

**University of
California, Berkeley
Sponsored
Projects
Annual Report
Fiscal Year 2016**

Sponsored Projects Annual Report, Fiscal Year 2016

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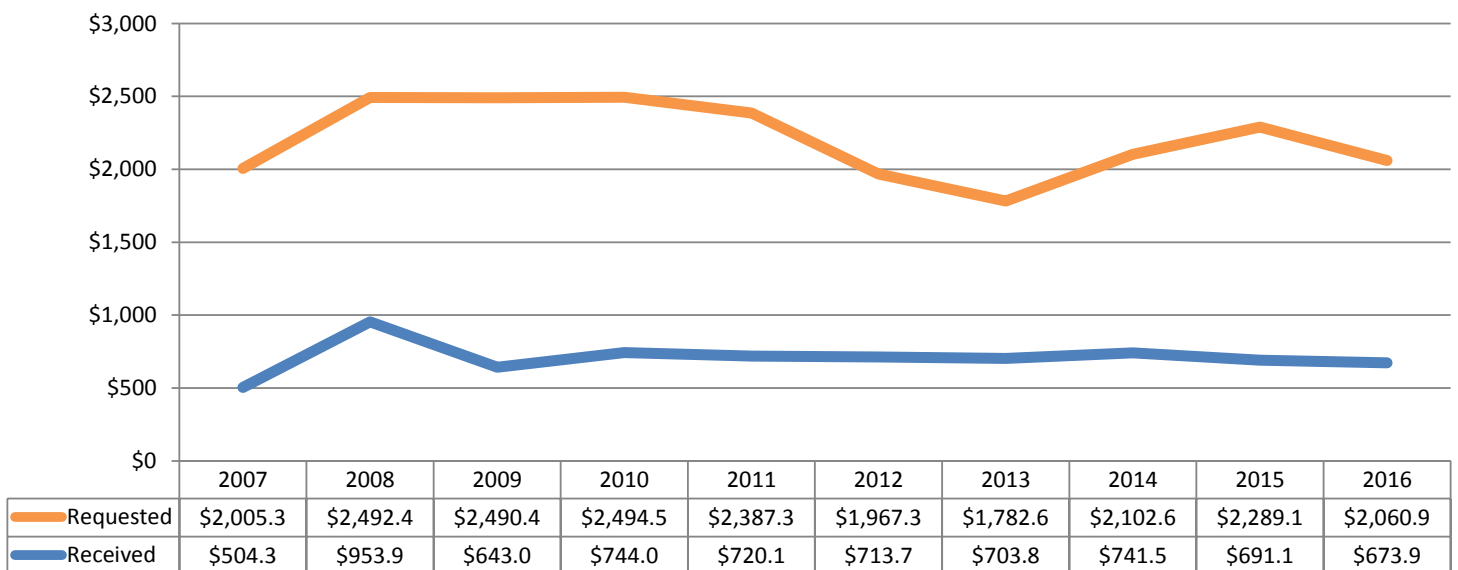
University of California, Berkeley / Sponsored Projects Overview

The **University of California, Berkeley** is one of the world's leading universities in research, teaching, and public service, with an enrollment of over 27,000 undergraduates and over 10,000 graduate students. The campus employs 1,623 full-time and 635 part-time faculty in more than 170 academic departments and more than 80 interdisciplinary research units. UC Berkeley is divided into 14 colleges and schools, most of which are subdivided into departments. The campus offers over 10,000 undergraduate and graduate courses in approximately 300 degree programs, and typically produces more Ph.D.s than any other U.S. research university.

The Sponsored Projects Office (SPO) at UC Berkeley is responsible for endorsing and authorizing proposals to and interpreting, negotiating, and accepting contracts and grants for projects funded by federal and state agencies, foundations, and other public and private sources. SPO prepares and negotiates all subawards for collaborative research. SPO is part of the Research Administration and Compliance Office (RAC), under the Vice Chancellor for Research.

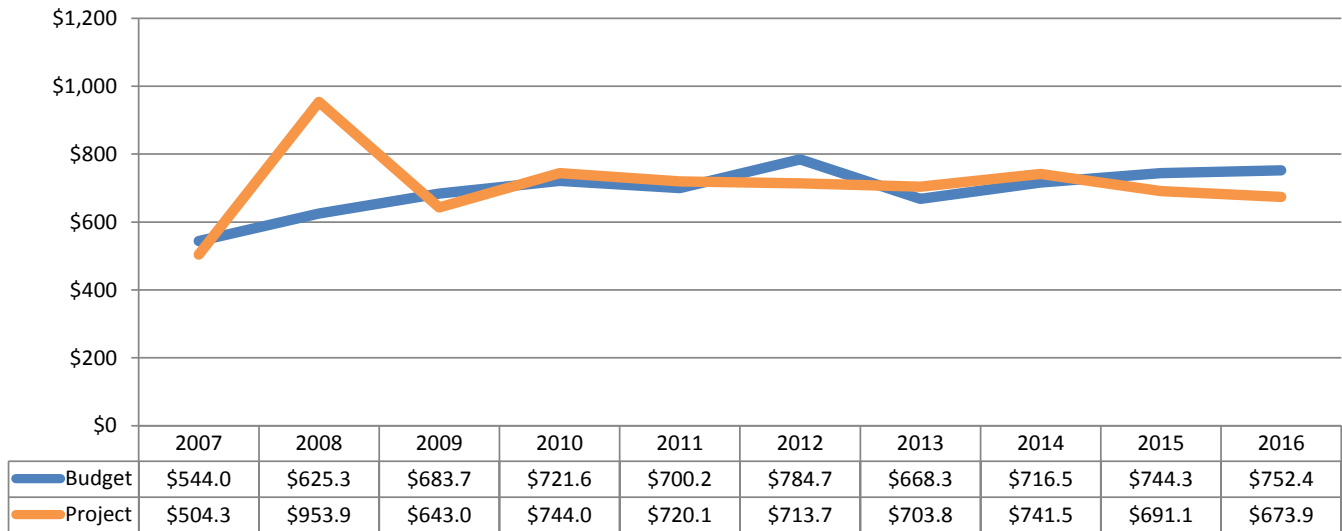
Proposal and Award Overview

Ten-Year Comparison of Funding Requested and Funding Received, FY 2007-2016
(dollars in millions)



