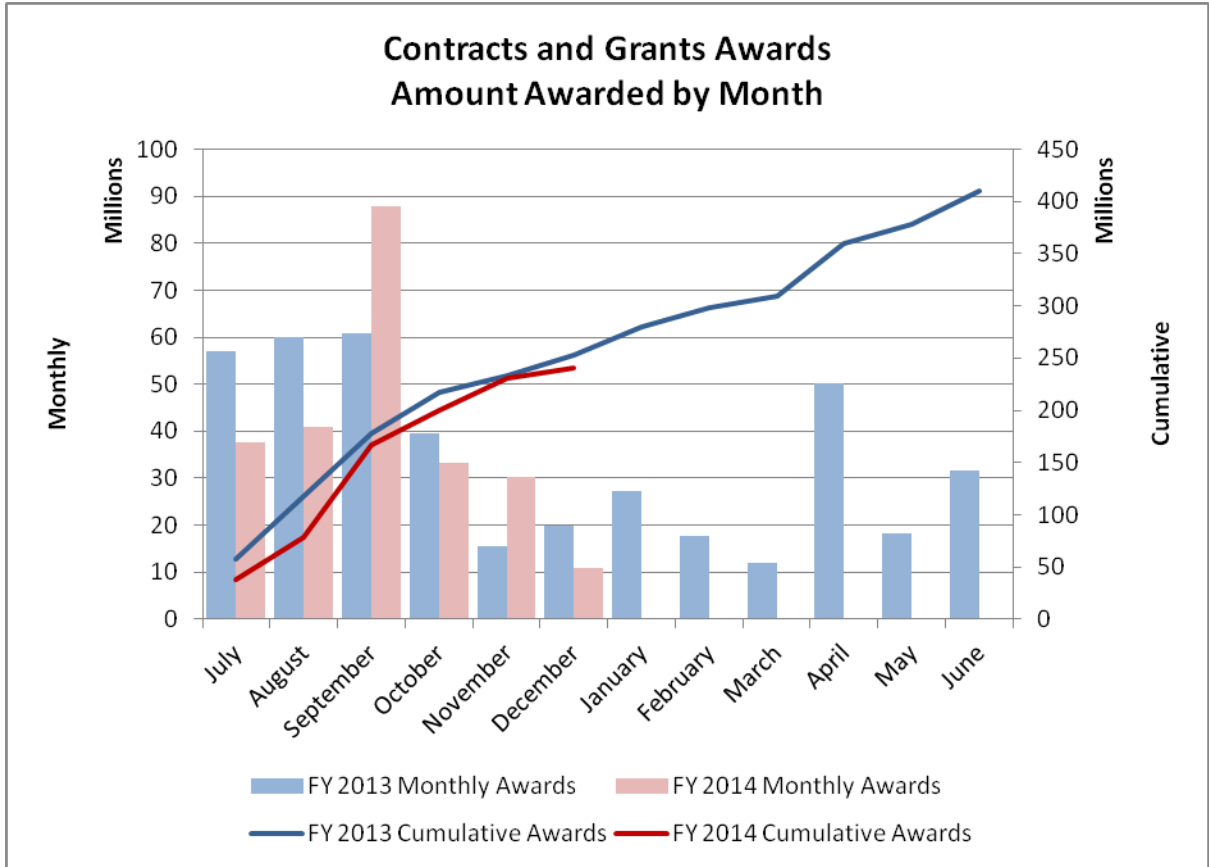
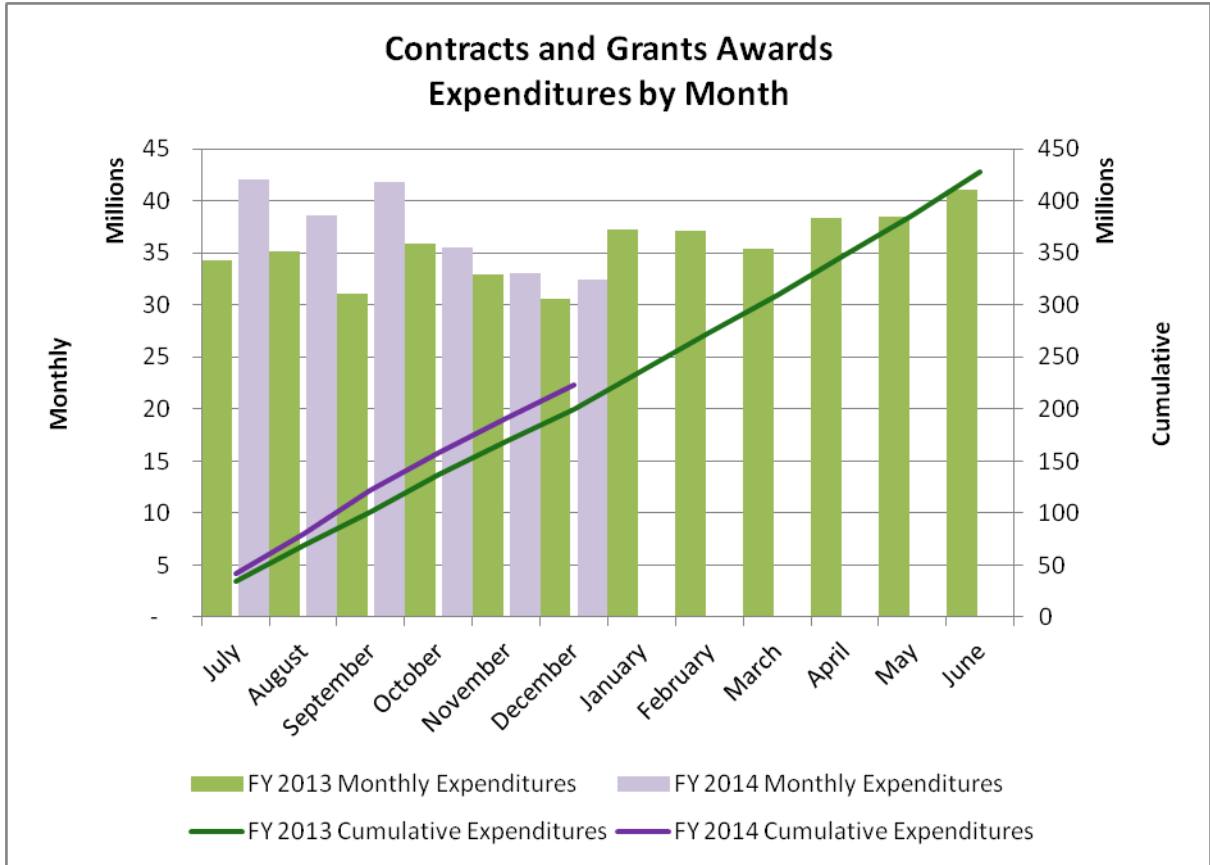


