Non-Profit Organizations	\$ 18,070,393.81	5%	\$ 24,022,647.37	6%
Mainland - Business and Other	\$ 4,131,742.36	1%	\$ 3,006,224.49	1%
Mainland - Health Organizations	\$ 483,359.75	0%	\$ 394,630.22	0%
Mainland - Non-Profit Organizations	\$ 9,243,855.81	2%	\$ 9,438,769.26	2%
U.S. Colleges and Universities	\$ 12,799,790.60	3%	\$ 7,050,394.35	2%
GRAND TOTAL	\$ 390,852,127.62	100%	\$ 389,576,247.39	100%

Summary:

- Expenditures declined in FY 2017 to approximately \$390 million
- The largest source is the Department of Health and Human Services (15% of the total), followed by the Department of Defense (13% of the total).

Chart 10: FY 2017 Total Award Expenditures by Program Type and Source of Funds (in millions)

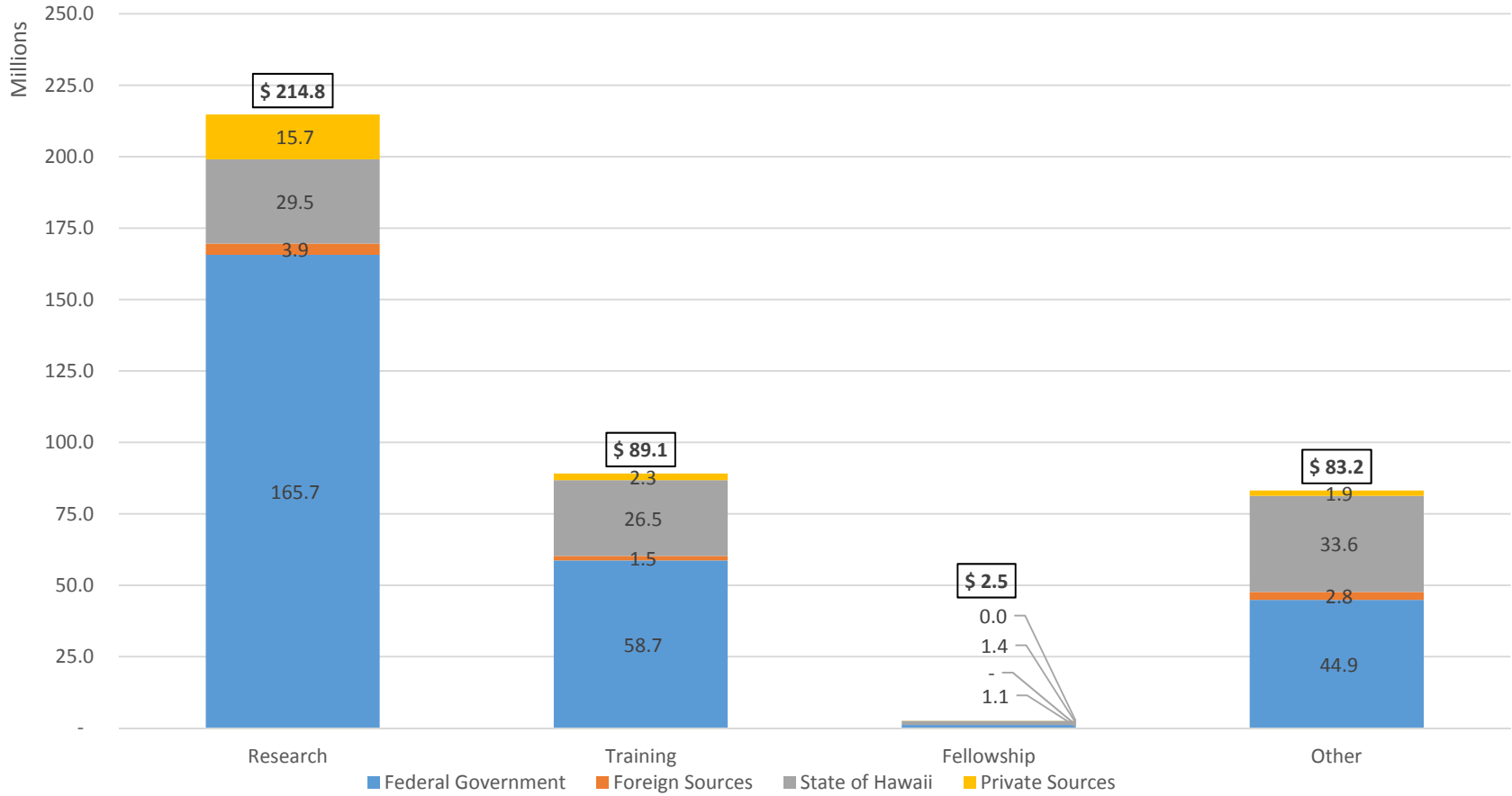
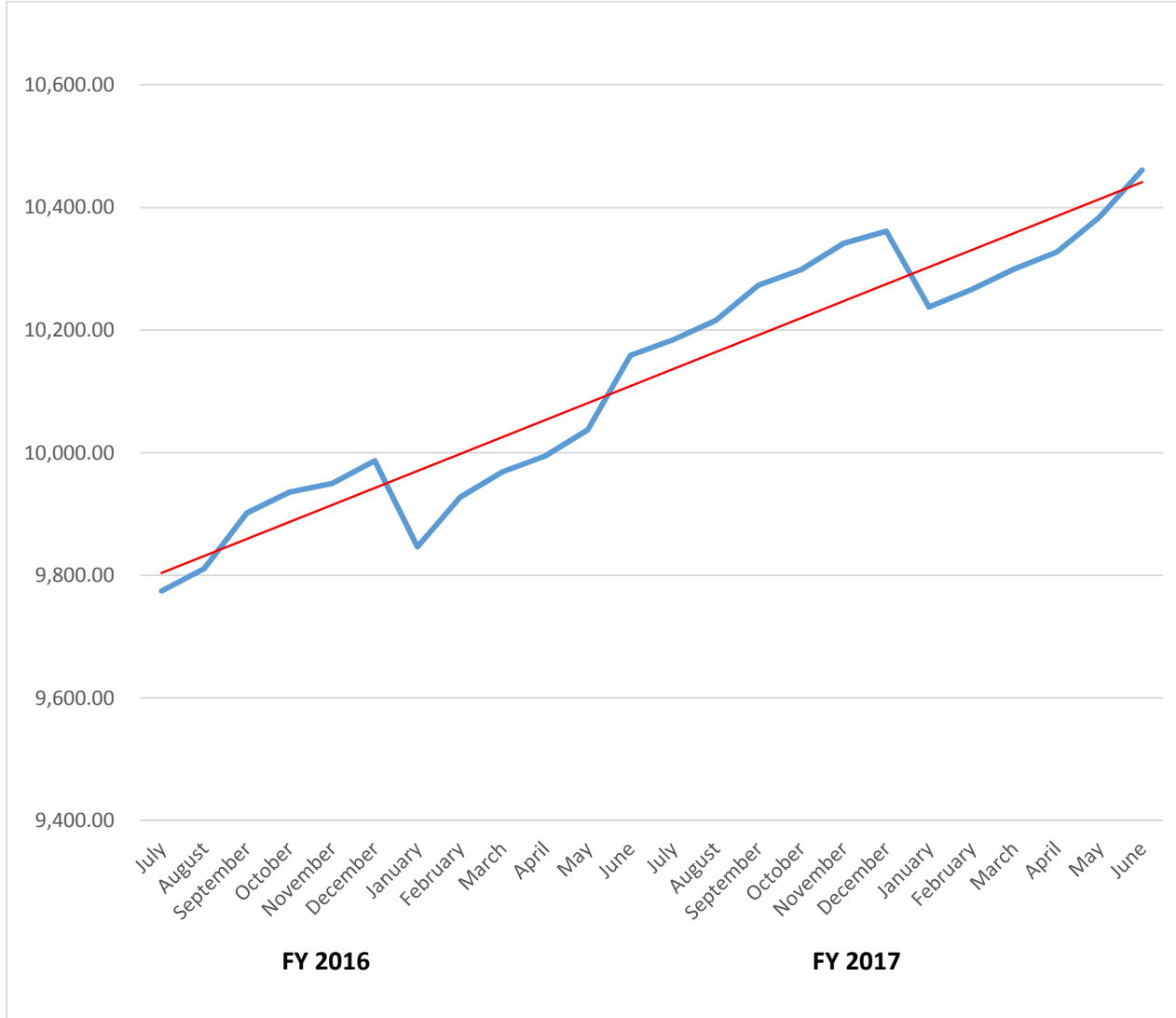


