

Contracts & Grants Q115 Award Report

Federal Funding Returns to Pre-Recession Levels

Summary

UC's award funding for the first quarter of fiscal 2014-15 totaled about \$1.9 billion. This represents an increase of about 7.4% over the first quarter of last year and 6% over the first quarter of fiscal 2012-13. But this increase is not entirely good news. After adjusting for inflation, the current Q115 award total is well below the peaks of previous years. Only three years ago—which is after the period when UC was receiving federal stimulus funds—the Q112 award total was \$2.1 billion.

UC's Q1 award totals are important benchmarks because UC's first fiscal quarter corresponds to the final quarter of the federal fiscal year, when about 40% of all federal funds are awarded. With the federal government providing more than 60% of UC's contract and grant funding, Q1 award totals warrant close attention.

From the federal fiscal year perspective, federal agency funding during 2014 was markedly above the two previous years, when budgetary constraints resulted in cutbacks in federal agency funding. But, after adjusting for inflation, agency funding during the 2014 federal fiscal year is still well below prior-year peaks and back to the pre-recessionary levels of 2008. Although Congress has passed a federal budget and most of the funding restrictions of last year's Sequester have been lifted, the new normal for federal award funding appears to be about where it was prior to the recession, the Recovery Act, and the recent federal budget stalemates.

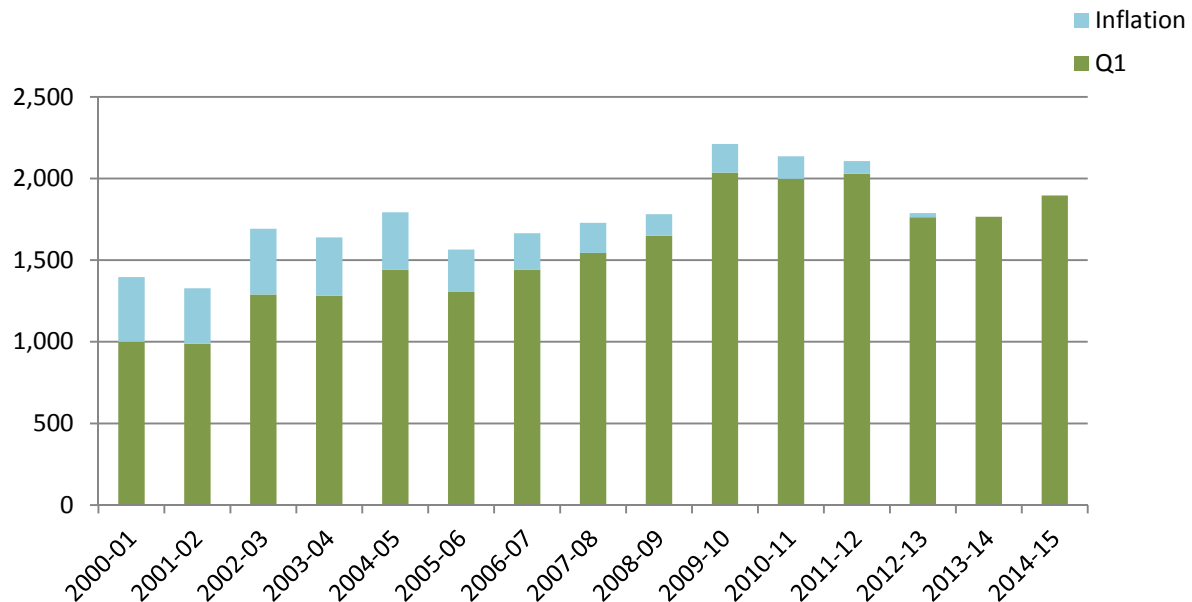
By contrast, UC's private sources of funding—support from corporate and non-profit sponsors—follow a different dynamic, which is more aligned with broad economic trends than Congressional budget politics. As industries and stock portfolios rebounded from the recession, awards from these private sources have been on the rise but those gains have only partially offset the federal decrease.