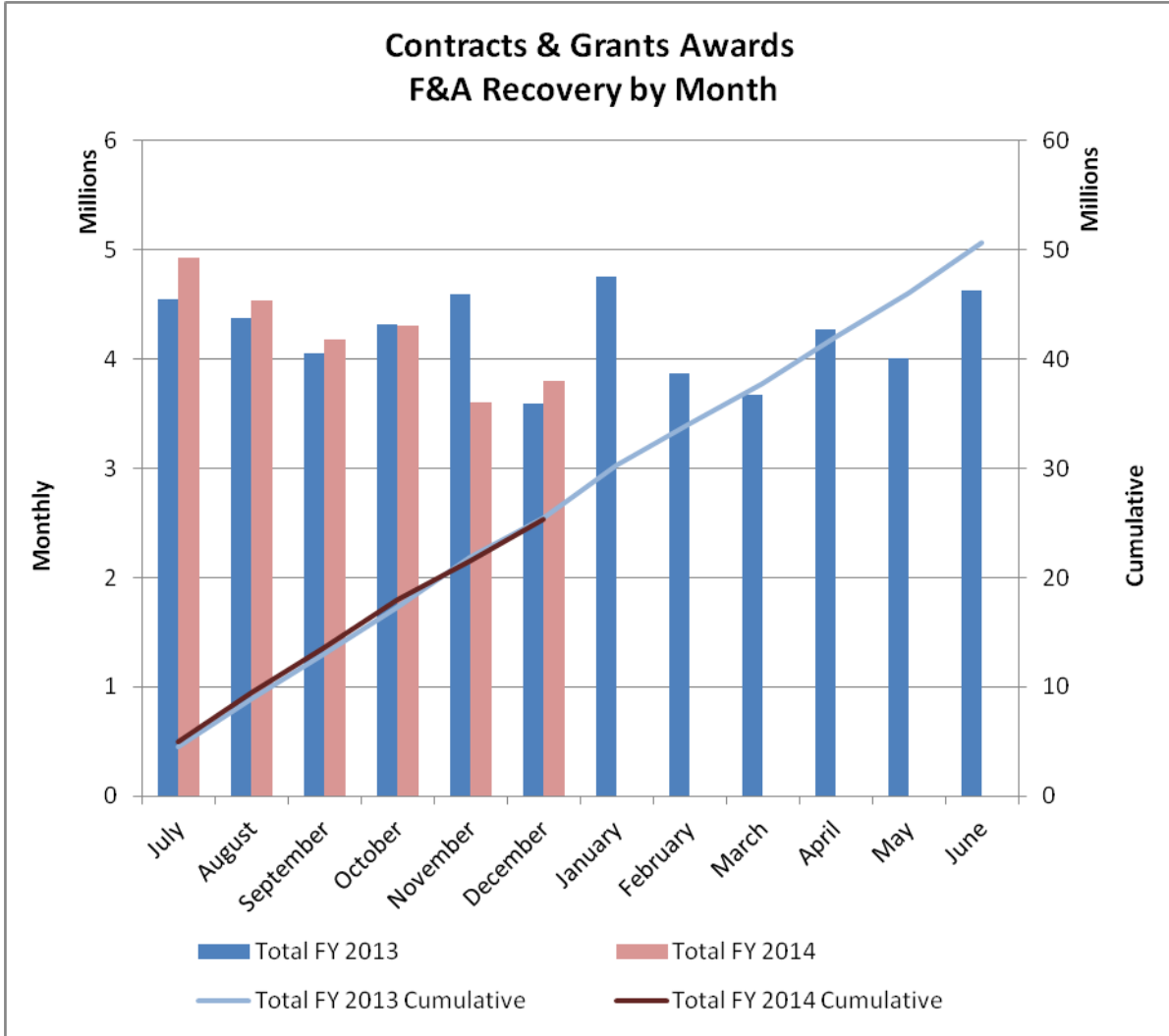
Contracts and Grants Awards
As of December 31, 2013



Contracts and Grants – Expenditures
As of December 31, 2013



Contracts and Grants Awards – F&A Recovery
As of December 31, 2013



Extramural Sponsor Awards Monthly Summary

<u>Program Type</u>	Dec 31, 2013		Dec 31, 2012	
	<u>Count</u>	<u>Amount</u>	<u>Count</u>	<u>Amount</u>
Non-Research	41	\$4,026,625	42	\$7,120,333
Research	55	\$7,291,060	46	\$12,740,213
<u>Total</u>	<u>96</u>	<u>\$11,317,685</u>	<u>88</u>	<u>\$19,860,546</u>

Note: The detailed award listing is available at:

<http://www.ors.hawaii.edu/index.php/bor-reports>

The FY 2013 year-to-date total was: \$252,917,112

The unofficial FY 2014 year-to-date total is: \$241,142,205

Gift, Grants, and Contracts for Dec 1, 2013 to Dec 31, 2013

Research

DHHS-Dept of Health and Human Services

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
HEALTH & HUMAN SVC, DEPT-NIH-FED	Michelle Seidel	Center for Cardiovascular Research	PDGF Receptor Signaling in Mammalian Development	This project investigates the roles of PDGF receptors in vascular smooth muscle, cardiac fibroblast, and mesenchymal cell development and disease.	1	35,008
HEALTH & HUMAN SVC, DEPT-NIH-FED NTL INST DRUG ABUSE	Maria-Louisa Andres	Pacific Biosciences Research Center	Interaction of HIV-Tat and methamphetamine: Role of ion channels and epigenetics	This study investigates the interaction between HIV-tat protein and methamphetamine in inducing neurotoxicity. Specifically, we will study alteration of neuronal function through blockade of ion channels by APOE4 proteins and methamphetamine and how they may further contribute to HIV-tat induced toxicity in neurons.	1	123,030

DOC-Dept of Commerce

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
COMMERCE, DEPT-NATL NOAA-FED	Alison Sherwood	Department of Botany	Identification of mesophotic macroalgae in the Papahānaumokuākea Marine National Monument for Year 3	Large macroalgal beds of the green alga Microdictyon and other macroalgal species were observed at mesophotic depths in the Papahānaumokuākea Marine National Monument (PMNM). Preliminary observations by divers suggested that coral reef fish may be using these mesophotic macroalgal meadows as a significant habitat. To test this hypothesis, surveys of fish and the benthos will be conducted in areas with and without Microdictyon. Benthic surveys will include photoquadrats and limited collections of macroalgae. Our primary objective will be to aid in the habitat analysis by differentiating between macroalgae (primarily Microdictyon), and the limestone benthos encrusted by the sponge, Dendophyllia, and crustose coralline algae. Secondly, we will provide a basic quantitative description of the mesophotic macroalgal community based on collections from cruises, and provide assistance processing stable isotope samples for food	1	50,000

Gift, Grants, and Contracts for Dec 1, 2013 to Dec 31, 2013

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
				web analyses. New macroalgal species will be studied using both morphological and molecular analyses, and described as needed. Year 2 will continue to process specimens collected during Year 1, in addition to new collections made in the upcoming year. A key component of this proposal is the continued training of a postdoctoral fellow, who will be involved in all scientific aspects of the project and will be mentored in accordance with the Postdoctoral Fellow Mentoring Plan uploaded as Supplementary Documentation to this proposal.		
COMMERCE, DEPT-NATL NOAA-FED	Jason Turner	Marine Science	Papahanaumokuakea Marine National Monument	The Hawaiian Islands Marine Mammal Response Network (MMRN) provides Hawaiian monk seal management response and cetacean stranding response under the Marine Mammal Protection Act (MMPA) and Endangered Species Act (ESA). It prevents disturbance of marine mammals and responds to deceased marine mammals for sample collection and analysis.	1	40,000
COMMERCE, DEPT-NATL NOAA-FED NATL OCEAN SVC	Christopher Kelley	Hawaii Undersea Research Laboratory (HURL)	Mapping the Papahanaumokuakea Marine National Monument		1	50,000

