



**University of
California, Berkeley
Sponsored
Projects
Annual Report
Fiscal Year 2020**

Sponsored Projects Annual Report, Fiscal Year 2020

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Overview

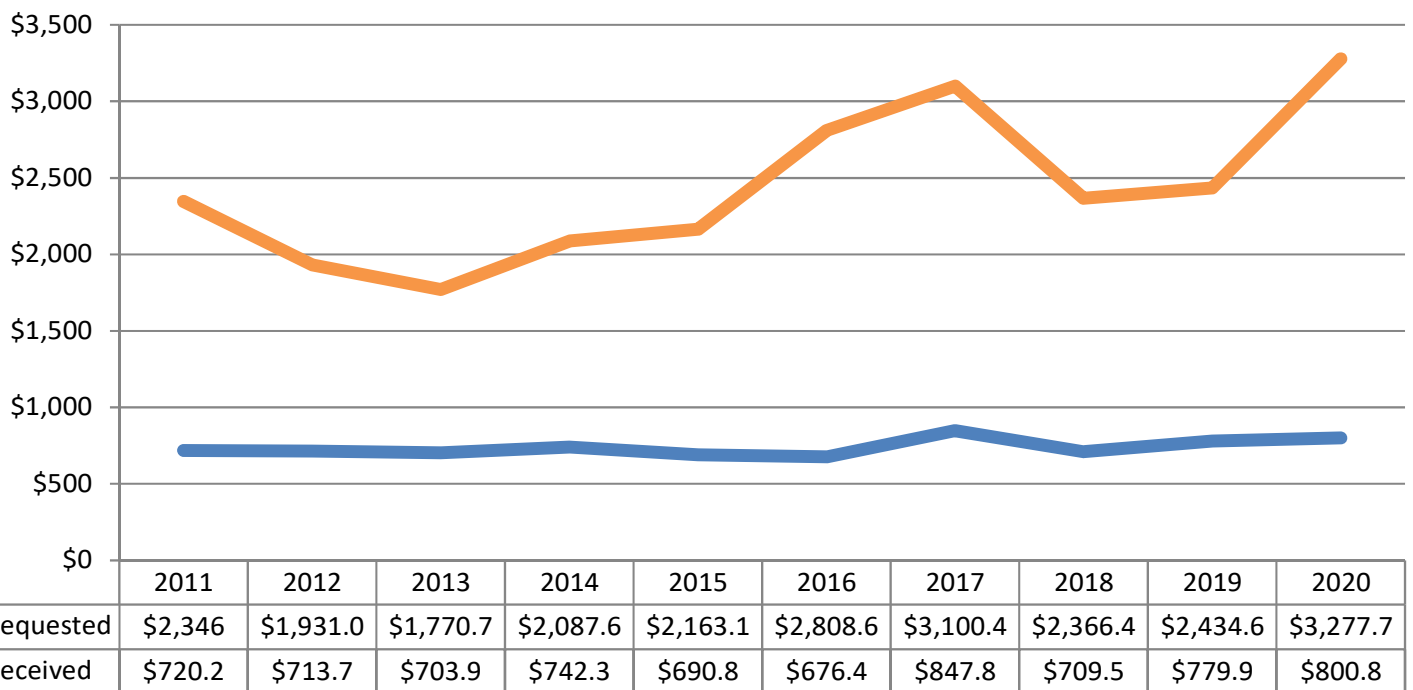
The latter part of fiscal year 2020 was a time of challenges and uncertainties for the University of California, Berkeley as well as our surrounding community, state, and nation. Under difficult circumstances UC Berkeley researchers, educators, scholars, and artists continued to devote their time and energy to the research, teaching, and public service missions of the University. These efforts resulted in \$800.8 million in external funding support from governmental and private sponsors during FY2020. The following report presents an analysis of UC Berkeley’s proposal and award activity as well as selected award highlights during this period of time.

The University of California, Berkeley is one of the world’s leading universities in research, teaching, and public service, with an enrollment of over 31,300 undergraduates and over 11,800 graduate students. The campus employs 1,629 full-time and 896 part-time faculty in 184 academic departments and programs and over 120 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 more than 350 degree programs, and is ranked consistently among the five top research universities in the world.

The Sponsored Projects Office (SPO) is part of the Research Administration and Compliance Office (RAC) at UC Berkeley. SPO is responsible for endorsing and authorizing proposals to and interpreting, negotiating, and accepting contracts and grants from federal and state agencies, foundations, and other public and private non-profit sources. The Industry Alliances Office (IAO) works with UC Berkeley employees and companies to enable innovative research relationships, negotiating all research contracts with private industry. SPO/IAO staff prepare and negotiate all subawards. Both offices report to the Vice Chancellor for Research.