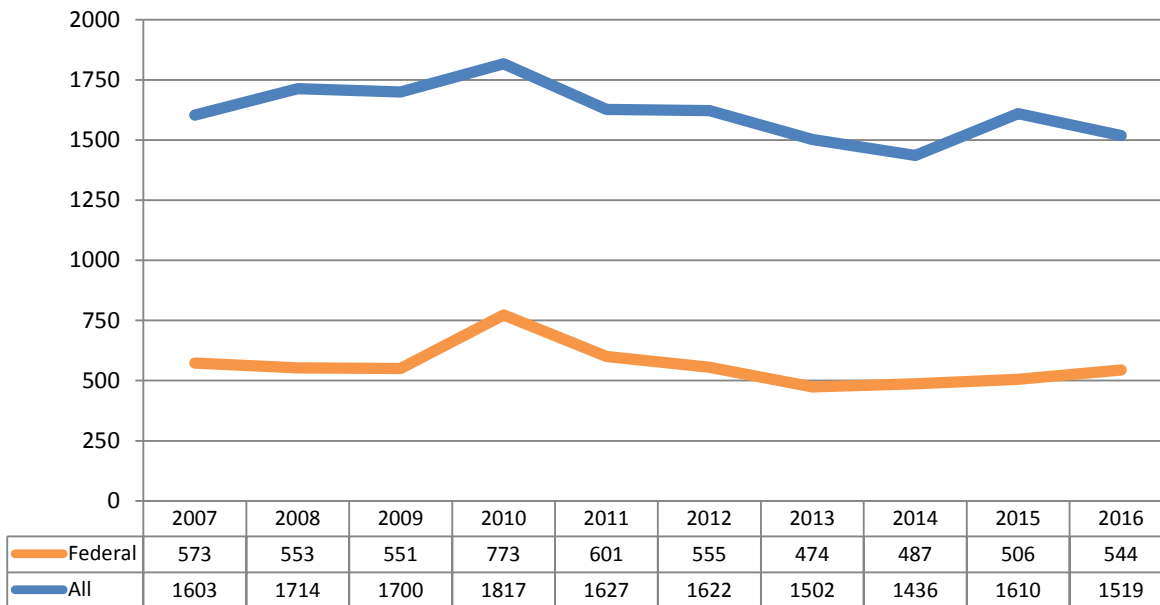
Proposal and Award Overview

Ten-Year Comparison of Project and Budget Period Funding, FY 2007-2016
(dollars in millions)



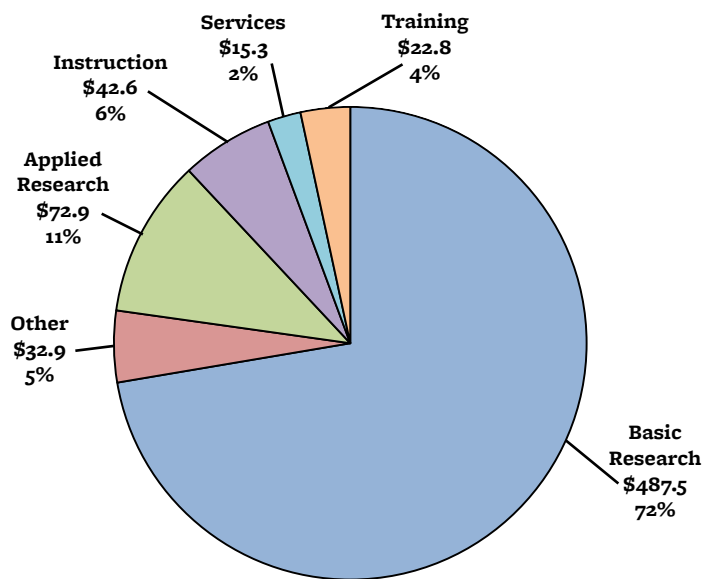
Project period funding includes all funding anticipated for a project, reporting in the fiscal year of its begin date. Budget period funding reports each budget period for a project in the fiscal year of its begin date. Budget period funding increased by 1% in fiscal year 2016, while project period funding declined by 3%.

Ten-Year Comparison of Number of New Awards Received, FY 2007-2016



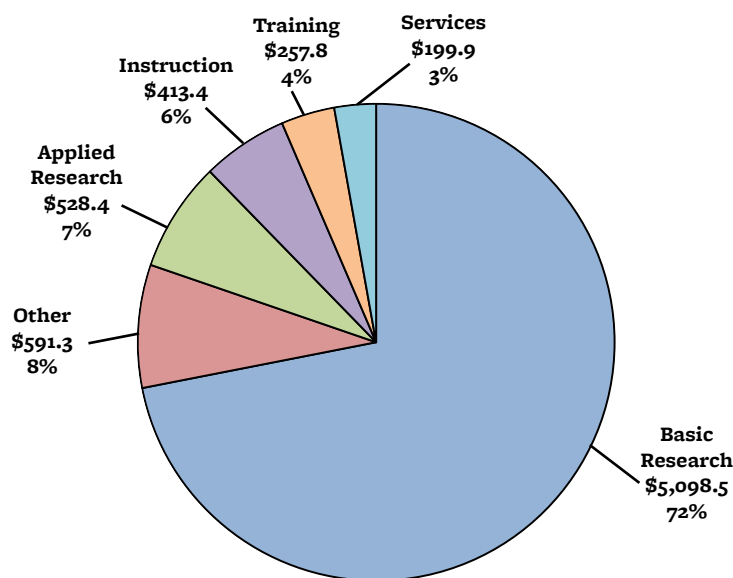
Proposal and Award Overview

Fiscal Year 2016 Funding Summary by Activity Type
 (\$673.9 million total - dollars in millions)