I. Quarterly Performance Metrics

Extramural awards for Q115 totaled \$1.896 billion, about \$130 million above Q114 and \$107 million above Q113, but \$211 million below the amount reported during Q112. The Q112 amount represents a significant benchmark, because it was after the period when Recovery Act stimulus funds were available but before the recent round of budget constraints and the Sequester.

Q1 Extramural Awards

\$ millions, inflation-adjusted



Quarterly Extramural Awards

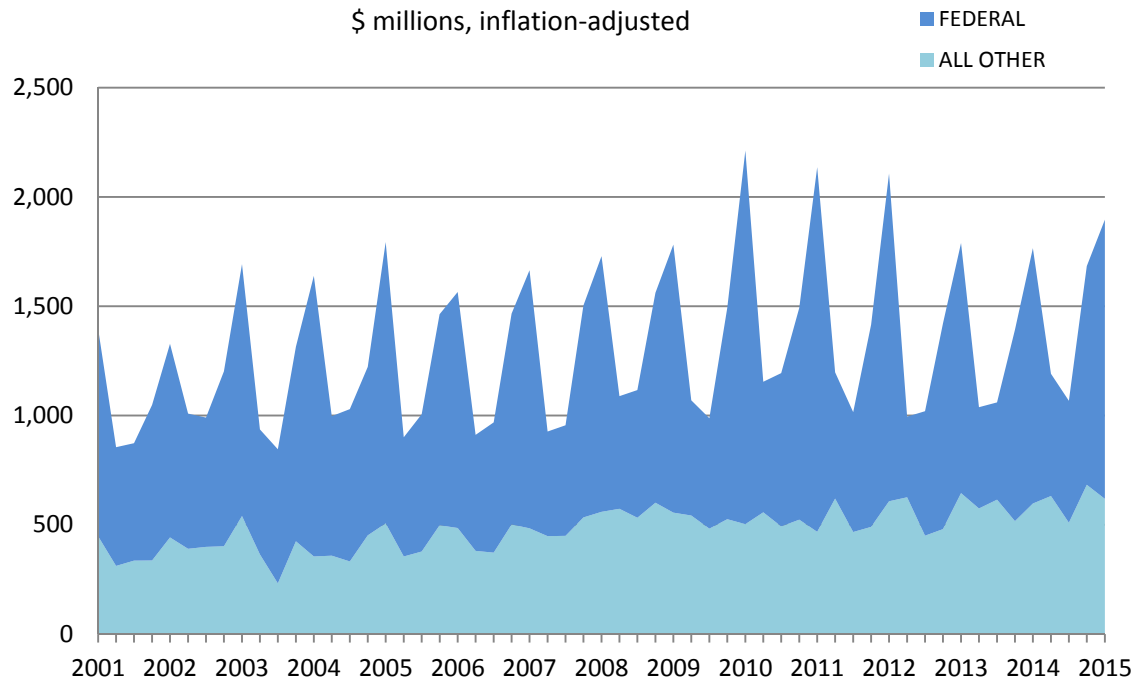
\$ millions, inflation-adjusted

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Q1	1,396	1,328	1,693	1,639	1,794	1,565	1,665	1,729	1,782	2,212	2,137	2,107	1,789	1,766	1,896
Q2	855	1,009	936	997	901	912	927	1,089	1,069	1,154	1,198	995	1,038	1,191	
Q3	874	991	845	1,029	1,006	969	955	1,116	987	1,194	1,015	1,020	1,060	1,068	
Q4	1,049	1,202	1,315	1,222	1,464	1,467	1,504	1,561	1,493	1,493	1,416	1,421	1,393	1,683	
FY	4,173	4,529	4,789	4,888	5,164	4,912	5,050	5,495	5,331	6,054	5,765	5,542	5,280	5,708	

Award totals for UC's first fiscal quarter are always the highest for the year. This is a function of the federal funding cycle, which generally awards about 40% of the annual total in the final quarter of the federal fiscal year (corresponding to UC's Q1). With direct federal sponsorship providing about two-thirds of all UC's awards, this produces sharp quarterly spikes in total funding.

