

Contracts & Grants Q114 Award Report

The New Old Normal?

Summary

UC's award funding for the first quarter of fiscal 2013-14 totaled \$1.76 billion, almost exactly the same amount as the first quarter of last fiscal year. By comparison, only two years ago, the Q1 award total was \$2.03 billion; like last year, UC's extramural funding for the first and largest quarter of the current fiscal year remains about \$265 million, or 13%, below the 2011-12 peak.

This steep two-year decline is due to continuing constraints and cutbacks in federal agency funding. Federal award totals, adjusted for inflation, are essentially back to 2008-09 levels. And, given the federal budget recently passed by Congress, it appears that this low watermark from five years ago has become the new normal for federal award funding, at least for the next two federal fiscal years.

Even with the decline in federal support, agency funding still represents two-thirds of UC's award total (and somewhat more than that if subawards are considered). The last few years have seen post-recessionary increases in awards from state and private sources, but these have only partially offset the federal decrease.

This award update, in addition to reviewing the Q114 award data, includes an assessment of federal funding trends in terms of federal fiscal years (which are offset by one critical quarter from UC's fiscal year). The goal is to gain a better understanding of how federal budgetary processes affect UC's research enterprise, along with the service and training activities that also depend on extramural support.

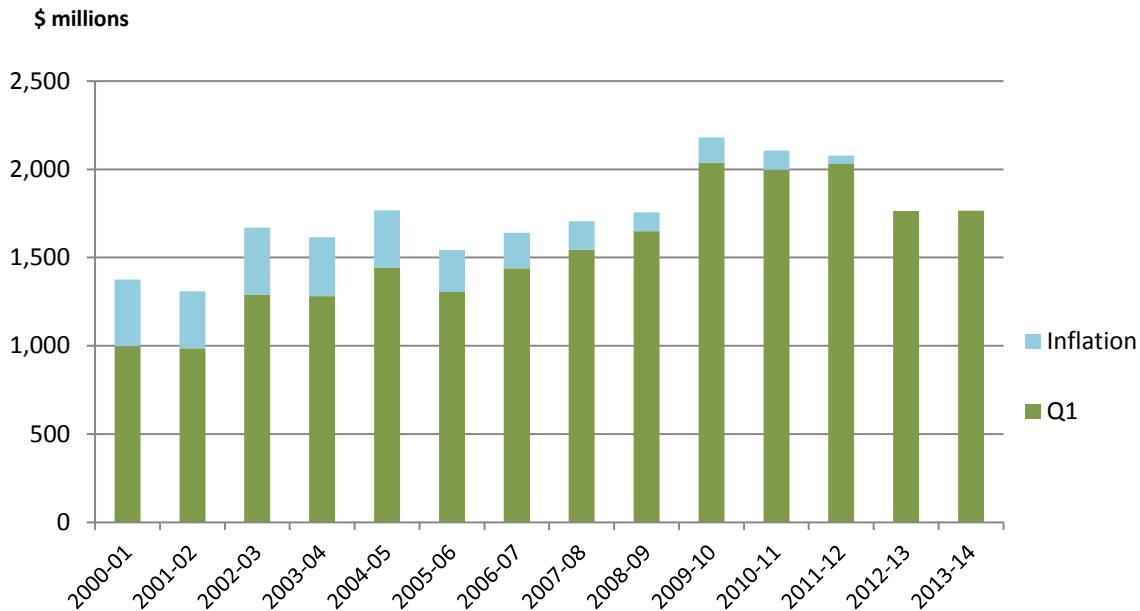
The key findings of this analysis are as follows:

- Though NIH is by far UC's largest single source of extramural support, the decline in federal funding is not attributable to NIH alone, but is broadly based across many agencies.
- The campuses with the largest dollar declines in federal funding compared to the federal funding peak of Q112 were Berkeley (-\$90M), San Diego (-\$81M), Davis (-\$66M) and Los Angeles (-\$42M).
- Even before the Sequester, which took effect in March 2013, federal agencies began changing their funding patterns, systematically conserving cash, approving fewer and shorter awards, and reducing some continuing awards.
- The net effect of reduced appropriations and the budgetary sequester during federal FY 2013 was a decline in base funding from FY 2012 of about 5.6%. Compared to the peak of federal FY 2011, the decline is about 14.4%.
- The federal FY 2013 funding of about \$2.84 billion is likely to continue for at least the two-year term of the current federal budget.

I. Quarterly Performance Metrics

Extramural awards for Q114 totaled about \$1.766 billion, only about \$2.5 million above Q113, and \$264 million (13%) below the amount reported during Q112.

