Contracts & Grants Q314 Award Report

Marginal Year-to-Date Improvement

Summary

UC's award funding for Q3 of FY 2013-14 (Q314) totaled $1.07 billion, about 2% above last year's Q3 amount, but this modest increase is not indicative of overall awards received for the fiscal year to date. The current funding total of $4.02 billion for Q1-Q3 is 5% higher than FY 2012-13. This increase is due primarily to higher than usual levels of federal and private funding during Q2 of this fiscal year, plus one very large, $132 million award from NASA to UC Berkeley for atmospheric research.

Funding levels last year were so low that a better point of comparison for the current year to date might be FY 2011-12. This was just after the influx of Recovery Act awards, and just prior to the cutbacks in federal R&D appropriations that dramatically reduced award totals last year. That year, UC's Q1-Q3 award total was $3.97 billion, which is about 1% below the current Q1-Q3 amount.

The pattern of federal funding for the current fiscal year has not been typical, with unusually high second-quarter award amounts, plus the large NASA award during Q3. UC's second fiscal quarter corresponds to the first quarter of the federal fiscal year, when annual funding is generally at its lowest point. The unusual increase during this quarter most likely reflects agency responses to the passage of the federal budget and the partial lifting of the sequester, which significantly impeded the flow of federal funding during previous quarters.

UC's corporate funding for research and development has been steadily increasing since the recessionary low point of 2008 and 2009. For the fiscal year to date, the corporate award total of $486 million is nearly 42% above the amount received during Q1-Q3 last year. Historically, clinical trial research has provided about 40% of UC's funding from corporate sponsors. This demonstrates the crucial role that UC's medical centers play, not just in providing patient care for the state's population and in training the next generation of health care providers, but in partnering with the biotech and pharmaceutical sectors to develop new therapies and treatments with worldwide benefits.

Key findings for Q314 are:

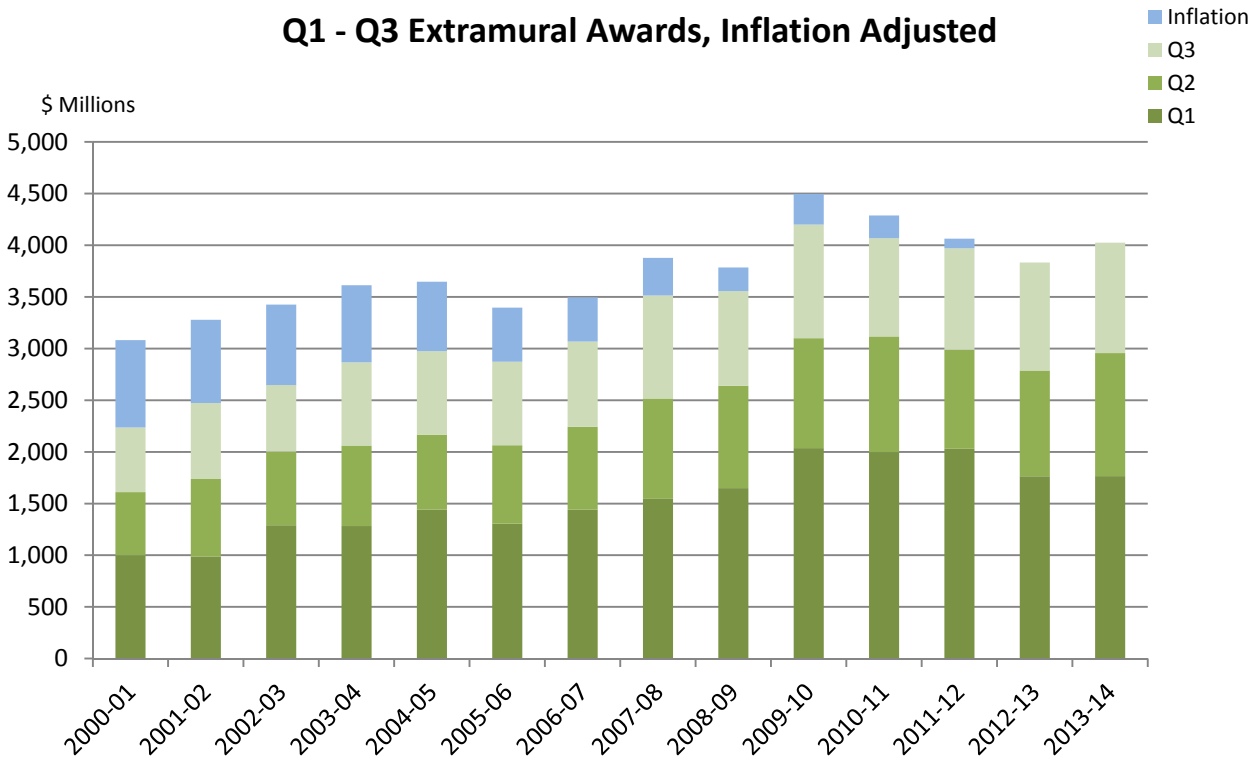
- Of the $1.07 billion UC received in extramural awards during Q314, research awards, including clinical trials, amounted to $925 million, or 86.6% of the award total.