Federal and All Other Awards, by Quarter

\$ millions, inflation-adjusted



II. Award Trends by Sponsor Category

The decline in Q1 and yearly total award funding is a reflection of federal cutbacks, and the fact that neither federal nor private sources have arisen to replace one-time Stimulus funds. Direct federal award funding during Q115 amounted to about \$1.28 billion, or 67.4% of the award total, compared to 71.2% of the total three years ago.

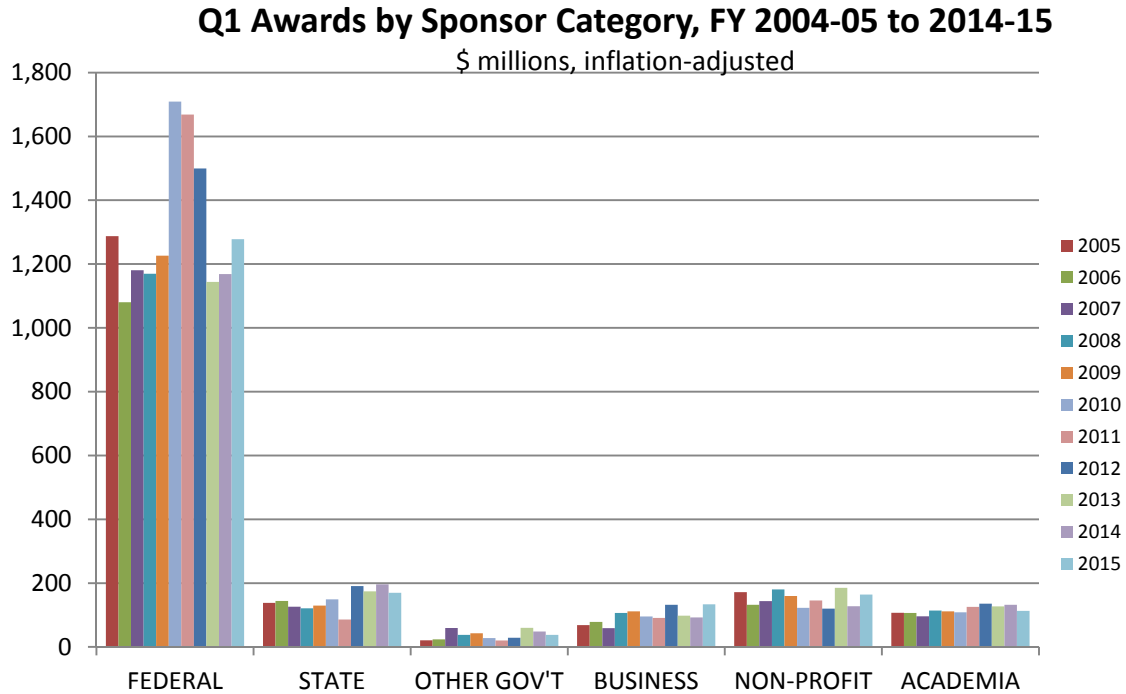
Q1 Awards by Sponsor Category, FY 2004-05 to 2014-15

(\$ millions, inflation-adjusted)

SPONSOR	Q105	Q106	Q107	Q108	Q109	Q110	Q111	Q112	Q113	Q114	Q115
<i>Federal</i>	1,287	1,080	1,181	1,170	1,226	1,709	1,669	1,499	1,144	1,169	1,278
<i>State</i>	138	144	126	121	130	149	86	191	174	196	170
<i>Other Gov't*</i>	21	24	59	38	43	28	20	29	60	48	38
<i>Corporate</i>	69	78	59	106	112	95	91	132	98	93	134
<i>Non-Profit</i>	171	132	144	180	160	122	146	120	185	128	164
<i>Academia**</i>	107	107	96	114	112	108	125	136	127	132	113
TOTAL	1,794	1,565	1,665	1,729	1,782	2,212	2,137	2,107	1,789	1,766	1,896

* Other Gov't includes Agricultural Market Order Boards.