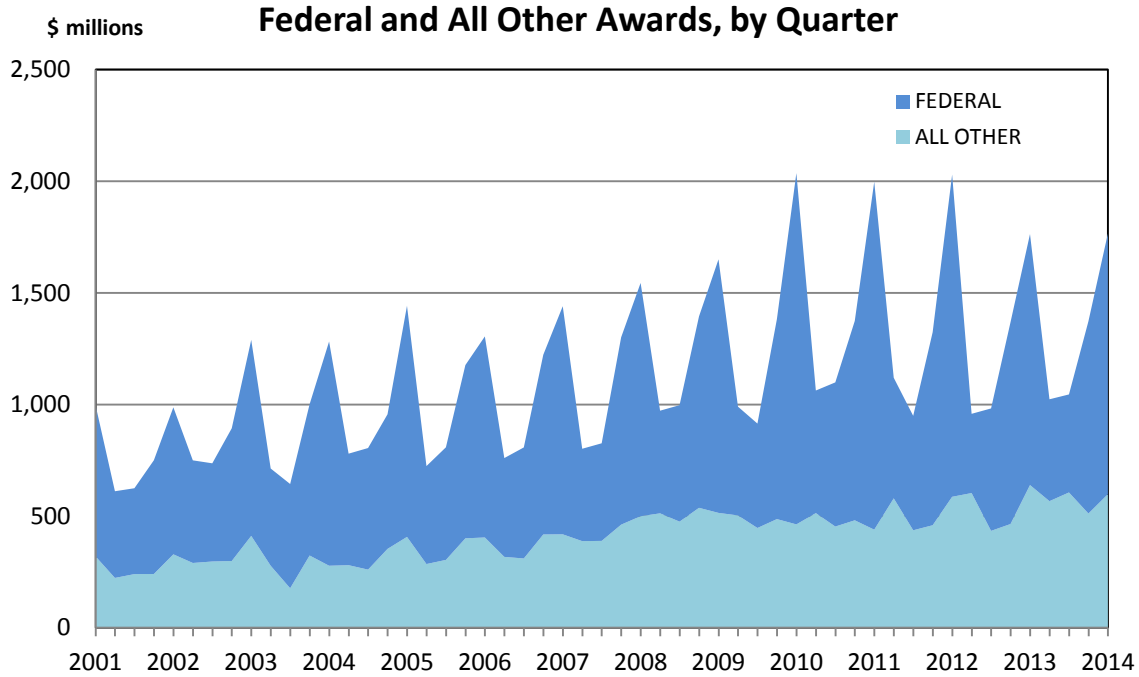
Q1 Extramural Awards, Inflation-Adjusted



Quarterly Extramural Awards, FY 2001 – 2013 (\$ millions)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Q1	999	987	1,290	1,282	1,442	1,305	1,440	1,545	1,650	2,037	1,998	2,030	1,763	1,766
Q2	612	750	713	780	724	760	802	972	991	1,063	1,120	958	1,023	
Q3	625	737	644	805	809	808	826	997	915	1,099	949	982	1,045	
Q4	750	894	1,002	956	1,177	1,223	1,301	1,395	1,383	1,374	1,324	1,369	1,373	
FY	2,986	3,367	3,649	3,823	4,151	4,096	4,370	4,909	4,938	5,574	5,391	5,340	5,205	1,766

Award totals for UC's first fiscal quarter are always the highest for the year, representing roughly one-third of the yearly total. This is a function of the federal funding cycle, which awards the largest amounts 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.



II. Award Trends by Sponsor Category

Total funding for Q114 is nearly identical to the same quarter last year, but significantly below the Q1 total from two years ago. The decline reflects federal cutbacks. Direct federal award funding this quarter amounted to about \$1.17 billion, or 66% of the award total, compared to 64% last year and 71% two years ago.