Figure 10: FY 2017 Total Award Expenditures by Program Type and Source of Funds

Source of Funding		Research	Training	Fellowship	Other	Total	% of total
Federal Government	Department of Agriculture	10,436,042	2,761,071	-	697,039	13,894,153	4%
	Department of Commerce	17,232,158	564,395	186,182	6,676,617	24,659,352	6%
	Department of Defense - Air Force	11,707,790	-	-	-	11,707,790	3%
	Department of Defense - Army	2,921,922	599,217	-	764,237	4,285,376	1%
	Department of Defense - Navy	18,580,113	44,746	-	2,277,218	20,902,077	5%
	Department of Education	708,294	29,536,973	-	5,551,435	35,796,702	9%
	Department of Energy	4,587,454	35,618	-	54,805	4,677,877	1%
	Department of Health and Human Services	44,845,786	8,652,946	-	4,544,113	58,042,845	15%
	Department of Homeland Security	-	5,204,186	-	-	5,204,186	1%
	Department of Interior	7,628,771	87,961	-	660,149	8,376,880	2%
	Department of State	1,547,110	236,799	-	-	1,783,909	0%
	Department of Transportation	300,036	296	-	200,895	501,226	0%
	Department of Veterans Affairs	-	253,642	-	-	253,642	0%
	Environmental Protection Agency	122,154	10,852	-	-	133,006	0%
	National Aeronautics and Space Administration	10,796,561	1,193,009	83,556	10,122,400	22,195,526	6%
	National Science Foundation	21,551,047	5,166,473	858,538	8,820,621	36,396,679	9%
	Other Department of Defense	12,651,275	196,889	-	265,533	13,113,698	3%
Other Federal	39,190	4,177,293	-	4,238,146	8,454,629	2%	
Federal Government Total		165,655,704	58,722,367	1,128,276	44,873,207	270,379,553	69%
Foreign Sources	Foreign Sources	3,913,954	1,544,979	-	2,780,082	8,239,015	2%
Foreign Sources Total		3,913,954	1,544,979	-	2,780,082	8,239,015	2%
State of Hawaii	Hawai'i - Business and Other	1,570,790	2,678,087	1,102,355	468,647	5,819,879	1%
	Hawai'i - Department of Education	-	596,202	-	5,348,999	5,945,202	2%
	Hawai'i - Government Agencies	17,977,535	6,882,170	-	17,978,883	42,838,588	11%
	Hawai'i - Health Organizations	702,767	11,526,364	-	212,213	12,441,345	3%
	Hawai'i - Non- Profit Organizations	9,271,899	4,817,772	303,860	9,629,117	24,022,647	6%
State of Hawaii Total		29,522,990	26,500,595	1,406,215	33,637,860	91,067,660	23%
Private Sources	Mainland - Business and Other	2,307,707	153,399	-	545,118	3,006,224	1%
	Mainland - Health Organizations	202,026	80,054	-	112,550	394,630	0%
	Mainland - Non-Profit Organizations	7,160,223	1,348,136	5,295	925,115	9,438,769	2%
	U.S. Colleges and Universities	5,997,029	751,059	-	302,306	7,050,394	2%
Private Sources Total		15,666,986	2,332,648	5,295	1,885,089	19,890,018	5%
Grand Total		214,759,634	89,100,589	2,539,786	83,176,238	389,576,247	100%