**Academia includes the categories of Higher Education, DOE Labs, Campuses and UCOP.



Sections VII and VIII of this report present a more detailed analysis of federal funding based on federal fiscal years rather than UC's fiscal years.

III. Award Trends by Project Type

Research awards during Q115 amounted to \$1.54 billion, including \$99 million in clinical trial sponsorship. Training, service, and other awards came to about \$356 million.

Q1 Award Amounts by Project Type, FY 2007-2015

\$ millions, inflation-adjusted

PROJECT TYPE	Q107	Q108	Q109	Q110	Q111	Q112	Q113	Q114	Q115
Research	1,168	1,329	1,361	1,739	1,721	1,736	1,295	1,350	1,441
Clinical Trials	36	54	42	55	46	50	51	68	99
Training	144	156	145	158	149	127	124	100	124
Service	177	90	121	98	94	103	164	139	112
Other	140	100	112	163	127	91	155	108	120
TOTAL	1,665	1,729	1,782	2,212	2,137	2,107	1,789	1,766	1,896

IV. Award Trends by Recipient Location

Q115 awards were about 7.4% above Q114, but this increase was unevenly divided, with a few locations showing modest declines.

Q1 Awards by Location (\$ millions, inflation-adjusted)

UC LOCATION	2008	2009	2010	2011	2012	2013	2014	2015	Change 2014-15
BERKELEY	177	230	329	324	332	298	249	292	17.38%
SAN FRANCISCO	378	383	449	486	458	437	478	477	-0.35%
DAVIS	222	231	235	248	311	258	203	227	11.64%
LOS ANGELES	286	336	428	406	284	216	245	327	33.47%
RIVERSIDE	44	35	50	36	44	37	43	41	-4.97%
SAN DIEGO	302	281	365	334	366	296	263	279	6.03%
SANTA CRUZ	47	48	59	42	54	39	40	45	11.06%
SANTA BARBARA	72	66	111	73	71	54	78	56	-27.97%
IRVINE	94	85	105	114	116	89	107	102	-4.75%
MERCED	4	6	12	9	8	9	7	9	23.18%
UCOP	32	17	12	5	5	12	0	0	0.00%
DOE LABS	66	53	51	55	54	39	46	35	-23.83%
AG & NAT RES	4	11	6	5	4	5	6	7	17.82%
TOTAL	1,729	1,782	2,212	2,137	2,107	1,789	1,766	1,896	7.38%

V. Significant Awards

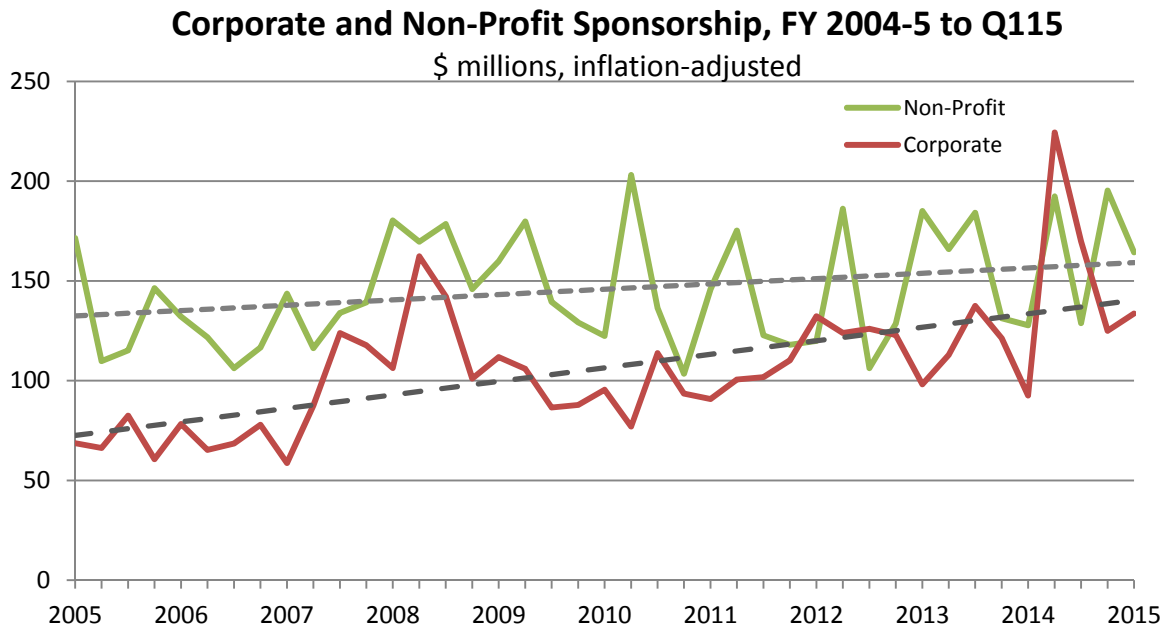
During Q115, UC received about 6,200 contracts and grants from over 1,400 different sponsors (in addition to almost one thousand Material Transfer Agreements). Listed below are the largest or most significant awards reported this quarter by campuses, Agriculture & Natural Resources, and Lawrence Berkeley National Lab.