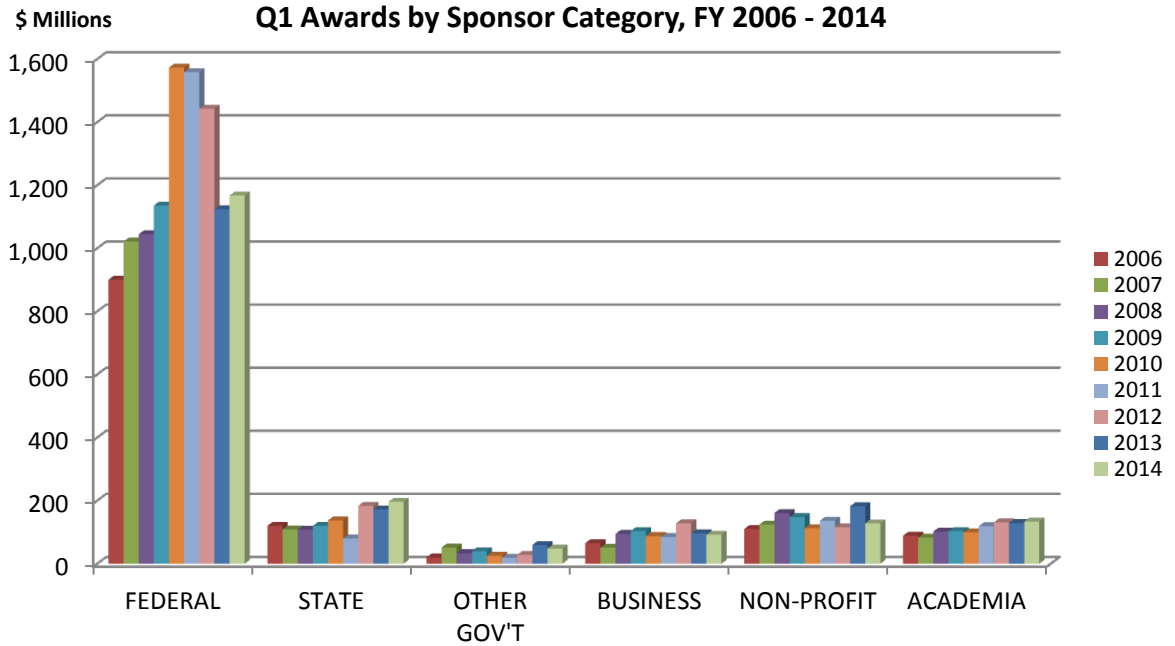
Q1 Awards by Sponsor Category, FY 2006-2014
(\$ Millions)

SPONSOR	Q106	Q107	Q108	Q109	Q110	Q111	Q112	Q113	Q114
Federal Base	901	1,022	1,045	1,136	1,220	1,377	1,432	1,124	1,168
Federal ARRA*	-	-	-	-	353	182	11	-	-
State	120	109	108	120	137	80	184	172	196
Other Gov't**	20	51	34	40	25	19	28	59	48
Business	65	51	95	104	88	85	128	97	92
Non-Profit	110	124	161	148	113	136	116	182	128
Academia***	89	83	102	103	100	119	131	129	134
TOTAL	1,305	1,440	1,545	1,650	2,037	1,998	2,030	1,763	1,766

* ARRA sub-awards from non-federal sources are attributed to the category of the prime contractor.

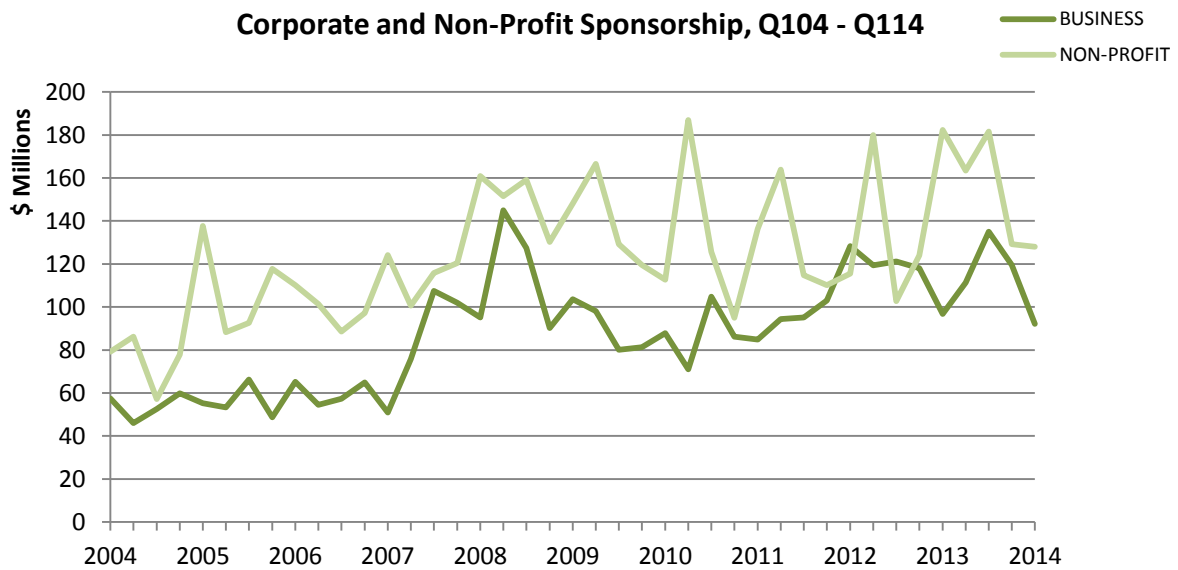
** Other Gov't includes Agricultural Market Order Boards.

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



III. Shifts in Funding Sources

The small federal funding increase during Q114 compared to the previous year was offset by declines in award totals from corporate and non-profit sources. However, as the graph below shows, there is significant quarterly variation in award totals from these sponsors.