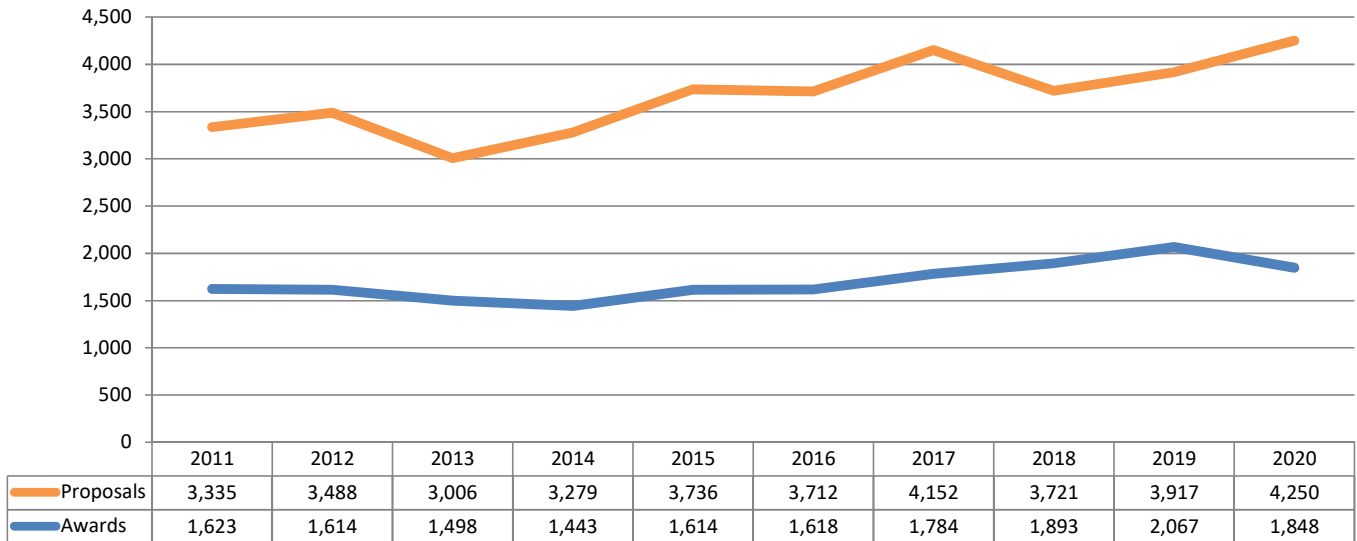
Proposal and Award Overview

**Ten-Year Comparison of Funding Requested and Funding Received, FY 2011-2020
(dollars in millions)**

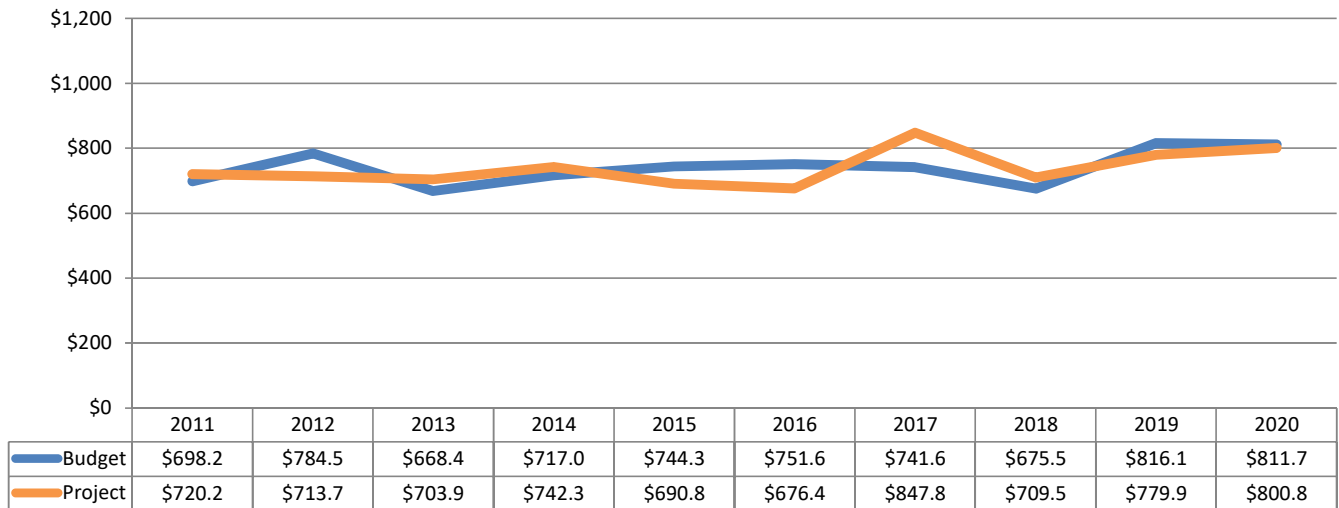


Proposal and Award Overview

Ten-Year Comparison of Proposals Submitted and Awards Received, FY 2011-2020



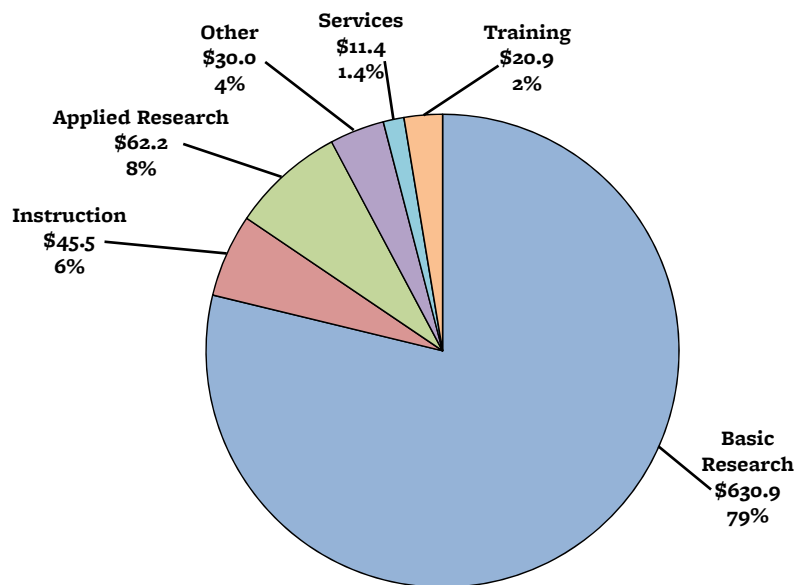
**Ten-Year Comparison of Project and Budget Period Funding, FY 2011-2020
(dollars in millions)**



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 decreased by 1% in fiscal year 2020, while project period funding increased by 3%.