LOCATION	SPONSOR CATEGORY	SPONSOR	PROJECT TITLE	AMOUNT
Agriculture & Natural Resources	Federal	National Institute for Food And Agriculture	A Western Integrated Pest Management Center Led by California, Arizona and Oregon	1,000,000
Berkeley	State	California Department of Social Services	Title IV-E Social Work Training Program	35,457,371
Davis	State	California Dep't. of Transportation, Division of Research and Innovation	Partnered Pavement Research Center	16,401,395
Irvine	Federal	National Science Foundation	The Center for Chemistry at the Space-Time Limit (CASTL)	8,000,000
Lawrence Berkeley Lab	Non-Profit	Howard Hughes Medical Institute	Construction of Sector 2 Beamline for Biological Crystallography	5,000,000

Los Angeles	Federal	PHS (SAMHSA) Prevention Center For Substance Abuse Prevention	National Center for Child Traumatic Stress	6,000,000
Merced	Federal	National Institutes of Health	Environmental Copper Exposure and its Impact on Microglial Amyloid-beta Clearance	2,683,663
Riverside	Federal	Department of Energy Chicago Field Office	Spins and Heat in Nanoscale Electronic Systems (SHINES)	3,000,000
San Diego	Federal	National Oceanic And Atmospheric Administration (NOAA)	NOAA Stratus Ocean Reference Station: Mooring, Mapping, and In-Situ Calibration Operations Aboard R/V Melville	15,755,011
San Francisco	Non-Profit	Bill & Melinda Gates Foundation	Mortality Reduction After Oral Azithromycin	11,200,028
Santa Barbara	Federal	Department of Energy	UCSB High Energy Physics Group Program	2,143,000
Santa Cruz	Federal	National Human Genome Research Institute	The UCSC Genome Browser	3,501,938