Direct federal awards generally supply about two-thirds of all UC's extramural funds on a yearly basis. During UC's first fiscal quarter this percentage is somewhat higher due to quarterly variations in the federal funding cycle. The Recovery Act, combined with recessionary effects, resulted in a peak in federal funding percentages during 2010 and 2011, which returned to more typical levels in 2012. With the sharp decline in agency funding noted for Q113 and Q114, the federal contribution has remains at record lows

Extramural Funding Sources, % of Total

	Q104	Q105	Q106	Q107	Q108	Q109	Q110	Q111	Q112	Q113	Q114
FEDERAL	78.3%	71.8%	69.0%	70.9%	67.6%	68.8%	77.3%	78.0%	71.1%	63.7%	66.2%
STATE	3.1%	7.7%	9.2%	7.6%	7.0%	7.3%	6.7%	4.0%	9.1%	9.8%	11.1%
OTHER GOV'T	1.4%	1.2%	1.5%	3.6%	2.2%	2.4%	1.2%	0.9%	1.4%	3.4%	2.7%
BUSINESS	4.5%	3.8%	5.0%	3.5%	6.2%	6.3%	4.3%	4.2%	6.3%	5.5%	5.2%
NON-PROFIT	6.2%	9.5%	8.4%	8.6%	10.4%	9.0%	5.5%	6.8%	5.7%	10.3%	7.3%
ACADEMIA	6.5%	6.0%	6.8%	5.8%	6.6%	6.3%	4.9%	6.1%	6.5%	7.3%	7.6%

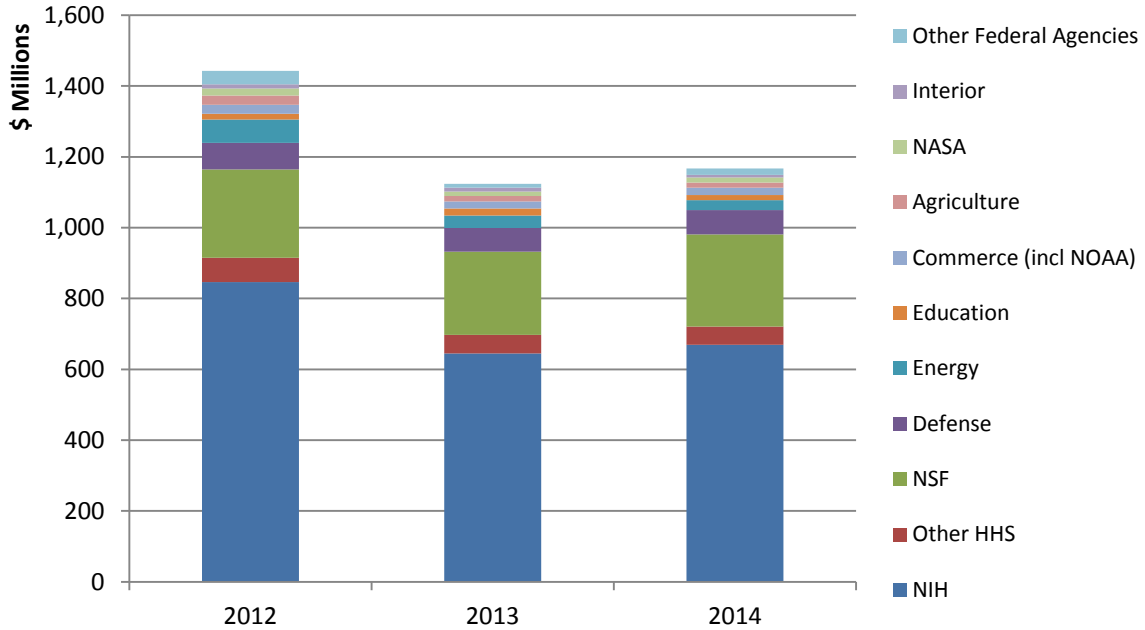
IV. Federal Agency Award Trends

Compared to Q113 last year, federal funding increased slightly by about \$43 million, or nearly 4%. The largest dollar increase was \$26 million from the National Science Foundation, followed closely by an increase of \$24 million from NIH. There were some funding declines as well, principally from the Departments of Energy, Education and Interior. Compared to Q112, however, federal funding is down by about \$276 million, or 19%. However, as demonstrated below, looking only at UC's Q1 data exaggerates the decline for the federal fiscal year as a whole.