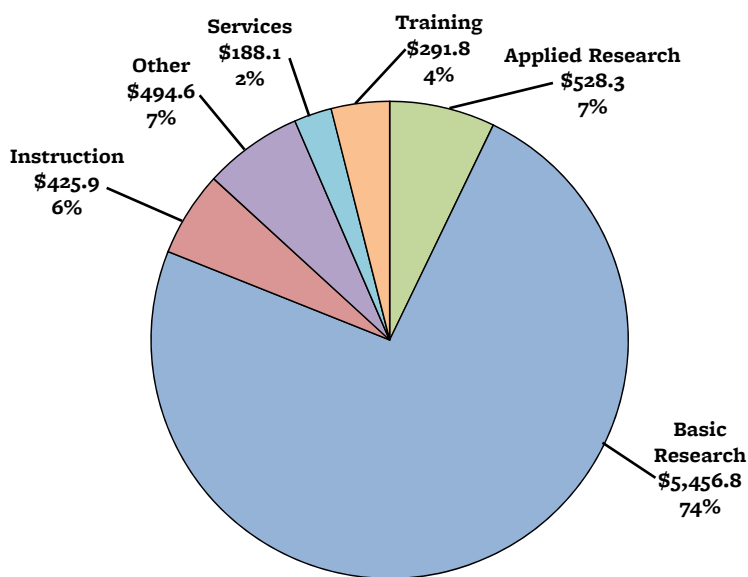
Proposal and Award Overview

Fiscal Year 2020 Funding Summary by Activity Type
 (\$800.8 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 2011-2020
 (\$7.39 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.

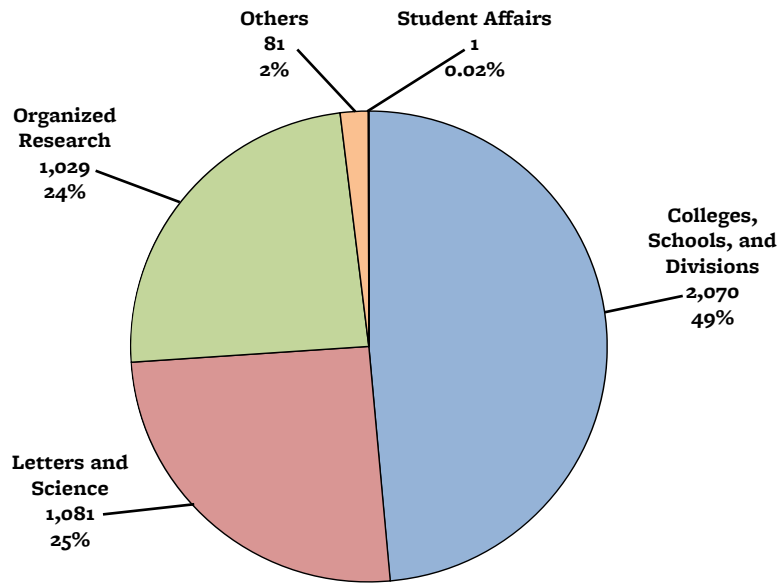
The College of Letters and Science, or L&S, includes Biological, Physical, Social Science, and Arts and Humanities Divisions.

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.