VI. Private Funding Sources

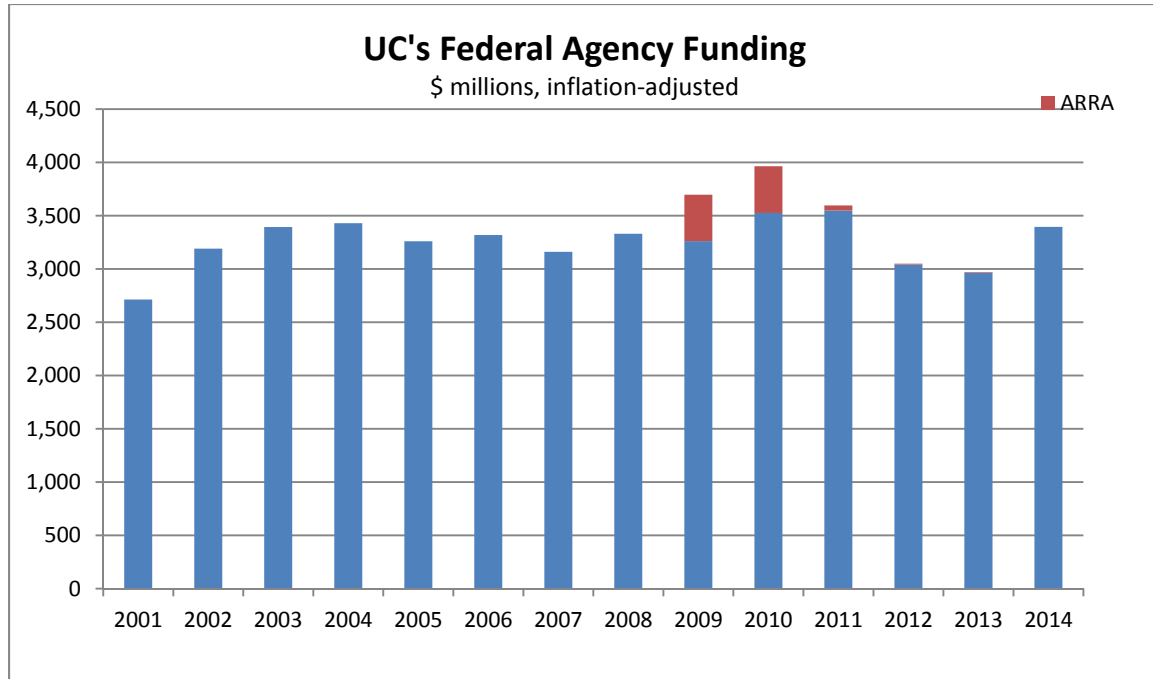
Some of the decline in federal award funding in recent years has been offset by private sponsors. While there is significant quarterly variation in award totals from these sources, the trend lines for both are positive even after inflation adjustment.



The increases in private funding are welcome, but insufficient to make up for recent federal declines.

VII. UC Awards in the Federal Fiscal Year Context

UC's Q1 federal award totals are best understood in the context of the federal fiscal year, since UC's Q1 corresponds with the final quarter of the federal fiscal year, which is the peak period for federal awards.



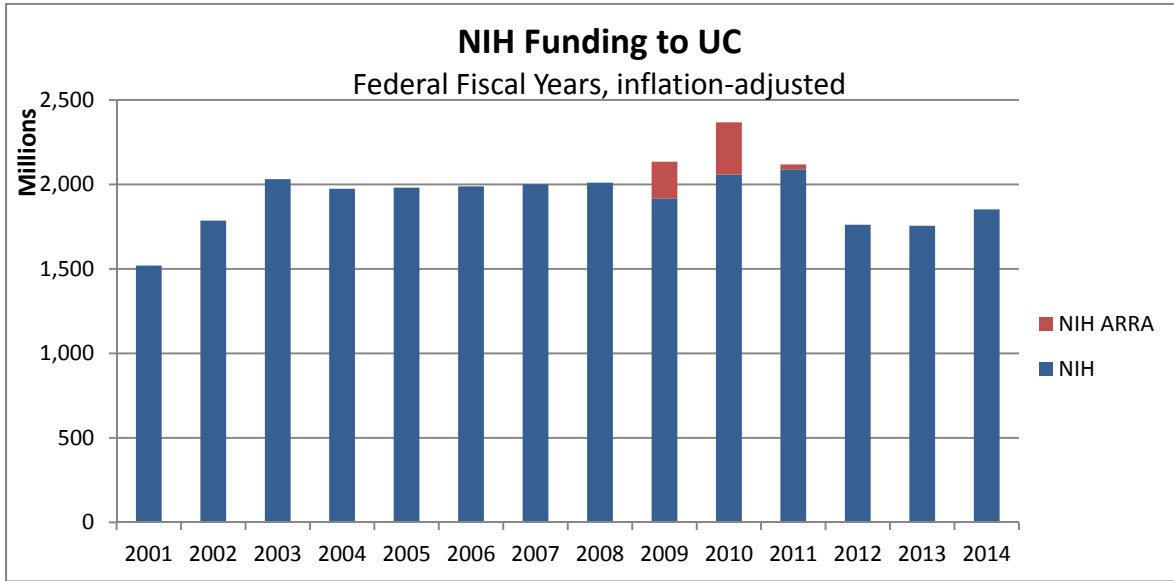
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Current \$\$	1,941	2,372	2,585	2,682	2,620	2,767	2,735	2,975	3,424	3,648	3,362	2,938	2,928	3,395
Constant \$\$	2,712	3,190	3,393	3,429	3,259	3,319	3,161	3,331	3,696	3,963	3,595	3,049	2,970	3,395

