



**University of
California, Berkeley
Sponsored
Projects
Annual Report
Fiscal Year 2017**

Sponsored Projects Annual Report, Fiscal Year 2017

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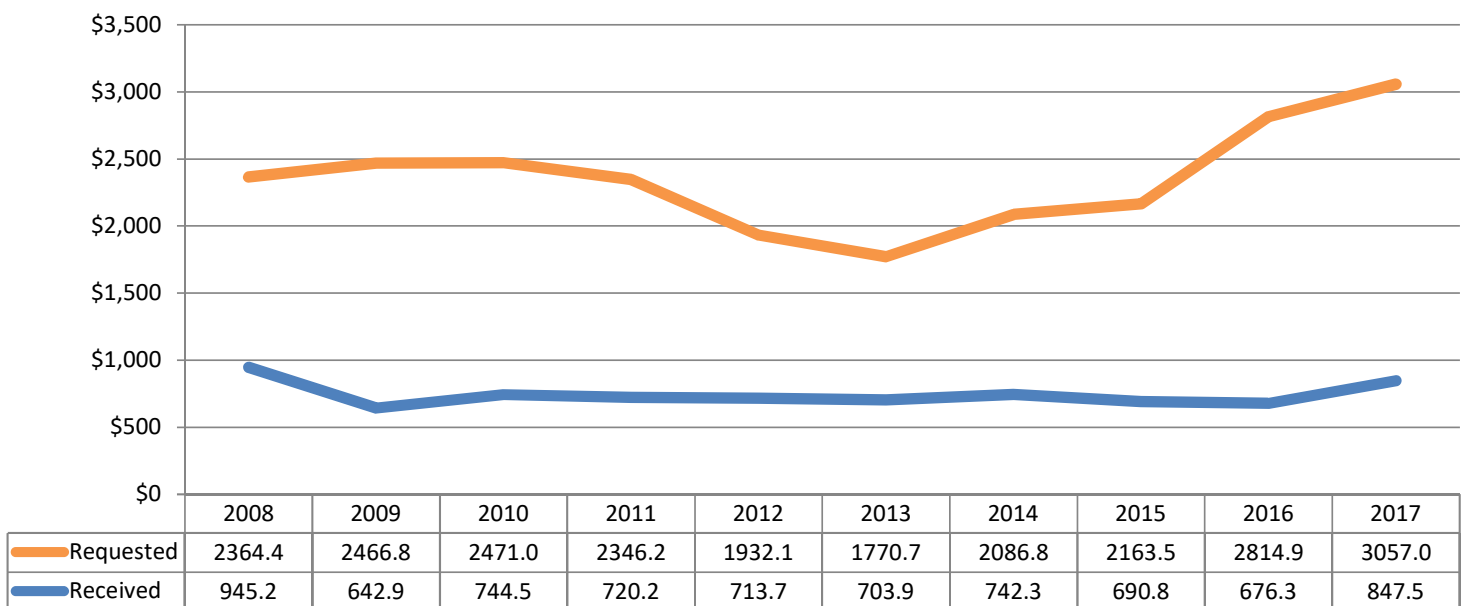
University of California, Berkeley / Sponsored Projects Overview

The **University of California, Berkeley** is one of the world's leading universities in research, teaching, and public service, with an enrollment of over 29,000 undergraduates and nearly 11,000 graduate students. The campus employs 1,606 full-time and 734 part-time faculty in more than 170 academic departments and more than 100 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 ranks among the top five Ph.D.-granting institutions.

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.

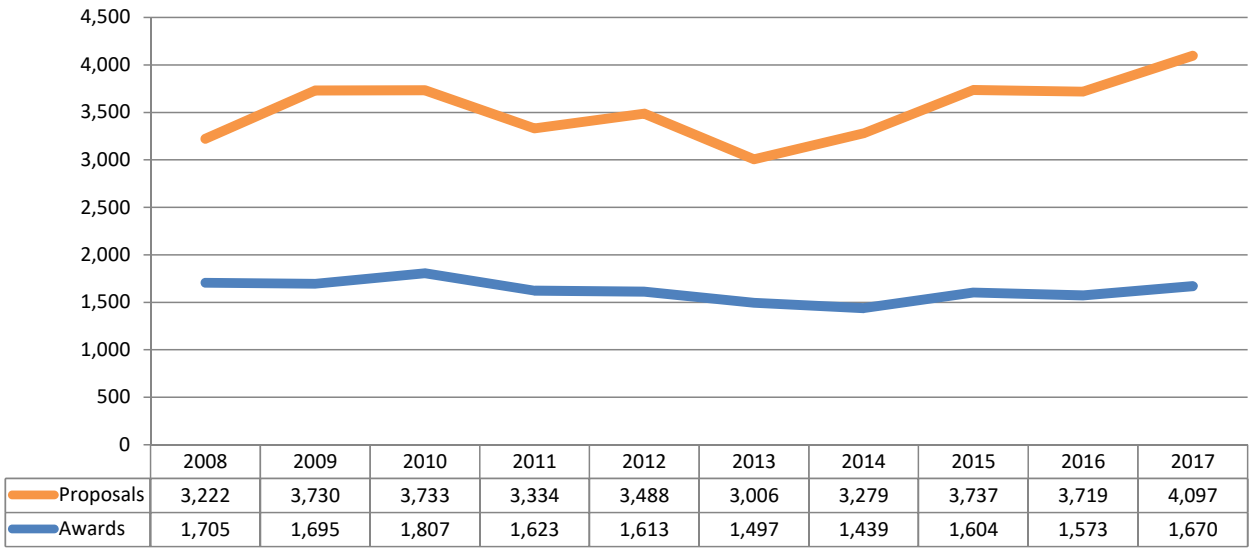
Proposal and Award Overview

Ten-Year Comparison of Funding Requested and Funding Received, FY 2008-2017
(dollars in millions)