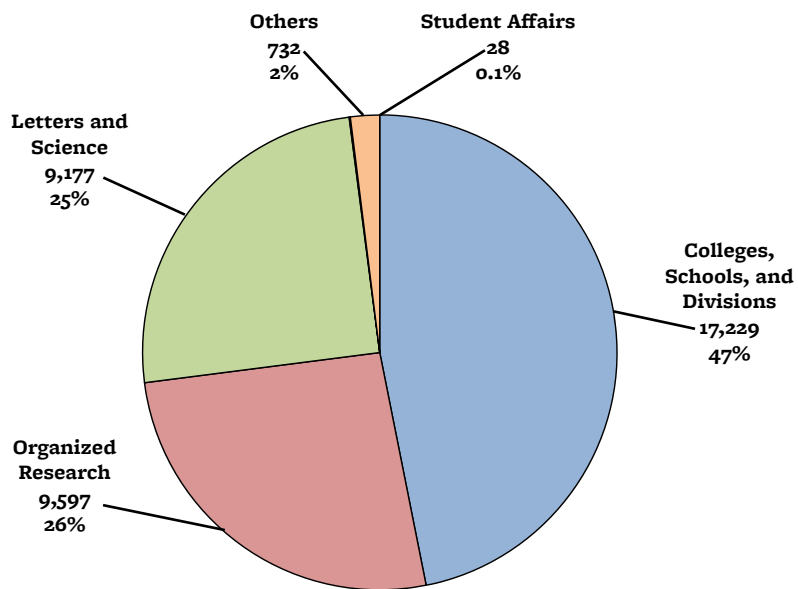


Proposals by Campus Control Unit

**Fiscal Year 2020 Number of Proposals Submitted by Control Unit
(4,262 total)**

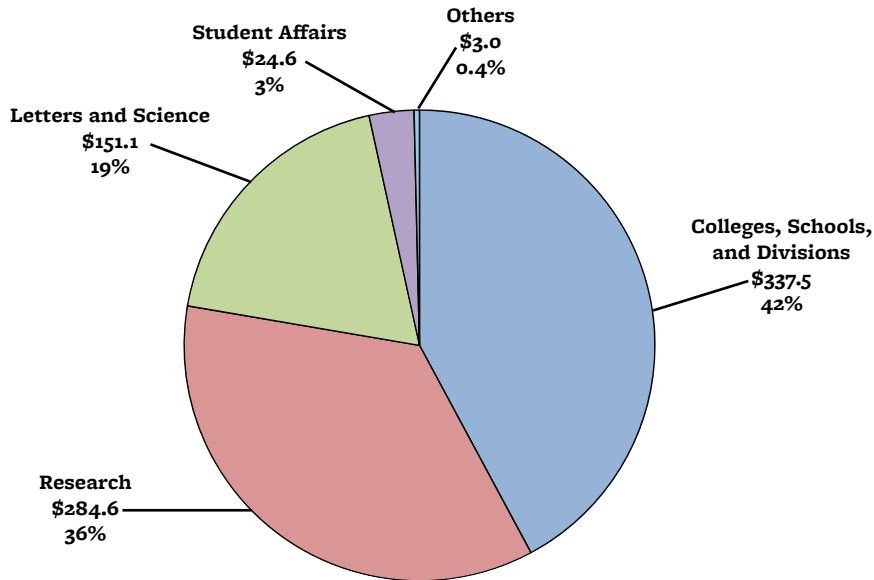


**Ten-Year Number of Proposals Submitted by Control Unit, FY 2011-2020
(36,763 total)**

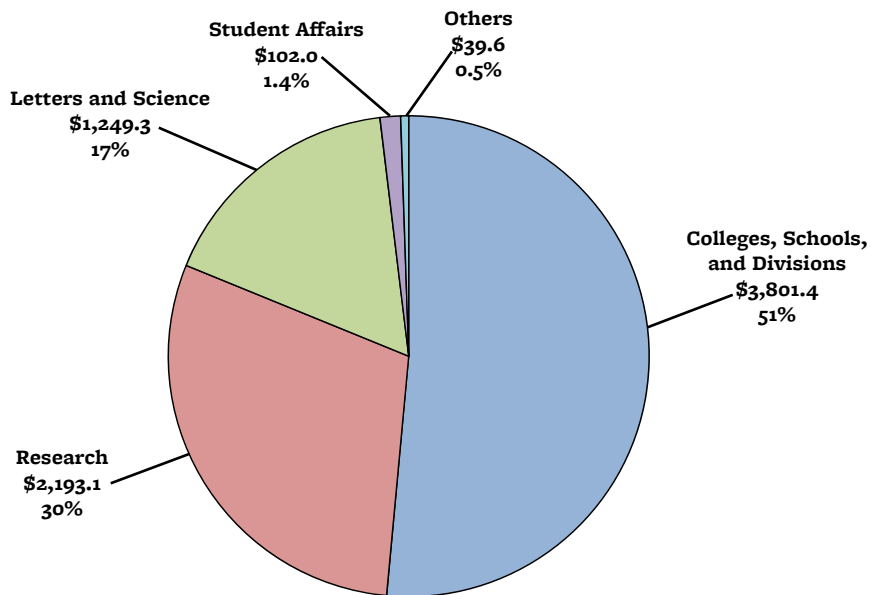


Funding by Campus Control Unit

Fiscal Year 2020 Funding Summary by Control Unit
(**\$800.8 million total - dollars in millions**)

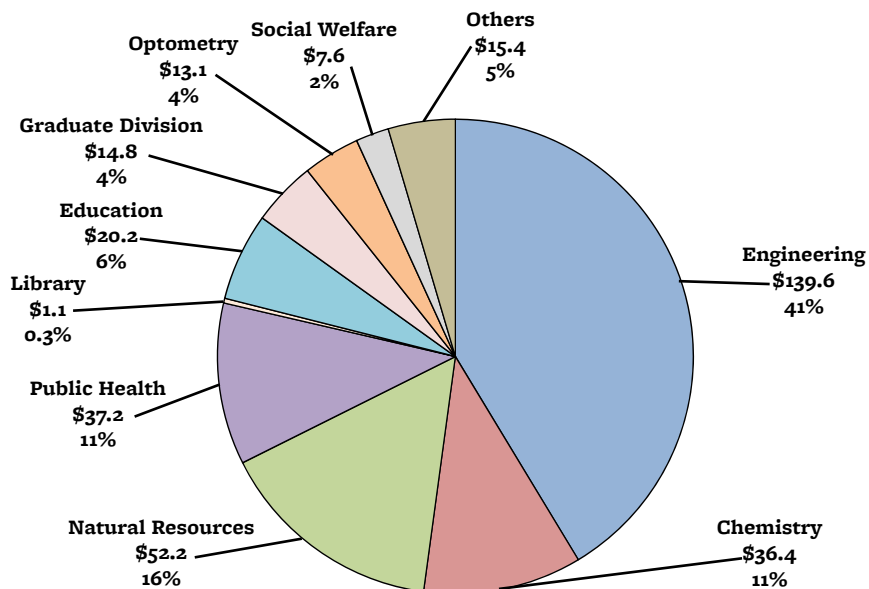


Ten-Year Funding Summary by Control Unit, FY 2011-2020
(**\$7.39 billion total - dollars in millions**)