**Chart 11: Total FTE Paid from Award Funds
FYs 2016 and 2017**

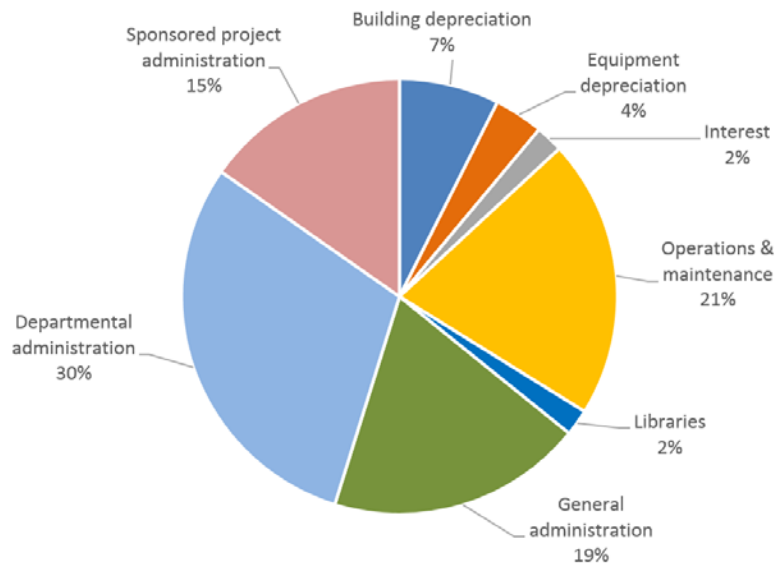


**Figure 11: Total FTE Paid from Award Funds
FYs 2016 and 2017**

Month	Year to Date FY 16	Year to Date FY 17
July	9,774.63	10,184.05
August	9,811.06	10,215.86
September	9,901.63	10,273.13
Monthly Average Q1	9,829.11	10,224.35
October	9,935.74	10,298.59
November	9,949.81	10,341.53
December	9,986.98	10,361.18
Monthly Average Q2	9,957.51	10,333.77
January	9,846.54	10,237.63
February	9,927.20	10,266.06
March	9,968.78	10,299.64
Monthly Average Q3	9,914.17	10,267.77
April	9,994.65	10,327.07
May	10,037.40	10,384.08
June	10,158.76	10,461.06
Monthly Average Q4	10,063.60	10,390.74
Monthly Average FY	9,941.10	10,304.16
Change (Number)		363.06
Change (Percent)		3.65%