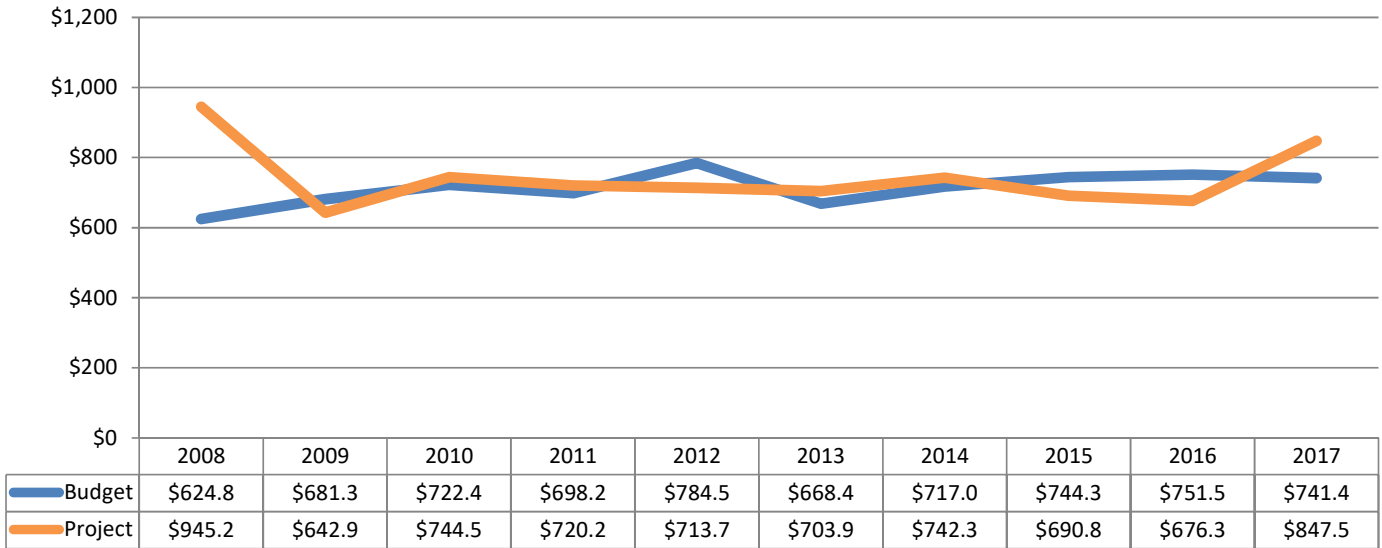


Proposal and Award Overview

Ten-Year Comparison of Proposals Submitted and Awards Received, FY 2008-2017



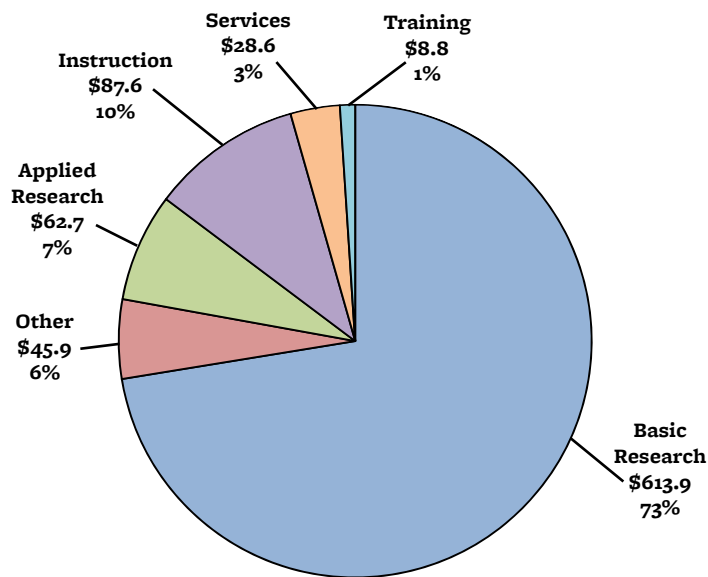
**Ten-Year Comparison of Project and Budget Period Funding, FY 2008-2017
(dollars in millions)**



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 declined by 1% in fiscal year 2017, while project period funding increased by 25%.