Q1 Federal Agency Funding, FY 2012-2014

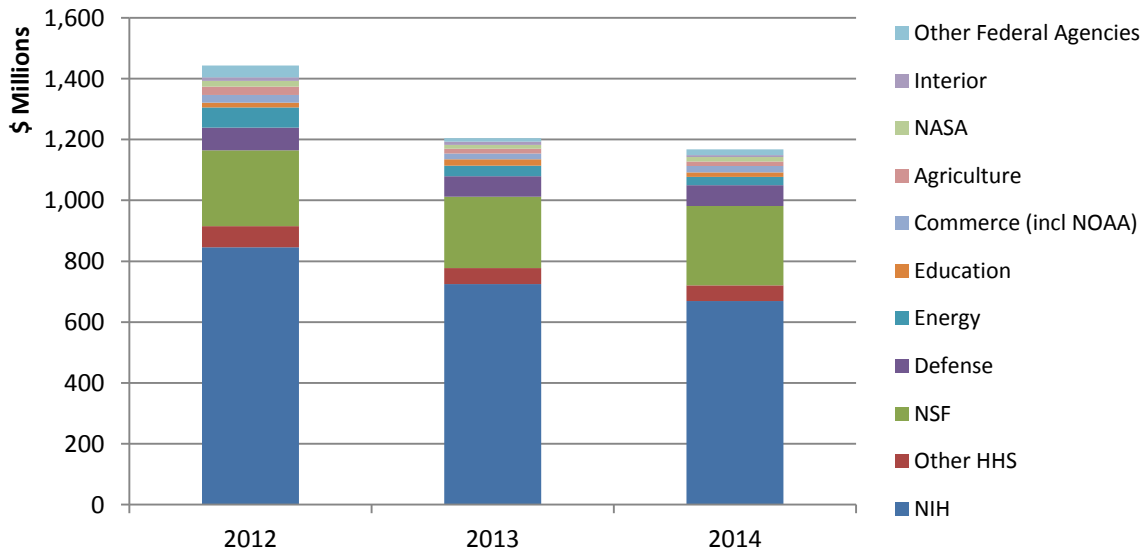
AGENCY	Q112	Q113	Q114	% CHANGE FROM Q113	Q114-Q112 DIFFERENCE	% CHANGE FROM Q112
NIH	846,343,469	645,204,427	669,278,719	3.7%	-177,064,750	-20.92%
Other HHS	68,819,174	52,530,459	51,495,440	-2.0%	-17,323,734	-25.17%
NSF	249,681,778	234,403,954	260,663,342	11.2%	10,981,564	4.40%
Defense	74,501,918	67,135,662	68,682,537	2.3%	-5,819,381	-7.81%
Energy	66,421,678	34,736,822	27,166,051	-21.8%	-39,255,627	-59.10%
Education	15,607,896	20,631,019	14,689,808	-28.8%	-918,088	-5.88%
Commerce (incl. NOAA)	25,534,284	19,549,688	20,697,710	5.9%	-4,836,574	-18.94%
Agriculture	26,694,816	15,501,458	15,062,010	-2.8%	-11,632,806	-43.58%
NASA	19,484,773	12,554,711	14,332,574	14.2%	-5,152,199	-26.44%
Interior	11,473,577	10,561,564	6,680,271	-36.7%	-4,793,306	-41.78%
Other Agencies	38,513,462	11,330,765	18,819,255	66.1%	-19,694,207	-51.14%
TOTAL	1,443,076,825	1,124,140,529	1,167,567,717	3.9%	-275,509,108	-19.09%

Q1 Federal Agency Funding Comparison



This small overall increase for Q114 over Q113 appears to run contrary to the trend of declining federal funding. The reason for this anomaly, as reported in the Q213 Quarterly Award Update, is a delay in reporting an estimated \$80 million in NIH funds that were awarded in Q113 but not released—and therefore not reported by campuses—until Q213. This delay was caused by changes in the Department of Health and Human Service’s Conflict of Interest requirements, which took effect during Q113. (Details on this reporting issue, and the rationale for the \$80 million estimate of its impact are included in a technical appendix to this report.)

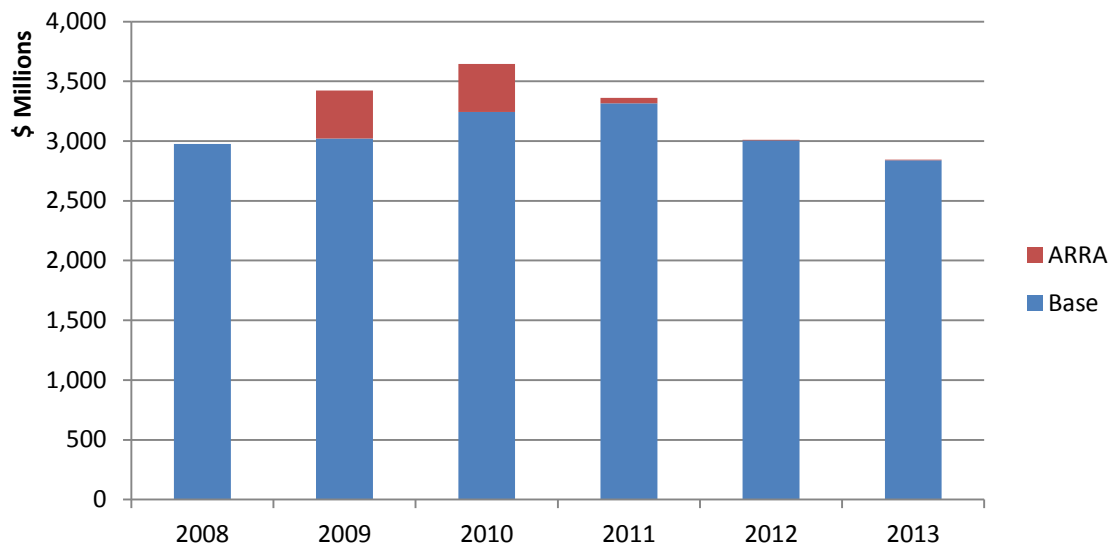
Adjusted Q1 Federal Agency Funding Comparison



