Awards and proposals FY 2021-22 annual report

The fiscal year of this report is based on the federal fiscal year, which starts on September 1. All dollar values are adjusted for inflation.

Interactive data visualization is available online for detailed data about research sponsorship. Additional information on research activities at UC is also available on the <u>UC Information Center</u>. Also available in the <u>Research section</u> of the UCOP Institutional Research and Academic Planning website is a series of Topic Briefs presenting detailed analysis of recent trends in UC's federal, state, corporate, and non-profit funding.

Total awards and proposals

The total dollars awarded in the fiscal year 2022 stayed about the same as the previous fiscal year but the count of awards and the number of sponsors increased, showing that the investigators are seeking ways to obtain funding from various sources while each source may have less dollars available. The proposals declined in dollars, counts, and the number of sponsors.



Awards and proposals by project type

The awarded dollar amount examined by the project type shows that the research awards increased while service and other awards decreased. Service includes public service and Other includes material transfers and equipment. This change was likely fueled by the termination of COVID-19-related funding that was provided during the pandemic. On the proposal side, research and service declined while education increased.

Table 2: Awards and proposals by project type

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Awards and proposals by location

While total awards are flat compared to last year, the change in the values differs by location, as shown below. An increase is seen among San Francisco, San Diego, Davis, Irvine, and Agriculture and Natural Resources (ANR). Except for ANR, the rest of the locations that saw an increase have medical schools and facilities, indicating that medical research awards may have contributed to the increase.





Awards and proposals by sponsor type

Federal funding declined for the first time since 2019 both in awarded and proposed dollar amounts. Because the federally sourced awards are the largest source of funding, this decline is likely to have contributed to the lack of increase in this year's total fiscal year awards.

2022 Awards - sponsor type \$ millions Federal 7.12.8% 37,979	2022 Proposals - sponsor type \$ millions Federal 7-15.0% 156,962	
Business 48.2% 9,054 Non-profit 17.8% 7,892	Academia ✓-5.6% 21,463 Non-profit ▲12.6% 20,208 Business ▲8,2% 10,892	
Academia 13.6% 6,176 State 48.7% 5,384 Other 2.2% 2,029	Business A8.2% 10,052 State M 44.5% 8,047 Other MV 424.9% 2,284	

DISCUSSION: Federal funding

The federal FY 2022 omnibus spending package, enacted on March 15, 2022, included \$1.5 trillion in discretionary spending and in total \$730 billion in nondefense funding (a 6.7 percent increase over FY 2021) and \$782 billion in defense funding (a 5.6 percent increase over FY 2021). Below are highlights of the FY 2022 omnibus package with respect to research, while a chart with the specific funding levels for UC's FY 2022 appropriations priorities can be found online.

- Pandemic Preparedness: Pandemic preparedness was still very much on the mind of the federal government last year. In February 2022, the U.S. Senate Committee on Health, Education, Labor and Pensions released draft pandemic preparedness legislation—the Prepare for and Respond to Existing Viruses, Emerging New Threats and Pandemics Act (PREVENT Pandemics Act)—for which a section-by-section overview is available here. The legislation aimed to respond to future pandemics based on lessons learned from the COVID-19 pandemic. The omnibus included portions of the PREVENT Pandemics Act that, among other provisions, improve strategy and coordination among our public health preparedness agencies; strengthen the supply chain and government stockpiles of medical products, such as masks, drugs, vaccines, and tests; and to Advanced Research Projects Agency for Health (ARPA-H) to accelerate innovation in health and medicine by investing in novel, broadly applicable, high-risk, high-reward research projects.
- **Research Security:** The spending package directed the National Science Foundation (NSF) to consider additional security efforts to help counter foreign influence by fostering collaboration among scientists from disparate fields to engage with other federal agencies and the National Academies of Sciences to help identify areas of research that will provide insight that can mitigate research security threats. The package also included the Cybersecurity Incident Reporting for Critical Infrastructure Act of 2022, directing cybersecurity contractors (those that provide services) to report any cybersecurity incident to relevant federal agencies.
- **Agricultural Research:** Authorized in the Agriculture Improvement Act of 2018 (Farm Bill), appropriators provided the Department of Agriculture \$1 million to build out and plan the management structure for the new AgARDA, which will focus on advancing agriculture research toward commercialization.
- Other federal research funding agencies also saw small increases to their budge for research purposes:
 - **National Institutes of Health (NIH) Funding**: The bill provided a total of \$45 billion for NIH, an increase of \$2.25 billion (5.3 percent) above the FY 2021 enacted level.
 - **National Science Foundation (NSF)**: The appropriators provided \$8.838 billion for the NSF which Is \$351 million (4.3 percent) above FY 2021.
 - **Department of Energy (DOE) Office of Science:** The appropriators provided \$7.475 billion for the DOE Office of Science, which is \$449 million (6.39 percent) above FY 2021.

DISCUSSION: State funding

While federal funding had declined, state funding increased in both awarded and proposed dollars.

The 2021 Budget Act focused on COVID-19 relief for families and businesses and made investments to address California's long-standing challenges.

• Emergency Response and Preparedness: The Budget includes approximately \$135 million for the Governor's Office of Emergency Services (Cal OES) to strengthen the state's emergency capacity and capabilities. The Budget also includes \$100 million one-time General Fund for Cal OES to implement an equitable all-hazards grant program focused on building resiliency in

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disadvantaged communities and providing assistance to communities who often lack resources or expertise in drafting competitive grant applications to leverage federal and private funds.

- Wildfire Prevention: The Budget includes ongoing General Fund support for 30 additional fire crews, enabling the California Department of Forestry and Fire Protection to respond to larger and more damaging wildfires throughout the fire season and complete priority fuel reduction projects to reduce wildfire risk in fire-threatened areas.
- Water Resilience and Drought: The Budget commits approximately \$5.1 billion over four years to the state's water resilience and drought preparedness and response, including investments that support safe drinking water, wastewater, and water conveyance infrastructure; water recycling and groundwater cleanup; Sustainable Groundwater Management Act grants; financial assistance to small and urban water suppliers; and water resilience multi-benefit projects.
- Sustainable Agriculture: Ongoing climate change—evidenced by decreased water availability, increased floods, and changing weather—has increased pressure on California's farmers. The Budget includes \$236 million General Fund for investments that support sustainable agriculture including funding for healthy soils, incentives for alternatives to agricultural burning in the San Joaquin Valley, technical assistance for underserved farmers, and the seniors farmers market nutrition program.
- **Energy**: The Budget includes \$812 million over two years to accelerate California's progress in meeting its clean energy goals.

Significant awards

For two years in a row, the largest award of over \$100 million went to the AIDS clinical trials group at the Los Angeles campus.

AIDS Clinical Trials Group (ACTG) for Research on Therapeutics for HIV and Related Infections [Los Angeles]	\$143 M	
Affiliation Agreement-Medical School Operating Agreement [Los Angeles]	\$82 M	
QCRG Pandemic Response Program [San Francisco]	\$67 M	
The Global Lyman-alpha Imagers of the Dynamic Exosphere (GLIDE) Mission [Berkeley]	\$61 M	
UC CalFresh Nutrition Education Program (UC CalFresh NEP): 2021-2022 [Davis]	\$53 M	

Table 5: Five largest awards, 2022