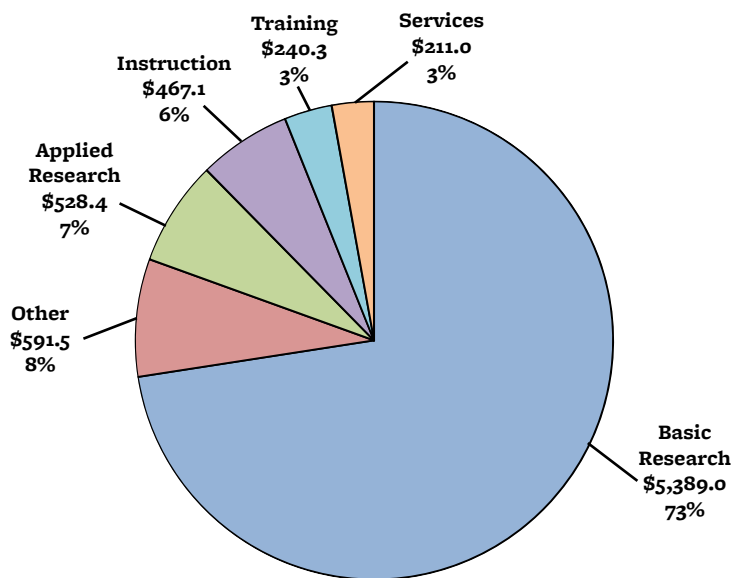
Proposal and Award Overview

Fiscal Year 2017 Funding Summary by Activity Type
 (\$847.5 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 2008-2017
 (\$7.43 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.

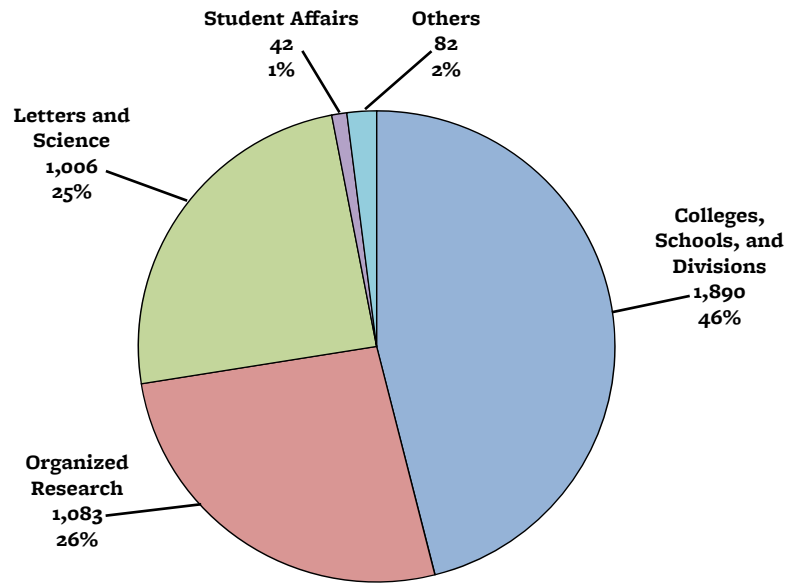
The College of Letters and Science, or L&S, includes Biological, Physical, Social Science, and Arts and Humanities Divisions.

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.