DOD-Department of Defense

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
DEFENSE, DEPT-AIR FORCE	David Lassner	Maui High Performance Computing Center (MHPCC)	Operations and Management of the Maui High Performance Computing Center Task Order 00005	Incremental funding issued in order to pay outstanding sponsor invoices	1	13,809

Gift, Grants, and Contracts for Dec 1, 2013 to Dec 31, 2013

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
DEFENSE, DEPT-ARMY MED RSCH & MAT COMMD (USAMRMC)	Kristine Qureshi	School of Nursing and Dental Hygiene	Simulation Learning: PC Screen-Based vs. High Fidelity	<p>Background: As the number and complexity of military conflicts and disasters increases across the world, increased attention is being paid to disaster and trauma care. The U.S. is not immune to catastrophic disasters, and trauma continues to be a leading cause of morbidity and mortality. Since 2001, the U.S. has experienced a number of disasters, e.g., the World Trade Center and Pentagon attacks of September 11, 2001; the deliberate dissemination of Anthrax during the same year; Hurricanes Katrina and Rita; and numerous serious wild fires, earthquakes and floods. Presently, a large number of military personnel are directly involved in providing trauma care to wounded Soldiers on the various battlefields, and local nationals in areas of conflict throughout the world. During initial trauma care, especially under battlefield conditions, there is a high risk that the initial gains of immediate resuscitation actions will be lost during patient movement. The very nature of disaster and battlefield events requires the casualty be moved from place to place through an evacuation chain to hopefully progressively higher levels of care by people who do not normally on a daily basis prepare and care for patients during movement. If the evidence-based principles of patient movement are not routinely employed then the casualties condition may degrade during evacuation. While simulation is increasingly used to teach direct care skills, to date we have not been able to identify the most efficient (in terms of cost) and effective (in terms of learning outcomes) simulation methods for sustainable competency based patient movement training.</p> <p>Objective: To build on our recent research, which developed and is testing a model to compare the learning and cost effectiveness of different types of simulation instruction, (e.g. high-fidelity simulation vs. PC screen based simulation), we aim to apply the model to evaluate different types of simulation used</p>	1	457,108

Gift, Grants, and Contracts for Dec 1, 2013 to Dec 31, 2013

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
				to teach the basic principles of p		
DEFENSE, DEPT-DEPUTY UNDR SECRETARY OF DEF	David Lassner	Office of the Vice President for Research and Innovation	Managing Partner of Pacific Disaster Center	To support the evolvement of the Pacific Disaster Center into a public-private partnership benefiting from shared responsibilities and assistance from the Department of Defense and PDC with its internal management, administration, and development of concepts.	1	1,090,000
DEFENSE, DEPT-NATIONAL GEOSPATIAL INTELLEGEENCE AGENCY	John Learned	Applied Research Laboratory	Anti-Neutrino Geo-Location Progam	Develop prototype neutrino detector.	1	198,044
DEFENSE, DEPT-NATIONAL GEOSPATIAL INTELLEGEENCE AGENCY	John Learned	Applied Research Laboratory	Anti-Neutrino Geo-location Progam II	Develop prototype neutrino detector.	1	247,525
DEFENSE, DEPT-NAVY OFC OF NAVAL RSCH	Zhengqing Yun	Hawaii Center for Advanced Communications	Radio Propagation Modeling and Prediction in Complex Environments	Develop propagation modeling software package that achieves accurate, fast, and dynamic radio propagation prediction and help establish effective and reliable communications networks	1	133,000

DOE-Dept of Energy

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
ENERGY, DEPT	Jean St-Pierre	Hawaii Natural Energy Institute (HNEI)	The Effect of Airborne Contaminants on Fuel Cell Performance and Durability	The objective of the proposed work is to characterize, analyze, and understand the effects of airborne contaminants which have the potential to reduce the performance of durability of proton exchange membrane (PEM) fuel cells.	1	170,000

DOI-Dept of Interior

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
INTERIOR, DEPT-FISH & WILDLIFE SVC	David Duffy	Department of Botany	Project Support for Coordinating Group on Alien Pest Species (CGAPS) Inter-Agency Coordination and Outreach Efforts	Promote communication and collaboration on projects focusing on state-wide prevention, early detection and rapid response and control of exotic pests on private and public lands.	1	20,000

Gift, Grants, and Contracts for Dec 1, 2013 to Dec 31, 2013

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
INTERIOR, DEPT-FISH & WILDLIFE SVC	David Duffy	Department of Botany	Project Support for the Big Island Invasive Species Committee (BIISC)		1	40,000
INTERIOR, DEPT-FISH & WILDLIFE SVC	David Duffy	Department of Botany	Project Support for the Kauai Invasive Species Committee (KISC)		1	10,000
INTERIOR, DEPT-FISH & WILDLIFE SVC	David Duffy	Department of Botany	Project Support for the Maui Invasive Species Committee (MISC) and the Molokai Invasive Species Committee (MoMISC)	Conduct early detection research and investigate strategies for high risk invasive species.	1	50,000
INTERIOR, DEPT-FISH & WILDLIFE SVC	David Duffy	Department of Botany	Project Support for the Oahu Invasive Species Committee (OISC)		1	30,000

Foreign

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
PEKING UNIVERSITY	Colin Aspin	Institute for Astronomy	Collaborative Research between Kavli Institute in Beijing, China and IfA for use of UH 2.2 meter telescope on Mauna Kea, HI		1	100,000

Hawaii- Business and Other

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
KAMEHAMEHA SCHOOLS	Anne Spencer Leinweber	School of Architecture	Matsumoto Phase Two: Design Review / Matsumoto Phase Three: Condition Evaluation at Iwa Gallery and Aoki Store	Phase Two: Review of Design drawings for compliance with Historic Preservation Requirements. Phase Three: Review of conditions at two building in the historic Haleiwa area to be Historic Preservation Requirements.	1	5,000
MAKAI OCEAN ENGINEERING INC	Brian Bingham	Mechanical Engineering	Array Burial Vehicle	This proposal is a Phase II STTR effort with Makai Ocean Engineering to develop an underwater array burial vehicle	1	96,393

Gift, Grants, and Contracts for Dec 1, 2013 to Dec 31, 2013

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
MAKAI OCEAN ENGINEERING INC	Brian Bingham	Mechanical Engineering	Makai Ocean Engineering GA	This project at the University of Hawaii at Manoa will support one graduate assistant GA student. The GA is expected to spend an average of 20 hours per week working with Makai Ocean Engineering staff at their facility to support the following ongoing projects and tasks associated with sea water air conditioning, seawater pipelines and the array burial vehicle.	1	30,018