Activity type “Other” primarily includes funding transferred from the Lawrence Berkeley National Laboratory for administrative purposes, along with projects that span multiple activities or do not cleanly fit into the five other categories.

Ten-Year Funding Summary by Activity Type, FY 2007-2016
 (\$7.08 billion total - dollars in millions)



Proposals and Awards by Campus Control Unit

UC Berkeley colleges, schools, and divisions include the Colleges of Chemistry, Engineering, Natural Resources, and Environmental Design, as well as Optometry, Law, Journalism, Public Policy, Public Health, Education, Business, Social Welfare, and others.

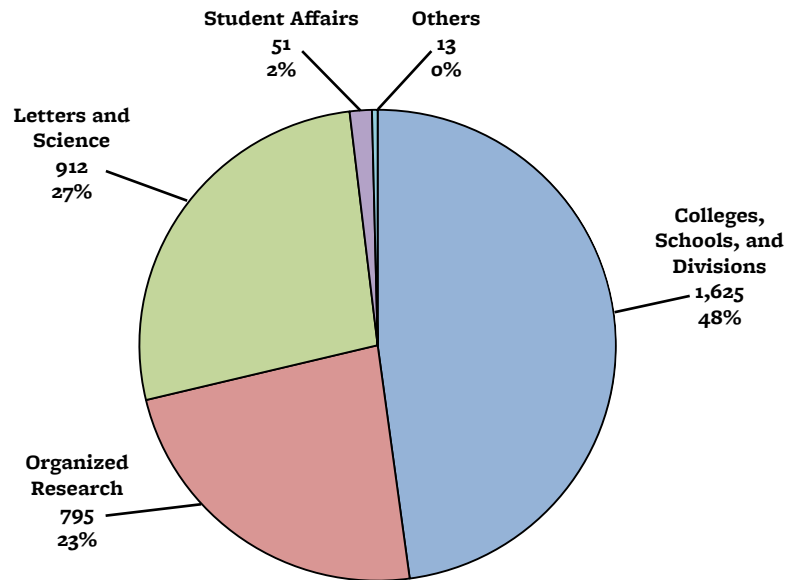
The College of Letters and Science, or L&S, includes Biological, Physical, Social Science, and Arts and Humanities Divisions.

Organized Research Units (ORUs) report to the Vice Chancellor for Research and are organized around broad substantive research topics, e.g., international affairs, information technology and science, and the environment. As such, they draw into their research programs faculty and students from multiple departments and disciplines. These institutes, centers, and departments exist primarily to conduct research, and include the Space Sciences Laboratory, the Institute of Transportation Studies, the Berkeley Seismological Laboratory, and many others.