When the Q113 award total for NIH is adjusted for the estimated \$80 million reporting issue, it appears that the Q114 federal funding level from NIH is about 7.7% *below* the Q113, and the adjusted federal funding total for the quarter is about 3% below the previous year.

The difference made by this relatively small adjustment demonstrates the difficulty in drawing inferences about long-term federal funding trends from a single quarter's data. The federal funding environment is very volatile, and a more meaningful assessment would be provided by a consideration of funding on a federal fiscal year basis.

Federal Funding, Federal FY 2008-2013 NIH-Adjusted (\$ millions)



PERIOD	Fed Q1	Fed Q2	Fed Q3	Fed Q4	Base Total	ARRA	Grand Total
2008	460	522	858	1,136	2,975	0	2,975
2009	487	468	838	1,229	3,021	403	3,424
2010	459	583	810	1,391	3,243	403	3,646
2011	505	511	856	1,443	3,315	45	3,360
2012	352	547	902	1,204	3,005	6	3,012
2013	373	438	860	1,167	2,838	6	2,844

With this adjustment, it appears that the decline in base federal funding during (federal) FY 2013 was about 5.6%, compared to the previous fiscal year. The two-year decline, from the base funding peak in 2011, was about 14.4%

V. Award Trends by Project Type

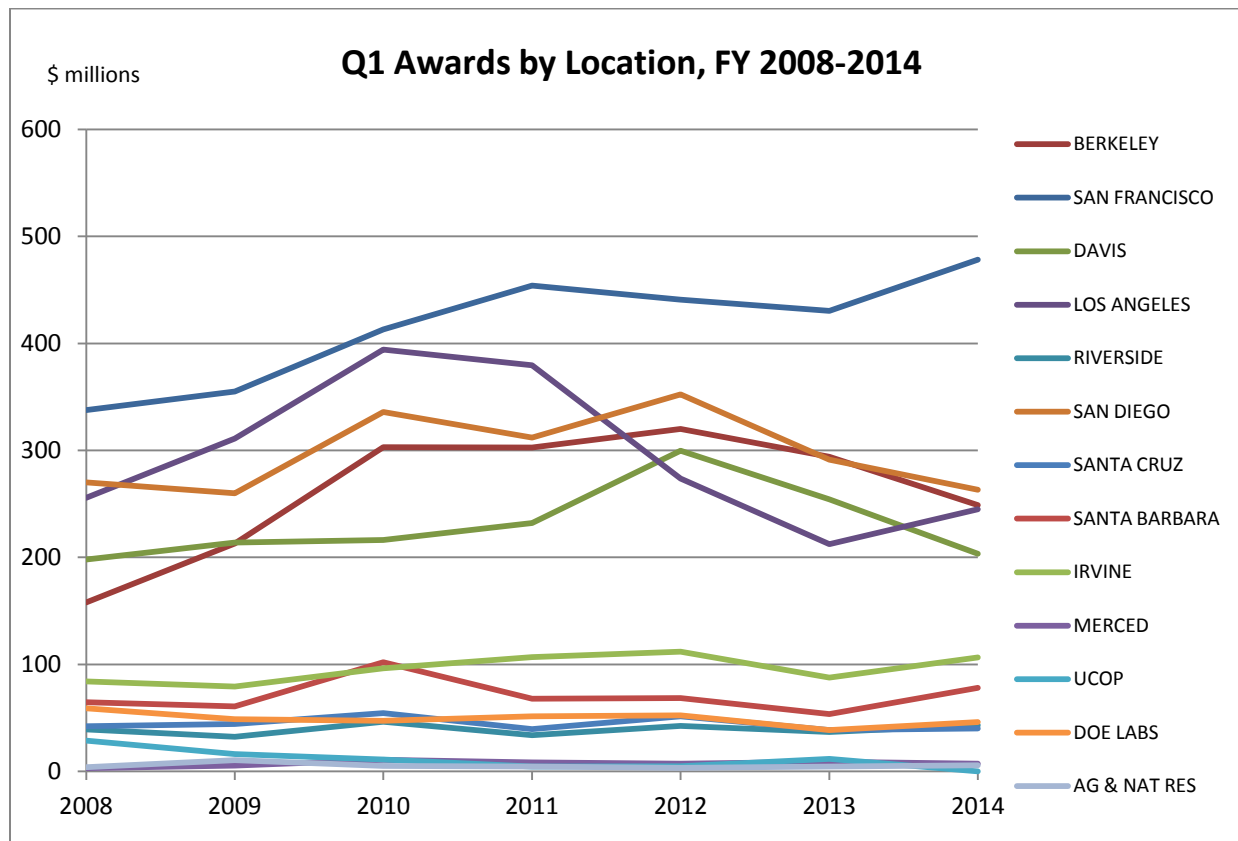
Research awards during Q114 amounted to \$1.42 billion, including \$70 million in clinical trial sponsorship. Training, service and other awards came to about \$346 million.