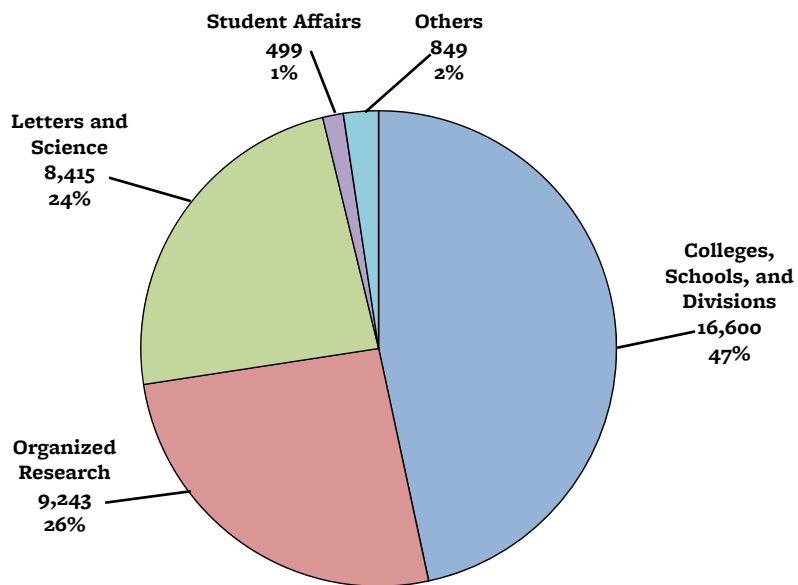


Proposals by Campus Control Unit

**Fiscal Year 2017 Number of Proposals Submitted by Control Unit
(4,103 total)**

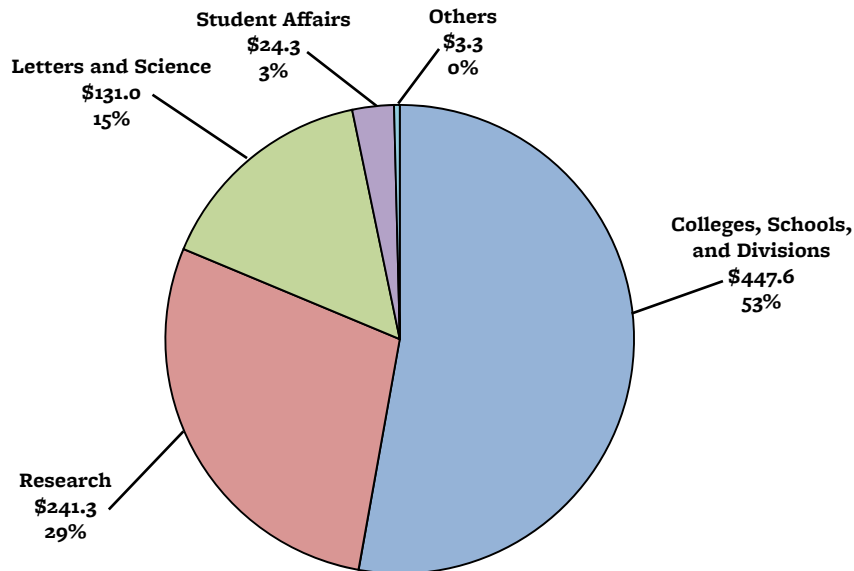


**Ten-Year Number of Proposals Submitted by by Control Unit, FY 2008-2017
(35,606 total)**

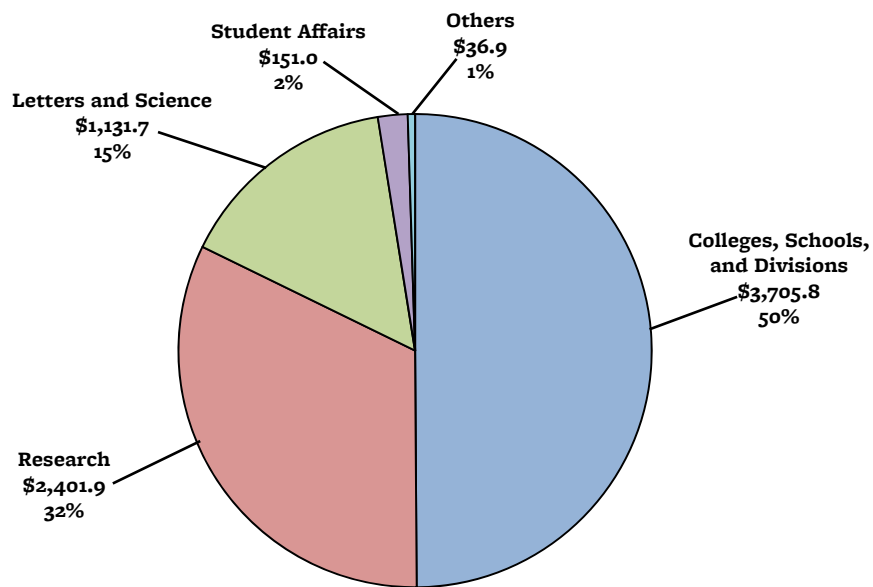


Funding by Campus Control Unit

Fiscal Year 2017 Funding Summary by Control Unit
 (\$847.5 million total - dollars in millions)

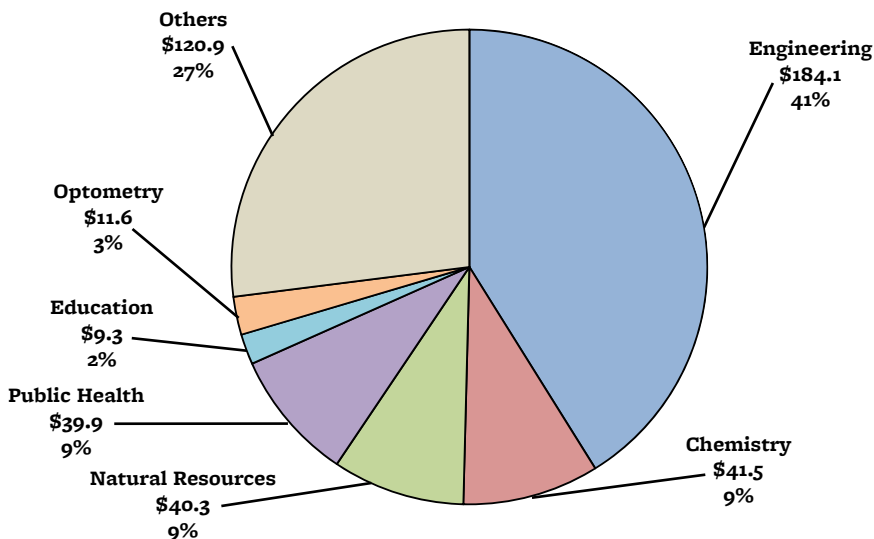


Ten-Year Funding Summary by Control Unit, FY 2008-2017
 (\$7.43 billion total - dollars in millions)