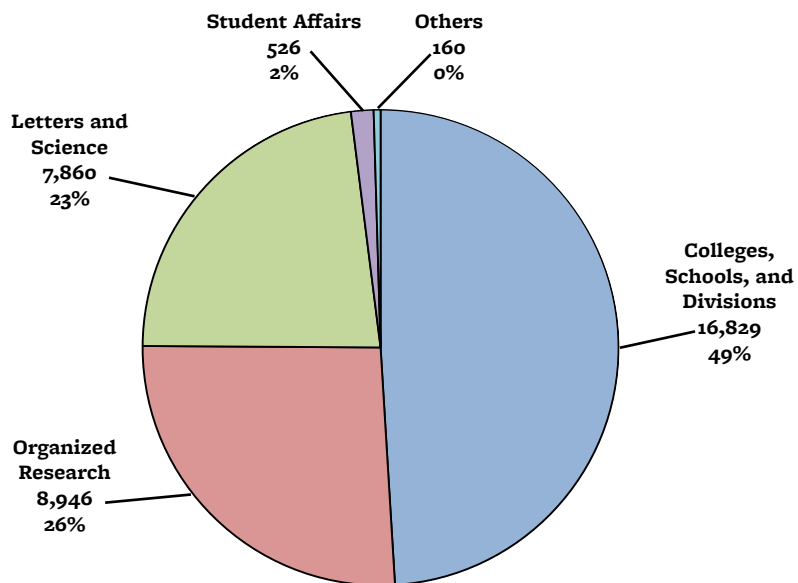


Proposals by Campus Control Unit

**Fiscal Year 2016 Number of Proposals Submitted by Control Unit
(3,396 total)**

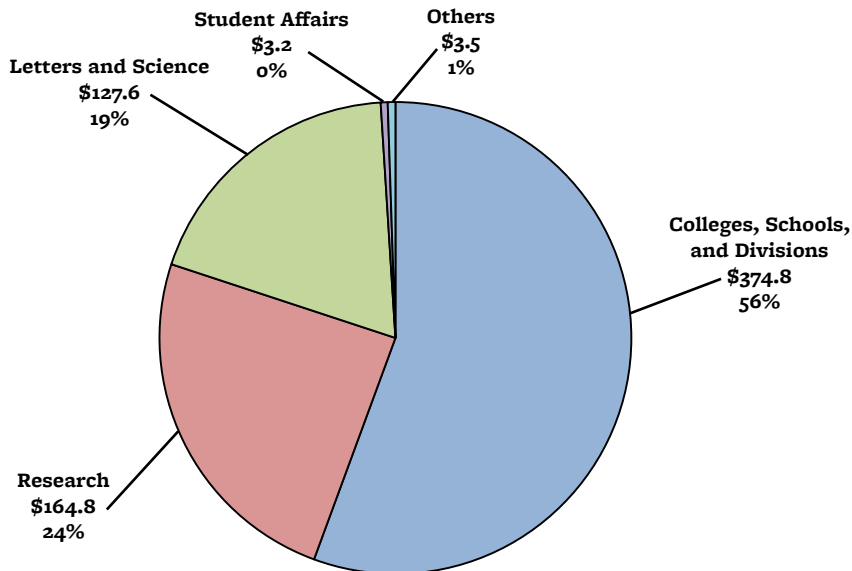


**Ten-Year Number of Proposals Submitted by by Control Unit, FY 2007-2016
(34,321 total)**

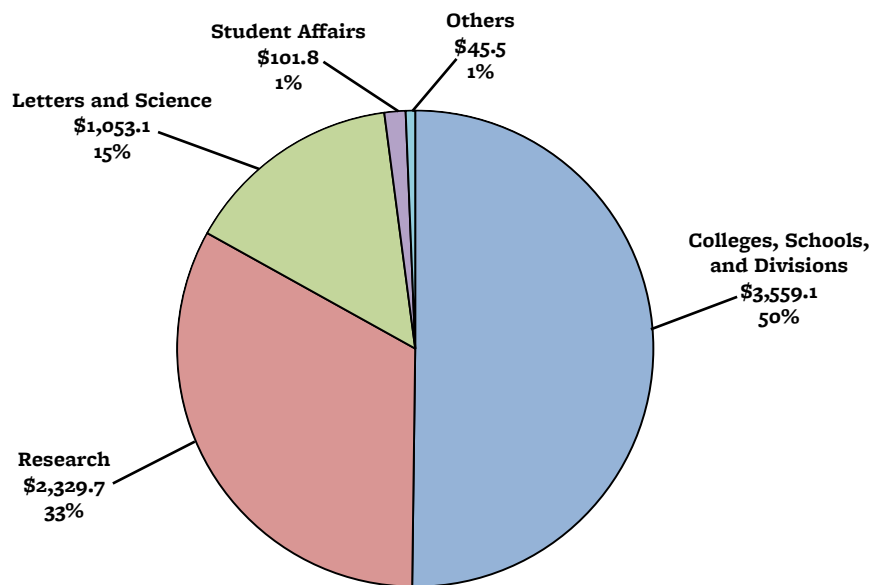


Funding by Campus Control Unit

Fiscal Year 2016 Funding Summary by Control Unit
(**\$673.9 million total - dollars in millions**)

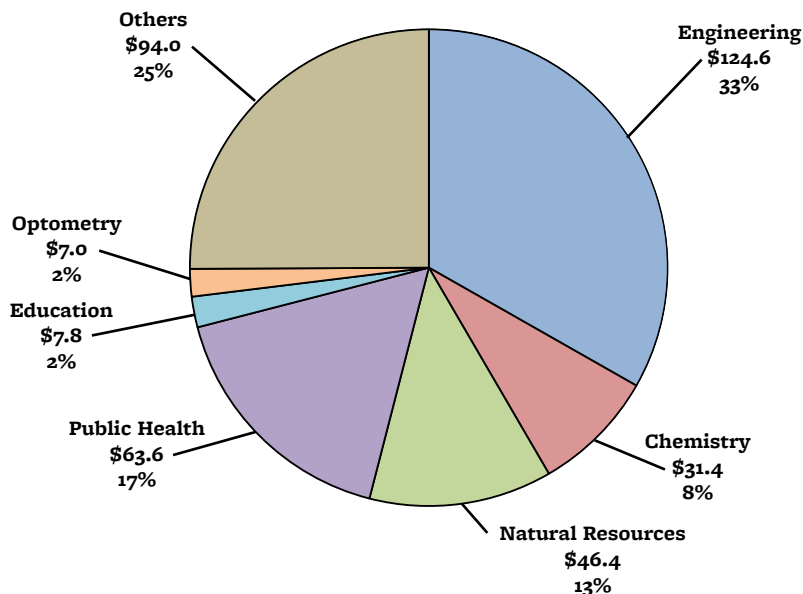


Ten-Year Funding Summary by Control Unit, FY 2007-2016
(**\$7.08 billion total - dollars in millions**)