- Federal awards for the quarter are about 27% above Q3 of last year, and 13% above last year for the year-to-date. However, the federal year-to-date total of 2.3 billion is still about where it was five years ago, after adjusting for inflation.

- Generally, the first three quarters of UC's award funding represent about 75% of the yearly total. This suggests a FY 2013-14 final amount of about $5.36 billion, which is only about 3% above the $5.205 billion received last year, and roughly the same as the pre-recessionary, pre-Recovery Act award levels of 2008-09, after adjusting for inflation.

I. Quarterly Performance Metrics

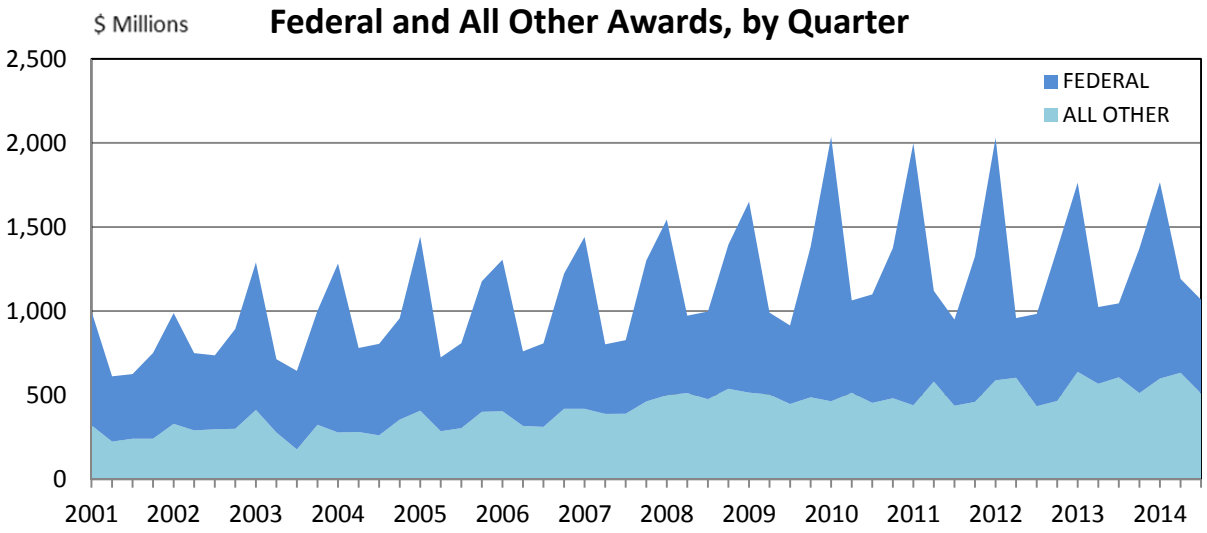
Extramural awards for Q314 totaled about $1,068 million, $23 million (2.2%) above the amount reported during Q313. Year-to-date, however, funding is $92M or 5% above last year's total.



Quarterly Extramural Awards, FY 2000-01 – 2013-14, $ Millions

	00-01	*01-02*	*02-03*	*03-04*	*04-05*	*05-06*	*06-07*	*07-08*	*08-09*	*09-10*	*10-11*	*11-12*	*12-13*	*13-14*
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	1,191
Q3	625	737	644	805	809	808	826	997	915	1,099	949	982	1,045	1,068
Q1-Q3	*2,236*	*2,474*	*2,647*	*2,867*	*2,975*	*2,873*	*3,069*	*3,514*	*3,556*	*4,199*	*4,067*	*3,971*	*3,832*	*4,024*
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*	*3,368*	*3,649*	*3,824*	*4,152*	*4,096*	*4,370*	*4,909*	*4,938*	*5,573*	*5,391*	*5,340*	*5,205*	
Inflated	*4,115*	*4,464*	*4,721*	*4,818*	*5,090*	*4,842*	*4,978*	*5,417*	*5,255*	*5,968*	*5,683*	*5,464*	*5,205*	

Award totals for UC's first and fourth fiscal quarters are always higher than in Q2 and Q3. This is a function of the federal funding cycle, which awards the largest amounts in the final two quarters of the federal fiscal year (corresponding to UC's Q4, and to Q1 of the following year). With direct federal sponsorship providing about two-thirds of all UC's awards, this produces sharp quarterly spikes in funding.