What this tabulation of funding by federal fiscal year shows quite clearly is that from federal FY 2008 up to the present, UC's federal funding has been strongly influenced by two political processes: the Recovery Act, which pumped about \$1 billion into UC's research enterprise from 2009 through 2011; and the Congressional budget stalemate, which in recent years has driven UC's federal funding down to levels not seen since the turn of the millennium. During the 2014 federal fiscal year, with a budget bill passed and many of the Sequester's constraints lifted, federal support to UC returned to nearly pre-recession funding levels.

VIII. Federal Agency Award Trends

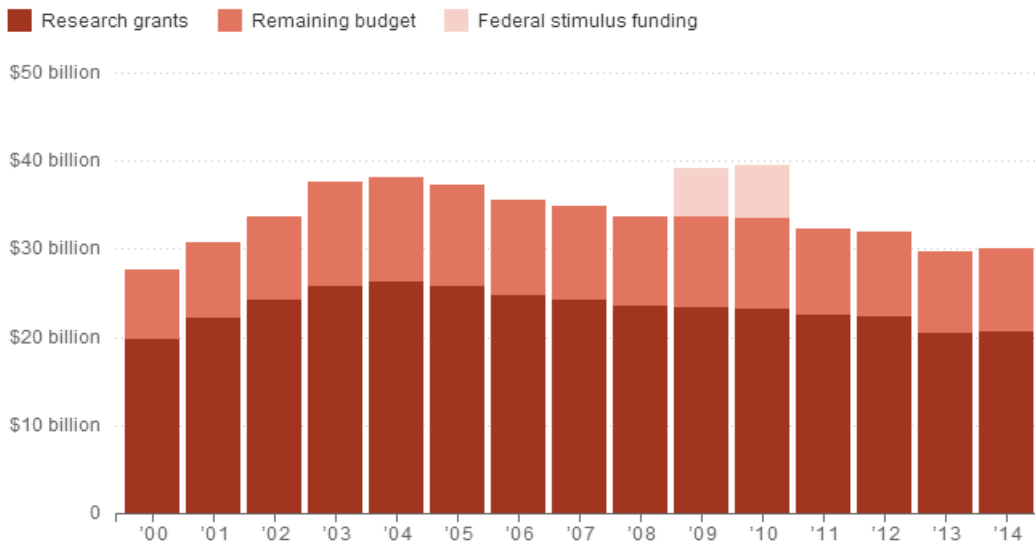
The two largest sources of UC's funding are the National Institutes of Health (NIH) and the National Science Foundation. Adjusting for inflation, funding from both agencies over the last decade has been volatile, again reflecting political processes.

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
NSF	485	563	617	574	489	503	483	503	680	543	542	490	466	518
NIH	1,520	1,786	2,031	1,975	1,981	1,989	2,001	2,010	2,152	2,394	2,120	1,761	1,755	1,852