Q1 Award Amounts by Project Type, FY 2006-2014 (\$ millions)

PROJECT TYPE	Q106	Q107	Q108	Q109	Q110	Q111	Q112	Q113	Q114
Research	1,019	1,011	1,188	1,261	1,602	1,610	1,672	1,277	1,350
Clinical Trials	35	31	49	39	50	43	48	52	70
Training	113	125	139	134	146	139	123	123	101
Service	75	153	80	112	90	88	99	159	137
Other	63	121	89	104	149	118	88	153	108
TOTAL	1,305	1,440	1,545	1,650	2,037	1,998	2,030	1,763	1,766

VI. Award Trends by Recipient Location

Q114 awards were about 13% under Q112, but this drop was unevenly divided.



Q1 Awards by Location (\$M)

UC LOCATION	2008	2009	2010	2011	2012	2013	2014	Change
BERKELEY	158	213	303	303	320	294	249	-15.35%
SAN FRANCISCO	338	355	413	454	441	430	478	11.11%
DAVIS	198	214	216	232	300	254	203	-20.01%
LOS ANGELES	256	311	394	380	274	213	245	15.30%
RIVERSIDE	39	32	46	34	43	37	43	16.95%
SAN DIEGO	270	260	336	312	352	291	263	-9.69%
SANTA CRUZ	42	44	55	39	52	39	40	4.19%
SANTA BARBARA	65	61	102	68	69	54	78	45.82%
IRVINE	84	79	96	107	112	88	107	21.63%
MERCED	3	5	11	9	7	9	7	-20.66%
UCOP	29	16	11	4	5	12	0	-100%
DOE LABS	59	49	47	52	52	39	46	19.04%
AG & NAT RES	4	11	5	5	3	5	6	25.77%
TOTAL	1,545	1,650	2,037	1,998	2,030	1,763	1,766	0.14%

V. Major Awards Over \$5M

During Q114, UC received 14 awards for amounts of \$5M or more. Most awards of this magnitude are intended to support ongoing federal and state government service programs, training programs, research centers, or affiliation agreements rather than specific research projects.

LOCATION	SPONSOR CATEGORY	SPONSOR	PROJECT TITLE	AMOUNT
San Francisco	State	California Department Of Public Health	(CDPH) Immunization Branch Contract	67,506,225
Davis	State	California Department Of Food And Agriculture	Operate California Veterinary Diagnostic Laboratory System	35,645,767
Berkeley	State	California Department Of Social Services	Title IV-E Social Work Training Program	32,664,474
Los Angeles	Other Gov't.	County Of Los Angeles	Medical School Operating Agreement	27,425,000
San Francisco	Federal	National Inst of Allergy and Infectious Diseases	Collaborative Network for Clinical Research on Immune Tolerance	24,882,864
Berkeley	State	California Office of Traffic Safety	Sobriety Checkpoint Program 2012-2013	14,540,180
Los Angeles	Federal	PHS (SAMHSA) Center for Substance Abuse Prevention	National Center for Child Traumatic Stress	11,682,556
San Diego	Federal	National Oceanic and Atmospheric Administration (NOAA)	CORC - Integrated Boundary Current Observations in the Global Climate System	11,535,690
San Francisco	Federal	National Cancer Institute	Cancer Center Support Grant	7,004,045
Santa Barbara	Federal	National Science Foundation	Center of Excellence for Materials Research and Innovation at UCSB	6,808,143

San Francisco	Federal	Centers for Disease Control	Supporting High Quality HIV Prevention, Care and Treatment Activities at Facility and Community Levels	6,411,961
San Francisco	Federal	National Institute of Neurological Disorders & Stroke,	Point: Platelet-Oriented Inhibition in New TIA and Minor Ischemic Stroke	6,301,494
San Francisco	Federal	National Inst of Allergy and Infectious Diseases	DARE: Delaney Aids Research Enterprise to Find a Cure	5,568,822
Berkeley	Federal	National Science Foundation	Synthetic Biology of Yeast	5,174,078

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January, 2014*

Technical Appendix: Estimating NIH Reporting Adjustments

The federal fiscal year analysis included in this report incorporates an adjustment of \$80 million to the NIH award totals for final quarter of federal fiscal year 2012, and the first quarter of federal fiscal year 2013 (corresponding to UC's Q1 and Q2 of 2012-13). The intent of this adjustment is improve the analysis of federal funding trends by correcting for an administrative delay in the reporting of certain NIH awards.