II. Award Trends by Sponsor Category

Even though Q3 awards from federal and business sources were higher than last year, funding from non-profit and state sources were lower, resulting in an overall increase of just 2.17% compared to last year. The drop in state funds mainly reflects a lower award total from the California Institute for Regenerative Medicine, whose funding levels vary considerably from year to year. (See Sections VII and VIII for more details.)

For the year to date, however, awards are about 5% above last year. Direct federal award funding for Q1 through Q3 amounted to about $2.3 billion, or about 57% of the award total, compared to just over $2 billion a year ago, which represented 53% of the total. The peak in federal funding during 2010 was due principally to Recovery Act (ARRA) awards. For the year to date, federal funding has dropped below pre-Recovery Act levels, even before inflation is taken into account.

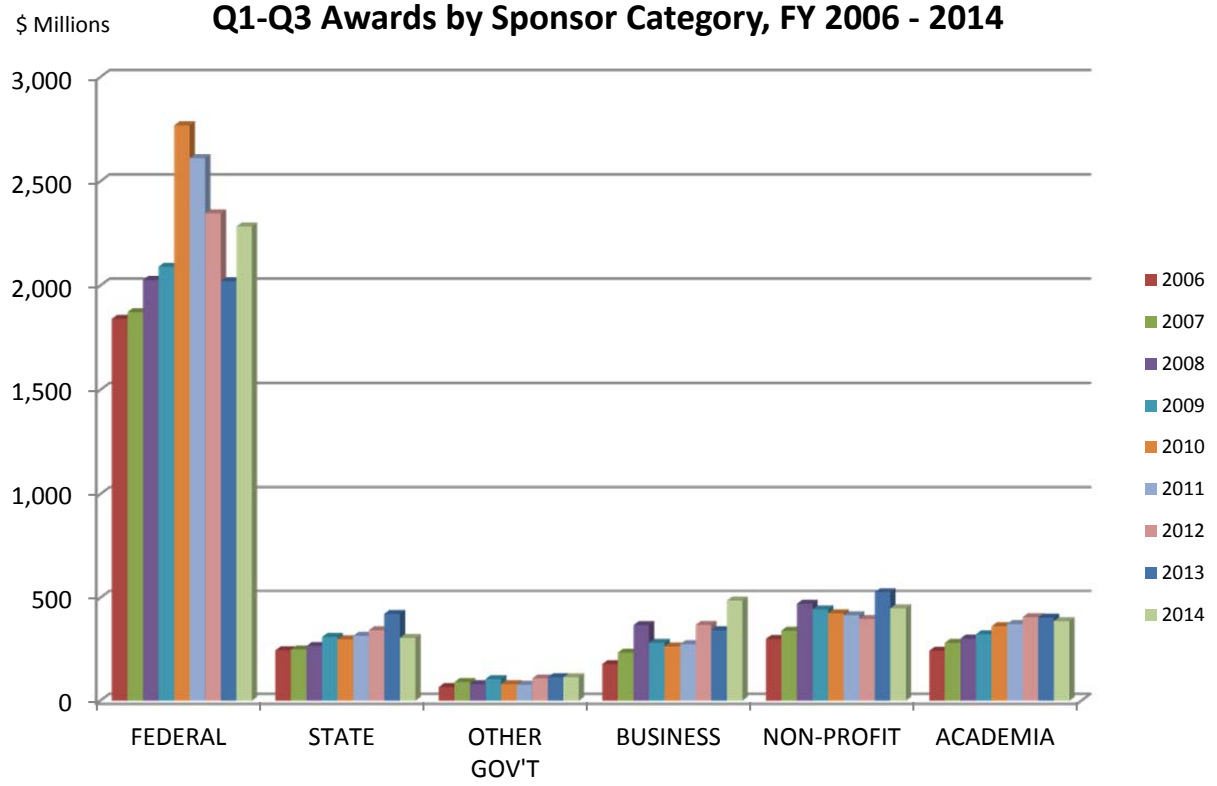
Q3 Awards by Sponsor Category, FY 2006-2014