Hawaii- Government Agencies

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
AGRICULTURE, DEPT-HI	Arnold H. Hara	Plant and Environmental Protection Sciences	Systems Approach to Pest Management Practices - Potted Foliage Plant Production - Phase I	This project will provide pest-free Hawaii nursery products for export, thus implementing a proactive approach of limiting the spread of pests of significance to California and the other states which import Hawaii potted foliage plants.	1	240,000
County Hawaii Dept of Research and Development	Maria Haws	Pacific Aquaculture and Coastal Resources Ctr	Enabling Hawaii Island to Become an International Supplier of Oyster Seed	Work will lead to oyster seed being produced	1	10,000
HEALTH, DEPT-HAZARD EVAL & EMERGENCY RESPONSE	Raymond Uchida	Agricultural Diagnostic Service Center	Characterization of Hazardous Substances	The purpose of this project is to provide The State of Hawaii, Department of Health, Hazards Evaluation and Emergency Response office (HEER) with quick-turnaround analysis of unknown chemicals in various sample matrices (gas, liquids and solids), consultation and technical assistance for emergency response and management, development of new analytical methods, and assist in the training of hazardous materials emergency responders. HEER personnel manage site assessment and sample collection, and deliver samples to the laboratory. University personnel characterize the samples and quantify toxic chemicals. Findings are reported to HEER personnel. Consultation regarding the analytical results is provided when appropriate and needed.	1	120,941

Gift, Grants, and Contracts for Dec 1, 2013 to Dec 31, 2013

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
LAND & NATURAL RES, DPT-FORST (DLNR)	David Duffy	Department of Botany	Coordination and Planning of the Kauai Seabird Habitat Conservation Plan on Kauai, Hawaii	Complete a programmatic seabird habitat conservation plan and National Environmental Policy Act analysis for the incidental take of endangered seabirds due to light attraction.	1	288,118
LAND & NATURAL RES, DPT-FORST (DLNR)	David Duffy	Department of Botany	Detection and Control of Invasive Species in Maui County	Implement a county-wide strategy for early detection and control of invasive species in Maui County.	1	490,922
LAND & NATURAL RES, DPT-FORST (DLNR)	David Duffy	Department of Botany	Detection and Control of Invasive Species on the Island of Kauai	Control and eradicate mongoose on Kauai, with an emphasis on early detection and rapid response	1	439,663
LAND & NATURAL RES, DPT-FORST (DLNR)	David Duffy	Department of Botany	Detection and Eradication of Invasive Deer Species on the Island of Hawaii	Develop and implement a strategy to prevent the spread of axis deer populations on the island of Hawaii.	1	129,526
LAND & NATURAL RES, DPT-FORST (DLNR)	David Duffy	Department of Botany	Hawaiian Ecosystems: Management and Education: Koolau Watershed	Monitor game check stations and run transects in native forest areas to determine impacts of pigs and axis deer in the Koolau Watershed in Maui.	1	60,000
LAND & NATURAL RES, DPT-FORST (DLNR)	David Duffy	Department of Botany	Stakeholder-led control of invasive albizia on Hawaii Island: A Demonstration Project	A coordinated demonstration project to develop effective techniques and empower communities to prevent and control the spread of Albizia trees (Falcataria moluccana).	1	35,000
LAND & NATURAL RES, DPT-FORST (DLNR)	David Duffy	Department of Botany	Support for the Hawaii Invasive Species Council, Hawaii-Pacific Weed Risk Assessment, and the Hawaii Biodiversity Information Network	Coordinate invasive species management, assess new invasive species risks, ensure good science is applied to management plans, and implement a public outreach program.	1	222,956
LAND & NATURAL RES, DPT-FORST (DLNR)	David Duffy	Department of Botany	Supporting Biological Control Capacity in Hawaii	Support for biological control host range testing and evaluation on priority pests within the State of Hawaii.	1	104,369

Hawaii- Non-Profit Organizations

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
UNIVERSITY HAWAII FOUNDATION	Marcus Tius	Natural Products	Total Synthesis	To include but not limited to determine whether organic synthesis can provide milligram quantities of a scarce marine natural product that was recently isolated from a sponge, and that has exhibited activity in cell culture against a refractory pancreatic tumor cell line (ORS agreement with UHF).	1	150,000

Gift, Grants, and Contracts for Dec 1, 2013 to Dec 31, 2013

Mainland- Business and Other

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
AECOM Inc	Roger Babcock	Water Resources Research Center	Evaluation of several types of granular activated carbon (GAC) for adsorption of Trichloropropane (TCP) in different matrices	This proposal is a subcontract to collaborate with AECOM on a granular activated carbon (GAC) water treatment study. Three potential Honolulu Board of Water Supply well sources contain 1,2,3-Trichloropropane (TCP) which can be removed effectively using GAC to concentrations below the current drinking water standard of 600 ppt. It is of interest to determine whether a new potential regulation of 5 ppt can be achieved. Life cycle costs for GAC treatment are highly dependent on adsorption capacity which is a function of the type of carbon and the site-specific characteristics of the water matrix, especially the type and amount of natural organic matter and organic anthropogenic chemicals. A study is needed to evaluate several different types of carbon to determine adsorption capacity at three different BWS source sites. A cost effective method to evaluate different carbons and predict full-scale GAC contactor performance of using rapid small-scale-column tests (RSSCTs) will be employed in this study.	1	76,700
CONCURRENT TECHNOLOGIES CORPORATION	Eric Heinen DeCarlo	Department of Oceanography	Fate of Arsenic in Marine Sediments	To study the absorption of sediments and biological organisms to uptake arsenic sea-water environment.	1	5,863
JET PROPULSION LAB-JPL	Tobias Owen	Institute for Astronomy	Cassini Solstice Mission	To study seasonal and other long-term temporal changes on Saturn and its moons, from northern winter solstice to northern summer solstice. The mission extension will allow for continued observations of Saturn's rings and the magnetic bubble around the planet known as the magnetosphere.	1	10,000
QinetiQ North America	Lloyd Hihara	Mechanical Engineering	Worldwide Deployment of Portable Exposure Racks for Corrosion Studies		1	293,148
SPACE TELESCOPE SCIENCE INSTITUTE	R Tully	Institute for Astronomy	The Geometry and Kinematics of the Local Volume		1	92,326

Gift, Grants, and Contracts for Dec 1, 2013 to Dec 31, 2013

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
UT-Battelle, LLC	Lloyd Hihara	Mechanical Engineering	Pacific Rim Corrosion Assessment and Mitigation Program Phase II	The Hawaii Corrosion Laboratory will conduct research in the areas of corrosion studies, corrosion of advanced materials, corrosion sensors, and corrosion protection strategies. This comprehensive approach will provide the US Marines with 1) a better understanding of the correlation between accelerated corrosion testing and performance in the natural environment for alloys and/or advanced materials, 2) determination of corrosion mechanisms for advanced materials of interest, 3) the ability to assess corrosivity in real time with the utilization of sensors and 4) strategies to combat corrosion using novel ceramer coatings.	1	300,000

Mainland- Health Organizations

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
MAYO CLINIC ROCHESTER	Jeffrey Berenberg	Clinical Sciences	NCCTG Subaward Agreement	UH will be conducting cooperative cancer trials for cancer patients, under the NCCTG Subaward Agreement	1	1,148

Mainland- Non-Profit Organizations

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
American Speech-Language Hearing Assn	Christine Fiestas	Department of Communication Sciences and Disorders	Training SLPs in the Pacific: Assessment Tool for Hawaiian Creole	This project proposes to obtain normative oral language data for children in Hawai'i from PK-3rd grade. The purpose is for Speech-Language Pathologists to have data derived locally for assessment of language skills.	1	9,349
Foundational Questions Institute	Susanne Still	Information and Computer Sciences	Foundations of Information Processing in Living Systems		1	63,896
RAND Corporation	Valli Kalei Kanuha	Sociology (UH Manoa)	National Evaluation of Safe Start: Promising Approaches for Children Exposed to Violence (Phase II)	National evaluation of Safe Start Promising Approaches program. This award is to be used for data collection of comparison groups generated at Parents and Children Together, the project collaborator with UH. Activities will take place at the agency and other community sites in Kalihi and urban Honolulu.	1	10,800