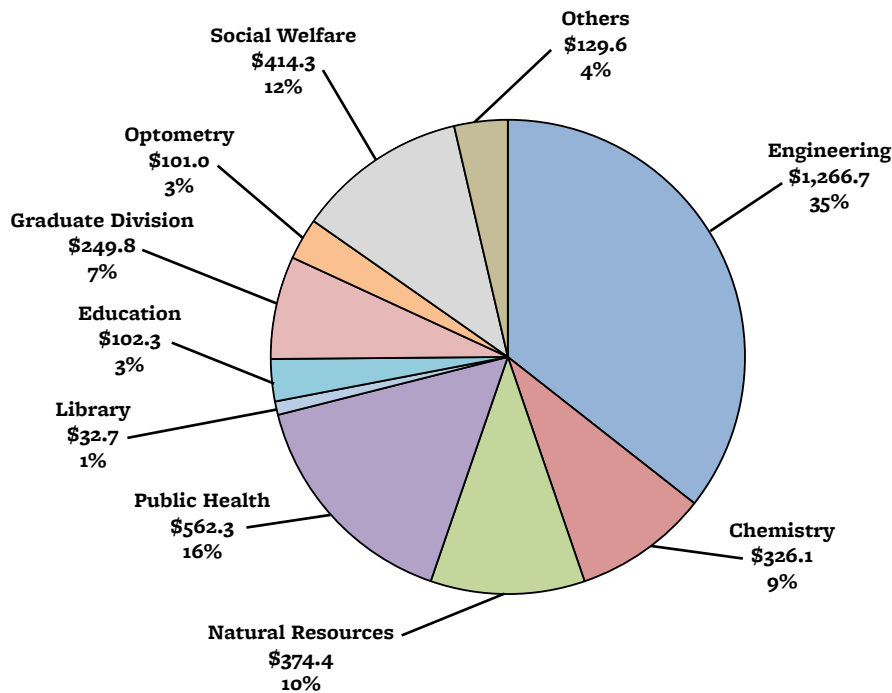


Funding by Campus Colleges, Schools, and Divisions

Fiscal Year 2016 Funding Summary by Colleges, Schools, and Divisions
 (\$374.8 million total - dollars in millions)



Ten-Year Funding Summary by Colleges, Schools, and Divisions, FY 2007-2016
 (\$3.55 billion total - dollars in millions)



Awards by Funding Source Overview - All Sponsors

In fiscal year 2016, federal funding declined by 2% from fiscal year 2015. Federal funding again made up the largest portion of total funding received with 55% of the total.

Funding from nonprofit organizations in fiscal year 2016, including foundations, charities, research institutes, and institutions of higher education, decreased by 21% to a total of \$115.3 million.

State of California funding decreased by 3% in fiscal year 2016, at \$94 million. Funding from other governmental sources totaled \$14 million, an increase of 21% from fiscal year 2015. Funding from corporate sponsors increased by 34% to a total of \$63.3 million.

Award Highlight

U.S.-China Clean Energy Research Center for Water Energy Technologies (CERC-WET)

UC Berkeley, in partnership with UC Irvine and Lawrence Berkeley National Laboratory, was awarded a five-year, multi-million dollar international research consortium that tackles water-related aspects of energy production and use. Three additional UC campuses – UC Davis, UC Merced and UCLA – and Massachusetts-based Stockholm Environment Institute-US are also part of the collaboration. The bilateral investment in CERC-WET will total \$50 million over five years. The U.S. Department of Energy will provide \$12.5 million of the funding, and the remaining U.S. partners will match that for a total of \$25 million. The remaining \$25 million will come from the Chinese Ministry of Science and Technology and its consortium partners.

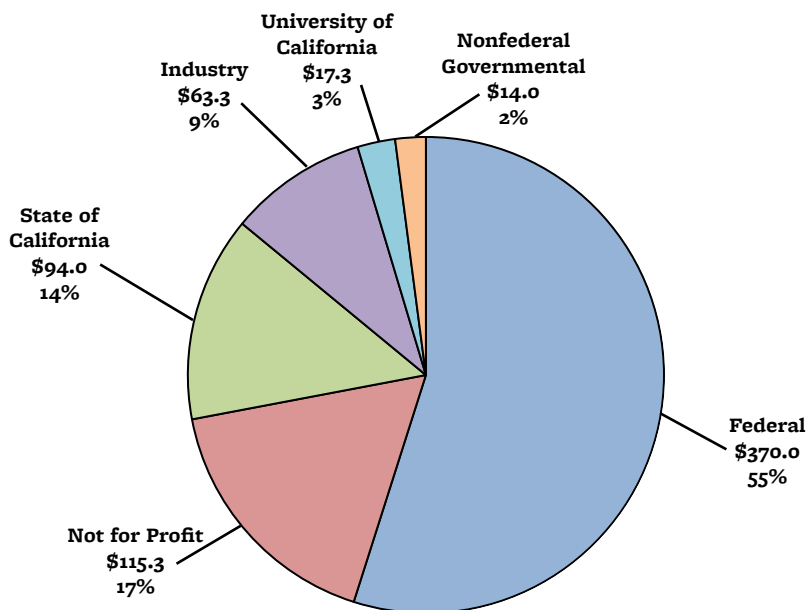
The mission of CERC-WET is to build and transfer a foundation of knowledge, technologies, human capabilities, and relationships that position the United States, in particular with relevant industries, non-profits, and our research peers in China, to thrive in a future with constrained energy and water resources in a changing global climate.

<http://cerc-wet.berkeley.edu/>

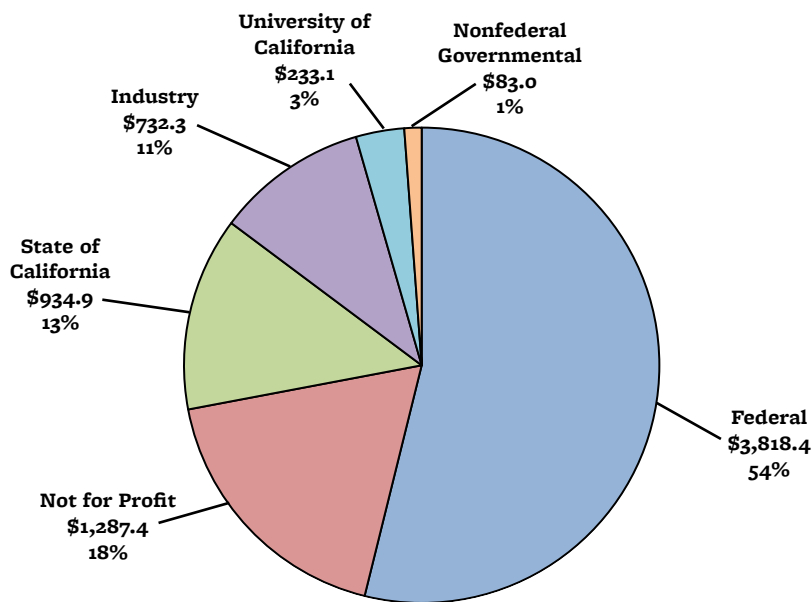


Overview - All Sponsors

Fiscal Year 2016 Funding Summary - All Sponsors
 (\$673.9 million total - dollars in millions)