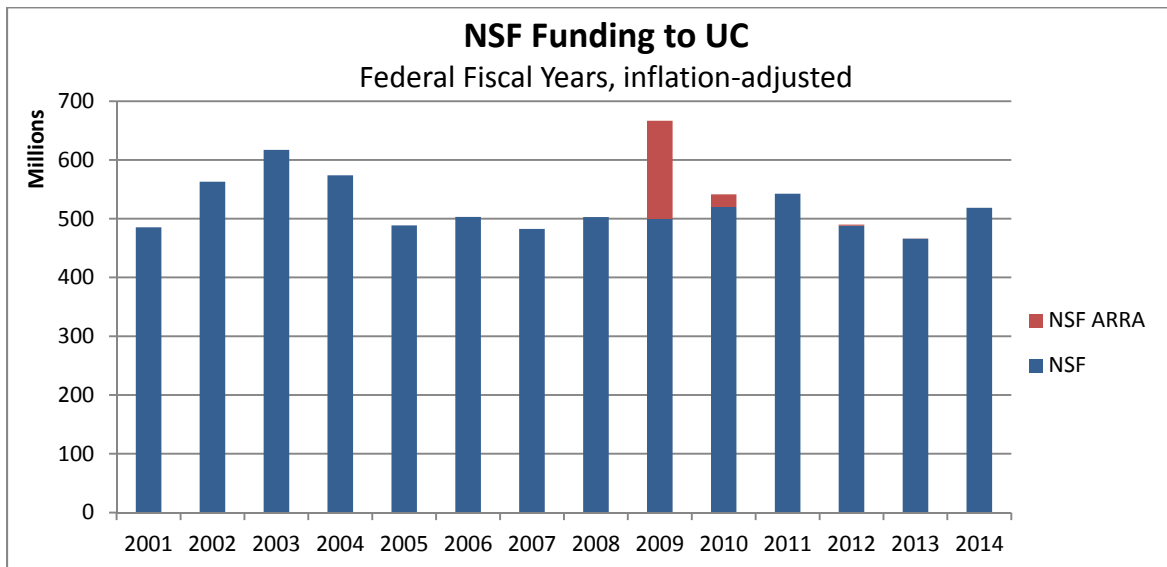
UC’s history of securing NIH funds, cast in terms of federal fiscal years, closely parallels NIH budget trends—more so than the comparison in terms of UC’s fiscal year that was presented in the Q4 report for FY 2013-14. (The accompanying chart, compiled by National Public Radio, also appeared previously in that report.)

NIH Budget By Fiscal Year, In 2014 Dollars



Notes: Figures for 2014 are preliminary. Figures for 2000-2013 have been adjusted for inflation using the [Biomedical Research and Development Price Index](#). Federal stimulus funds in 2009-2010 came from the American Recovery and Reinvestment Act of 2009.

Source: NPR analysis of NIH data; NIH (PDF: [2000-2013](#), [2014](#)); recovery.nih.gov
Credit: Robert Benincasa, Richard Harris and Alyson Hurt/NPR



NIH and NSF funding trends show that political processes have, over the past few years, strongly affected federal agency support for academic research and that UC has been carried along in the national trend. While the Recovery Act and the budgetary constraints that followed affected funding from both agencies, the dollar volume of NIH support generally runs three to four times that from NSF. Because UC locations with medical centers tend to be more heavily dependent on federal funding—and particularly NIH funding—than general-campus locations, the swings in federal funding have unevenly divided impacts across the UC system.

Heavy reliance on federal funding makes it difficult to counter declines in federal support by seeking other sponsors. While UC's non-federal sources of award funding (which constitute about one-third of the total) have increased somewhat over the past several years, this welcome addition has not been enough to make up for the drop in federal agency awards.

The result is a boom-and-bust cycle of funding for sponsored projects—predominantly research, and mostly in medical and life science fields. This variability and uncertainty in funding has unfortunate consequences for the academic research enterprise, not just at UC but nationwide. Projects that exhaust their federal funds and have no renewals or replacements in sight are shuttered, affecting the innovation pipeline as well as individual careers and employment. The impacts on UC's research workforce are already measurable. In the last two years, the number of graduate student researchers at UC has declined about 6.5%, from 15,000 to about 14,100, largely due to the depletion of federal research funds. This demonstrates the close connection between UC's research enterprise and its instructional mission, and how both are affected by federal budgetary policies.

*Charles Drucker
Institutional Research
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