During the final quarter of federal FY 2012, new conflict of interest reporting requirements for NIH/HHS took effect. Several campuses subsequently noted that implementing these new requirements lengthened the HHS/NIH award processing cycle. As a consequence, the release of funds by the agency was delayed for many awards that were received late in the federal Q4 of 2012. This, in turn, caused a delay in campus reporting of these awards, with the result that significant NIH funds that would normally have been reported during Fed Q4 of 2012 were not reported until Fed Q1 of 2013.

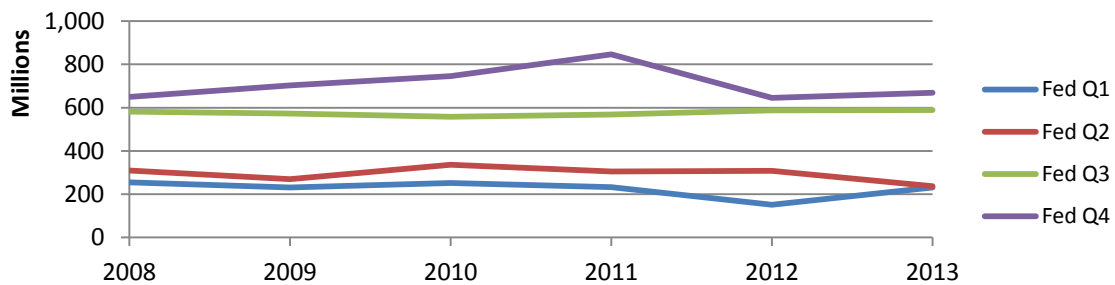
This delay in reporting didn't affect UC's fiscal year totals for federal awards, because the awards were eventually reported in the same UC fiscal year. However, the forward shift had a very significant impact on award totals from the federal fiscal year perspective, because the delay pushed significant amounts across a federal fiscal year boundary. This reporting misalignment means that federal funding totals, on a federal fiscal year basis, do not accurately reflect appropriations levels for the two critical years of federal 2012 and 2013, when budget uncertainties and the Sequester were in force.

To realign the awarding period and the reporting period of these NIH awards in the same fiscal year, it was necessary to estimate the dollar magnitude of the

administrative delay, and then reassign the estimated amount to the proper quarter and fiscal year.

Informal estimates from campuses put the range of the funding shift between \$65 and \$100 million. A close examination of NIH base funding (that is, excluding Recovery Act awards) supports and refines this approximation.

NIH Base Funding by Federal Fiscal Year and Quarter



PERIOD	2008	2009	2010	2011	2012	2013
Fed Q1	254,570,122	231,397,926	252,388,710	232,512,490	150,961,028	230,589,169
Fed Q2	309,708,901	269,347,897	336,885,438	304,713,203	308,008,163	236,708,534
Fed Q3	582,061,113	572,704,972	557,959,264	568,440,537	586,954,087	589,166,344
Fed Q4	648,928,599	702,283,241	745,299,547	846,227,588	645,204,427	669,278,719
TOTAL	1,795,268,735	1,775,734,036	1,892,532,959	1,951,893,818	1,691,127,705	1,725,742,766

This chart and the highlighted amounts on the accompanying table show a dramatic drop in NIH awards for federal Q4 of FY 2012, and a corresponding increase for federal Q1 of 2013. This is clearly contrary to the overall trend of declining NIH funding since the peak of 2011, and reflects the delay in reporting noted by campuses. It seems reasonable to assume that NIH funding for Fed Q1 of 2013 of about \$231 million should have been *less than or equal to* the \$151 million in NIH funds reported for Fed Q1 of the previous year, 2012. This suggests that at least \$80 million in NIH awards were reported one quarter late, putting them in the next federal fiscal year. This amount is consistent with the range of campus estimates.

With this \$80 million adjustment to NIH award reporting, the pattern of federal funding received by UC on a federal fiscal year basis aligns well with the general understanding of how constrained federal R&D appropriations, together with the 2013 Sequester, have affected agency support over the past two federal fiscal years.

This analysis demonstrates the importance of assessing federal funding patterns in terms of federal fiscal years. The lion's share of federal support is awarded during the final quarter of the federal fiscal year and it is arguably the quarter most characteristic of that year's federal funding pattern.