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

**Chart 12: Breakdown of Facilities and Administrative Costs by Major Category
FY 2016 Base Year**



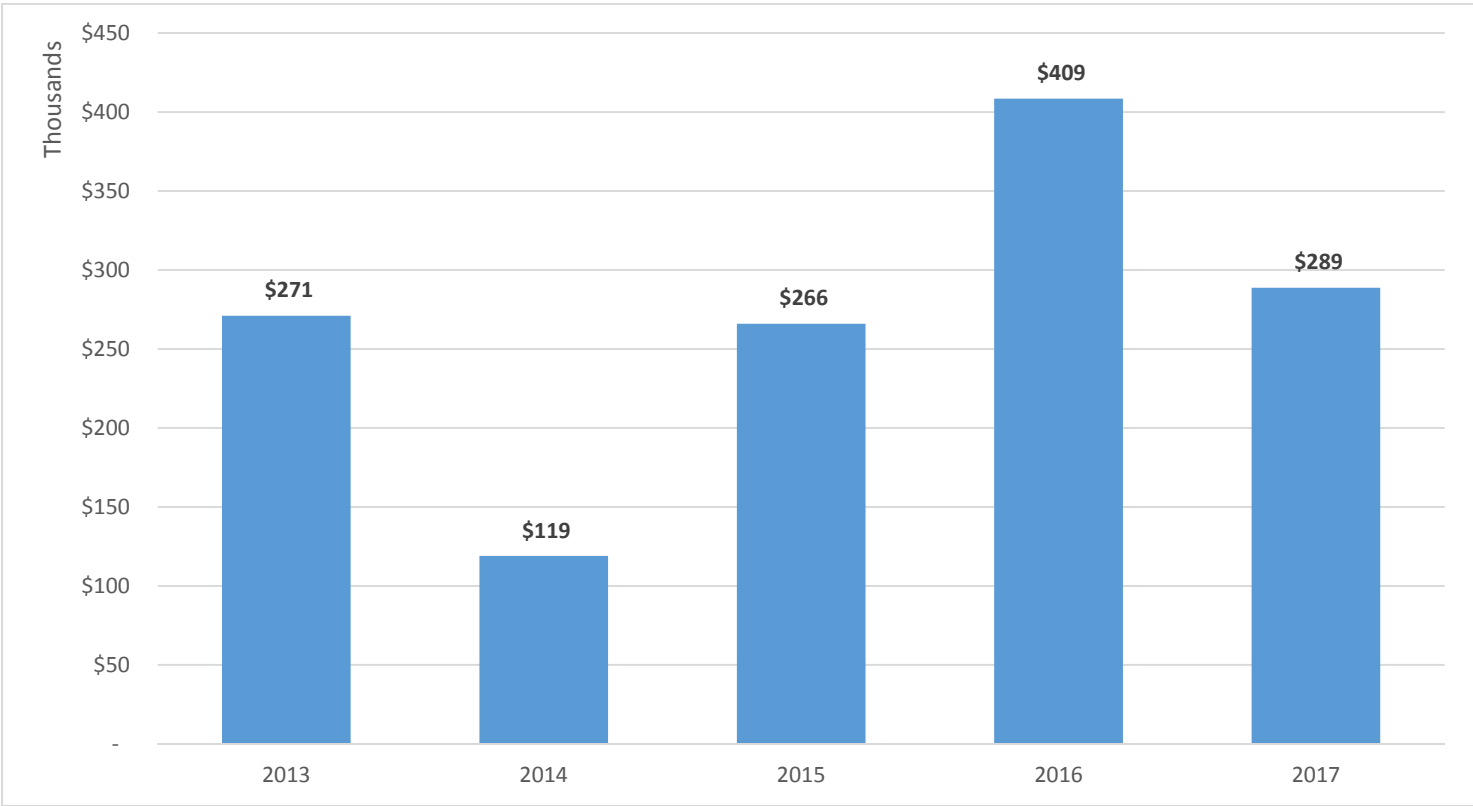
In a typical year, roughly a third of the University of Hawai‘i’s overhead for sponsored projects maintains its facilities for supporting sponsored activity and roughly two-thirds supports central and departmental sponsored activity administration. About 30% of the total F&A represents administration 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, the Office of Research Services, the Human Studies Program, Institutional Animal Care, and the 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 \$48 million in F&A cost reimbursements in FY 2017. 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 13: Total Royalties Received from University Patents (in thousands)
FYs 2013 to 2017**



**Figure 12: Total Royalties Received from University Patents
FYs 2013 to 2017**

Fiscal Year	Royalties
2013	\$ 271,064
2014	\$ 118,991
2015	\$ 265,974
2016	\$ 408,513
2017	\$ 288,752
Total Royalties	\$1,353,294

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-CHRONIC
DISEASE PREVENTION & HEALTH PROMO
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 ADV
NURSE ED PGM
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-NIH-FOGARTY
INTERNATIONAL CTR.
HEALTH & HUMAN SVC, DEPT-PUB HLTH SVC-
FED
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
BIOMED IMG& BIOENGRG
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-NATIONL INST STANDARDS
&TECH-FED
COMMERCE, DEPT-NATL NOAA-FED
COMMERCE, DEPT-NATL NOAA-FED NATL
WEATHER SVC
COMMERCE, DEPT-NATL NOAA-FED SEA GRANT
COLL PGM
COMMERCE, DEPT-NOAA/NATL MARINE
FISHERIES SVC

DOD-DEPARTMENT OF DEFENSE

DEFENSE, DEPT- US ARMY CORPS OF
ENGINEERS
DEFENSE, DEPT. - U.S. ARMY RESEARCH OFFICE
DEFENSE, DEPT.-PACIFIC COMMAND
(USPACOM)
DEFENSE, DEPT-ADVANCED RSCH PRJ AGCY
DEFENSE, DEPT-AIR FORCE OFC OF SCI RSCH
DEFENSE, DEPT-AIR FORCE RESEARCH
LABORATORY
DEFENSE, DEPT-ARMY
DEFENSE, DEPT-ARMY ENG RSCH & DEV CTR
DEFENSE, DEPT-ARMY MED RSCH ACQSTN
(USAMRAA)
DEFENSE, DEPT-ARMY RESEARCH LABORATORY
DEFENSE, DEPT-CONGRESSIONALLY DIR MED
RSCH PROG
DEFENSE, DEPT-DEPUTY UNDR SECRETARY OF
DEF
DEFENSE, DEPT-LEGACY RESOURCE
MANAGEMENT PROGRAM
DEFENSE, DEPT-NATIONAL GEOSPATIAL
INTELLEGENGE AGENCY
DEFENSE, DEPT-NATIONAL SECURITY AGY
DEFENSE, DEPT-NAVY