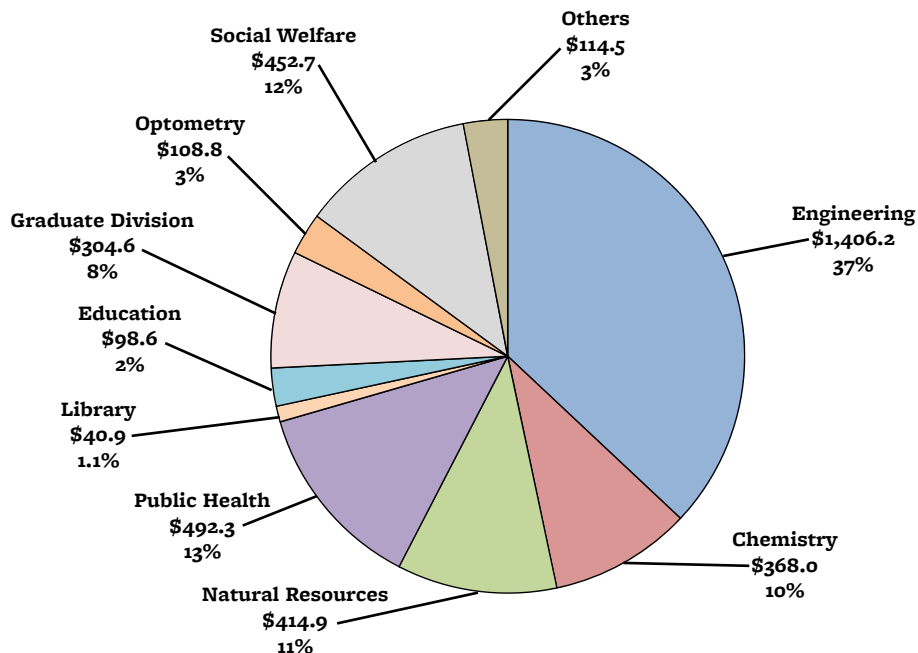


Funding by Campus Colleges, Schools, and Divisions

Fiscal Year 2020 Funding Summary by Colleges, Schools, and Divisions
 (\$337.5 million total - dollars in millions)



Ten-Year Funding Summary by Colleges, Schools, and Divisions, FY 2011-2020
 (\$3.8 billion total - dollars in millions)



Awards by Funding Source Overview - All Sponsors

In fiscal year 2020, federal funding was the same as fiscal year 2019, at \$414 million. Federal funding made up the largest portion of total funding received with 52% of the total.

Funding from nonprofit organizations in fiscal year 2020, including foundations, charities, research institutes, and institutions of higher education, increased by 33% with a total of \$195 million.

State of California funding decreased by 26% in fiscal year 2020, to a total of \$88 million. Funding from other governmental sources totaled \$9.7 million, 45% more than in fiscal year 2019. Funding from corporate sponsors decreased by 1.3% to a total of \$70 million.

Award Highlight

C3.ai Digital Transformation Institute

The C3.ai Digital Transformation Institute is a research consortium dedicated to accelerating the benefits of artificial intelligence for business, government, and society. The Institute engages the world's leading scientists to conduct research and train practitioners in the new Science of Digital Transformation, which operates at the intersection of artificial intelligence, machine learning, cloud computing, internet of things, big data analytics, organizational behavior, public policy, and ethics.

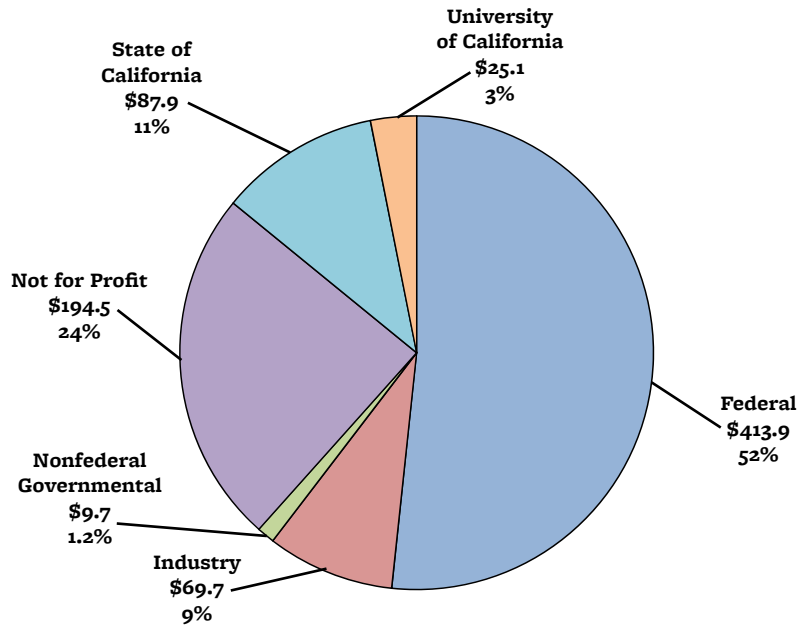
C3.ai DTI was established in March 2020 by C3.ai, Microsoft Corporation, University of Illinois at Urbana-Champaign, University of California, Berkeley, Princeton University, University of Chicago, Massachusetts Institute of Technology, Carnegie Mellon University, Stanford University, National Center for Supercomputing Applications, and Lawrence Berkeley National Laboratory. The Institute is jointly managed and hosted by UC Berkeley and UIUC. In 2020, UC Berkeley received an award of \$28,625,000 to support the consortium.