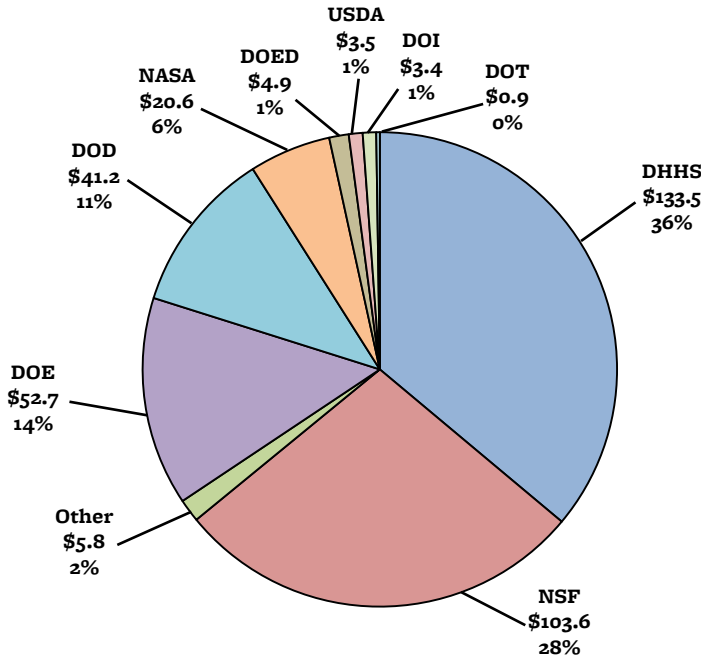


Ten-Year Funding Summary - All Sponsors, FY 2007-2016
 (\$7.08 billion total - dollars in millions)



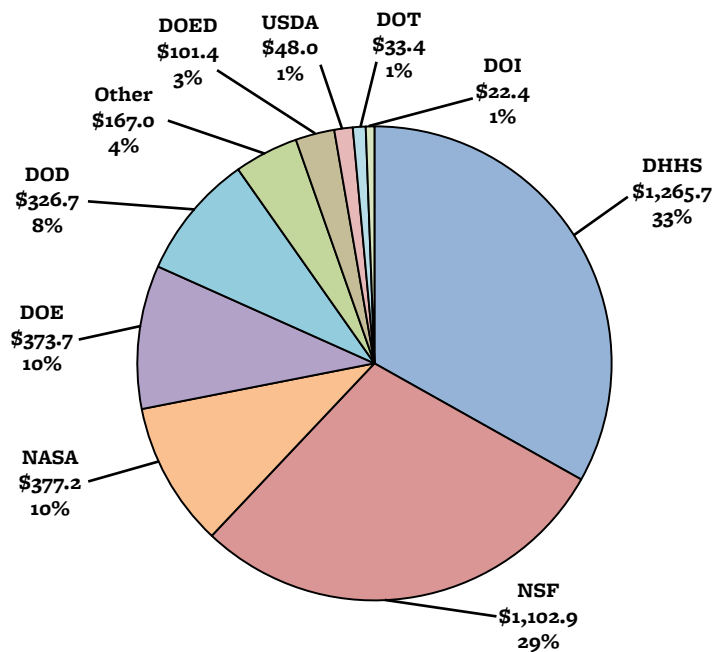
Federal Agencies

Fiscal Year 2016 Funding Summary - Federal Sponsors
 (\$370.0 million total - dollars in millions)