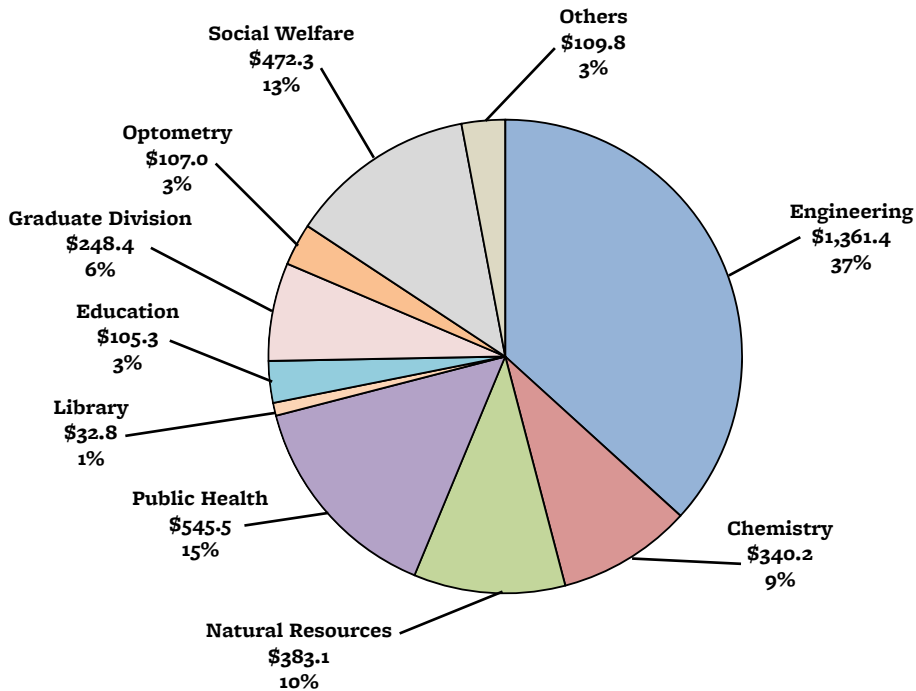


Funding by Campus Colleges, Schools, and Divisions

Fiscal Year 2017 Funding Summary by Colleges, Schools, and Divisions
 (\$447.6 million total - dollars in millions)



Ten-Year Funding Summary by Colleges, Schools, and Divisions, FY 2008-2017
 (\$3.71 billion total - dollars in millions)



Awards by Funding Source Overview - All Sponsors

In fiscal year 2017, federal funding grew by 15% from fiscal year 2016. Federal funding again made up the largest portion of total funding received with 50% of the total.

Funding from nonprofit organizations in fiscal year 2017, including foundations, charities, research institutes, and institutions of higher education, increased by 60% to a total of \$189.2 million.

State of California funding grew by 40% in fiscal year 2017, at \$131.6 million. Funding from other governmental sources totaled \$11 million, a nearly 27% decline from 2016. Funding from corporate sponsors increased by 14% to a total of \$72.4 million.

Award Highlight

Nuclear Science and Security Consortium (NSSC)

The Nuclear Science and Security Consortium, a five-year program to develop a new generation of laboratory-integrated nuclear experts, was established in 2011 by the National Nuclear Security Administration. Since then, the NSSC has trained almost 400 students and postdoctoral scholars through a multidisciplinary program that provides hands-on training in nuclear science, technology, and policy. In 2016, the NNSA announced an additional grant award of \$25 million to a new consortium of eight universities to continue research and development in nuclear science and security through the NSSC.

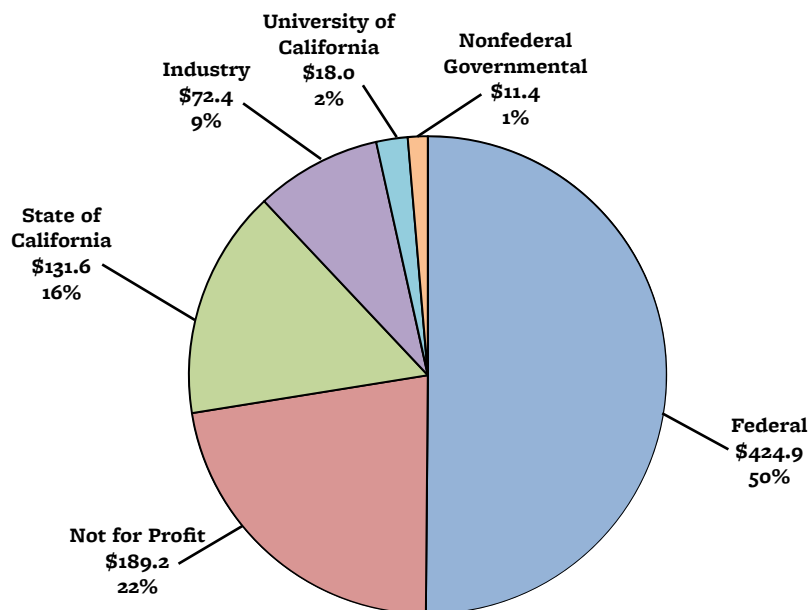
The NSSC enables a rich collaborative research environment between universities and the national laboratories, and fosters the development of science and technology underlying the nuclear security mission.

<http://nssc.berkeley.edu/>

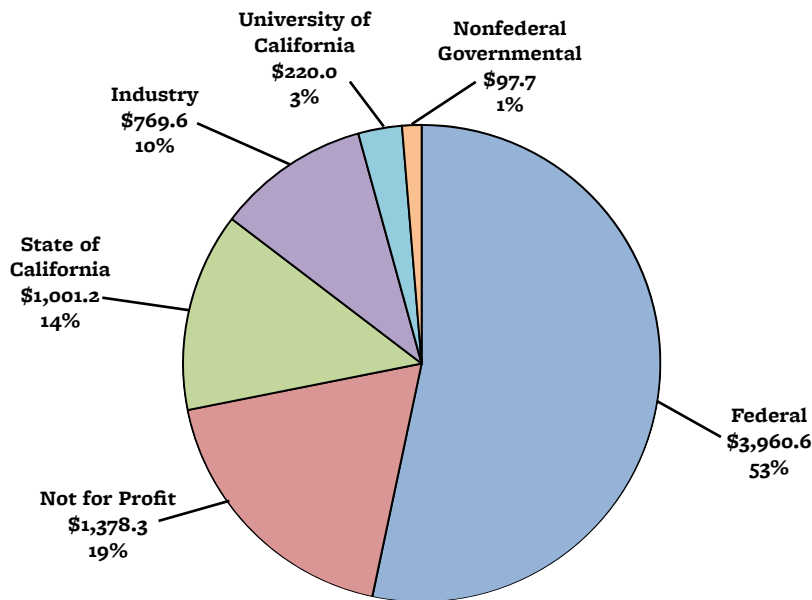


Overview - All Sponsors

Fiscal Year 2017 Funding Summary - All Sponsors
 (\$847.5 million total - dollars in millions)