<https://c3dti.ai/>

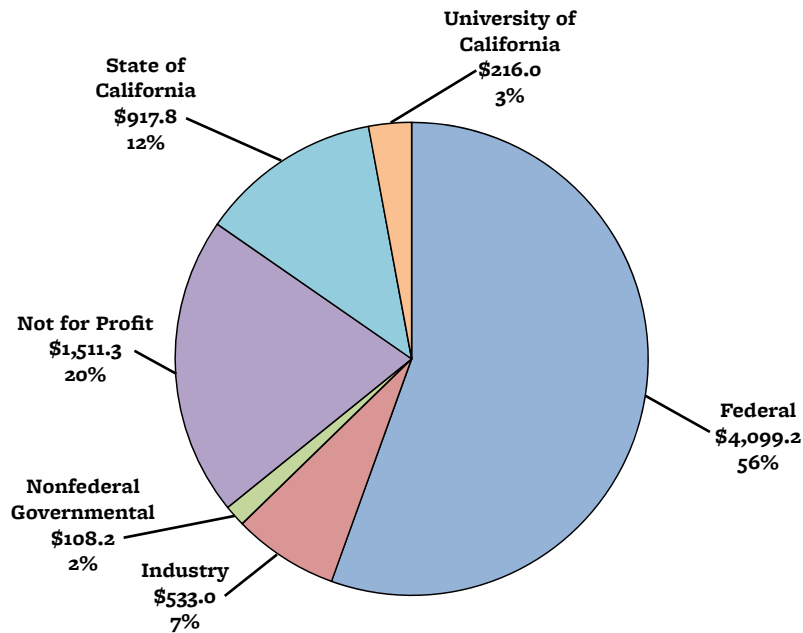
**C3.ai Digital
Transformation
Institute**

Overview - All Sponsors

Fiscal Year 2020 Funding Summary - All Sponsors
 (\$800.8 million total - dollars in millions)

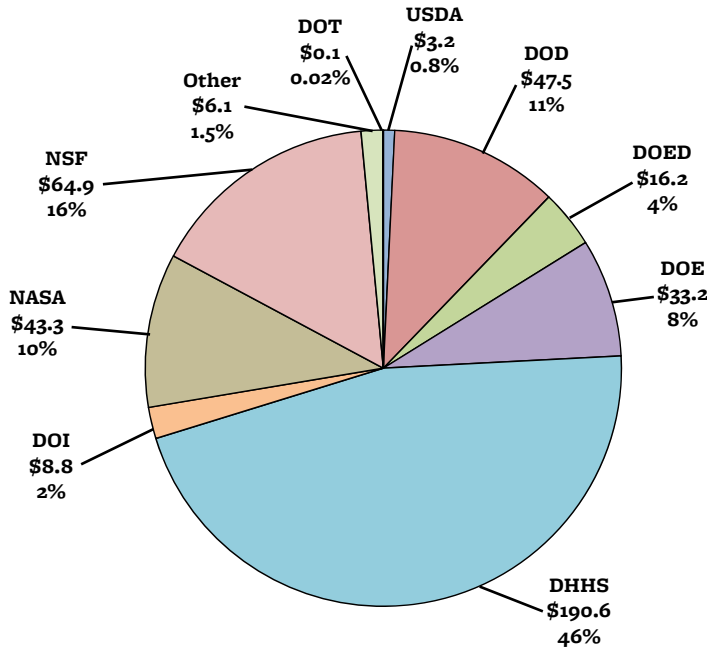


Ten-Year Funding Summary - All Sponsors, FY 2011-2020
 (\$7.39 billion total - dollars in millions)



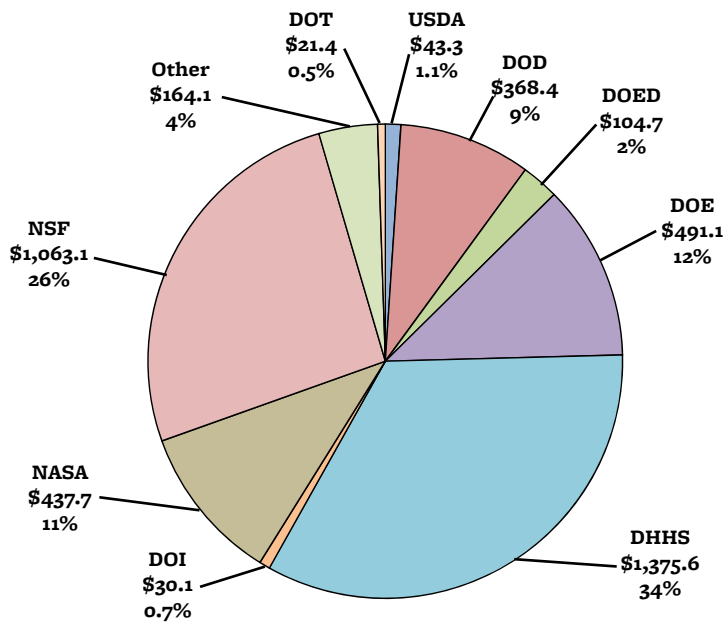
Federal Agencies

Fiscal Year 2020 Funding Summary - Federal Sponsors
 (\$413.9 million total - dollars in millions)