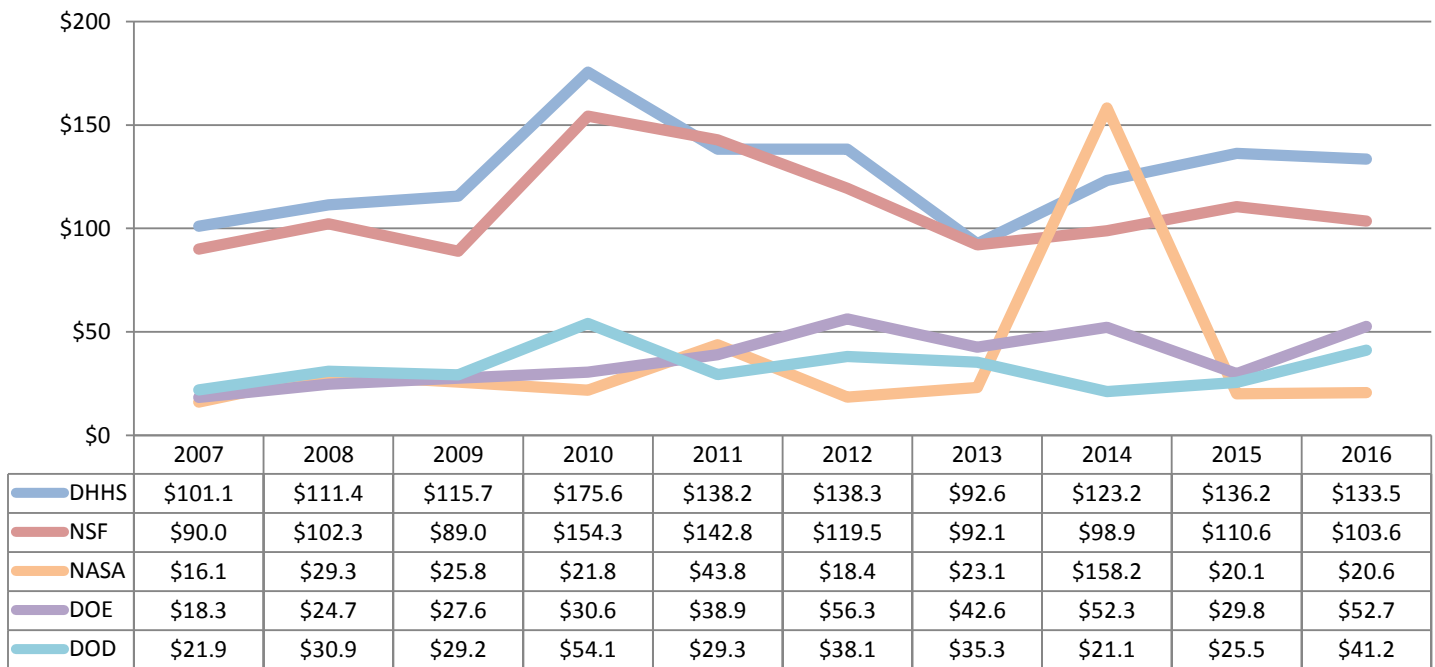
The Department of Health and Human Services was once again the largest source of federal funds in fiscal year 2016, awarding \$133.5 million. The National Science Foundation awarded \$103.6 million. Together, these two agencies awarded a total of \$246.8 million, almost 37% of total funding in fiscal year 2016.

Ten-Year Funding Summary - Federal Sponsors, FY 2007-2016
 (\$3.81 billion total - dollars in millions)



Federal Agencies

**Ten-Year Funding Summary for Top-Five Federal Sponsors, FY 2007-2016
(dollars in millions)**



Award Highlight

Fourth California Climate Change Assessment

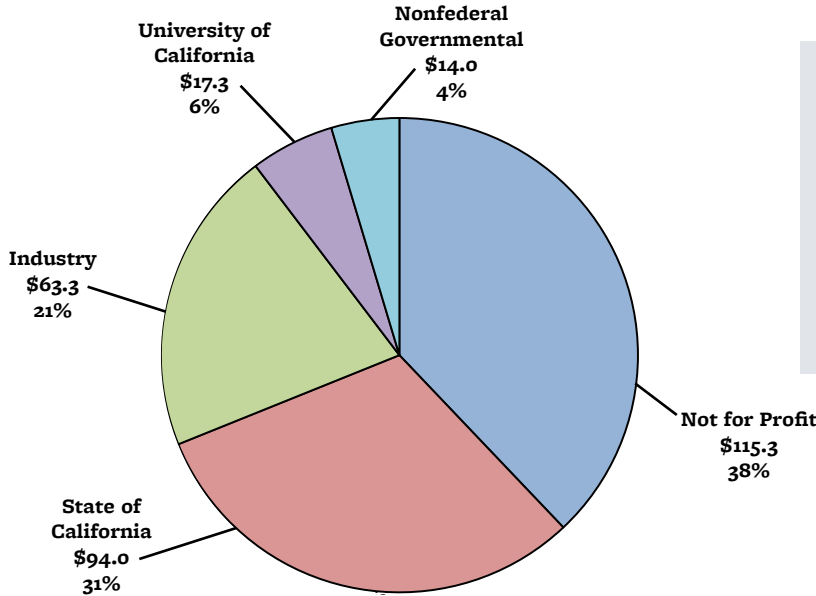
Under a \$5 million agreement with the State of California Natural Resources Agency, the Berkeley Energy & Climate Institute (BECI) is managing 17 research projects for the Fourth California Climate Change Assessment. These projects are focused primarily on investigating ways to help California communities and ecosystems adapt and build resilience in the face of climate change. The Assessment will provide critical additional information to support decisions that will safeguard the people, economy and resources of California.

<http://beci.berkeley.edu/research/cafourthclimateassessment/>



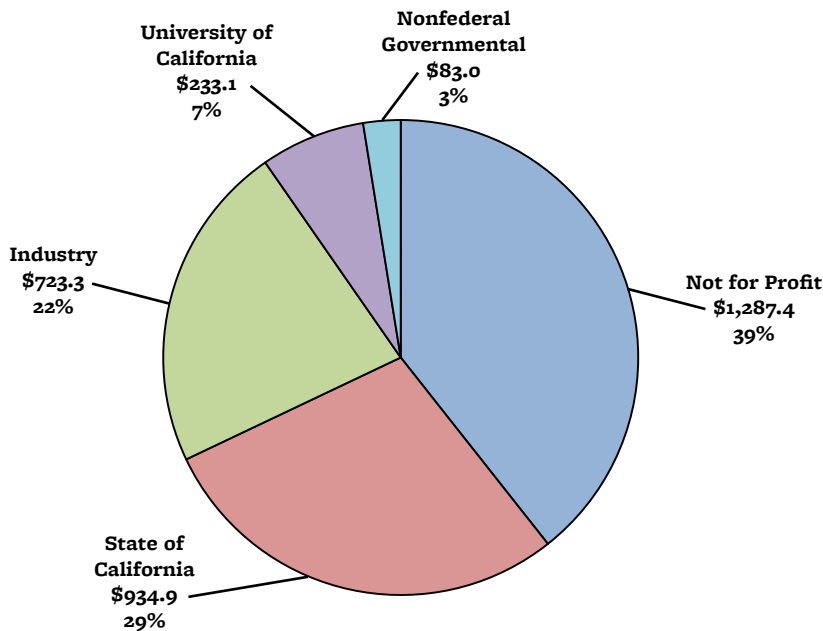
Nonfederal Agencies

Fiscal Year 2016 Funding Summary - Nonfederal Sponsors
 (\$303.0 million total - dollars in millions)



Over the last ten years, funding from the nonprofit sector has made up almost 40% of nonfederal funding. In fiscal year 2016, that sector provided 38% of the \$303 million received from nonfederal sources.