DEFENSE, DEPT-NAVY NAVAL FAC ENGRG
COMMAND
DEFENSE, DEPT-NAVY NAVAL SUPPLY SYSTEMS
COMMAND
DEFENSE, DEPT-NAVY OFC OF NAVAL RSCH
DEFENSE, DEPT-NAVY POSTGRADUATE SCHOOL-
DUPLICATE-DO NOT USE
DEFENSE, DEPT-NAVY SPACE & NAVAL
WARFARE SYS CTR PACIFIC
DEFENSE, DEPT-STRATEGIC ENV RSCH & DEV
PROG
DEFENSE, DEPT-WASHINGTON HEADQUARTERS
SVCS

DOE-DEPT OF ENERGY

ENERGY, DEPT
ENERGY, DEPT. OF - BASIC ENERGY SCIENCES
ENERGY, DEPT. OF-LAWRENCE BERKELEY NATL
LAB

DOI-DEPT OF INTERIOR

INTERIOR, DEPT-FED OFC OF INSULAR AFFAIRS
INTERIOR, DEPT-FED-U.S. GEOLOGICAL SURVEY-
EARTHQUAKE SCIENCE CTR.
INTERIOR, DEPT-FISH & WILDLIFE SVC
INTERIOR, DEPT-NATIONAL PARK SVC
INTERIOR, DEPT-UNITED STATES GEO SURVEY

DOT-DEPT OF TRANSPORTATION

TRANSPORTATION, DEPT-FED HWY AD-FED
TRANSPORTATION, DEPT-FED-FED AVIATION
ADMIN

ED-DEPT OF EDUCATION

EDUCATION, DEPT-FED
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

OTHER FEDERAL AGENCIES

ENVIRONMENTAL PROTECTION AGENCY
HOMELAND SECURITY, DEPT-FEMA
INSTITUTE OF MUSEUM AND LIBRARY SERVICES
JAPAN UNITED STATES FRIENDSHIP
COMMISSION
JUSTICE, DEPT-OFFICE JUSTICE PROG
NATIONAL ENDOWMENT FOR THE HUMANITIES
NATL ENDOWMENT FOR THE ARTS
SMALL BUSINESS ADMINISTRATION
SOCIAL SECURITY ADMINISTRATION
US SPC OPS CMD-SPECIAL OPS RSCH, DEV, &
ACQUISITION CTR
VETERANS AFFAIRS, DEPT-FED

NON-FEDERAL

FOREIGN

PACIFIC YOUTH AND COMMUNITY
DEVELOPMENT
ACADEMY KOREAN STUDIES
AICHI UNIVERSITY
AMERICAN SAMOA COMMUNITY CANCER
COALITION
AMERICAN SAMOA ENVIRONMENTAL
PROTECTION AGENCY
AMERICAN SAMOA, GOVERNMENT
ASTRAZENECA
BAYER HEALTHCARE PHARMACEUTICALS INC
BERMUDA INSTTUE OF OCEAN SCIENCES, INC.
CHUO UNIVERSITY
COMMONWEALTH OF NO MARIANA ISLANDS
COMPREHENSIVE NUCLEAR-TEST-BAN TREATY
ORGANIZATION (CTBTO)
CURTIN UNIVERSITY
ESTETRA SPRL
FEDERATED STATES MICRONESIA
FOREIGN LANGUAGE TEACHING & RESEARCH
PUBLISHING CO LTD
FUJIAN NORMAL UNIVERSITY
FUKADA SALVAGE AND MARINE WORKS
COMPANY, LTD.
GUAM, GOVERNMENT - PUBLIC HEALTH AND
SOCIAL SERVICES
GUAM, UNIVERSITY OF
HELMHOLTZ CENTRE FOR ENVIRONMENTAL
RESEARCH - UFZ
HORIMASA CO. LTD.
HUBEI JING BRAND WINE INDUSTRY CO., LTD.
INDIA, GOVERNMENT OF-MINISTRY OF EARTH
SCIENCES
INNOQUANT STRATEGIC ANALYTICS S.L.
INTERNATIONAL INTEGRATED SYSTEMS INC.
KEK HIGH ENERGY ACCELERATOR RCH ORG
KOREA FOUNDATION
KOREA INSTITUTE OF OCEAN SCIENCE &
TECHNOLOGY
KOREA RESEARCH INSTITUTE OF SHIPS AND
OCEAN ENGINEERING
KYOTO SEIKA UNIVERSITY
LITERATURE TRANSLATION INSTITUTE OF
KOREA
LONDON, UNIVERSITY OF
MARSHALL ISLANDS, COLLEGE OF
NATIONAL ASTRONOMICAL OBSV JAPAN
NATIONAL CHUNG HSING UNIVERSITY
NIPPON STEEL & SUMITOMO METAL
CORPORATION
NORTH PACIFIC MARINE SCIENCE ORG
OKINAWA PREFECTURE GOVERNMENT
PEKING UNIVERSITY
REPUBLIC MARSHALL ISLANDS
REPUBLIC PALAU