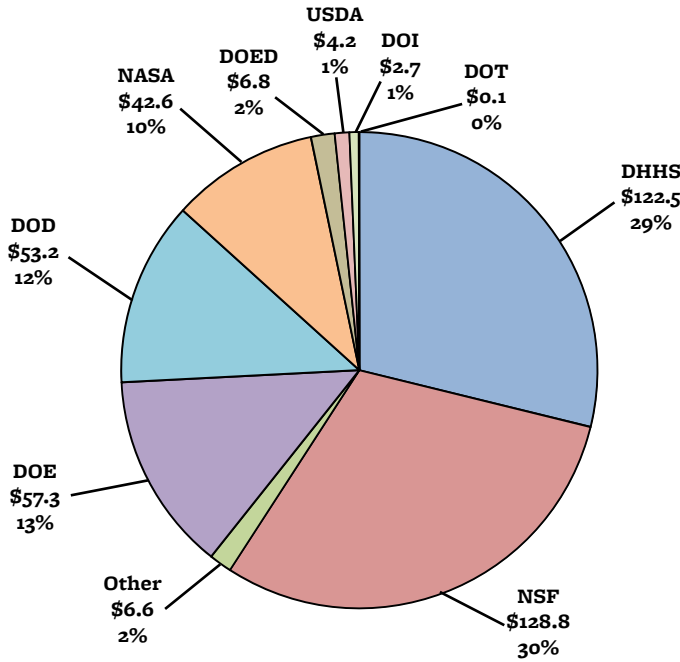


Ten-Year Funding Summary - All Sponsors, FY 2008-2017
 (\$7.43 billion total - dollars in millions)



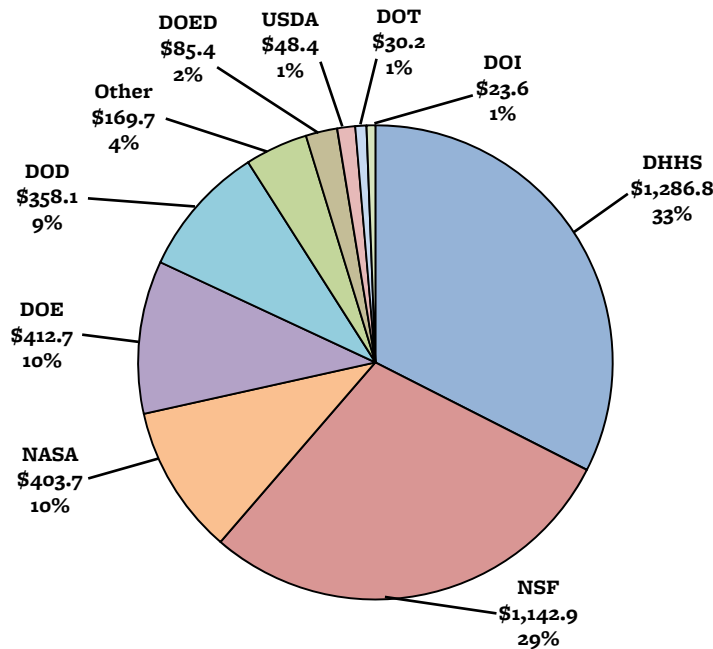
Federal Agencies

Fiscal Year 2017 Funding Summary - Federal Sponsors
 (\$424.9 million total - dollars in millions)



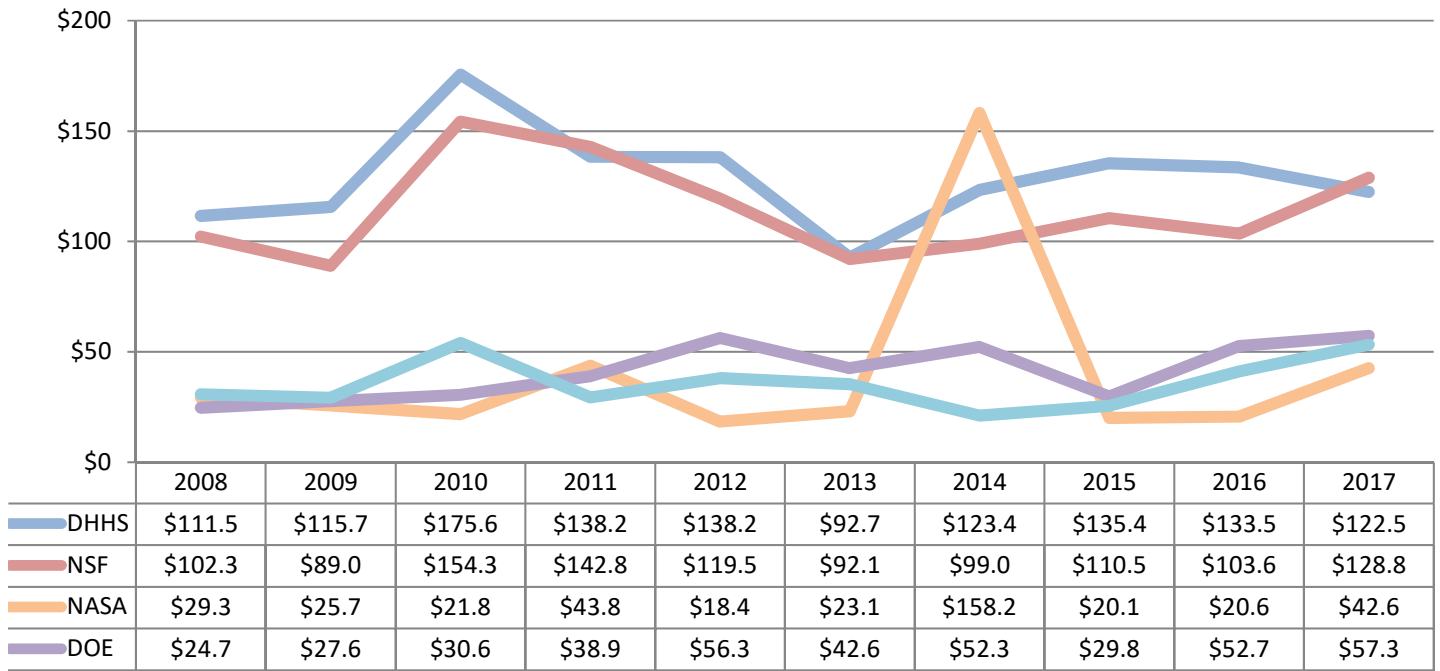
In fiscal year 2017, the National Science Foundation was the largest source of federal funds, with \$128.8 million and 30% of the federal total, passing the \$122.5 million awarded by the Department of Health and Human Services. Federal funding overall grew by 15% from fiscal year 2016. Federal funding again made up the largest portion of total funding received with 50% of the total.