Ten-Year Funding Summary - Nonfederal Sponsors, FY 2007-2016
 (\$2.96 billion total - dollars in millions)



Largest Awards, Fiscal Year 2016

Jeffrey L. Edleson, School of Social Welfare, "Title IV-E Social Work Training Program," State of California Department of Social Services, \$36,617,250

Ashok J. Gadgil, Civil and Environmental Engineering, "UC/China Clean Energy Research Center for Water-Energy Solutions and Technologies (CERC WEST)," U.S. Department of Energy, \$12,500,001

Eva Harris, School of Public Health, "Protective Immunity Following Dengue Virus Natural Infections and Vaccination," National Institute of Allergy and Infectious Diseases, \$11,955,318

John R. Balmes, School of Public Health, "Occupational Safety and Health Education and Research Centers," Centers for Disease Control and Prevention, \$9,307,313

Mary K. Firestone, Environmental Science, Policy and Management, "Establishment to Senescence: Plant-Microbe and Microbe-Microbe Interactions Mediate Switchgrass Sustainability," U.S. Department of Energy, \$9,161,780

Susan Hyde, Institute of Governmental Studies, "Strengthening Evaluation in Governance and Politics," Department for International Development, \$7,158,823

Irfan Siddiqi, Physics, "Continuous Quantum State Tracking and Error Correction (CQSTEC)," Army Research Office, \$6,950,155

Alexandre M. Bayen, Civil and Environmental Engineering, "Connected Corridors (ICM 2)," State of California Department of Transportation, \$6,599,998

Peggy Lemaux, Plant and Microbial Biology, "Epigenetic Control of Drought Response in Sorghum (EPICON)," U.S. Department of Energy, \$6,574,495

Jeffrey L. Edleson, School of Social Welfare, "Regional Training Academy Coordination Project," State of California Department of Social Services, \$6,355,878

Laurent Coscoy, Cancer Research Laboratory, "Master Collaborative Research Agreement," Aduro Biotech, \$5,930,446

Chris Somerville, Energy Biosciences Institute, "EBI," BP Group, \$5,000,000

Paul K. Wright, California Institute for Energy and Environment, "California's Fourth Climate Change Assessment," State of California Natural Resources Agency, \$5,000,000

Catherine D. Wolfram, Haas Centers and Institutes, "Unlocking Industrial Energy Efficiency Through Optimized Energy Management Systems," State of California Energy Commission, \$4,981,729

Dan Werthimer, Astronomy, "Breakthrough LISTEN Berkeley: Radio and Optical SETI," Breakthrough Prize Foundation, \$4,470,752

Elad Alon, Electrical Engineering and Computer Sciences, "Agile Hardware Design in Extreme Process Technologies (AHDEPT)," Defense Advanced Research Projects Agency, \$4,111,911

Carl J. Blumstein, California Institute for Energy and Environment, "Customer-Controlled, Price-Mediated, Automated Demand Response for Commercial Buildings," State of California Energy Commission, \$4,000,000

Judith P. Klinman, California Institute for Quantitative Biosciences, "Looking in New Directions for Origins and Cryptic Mechanisms of Enzyme Catalysis," National Institute of General Medical Sciences, \$3,935,728

Rebecca Heald, Molecular and Cell Biology, "Mechanisms of Mitosis and Size Control in Xenopus," National Institute of General Medical Sciences, \$3,888,620

Jeffery Cox, Molecular and Cell Biology, "Host-Directed Strategies to Create Synergistic Antibacterial Therapies," National Institute of Allergy and Infectious Diseases, \$3,832,921

Award Highlights

Connected Corridors: Integrated Corridor Management

Connected Corridors is a collaborative program to research, develop, and test an Integrated Corridor Management (ICM) approach to managing transportation corridors in California. ICM looks comprehensively at an entire transportation network—including freeways, arterial streets, transit, parking, travel demand, agency collaboration, and more—and considers all opportunities to move people and goods in the most efficient and safest way possible.

Connected Corridors is led by the California Department of Transportation (Caltrans) in partnership with Partners for Advanced Transportation Technology (PATH) at UC Berkeley. In 2015, the project received funding of \$6.6 million from Caltrans.

<http://connected-corridors.berkeley.edu/>



Berkeley SETI: Breakthrough Listen Project

The Breakthrough Listen Initiative, funded by the Breakthrough Prize Foundation, is the most powerful, comprehensive and intensive scientific search ever undertaken for signs of intelligent life beyond Earth. The project is using the Green Bank radio telescope in West Virginia and the Parkes Telescope in Australia to search for radio transmissions from advanced civilizations. In addition, the Automated Planet Finder at Lick Observatory is being used to search for optical laser transmissions from other technological civilizations.

In 2015, the Breakthrough Prize Foundation provided funding of \$4.5 million to the Berkeley SETI Research Center, the creators of the SETI@home volunteer computing software, that utilizes spare resources on volunteer computers to aid in processing data from radio telescopes.

<http://astro.berkeley.edu/p/breakthrough-listen>