Gift, Grants, and Contracts for Dec 1, 2013 to Dec 31, 2013

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
SETI Institute	Alexander Shor	School of Ocean and Earth Science and Technology	SETI Support for Brendan Hermalyn at University of Hawaii SOEST		1	53,838

National Aeronautics and Space Administration

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
NATIONAL AERONAUT & SPACE ADM	Bo Qiu	Department of Oceanography	Elucidating Multi-Scale Midlatitude Ocean Dynamics Using Satellite Altimetry and Numerical Modeling Data	The project goals are to characterize and understand the nature and causes of the large-scale fluctuations in the midlatitude Pacific Oceans on time scales from interannual to decadal.	1	154,862
NATIONAL AERONAUT & SPACE ADM	Bo Qiu	Department of Oceanography	Exploration of New Upper Ocean Circulation Dynamics through Synergy of the SWOT Satellite Mission and 1/30-deg Ocean General Circulation Model	This proposal seeks participation in the prelaunch Science Definition Team for the Surface Water and Ocean Topography (SWOT) satellite mission. Our specific goal is to characterize and understand the nature and roles of mesoscale and sub-mesoscale eddies in the upper ocean circulation dynamics. In particular, we are interested in utilizing the output from a high-resolution (with a 1/30 deg x 1/30 deg horizontal grid and 100 vertical levels) Ocean General Circulation Model to help evaluate the science requirements for the SWOT mission planning and development. An improved understanding of the ocean surface topography in the mesoscale and sub-mesoscale ranges will lead to increased predictability of the time-varying upper ocean circulation and thermal structures, both of which are important to the climate variability on the longer timescales.	1	70,416
NATIONAL AERONAUT & SPACE ADM	Michael Liu	Institute for Astronomy	Studying Young Gas-Giant Planets Directly	We will conduct photometric, spectroscopic, and astrometric studies of gas-giant planets detected by direct imaging.	1	78,667

Gift, Grants, and Contracts for Dec 1, 2013 to Dec 31, 2013

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
NATIONAL AERONAUT & SPACE ADM	Niklas Schneider	International Pacific Research Center (IPRC)	Interannual Variability of Ocean Vector Winds Near Ocean Fronts and Coastal Orography	We study interannual variability of ocean vector winds observed by satellites and their role in ocean-atmosphere interactions, with a focus on narrow-scale features not resolved by traditional climate datasets.	1	60,000

National Science Foundation

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
NATIONAL SCIENCE FOUNDATION	Gregory Moore	Department of Geology and Geophysics	Oceanic Crustal Structure of the NE Hawaiian Arch		1	71,170

US Colleges and Universities

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
ARIZONA, UNIVERSITY OF	Donald Hall	Institute for Astronomy	ASIC Development Testing for the James Webb Space Telescope	To continue the performance of application specific integrated circuit development testing for space telescopes	1	67,944
ARIZONA, UNIVERSITY OF	Klaus Hodapp	Institute for Astronomy	JWST Near Infrared Camera Co-Investigator Support	Develop an observational program using JWST to address a broad spectrum of scientific issues, advising the NIRCам PI and developing required data analysis	1	42,944
CALIFORNIA DAVIS, UNIVERSITY OF	Charlene Cuaresma	Student Equity Excel & Diversity	AANCART: The National Center for Reducing Asian American Cancer Health Disparities	The overall vision is to reduce cancer disparities among Asian Americans. Using community-based participatory research, the Center will use its established network and academic-community partnerships to conduct innovative outreach, research and training efforts in five cities in Hawaii, California, and Washington.	1	56,302
CALIFORNIA LOS ANGELES, UNIV	Paul Grandmont Lucey	Hawaii Institute of Geophysics and Planetology (HIGP)	Support to UCLA LRO Diviner Investigation	The principal investigator will provide expertise in lunar science to University of California at Los Angeles in support of their infrared spectrometer on NASA's Lunar Reconnaissance Orbiter mission.	1	61,980

Gift, Grants, and Contracts for Dec 1, 2013 to Dec 31, 2013

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
CHAMINADE UNIVERSITY	Alexander J Stokes	Department of Cell and Molecular Biology	Regulation of cardiac pathologies by the store operated ion channel CRACM1	The development of cardiac hypertrophy represents a principal risk factor for the development of heart failure and subsequent cardiac death. Our preliminary data show that knowout of CRACM1 exacerbates cardiac hypertrophy. The data generated from this proposal will identify CRACM1 as fundamental components of cardiac hypertrophy, and myocardial infarction reperfusion injury.	1	193,953
SOUTHERN CALIFORNIA, UNIVERSITY OF	Loic Le Marchand	Cancer Etiology	Epidemiologic Investigation of Putative Functional Variation in the Multiethnic Cohort	This study investigates the association of genetic variants likely to have a biological effect, with disease risks (e.g., cancer, obesity, diabetes, serum lipids) among racial minorities. UH investigators will continue to work with Multiethnic Cohort colleagues at USC, and collaborate with other centers as part of the NHGRI PAGE consortium.	1	235,324
Research - Total					55	7,291,060

Non-Research

DOC-Dept of Commerce

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
COMMERCE, DEPT-ECONOMIC DEV ADM-FED	John Morton	Office of the Vice President for Community Colleges	UH-PBCP EDA University Center 2012-2017	The PBCP's scope of work will cover a five-year period, and will cover the three areas of: providing technical assistance, conducting research, and disseminating information about and the results of the PBCP's economic development activities, with the over goal of economic diversification and the creation of higher-paying, higher-skilled jobs in broad cluster industries in the State of Hawaii, and the development of a private sector economy in the AAPI.	1	182,847

DOI-Dept of Interior

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
INTERIOR, DEPT-UNITED STATES GEO SURVEY	Kenneth Kaneshiro	Pacific Biosciences Research Center	USGS - Pacific Island Climate Science Center HCA Membership	These funds are to cover the annual dues for the Hawaii Conservation Alliance (HCA) for	1	9,000

Gift, Grants, and Contracts for Dec 1, 2013 to Dec 31, 2013

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
				the calendar year 2012 to coordinate meetings and opportunities for PICSC collaborators to share information that will assist PICSC to attain its goals and objectives.		