Ten-Year Funding Summary - Federal Sponsors, FY 2008-2017
 (\$3.96 billion total - dollars in millions)



Federal Agencies

**Ten-Year Funding Summary for Top-Five Federal Sponsors, FY 2008-2017
(dollars in millions)**



Award Highlight

Natural Hazards Engineering Research Infrastructure Computational Modeling and Simulation Center (SimCenter)

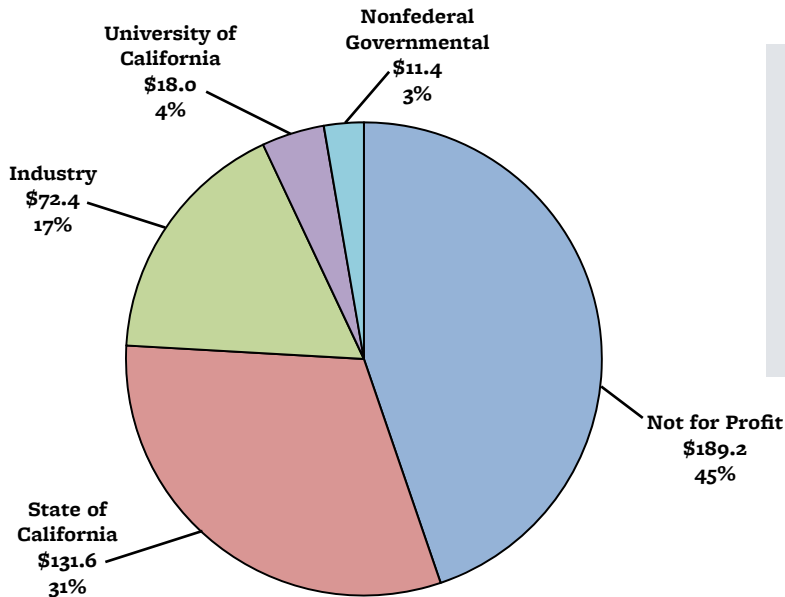
The Natural Hazards Engineering Research Infrastructure program, funded by the National Science Foundation, catalyzes advances in natural hazards engineering research. The goal of the SimCenter is to provide researchers access to next-generation computational modeling and simulation software tools, user support, and educational materials needed to advance the nation’s capability to simulate the impact of natural hazards on structures, lifelines, and communities. The SimCenter will enable leaders to assess needs and make informed decisions about effective mitigation strategies.

<https://simcenter.designsafe-ci.org/>



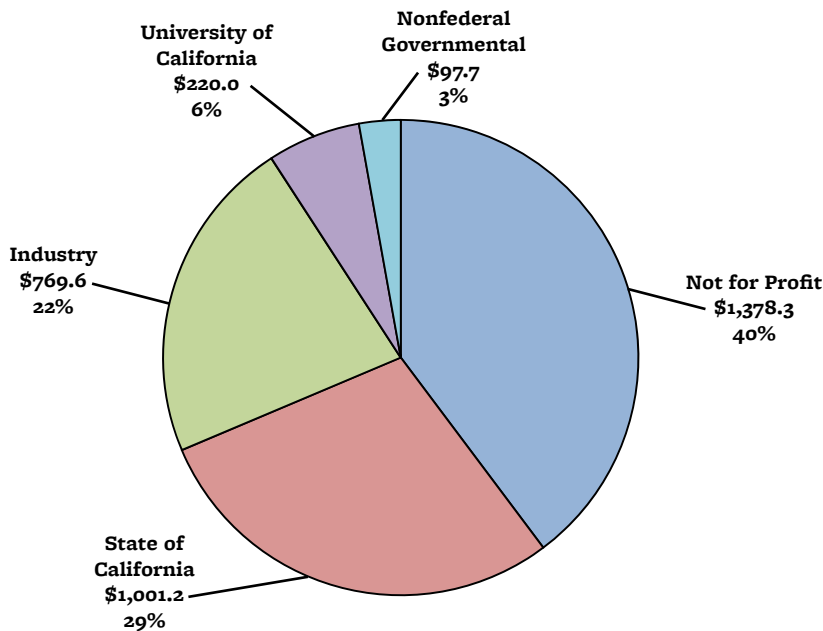
Nonfederal Agencies

Fiscal Year 2017 Funding Summary - Nonfederal Sponsors
 (\$422.6 million total - dollars in millions)



Over the last ten years, funding from the nonprofit sector has made up almost 40% of non-federal funding. In fiscal year 2017, that sector provided 45% of the \$422.6 million received from non-federal sources.