RYUKYUS, UNIVERSITY OF
SINTEF
TORONTO, UNIVERSITY OF
TRENT UNIVERSITY
VIIV HEALTHCARE
WASEDA UNIVERSITY

HAWAII- BUSINESS AND OTHER

ADNOVIV LLC
AHA PUNANA LEO INC
ALU LIKE INC
AQUAFEED.COM, LLC
BISHOP MUSEUM
CHAMBER OF COMMERCE HAWAII
EAST WEST CENTER
FANTOM MATERIALS, INC.
GARDEN ISLE RESRCE CONSERV &
DEVELOPMENT, INC.
HAWAII COUNCIL FOR THE HUMANITIES
HILO FISH COMPANY, INC.
IOLANI SCHOOL
JUN INNOVATIONS
KAMEHAMEHA SCHOOLS
KE KULA 'O NAWAHIOKALANI'OPU'U IKI PUBLIC
CHARTER SCHOOL
MALAMA KAHALAWAI INC
MAUI COUNTY COMMUNITY TELEVISION
NALU SCIENTIFIC, LLC
OHU'OHU KO'OLAU INC
PACIFIC BIODIESEL
PACIFIC RADIATION ONCOLOGY INC
PAPA OLA LOKAHI
SEA ENGINEERING, INC.
STRATEGIC COMMUNICATION SOLUTIONS, LLC
TOWILL, R.M. CORPORATION
ULUPALAKUA RANCH
ULUPONO INITIATIVE

HAWAII- DEPT OF EDUCATION

EDUCATION, DEPT-HI

HAWAII- GOVERNMENT AGENCIES

AGRICULTURE, DEPT-HI
BUSINESS, ECON DEV & TOUR, DPT
BUSINESS, ECONOMIC DEV&TOUR-HI STATE
ENERGY OFFICE
BUSINESS, ECONOMIC DEV&TOUR-OFC OF
PLANNING
CITY & COUNTY HONOLULU
CITY & COUNTY HONOLULU DEPT OF PARKS &
REC
COMMERCE & CONSUMER AFFAIRS, DEPT
(DCCA)
COMMERCE & CONSUMER AFFAIRS, DEPT
(DCCA)-HI PUBLIC UTIL COMM
COUNTY HAWAII
COUNTY HAWAII DEPT OF RESEARCH AND
DEVELOPMENT

COUNTY KAUAI
COUNTY MAUI
COUNTY MAUI DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT
COUNTY MAUI DEPT OF WATER SUPPLY
COUNTY MAUI OFC OF ECON DEVEL
COUNTY MAUI PLANNING DEPT
COUNTY OF KAUAI DEPARTMENT OF WATER
DEFENSE, DEPT-HI - HI ARMY NATL GUARD
DEFENSE, DEPT-HI-HAWAII EMERGENCY MGMT
AGENCY
HAWAII HOUSING FINANCE AND
DEVELOPMENT CORPORATION
HAWAI'I STATE FOUNDATION ON CULTURE AND
THE ARTS
HAWAII TOURISM AUTHORITY
HAWAIIAN AFFAIRS, OFFICE OF
HAWAIIAN HOME LANDS, DEPT-HI
HEALTH, DEPT-ADULT MENTAL HTH DV-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 DISABILITY & COMM ACCESS
BD
HEALTH, DEPT-HI MATERNAL AND CHILD
HEALTH BRANCH
HEALTH, DEPT-HI-GENOMICS SECTION
HEALTH, DEPT-MAT & CHILD
HEALTH, DEPT-OFFICE OF PLANNING, POLICY,
AND PROGRAM DEV-HI
HEALTH, DEPT-TOBACCO SETTLEMENT-HI
HIGH TECHNOLOGY DEVELOPMENT
CORPORATION-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
KAHOOLAWE ISLAND RESERVE COMMISSION
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 RESOURCES, DEPT (DLNR)

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

HAWAII- HEALTH ORGANIZATIONS

CASTLE MEDICAL CENTER
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 EMMA CLINICS
QUEEN'S MEDICAL CENTER
STRAUB CLINIC & HOSPITAL
UNIVERSITY CLINICAL EDUCATIONAL & RSCH
ASSOC (UCERA)
WAIANAE COAST COMPREHENSIVE HEALTH CTR
WAIMANALO HEALTH CENTER

HAWAII- NON-PROFIT ORGANIZATIONS

808 CLEANUPS
CHUN FOUNDATION
COALITION DRUG-FREE HAWAII
GARDEN CLUB OF HONOLULU
GENERAL CONTRACTORS ASSOC HI
EDUCATIONAL FOUNDATION
HAWAII CANCER CONSORTIUM
HAWAII CHILDREN'S ACTION NETWORK
HAWAII COMMUNITY FOUNDATION (HCF)
HAWAII COMMUNITY FOUNDATION GEIST
FDTN
HAWAII COMMUNITY FOUNDATION MEDICAL
RESEARCH
HAWAII COMMUNITY FOUNDATION STRAUB
TRUST ESTATE
HAWAII COMMUNITY FOUNDATION TOBACCO
PREV & CTRL TRUST
HAWAII COMMUNITY FOUNDATION WAGNER
BLINDNESS PREV
HAWAII JUSTICE FOUNDATION
HAWAII NATURE CENTER
HAWAII PUBLIC HEALTH INSTITUTE
HAWAIIAN SILVERSWORD FOUNDATION
INSTITUTE FOR HUMAN SERVICES
KOKUA KALIHI VALLEY
KULA NO NA PO'E HAWAII
LEAHI FOUNDATION (HCF)
MALAMA O MANOA
NATURE CONSERVANCY, THE-HAWAII