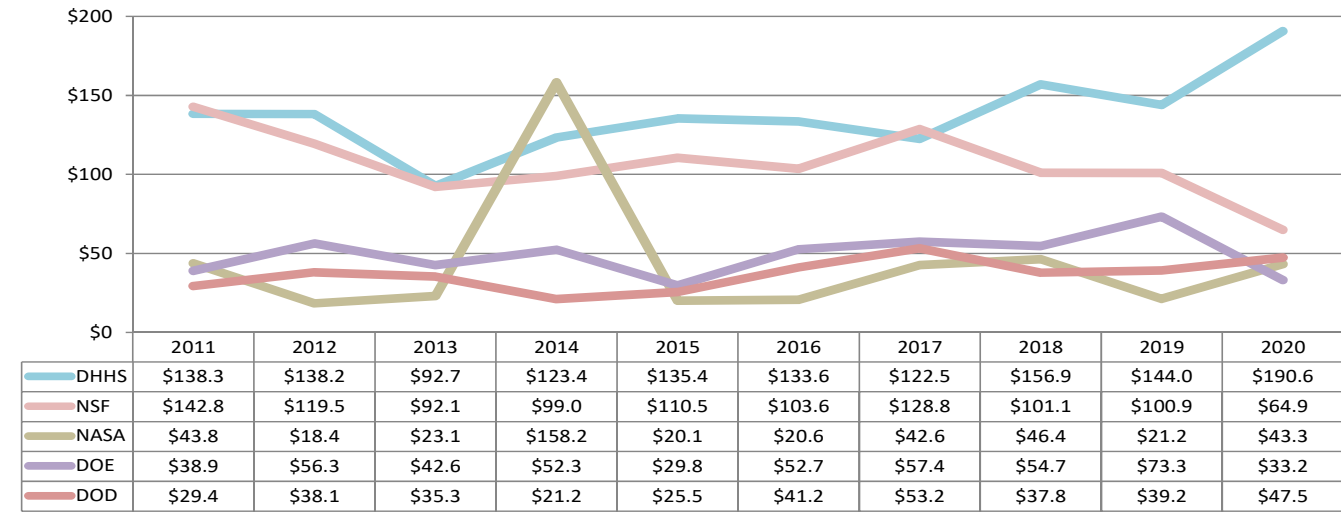
In fiscal year 2020, the Department of Health and Human Services was the largest source of federal funds, with \$191 million, a 32% increase from fiscal year 2019 and 46% of the federal total. The National Science Foundation was the second largest with \$65 million, a 36% decrease from fiscal year 2019. Federal funding again made up the largest portion of total funding received with 52% of the total.

Ten-Year Funding Summary - Federal Sponsors, FY 2011-2020
 (\$4.10 billion total - dollars in millions)



Federal Agencies

**Ten-Year Funding Summary for Top-Five Federal Sponsors, FY 2011-2020
(dollars in millions)**



Award Highlight

US POINTER Imaging Ancillary Study

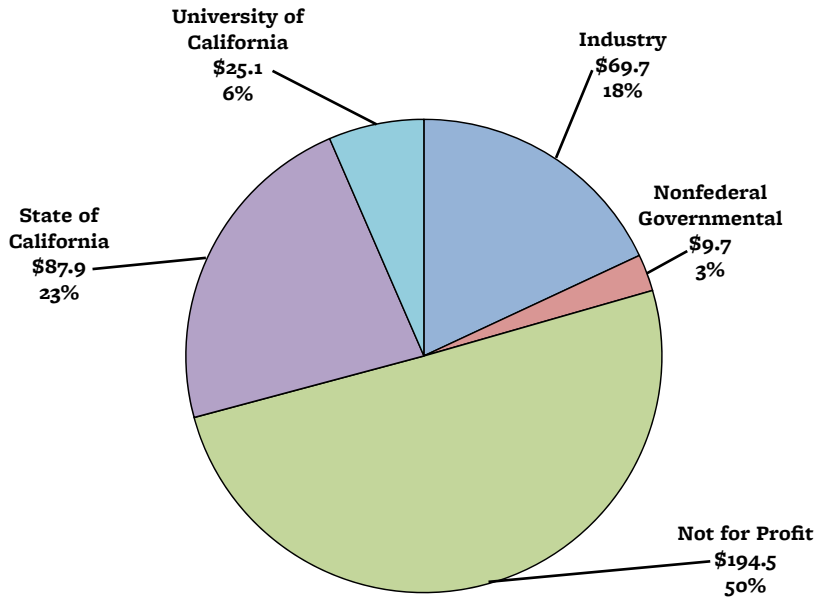
The U.S. POINTER neuroimaging ancillary study is the first large-scale investigation of how lifestyle interventions – including exercise, diet, cognitive stimulation and health coaching – affect biological markers of Alzheimer’s and dementia in the brain. The Helen Wills Neuroscience Institute at UC Berkeley was awarded \$47,299,769 from the U.S. National Institute on Aging to incorporate advanced brain imaging into the Alzheimer’s Association’s clinical trial, the U.S. Study to Protect Brain Health Through Lifestyle Intervention to Reduce Risk (U.S. POINTER).

<https://www.alz.org/us-pointer/imaging/>



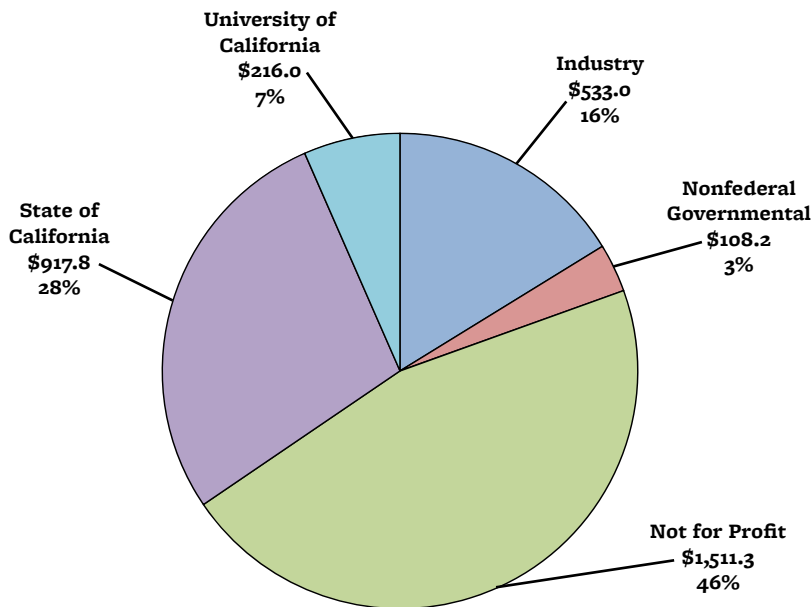
Nonfederal Agencies

Fiscal Year 2020 Funding Summary - Nonfederal Sponsors
 (\$386.9 million total - dollars in millions)



Over the last ten years, funding from the nonprofit sector has made up almost 46% of nonfederal funding. In fiscal year 2020, that sector provided 50% of the \$386.9 million received from nonfederal sources.