Ten-Year Funding Summary - Nonfederal Sponsors, FY 2008-2017
 (\$3.04 billion total - dollars in millions)



Largest Awards, Fiscal Year 2017

Virginia Hernandez, School of Social Welfare, “Title IV-E Social Work Training Program,” California Department of Social Services, \$79,928,986

Jasmina L. Vujic, Nuclear Engineering, “Nuclear Science and Engineering Nonproliferation Research Consortium,” U.S. Department of Energy, \$25,000,000

Constance J. Chang-Hasnain, Tsinghua Shenzhen Institute, “Tsinghua-Berkeley Shenzhen Institute (TBSI),” Tsinghua Education Foundation North America, \$19,000,000

Adam Arkin, California Institute for Quantitative Biosciences, “Center for the Utilization of Biological Engineering in Space (CUBES),” National Aeronautics and Space Administration, \$15,000,000

Stephen A. Mahin, Earthquake Engineering Research Center, “Natural Hazards Engineering Research Infrastructure: Computational Modeling and Simulation Center,” National Science Foundation, \$10,900,000

Daniel A. Portnoy, Molecular and Cell Biology, “Intracellular Pathogens and Innate Immunity,” National Institute of Allergy and Infectious Diseases, \$9,967,703

Aaron Parsons, Radio Astronomy Laboratory, “Illuminating our Early Universe with HERA, the Hydrogen Epoch of Reionization Array,” National Science Foundation, \$9,500,000

Trevor Darrell, Electrical Engineering and Computer Sciences, “Explainable Artificial Intelligence,” Defense Advanced Research Projects Agency, \$7,550,000

Jeffrey L. Edleson, School of Social Welfare, “Behavioral Health Social Work Program,” State of California Office of Statewide Health Planning and Development, \$7,300,000

Xiang Zhang, Mechanical Engineering, “A High-speed Superlens Nanoscope for Imaging at 10 nm and Beyond,” Gordon and Betty Moore Foundation, \$6,000,000

Costas Spanos, Electrical Engineering and Computer Sciences, “SinBerBEST 2,” Berkeley Education Alliance for Research in Singapore, \$5,874,859

Stuart J. Russell, Electrical Engineering and Computer Sciences, “Center for Human-Compatible AI,” Open Philanthropy Project, \$5,555,500

Naomi Ginsberg, Chemistry Department, “Science and Technology Center on Real-Time Functional Imaging (STROBE),” University of Colorado Boulder (National Science Foundation prime sponsor), \$5,380,000

David G. Drubin, Molecular and Cell Biology, “Actin Assembly and Clathrin-mediated Endocytosis in Yeast and Mammals,” National Institute of General Medical Sciences, \$5,164,284

David Feinberg, Helen Wills Neuroscience Institute, “Foundations of MRI Corticography for Mesoscale Organization and Neuronal Circuitry,” National Institute of Mental Health, \$5,111,261

Thomas L. Griffiths, Social Science Matrix, “Culture-On-A-Chip Computing: Crowdsourced Simulations of Culture, Group Formation, and Collective Identity,” Defense Advanced Research Projects Agency, \$4,786,471

Michael F. Crommie, Physics, “Carbon-based Hierarchically Integrated Synthetic Electronics (CHISEL),” Office of Naval Research, \$4,500,000

Matthew P. Walker, Psychology, “A Sleep Electroencephalography Biomarker Predicting Alzheimer’s Disease Pathology,” National Institute on Aging, \$4,122,300

Joshua Blumenstock, Center of Evaluation for Global Action, “Digital Credit Observatory,” Bill & Melinda Gates Foundation, \$4,059,017

Award Highlights

Tsinghua-Berkeley Shenzhen Institute (TBSI)

Tsinghua-UC Berkeley Shenzhen Institute (TBSI) is a joint research and educational partnership established in 2014 by the UC Berkeley, Tsinghua University and the Shenzhen municipal government on the initiative of promoting research collaboration and graduate student education.

With unprecedented, synergistic collaboration between UC Berkeley and Tsinghua University, TBSI provides a unique global platform for transformational, translational, and trans-disciplinary research and education for future world leaders in science and technology.

<https://tbsi.berkeley.edu/>



TBSI Tsinghua-Berkeley
Shenzhen Institute



Hydrogen Epoch of Reionization Array (HERA)

The Hydrogen Epoch of Reionization Array, an international experiment to explore the aftermath of cosmic dawn, when stars and galaxies first lit up the universe, has \$9.5 million in funding from the National Science Foundation to expand its detector array in South Africa.

Led by UC Berkeley, HERA will explore the billion-year period after hydrogen gas collapsed into the first stars, perhaps 100 million years after the Big Bang, through the ignition of stars and galaxies throughout the universe.

<http://astro.berkeley.edu/p/HERA>