OCEANIC INSTITUTE-CTR FOR TOP & SUB TROP
AQUA (CTSA)
OLELO
PAC RESOURCES FOR ED & LEARNING (PREL)
PACIFIC AMERICAN FOUNDATION
QUEEN EMMA FOUNDATION
SACRED HEARTS ACADEMY
THREE MOUNTAIN ALLIANCE FOUNDATION
UNIVERSITY HAWAII FOUNDATION
UNIVERSITY HEALTH PARTNERS
WAHIAWA COMMUNITY-BASED DEVELOPMENT
ORG
WAIKIKI BEACH SPECIAL IMPROVEMENT
DISTRICT ASSN
WAIKIKI HEALTH
WORLD TURTLE TRUST

MAINLAND- BUSINESS AND OTHER

ACCESS GROUP, INC.
ALLERGAN INC
ALTOR BIOSCIENCES
AMERICA VIEW
BLOOD SYSTEMS RESEARCH INSTITUTE
BRISTOL-MYERS SQUIBB COMPANY
CAMBRIDGE MICHIGAN LANGUAGE
ASSESSMENTS LLC
CEREGO LLC
COMMUNITY COLLEGE NATL CTR FOR
COMMUNITY ENGAGEMENT
CONTRAMED
DENDREON PHARMACEUTICALS, INC
DOER MARINE
DUDEK
EAST & WEST INC-MAINLAND
FOLGER SHAKESPEARE LIBRARY
GILEAD FOUNDATION - GILEAD SCIENCES INC
GYNUITY HEALTH PROJECTS
HEALTH RESEARCH INC
INNOSYS, INC
INVENTIV CLINICAL, LLC
JET PROPULSION LAB-JPL
LAWRENCE LIVERMORE NATL LAB
LEIDOS
LILLY USA, LLC
MALIN SPACE SCIENCE SYSTEMS
MERCK SHARP & DOHME CORP
NATIONAL GEOGRAPHIC SOCIETY
NATIONAL WRITING PROJECT CORP
NATL RADIO ASTRONOMY OBSERVATORY
PACIFIC INTERFACE INC
PPD INVESTIGATOR SERVICES, LLC
PREDICTIVE SCIENCE INC.
Q-PEAK, INC.
SANDIA NATIONAL LABORATORIES
SMITHSONIAN ASTROPHYSICAL OBSERVATORY
SPACE TELESCOPE SCIENCE INSTITUTE
SWCA ENVIRONMENTAL CONSULTANTS
TELEDYNE BROWN ENGINEERING

WOODS HOLE OCEANOGRAPHIC INSTITUTION
WYLE LABORATORIES, INC.

MAINLAND- HEALTH ORGANIZATIONS

AMERICAN HEART ASSOCIATION
CHILDREN'S HOSPITAL OF PHILADELPHIA
HUTCHINSON (FRED) CANCER RESRCH CTR
RIVERSIDE RESEARCH INSTITUTE

MAINLAND- NON-PROFIT ORGANIZATIONS

ALEX'S LEMONADE STAND FOUNDATION
ALLIANCE FOR SUSTAINABLE ENERGY, LLC
AMERICAN BIRD CONSERVANCY
AMERICAN COLLEGE HEALTH FOUNDATION
AMERICAN COUNCIL OF LEARNED SOCIETIES
ANDREW W. MELLON FOUNDATION
ARIZONA COMMUNITY FOUNDATION
ASSN OF PUBLIC & LAND-GRANT UNIVERSITIES
ASSOCIATION UNIVERSITIES RESEARCH IN
ASTRONOMY, INC.
BATTELLE MEMORIAL INSTITUTE
BECKMAN (ARNOLD AND MABEL) FOUNDATION
BOTANIC GARDENS CONSERVATION
INTERNATIONAL-US
BRITTON FUND INC
CADES FOUNDATION (J RUSSELL/CHARLOTTE
MCL)
CALIFORNIA ASSOCIATION RESEARCH IN
ASTRONOMY (KECK)
CARNEGIE INSTITUTE WASHINGTON
CASEY, ANNIE E., FOUNDATION
CENTER FOR POLICY RESEARCH
CONSERVATION INTERNATIONAL
CONSORTIUM FOR OCEAN LEADERSHIP
CORAL REEF ALLIANCE
COUNCIL ON INTERNATIONAL EDUCATIONAL
EXCHANGE
DUKE UNIVERSITY
EARTH & SPACE RESEARCH
EARTHWATCH
HENRY M. JACKSON FOUNDATION FOR THE
ADVANCEMENT OF MILITARY MEDICINE
INSTITUTE FOR WILDLIFE STUDIES
INSTITUTE INTERNATIONAL EDUCATION
INTERNATIONAL FOUNDATION FOR ETHICAL
RESEARCH
ISLAND CONSERVATION
JOHNSON (ROBERT WOOD) FOUNDATION
LOWELL OBSERVATORY
MARSHA RIVKIN CENTER FOR OVARIAN CANCER
RESEARCH
MD ANDERSON CANCER CENTER
MONSANTO FUND
MOORE (GORDON & BETTY) FOUNDATION
NATIONAL ACADEMIES
NATIONAL ENDOWMENT FOR FINANCIAL
EDUCATION
NATIONAL FISH & WILDLIFE FOUNDATION