ED-Dept of Education

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
EDUCATION, DEPT-FED	Kekuhi Kanae K. Kealiikanakaolei	Chancellor, Hawaii Community College	Kulukuluua: 5-year Development Grant	The proposed project will (1) increase the course completion rates of Native Hawaiian students; (2) increase the number of Native Hawaiians re-enrolling and completing their degree in Hawaii Life Styles Academic Program, and (3) increase levels of student engagement for persistence and degree completion.	1	67,500

Federal Agencies

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
ENVIRONMENTAL PROTECTION AGENCY	Celia M. Smith	Department of Botany	EPA STAR Graduate Fellowship for Daniel Amato	Year 2 of Daniel Amato's EPA Star Fellowship.	1	17,000

Foreign

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
Chuo University	R Anderson Sutton	International & Exch Prog	Chuo Overseas Exchange	This is a grant to commence an international relationship with Chuo University of Tokyo, Japan. Chuo, a leading private university, is requesting to set up an office at Manoa and hire a project coordinator to help bring Chuo faculty and students to UHM, and also encourage UHM students to consider studying at Chuo. Chuo envisions bringing especially its students to UHM to study about Hawaii and the United States. This project, funded by Chuo University, will cover the costs of administration and office space. The Chuo office will be run in conjunction with the Office of International Programs and Exchange.	1	20,055

Gift, Grants, and Contracts for Dec 1, 2013 to Dec 31, 2013

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
FEDERATED STATES MICRONESIA	Lee E Buenconsejo- Lum	Department of Family Medicine and Community Health	Pacific Regional Comprehensive Cancer Control program (FSM HSA subcontract)	The Regional CCC Program leverages resources and work collaboratively with others to build capacity within the USAPI Health Departments/Ministries and community sector to implement the Pacific Regional CCC plan. The Regional Plan includes goals and objectives addressing the cancer control spectrum from prevention to treatment and palliation.	1	70,000
GUAM, GOVERNMENT - Public Health and Social Services	Norman Okamura	Social Science Research Institute	Guam HIE	Guam HIE DIRECT, LABORATORY, ERX, IMMUNIZATION, TECHNICAL SUPPORT AND PROJECT MANAGEMENT SERVICES FOR HIE.	1	546,968
KOREA INSTITUTE OF OCEAN SCIENCE & TECHNOLOGY	Alexander Shor	School of Ocean and Earth Science and Technology	2013 Side-scan Sonar Surveys for KIOST using Onnuri in the Pacific Ocean		1	3,500
Tohoku University	Jeffrey Kuhn	Institute for Astronomy	PLANETS Telescope Mirror Design and Acquisition	PLANETS Telescope Mirror Design and Acquisition	1	102,712
UNIVERSITY OF AUCKLAND	Rachel Novotny	Human Nutrition, Food and Animal Sciences	The Pacific NCD Observatory Development Project	This project develops a system to link Pacific data concerning obesity and prevention of non communicable diseases.	1	16,936

Hawaii- Business and Other

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
KAMEHAMEHA SCHOOLS	Monique Mironesco	Division of Social Sciences	UHWO Sustainable Community Food Systems - funding request for faculty position	We are proposing to establish a Bachelor's degree program in Sustainable Community Food Systems (SCFS) which will prepare students for support services connected with the growing sustainable agriculture sector. This academic concentration will prepare students to apply a diverse set of skills to the development of the sustainable agriculture industry in Hawaii in a variety of capacities (SAP Goal 4A), such as work in non-profits, education, resource management, food policy advocacy, business marketing and management, social enterprise, civic agriculture/social work, and with further training available throughout the UH system and as apprentices on working farms, as practitioners of sustainable farming (SAP Goal	1	132,817

Gift, Grants, and Contracts for Dec 1, 2013 to Dec 31, 2013

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
				4B). The funding requested by this proposal is for one full-time assistant professor level position to teach required core courses in the SCFS degree as well as some of the science courses in the SCFS curriculum.		

Hawaii- Government Agencies

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
ACCOUNTING & GEN SVC, DEPT-HI STATE FDTN CULT & ARTS	Timothy Slaughter	Outreach College	SCEP: Presenting & Touring Outreach	The University's Statewide Cultural Extension Programs enters its 41st year providing arts & cultural programming to communities throughout the state.	1	50,000
COUNTY KAUAI	Dolores Foley	Urban and Regional Planning	EAST KAUAI DEVELOPMENT PLAN COMPLETION PROJECT	<p>The draft East Kaua'i Community Development Plan currently contains fourteen {14} chapters:</p> <p>1} Introduction 2} Values, Vision, and Guiding Principles 3} East Kaua'i Past Present & Future 4} Alternative and Preferred Growth Scenarios 5} Land Use 6} Transportation & Circulation 7} Parks and Recreation 8} Infrastructure 9} Public Facilities 10} Rural Character 11} Culture 12} Natural Resources 13} Historic Kapa'a Town 14} Implementation</p> <p>a) Review 14 draft chapters of community development plan to identify and update references b) Assist with finalization of 14 draft chapters c) Completion of graphics & mapping elements of plan d) Develop public presentation materials e) Assist with one {1} East Kaua'i Community Advisory Committee {CAC} meeting f) Assist with one {1} community-wide meeting g) Prepare electronic & hard copies of draft development plan for distribution</p> <p>&#8195;</p>	1	49,843

Gift, Grants, and Contracts for Dec 1, 2013 to Dec 31, 2013

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
COUNTY MAUI OFC OF ECON DEVEL	Jonathon McKee	Dental Assisting (UH Maui College)	Allied Health County Dental Prog FY14	Support is requested to sustain the University of Hawaii Maui College (UHMC), Maui Oral Health Initiative (MOHI) from July 2013 through June 2014.	1	250,000
HAWAIIAN AFFAIRS, OFFICE OF	Melody Kapilialoha MacKenzie	William S. Richardson School of Law	Native Hawaiian Rights Training Course	Create the "Native Hawaiian Rights Training Course". (Training) to target State of Hawaii entities-councils, boards and commissions-that administer public trust resources and programs that directly impact Native Hawaiian traditional and customary rights, natural resource protection, access rights, and the public trust.	1	140,000
HEALTH, DEPT-CHILD/ ADOLESC MENTAL HLTH DIV-HI	Charles Mueller	Psychology (UH Manoa)	Research, Evaluation and Training Program	Psychology Department and Department of Health Child and Adolescent Mental Health Division (DOH-CAMHD) collaborate to provide research and evaluation services for CAMHD and provide research and evaluation training for graduate psychology student	1	613,060
HEALTH, DEPT-HI	Mark Kunimune	Emergency Medical Services	Training stipends - DOH-UHKCC for MICT stipends 2014 - 2015	Memorandum of Agreement (MOA) between the State Department of Health and the University of Hawaii Kapiolani Community College (UH-KCC) for stipends for emergency medical technicians who wish to receive mobile intensive care technician training offered by UH-KCC's Department of Emergency Medical Services for FY 2013.	1	360,000
LAND & NATURAL RES, DPT-AQUAT (DLNR)	Michael Hamnett	Social Science Research Institute	Hawaii Coral Reef Strategy Assessment, Phase II	Assessment of the Hawaii Coral Reef Strategy: Phase II will assess the outputs and outcomes of the Division of Aquatic Resources (DAR) Hawaii Coral Reef Management grant for FY2011 and FY2012. The project will also help track the progress of FY2013 subawards and continue to gather the progress and final reports from those projects. Lastly, this project will assess and update the HCRS project selection criteria, strategic action list, and Coral Reef Working Group charter.	1	45,432