Ten-Year Funding Summary - Nonfederal Sponsors, FY 2011-2020
 (\$3.29 billion total - dollars in millions)



Largest Awards, Fiscal Year 2020

- Susan Marie Landau, Helen Wills Neuroscience Institute, “US POINTER Imaging Ancillary Study,” National Institute on Aging, \$47,299,769
- S. Shankar Sastry, Electrical Engineering and Computer Sciences, “C3.ai Digital Transformation Institute,” C3.ai, Inc., \$28,625,000
- Leonardo Arriola, Center for African Studies, “Enhanced Mastercard Foundation Scholars Program,” MasterCard Foundation, \$26,638,251
- Chris Stanich, Financial Planning and Analysis, “CARES Act Funding in Support of UC Berkeley – Institutional Portion,” U.S. Department of Education, \$15,220,313
- Robert Lillis, Space Sciences Laboratory, “Escape and Plasma Acceleration and Dynamics Explorers (ESCAPADE) Mission – Phase A and Phase B Concept Study,” National Aeronautics and Space Administration, \$9,807,560
- Alexei Efros, Electrical Engineering and Computer Sciences, “MESS: Model Building, Exploration, Social System,” Naval Information Warfare Systems Command, \$9,477,951
- Rebecca Cheung, School of Education, “21st Century CA School Leadership Academy,” California Department of Education (U.S. Department of Education prime sponsor), \$8,564,843
- Angel Mateos, Civil and Environmental Engineering, “Partnered Pavement Research Center 2020-2023,” UC Davis (California Department of Transportation prime sponsor), \$8,155,292
- William Jagust, Helen Wills Neuroscience Institute, “SCAN: Standardized Centralized Alzheimer’s and Related Dementias Neuroimaging,” National Institute on Aging, \$8,033,783
- Davin Larson, Space Sciences Laboratory, “Supra Thermal Ion Sensor (STIS),” National Aeronautics and Space Administration, \$7,523,169
- Richard Allen, Berkeley Seismological Laboratory, “Support and Improvement of ShakeAlert 2019-2021: Collaborative Research with Univ. of California Berkeley, Caltech, Univ. of Washington, and Univ. of Oregon,” U.S. Geological Survey, \$6,439,075
- Richard Ivry, Psychology, “Human Cerebellar Function in Multiple Task Domains,” National Institutes of Health, \$5,751,381
- Trevor Darrell, Institute of Transportation Studies, “California Partners for Advanced Transportation Technology (PATH) Research Program Management FY 2020 to FY 2023,” California Department of Transportation, \$5,519,653
- Austin Roorda, School of Optometry, “Advanced Technology to Study Visual Function on a Cellular Scale,” National Eye Institute, \$5,340,725
- Trevor Darrell, Electrical Engineering and Computer Sciences, “LEARN: Label-Efficient Active Resilient Networks,” Defense Advanced Research Projects Agency, \$5,300,000
- Carl Blumstein, Berkeley Energy and Climate Institute, “Demand Response Research Activities and Projects,” California Public Utilities Commission, \$5,000,000
- Alexandra Von Meier, Berkeley Energy and Climate Institute, “The Oakland EcoBlock, Phase II: A Zero Net Energy, Low Water-Use Retrofit Neighborhood Demonstration Project,” California Energy Commission, \$5,000,000
- Jonathan Bray, Earthquake Engineering Research Center, “Performance Based Earthquake Engineering Assessment Tool for Gas Storage and Transmission System,” California Energy Commission, \$4,940,158
- Prudence Carter, School of Education, “NAF Future Ready Scholars Program,” Fund II Foundation, \$4,500,000
- Khalid Mosalam, Earthquake Engineering Research Center, “PEER – Bridge Program,” California Department of Transportation, \$4,500,000

Award Highlights

21st Century California School Leadership Academy (21CSLA)

The purpose of 21CSLA is to support educational leaders at school sites and systems in California in order to improve campus culture and climate, create more equitable learning environments, and ultimately boost student success. The statewide center will structure a collaborative partnership among the California Department of Education, California Collaborative for Educational Excellence, State Board of Education, and the seven Regional Academies.

In 2020, the State of California awarded \$8,564,843 to the UC Berkeley Graduate School of Education to manage the statewide center, as well as an additional \$4,476,581 for a Regional Academy, the Berkeley Principal Leadership Institute.

<https://gse.berkeley.edu/21csla-state-center>

21CSLA State Center

University of California Pavement Research Center

The University of California Pavement Research Center (UCPRC) carries out leading-edge research on a wide range of pavement-related fields. With facilities at both UC Berkeley and UC Davis, the UCPRC provides state-of-the-art knowledge, advice, and technology to practitioners, research community, and decision-makers that include Caltrans, the Federal Highway Administration, the Federal Aviation Administration, CalRecycle, the California Air Resources Board, and local governments.

To support the UCPRC at UC Berkeley in 2020-2023, the UC Berkeley Institute of Transportation received \$8,155,292 from UC Davis, with funding from the State of California as the prime sponsor.

<https://its.berkeley.edu/research-centers/ucprc>