NATIONAL FISH HABITAT PARTNERSHIP
NATIONAL FOUR-H COUNCIL (4-H)
NATIONAL GOVERNORS ASSOCIATION
NATIVE AMERICAN INDIGENOUS STUDIES ASSN
NATURE CONSERVANCY, THE
PARTNERS OF THE AMERICAS
PLANETARY SCIENCE INSTITUTE
PXE INTERNATIONAL
RESEARCH FOUNDATION STATE UNIV NY
SAN JOSE STATE UNIVERSITY RESEARCH
FOUNDATION
SCHMIDT MARINE TECHNOLOGY PARTNERS
SEATTLE INSTITUTE FOR BIOMEDICAL &
CLINICAL RESEARCH
SILICON VALLEY COMMUNITY FOUNDATION
SIMONS FOUNDATION
SLOAN, ALFRED P FOUNDATION
SOCIETY OF FAMILY PLANNING
SOUTHWEST RESEARCH INSTITUTE
ST. BALDRICK'S FOUNDATION
TEMPLETON (JOHN) FOUNDATION
TREADSTONE TECHNOLOGIES, INC.
TRUTH INITIATIVE
UNITED STATES GOLF ASSOCIATION
UNIVERSITIES SPACE RESEARCH ASSN
UNIVERSITY CORP ATMOSPHERIC RSCH
VENTUREWELL
WESTERN STATES ART FEDERATION (WESTAF)
WORLD WILDLIFE FUND

**NATIONAL AERONAUTICS AND SPACE
ADMINISTRATION**

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

NATIONAL SCIENCE FOUNDATION
NATIONAL SCIENCE FOUNDATION

US COLLEGES AND UNIVERSITIES

ALABAMA HUNTSVILLE, UNIV OF
ALASKA ANCHORAGE, UNIVERSITY OF
ALASKA FAIRBANKS, UNIVERSITY OF
ARIZONA STATE UNIVERSITY
ARIZONA, UNIVERSITY OF
BD OF REGENTS OF UNIVERSITY SYS OF GA-
GEORGIA INSTITUTE OF TECHNOLOGY
BROWN UNIVERSITY
CALIFORNIA BERKELEY, UNIVERSITY OF
CALIFORNIA DAVIS, UNIVERSITY OF
CALIFORNIA INST OF TECHNOLOGY
CALIFORNIA LOS ANGELES, UNIV
CALIFORNIA SAN DIEGO, UNIV-SCRIPPS INST OF
OCEAN
CALIFORNIA SAN FRANCISCO, UNIV
CALIFORNIA SANTA BARBARA, UNIV

CHAMINADE UNIVERSITY
CHAPMAN UNIVERSITY
COLLEGE OF CHARLESTON
COLORADO STATE UNIVERSITY
COLORADO, UNIVERSITY OF
COLUMBIA UNIVERSITY
CORNELL UNIVERSITY
DARTMOUTH COLLEGE
DREXEL UNIVERSITY
HARVARD UNIVERSITY
HAWAII PACIFIC UNIVERSITY
ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI
INDIANA UNIVERSITY
IOWA STATE UNIVERSITY
JOHNS HOPKINS UNIVERSITY
KANSAS STATE UNIVERSITY
MARYLAND, UNIVERSITY OF
MIAMI, UNIVERSITY OF
MICHIGAN, UNIVERSITY OF
MINNESOTA, UNIVERSITY OF
MISSOURI-ST. LOUIS, UNIVERSITY OF
MOREHOUSE SCHOOL OF MEDICINE
NAVAL POSTGRADUATE SCHOOL
NEVADA LAS VEGAS, UNIVERSITY OF
NEW MEXICO, UNIVERSITY OF
NEW MEXICO, UNIVERSITY OF - BOARD OF
REGENTS
NEW YORK UNIVERSITY
NORTH CAROLINA CHAPEL HILL, UNIV
NORTHEASTERN UNIVERSITY

NOTRE DAME, UNIVERSITY OF
OREGON HEALTH SCIENCES UNIVERSITY
OREGON STATE UNIVERSITY
PITTSBURGH, UNIVERSITY OF
PORTLAND STATE UNIVERSITY
PURDUE UNIVERSITY
RICE UNIVERSITY
ROCHESTER, UNIVERSITY OF
RUTGERS, STATE UNIVERSITY OF NEW JERSEY
SOUTHERN CALIFORNIA, UNIVERSITY OF
STANFORD UNIVERSITY
STATE UNIVERSITY OF NEW YORK
TENNESSEE-KNOXVILLE, UNIVERSITY OF
TEXAS AUSTIN, UNIVERSITY OF
TEXAS-SAN ANTONIO, UNIVERSITY OF
THE ADMINISTRATORS OF THE TULANE
EDUCATIONAL FUND
THE TRUSTEES OF COLUMBIA UNIVERSITY IN
THE CITY OF NEW YORK
UNIVERSITY ADVANCE CORP, CAL STATE
NORTHRIDGE
UNIVERSITY OF CHICAGO
UNIVERSITY OF NEBRASKA - LINCOLN
UTAH STATE UNIVERSITY
UTAH, UNIVERSITY OF
VANDERBILT UNIVERSITY
VANDERBILT UNIVERSITY MEDICAL CENTER
WASHINGTON STATE UNIVERSITY
WASHINGTON, UNIVERSITY OF
YALE UNIVERSITY