Gift, Grants, and Contracts for Dec 1, 2013 to Dec 31, 2013

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
LAND & NATURAL RES, DPT-FORST (DLNR)	David Duffy	Department of Botany	Supporting Invasive Species Outreach Efforts: Consolidated Online Public Pest Reporting, Improved Interagency Communication & Enhanced Web Content	Support and enhance invasive species public outreach through web content.	1	68,887
LAND & NATURAL RESOURCES, DEPT (DLNR)	Kenneth Kaneshiro	Pacific Biosciences Research Center	Na Ala Hele Trail Access and Management - Maui	The objective of this project is to provide public outreach, trail monitoring, volunteer coordination as well as continue standard maintenance on Mauis public hiking trails, roads and management areas in a manner consistent with Division of Forestry and Wildlife (DOFAWs) statewide trail and access program.	1	98,941
LAND & NATURAL RESOURCES, DEPT (DLNR)	Kenneth Kaneshiro	Pacific Biosciences Research Center	Na Ala Hele Trail and Access Program - Kauai	The objective of this project is to provide public outreach, trail monitoring, volunteer coordination as well as continue standard maintenance on Kauais public hiking trails, roads and management areas in a manner consistent with Division of Forestry and Wildlife (DOFAWs) statewide trail and access program.	1	45,792

Hawaii- Non-Profit Organizations

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
HAWAIIAN SILVERSWORD FOUNDATION	Clifford Morden	Department of Botany	Imi Pono no ka Aina: Forest Guardians	Develop and implement a joint environmental stewardship and cultural education program called "Forest Guardians," for K-12 school children on Hawaii island.	1	13,520
OLELO	David Lassner	Office of the VP for Information Tech/Chief Info Officer	Hawaii Educational Networking Consortium (HENC)	To provide oversight of the two educational access cable television channels (channel 55 and 56) provided for accredited education of Oahu.	1	40,000
PARENTS & CHILDREN TOGETHER (PACT)	Thanh Truc Nguyen	Curriculum Research and Development Group	Parents and Children Together (PACT) Kuhio Park Terrace (KPT) Makery		1	9,200
UNIVERSITY HAWAII FOUNDATION	Aviam Soifer	William S. Richardson School of Law	General Support of the William S School of Law	Process payment for Law School UHF account with payroll and tax implications.	1	49,680

Gift, Grants, and Contracts for Dec 1, 2013 to Dec 31, 2013

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
UNIVERSITY HAWAII FOUNDATION	Charles Sasaki	Arts and Sciences Academic Program	New Media Arts (UH Foundation funds transfer)	UH Foundation funds transfer request for New Media Arts - provide enrichment opportunities to New Media Arts students on graphic symbolism and interface design.	1	46
UNIVERSITY HAWAII FOUNDATION	Laurence James Paxton	Music (UH Manoa)	Nancy Gustafsson-Rittenband & Victor Rittenband Endowment for Hawaiian Music	Funding for lecturer salaries and fringe to teach Hawaiian Music.	1	14,036
UNIVERSITY HAWAII FOUNDATION	Louis Herman	Chancellor, UH West Oahu	The Primal Quest	Five thousand dollars in matching funds pledged from Doran Foundation for lecturer replacement for two courses to enable work on completing a book manuscript and developing a film production, Primal Quest.	1	2,500
UNIVERSITY HAWAII FOUNDATION	Marjorie Mau	Department of Native Hawaiian Health	Myron Pinky Thompson Endowed Chair	To develop a research and training program focused on health disparities in native Hawaiian and other underserved populations.	1	240,000
UNIVERSITY HAWAII FOUNDATION	Michael Antal	Hawaii Natural Energy Institute (HNEI)	Coral Industries Distinguished Professor of Renewable Energy Chairholder	To provide for salary, fringe benefit costs, and other program expenses.	1	75,000
UNIVERSITY HAWAII FOUNDATION	Tung Bui	Shidler College of Business	Matson Navigation Company Chair of Global Business Education	<p>The purpose of the Matson Chair is to help the Shidler College of Business in its development as well as to help forge a meaningful link between the University and the business community.</p> <p>Shidler College of Business, in parallel to the University of Hawaii, has two major strategic thrusts. The first focuses on international business in the Asia-Pacific region and the second focuses on the impact of management or organizations and managers. The project will help sustain these strategies.</p>	1	31,261

Mainland- Business and Other

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
GENENTECH INC	Jonathan Cho	Clinical Sciences	A randomized, 3 arm, multi-centre, phase III study to evaluate the efficacy and the safety of T-DM1 combined with pertuzumab or T-DMI combined with	Phase 3 study to evaluate efficacy and safety of trastuzumab emtansine in patients with HER2 positive breast cancer	1	1,200

Gift, Grants, and Contracts for Dec 1, 2013 to Dec 31, 2013

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
RK CONSULTING	Mark Hoffman	Science, Technology, Engineering and Mathematics Department	Rob Knourek MALT Internship	Training in the development of database applications for the internet.	1	20,000

Mainland- Non-Profit Organizations

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
PACKARD FOUNDATION, DAVID & LUCILE	Maria Haws	Pacific Aquaculture and Coastal Resources Ctr	Strengthening the Institutional and Human Capacity of the Marine and Environmental Research Institute of Pohnpei and Regional Colleges in small-scale	Provide technical assistance in mariculture and fisheries management in the FSM	1	100,000

National Science Foundation

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
NATIONAL SCIENCE FOUNDATION	Anthony Kuh	Electrical Engineering	JST/ NSF Workshop on Cooperative Distributive Energy Management Systems		3	394,022

US Colleges and Universities

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
CHAMINADE UNIVERSITY	Jill Kobashigawa	College of Engineering	Engineering Success in STEM	Project involves the development of a series of engineering education professional development curriculum in collaboration with Chaminade University of Honolulu for middle school teachers and Kaimuki High STEM Academy teachers. The project includes a mentoring component.	1	80,000
FLORIDA, UNIVERSITY OF CENTRAL	Mark Hoffman	Science, Technology, Engineering and Mathematics Department	Electronics and Computer Engineering Technology (ECET)	In order to increase enrollment and completers of AS ECET with a specialty in photonics UHMC is requesting a \$15000 mini grant from OPTEC UCF for the sole purpose of hiring a photonics dedicated recruiter to inform and encourage secondary school students to plan and prepare to enroll in UHMC ECET AS degree with a specialty in photonics.	1	15,000

Gift, Grants, and Contracts for Dec 1, 2013 to Dec 31, 2013

Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
SOUTHERN CALIFORNIA, UNIVERSITY OF	Michael Rappe	Hawaii Institute of Marine Biology (HIMB)	Ridge Flank Crustal Fluid Microbial Community Genomics, Expression, and Phylogeny	This award will support graduate student Sean Jungbluth for one year in order to investigate the activity and genetic potential of microorganisms living in the deep subsurface of Earth.	1	31,870
WYOMING, UNIVERSITY OF	Theodore Radovich	Tropical Plant and Soil Science	SARE Professional Development Program Plan for Hawaii	This project funds outreach activities to educate agricultural professionals on sustainable agricultural practices.	1	18,000
Non-Research - Total					41	4,026,625
Overall - Total					96	11,317,685

Funds Received from UH Foundation for Dec 1, 2013 to Dec 31, 2013

Non-Research

Sponsor Type	Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
Hawaii- Non-Profit Organizations	UNIVERSITY HAWAII FOUNDATION	Michael Antal	Hawaii Natural Energy Institute (HNEI)	Coral Industries Distinguished Professor of Renewable Energy Chairholder	To provide for salary, fringe benefit costs, and other program expenses.	1	75,000
Hawaii- Non-Profit Organizations	UNIVERSITY HAWAII FOUNDATION	Aviam Soifer	William S. Richardson School of Law	General Support of the William S School of Law	Process payment for Law School UHF account with payroll and tax implications.	1	49,680
Hawaii- Non-Profit Organizations	UNIVERSITY HAWAII FOUNDATION	Tung Bui	Shidler College of Business	Matson Navigation Company Chair of Global Business Education	<p>The purpose of the Matson Chair is to help the Shidler College of Business in its development as well as to help forge a meaningful link between the University and the business community.</p> <p>Shidler College of Business, in parallel to the University of Hawaii, has two major strategic thrusts. The first focuses on international business in the Asia-Pacific region and the second focuses on the impact of management or organizations and managers. The project will help sustain these strategies.</p>	1	31,261
Hawaii- Non-Profit Organizations	UNIVERSITY HAWAII FOUNDATION	Marjorie Mau	Department of Native Hawaiian Health	Myron Pinky Thompson Endowed Chair	To develop a research and training program focused on health disparities in native Hawaiian and other underserved populations.	1	240,000
Hawaii- Non-Profit Organizations	UNIVERSITY HAWAII FOUNDATION	Laurence James Paxton	Music (UH Manoa)	Nancy Gustafsson-Rittenband & Victor Rittenband Endowment for Hawaiian Music	Funding for lecturer salaries and fringe to teach Hawaiian Music.	1	14,036
Hawaii- Non-Profit Organizations	UNIVERSITY HAWAII FOUNDATION	Charles Sasaki	Arts and Sciences Academic Program	New Media Arts (UH Foundation funds transfer)	UH Foundation funds transfer request for New Media Arts - provide enrichment opportunities to New Media Arts students on graphic symbolism and interface design.	1	46
Hawaii- Non-Profit Organizations	UNIVERSITY HAWAII FOUNDATION	Louis Herman	Chancellor, UH West Oahu	The Primal Quest	Five thousand dollars in matching funds pledged from Doran Foundation for lecturer replacement for two courses to enable work on completing a book manuscript and developing a film production, Primal Quest.	1	2,500

Research

Funds Received from UH Foundation for Dec 1, 2013 to Dec 31, 2013

Sponsor Type	Award Sponsor	PI Name	Department	Title	Project Goals	Award Count	Award Amount
Hawaii- Non-Profit Organizations	UNIVERSITY HAWAII FOUNDATION	Marcus Tius	Natural Products	Total Synthesis	To include but not limited to determine whether organic synthesis can provide milligram quantities of a scarce marine natural product that was recently isolated from a sponge, and that has exhibited activity in cell culture against a refractory pancreatic tumor cell line (ORS agreement with UHF).	1	150,000
Overall - Total						8	562,523

**Extramural Research Awards for the Month
Dec 1, 2013 to Dec 31, 2013
Distribution by Sponsor**

Sponsor Type	Award Count	Award Amount	Percentage
DHHS-Dept of Health and Human Services	2	158,038	2%
DOC-Dept of Commerce	3	140,000	2%
DOD-Department of Defense	6	2,139,486	29%
DOE-Dept of Energy	1	170,000	2%
DOI-Dept of Interior	5	150,000	2%
Foreign	1	100,000	1%
Hawaii- Business and Other	3	131,411	2%
Hawaii- Government Agencies	11	2,141,495	29%
Hawaii- Non-Profit Organizations	1	150,000	2%
Mainland- Business and Other	6	778,037	11%
Mainland- Health Organizations	1	1,148	0%
Mainland- Non-Profit Organizations	4	137,883	2%
National Aeronautics and Space Administration	4	363,945	5%
National Science Foundation	1	71,170	1%
US Colleges and Universities	6	658,447	9%
Overall - Total	55	7,291,060	100%

**Extramural Non-Research Awards for the Month of
Dec 1, 2013 to Dec 31, 2013
Distribution by Sponsor**

Sponsor Type	Award Count	Award Amount	Percentage
DOC-Dept of Commerce	1	182,847	5%
DOI-Dept of Interior	1	9,000	0%
ED-Dept of Education	1	67,500	2%
Federal Agencies	1	17,000	0%
Foreign	6	760,171	19%
Hawaii- Business and Other	1	132,817	3%
Hawaii- Government Agencies	10	1,721,955	43%
Hawaii- Non-Profit Organizations	10	475,243	12%
Mainland- Business and Other	2	21,200	1%
Mainland- Non-Profit Organizations	1	100,000	2%
National Science Foundation	3	394,022	10%
US Colleges and Universities	4	144,870	4%
Overall - Total	41	4,026,625	100%

**Year to Date Extramural Research Awards
Jul 1, 2013 to Dec 31, 2013
Distribution by Sponsor**

Sponsor Type	Award Count	Award Amount	Percentage
DA-Dept of Agriculture	28	8,851,816	6%
Dept of State	2	1,350,000	1%
DHHS-Dept of Health and Human Services	46	25,533,898	18%
DOC-Dept of Commerce	49	15,290,946	11%
DOD-Department of Defense	37	28,836,995	21%
DOE-Dept of Energy	10	3,419,206	2%
DOI-Dept of Interior	52	4,210,972	3%
DOT-Dept of Transportation	1	5,000	0%
ED-Dept of Education	1	467,285	0%
Federal Agencies	6	2,524,429	2%
Foreign	11	3,005,491	2%
Hawaii- Business and Other	15	1,178,721	1%
Hawaii- Government Agencies	68	8,374,185	6%
Hawaii- Health Organizations	2	295,315	0%
Hawaii- Non-Profit Organizations	33	3,292,386	2%
Mainland- Business and Other	32	3,162,147	2%
Mainland- Health Organizations	5	135,208	0%
Mainland- Non-Profit Organizations	17	941,709	1%
National Aeronautics and Space Administration	37	8,043,110	6%
National Science Foundation	51	16,237,302	12%
US Colleges and Universities	49	4,572,352	3%
Overall - Total	552	139,728,473	100%

**Year to Date Extramural Non-Research Awards
Jul 1, 2013 to Dec 31, 2013
Distribution by Sponsor**

Sponsor Type	Award Count	Award Amount	Percentage
DA-Dept of Agriculture	12	2,011,537	2%
DHHS-Dept of Health and Human Services	22	12,333,789	12%
DOC-Dept of Commerce	11	3,142,534	3%
DOD-Department of Defense	7	1,077,177	1%
DOI-Dept of Interior	9	440,037	0%
ED-Dept of Education	56	24,591,394	24%
Federal Agencies	9	8,062,393	8%
Foreign	22	6,065,682	6%
Hawaii- Business and Other	12	2,312,810	2%
Hawaii- Dept of Education	5	2,945,000	3%
Hawaii- Government Agencies	50	8,631,340	9%
Hawaii- Health Organizations	23	6,932,097	7%
Hawaii- Non-Profit Organizations	72	4,556,072	4%
Mainland- Business and Other	12	2,089,960	2%
Mainland- Health Organizations	4	71,300	0%
Mainland- Non-Profit Organizations	15	1,360,895	1%
National Aeronautics and Space Administration	6	3,387,268	3%
National Science Foundation	19	10,893,728	11%
US Colleges and Universities	12	508,719	1%
Overall - Total	378	101,413,732	100%