($ Millions)

SPONSOR	*Q306*	*Q307*	*Q308*	*Q309*	*Q310*	*Q311*	*Q312*	*Q313*	*Q314*
Federal	497	437	522	468	646	512	548	439	558
State	58	50	59	96	66	97	62	148	52
*Other Gov't**	34	15	29	42	31	36	26	22	42
Business	57	107	127	80	105	95	121	135	170
Non-Profit	88	116	159	129	126	115	102	181	128
*Academia***	73	101	101	100	127	95	122	119	117
TOTAL	*808*	*826*	*997*	*915*	*1,099*	*949*	*982*	*1,045*	*1,068*

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

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



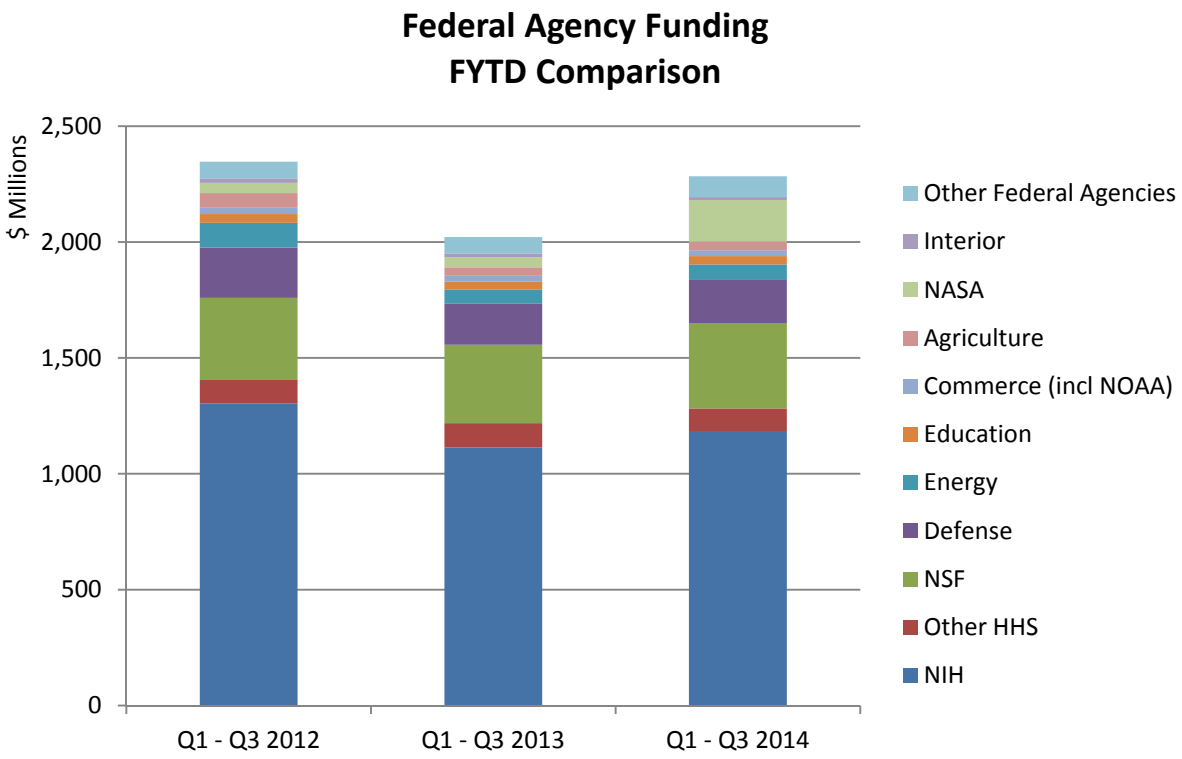
III. Federal Agency Award Trends

Direct federal funding to UC during Q314 was $558 million, close to $119 million above the amount reported during Q3 of last year. To date, federal funding is above last year's total by about $263 million, or about 13%.

While this increase in federal funding represents a positive step towards greater stability and certainty in federal funding, the increment is modest relative to the decline in federal support from periods prior to the recession and during the Recovery Act. Historically, from 2000-01 up until last year, direct federal awards have contributed about 64% of UC's award total. The federal share during the 1990's was even higher, in the range of 65-70%. During FY 2012-13 and so far this year, the federal share has fallen to about 57%, by far the lowest share figure on record, even though the dollar amount is about where it was five or six years ago, after adjusting for inflation.

UC, along with other research universities nationwide, has managed to sustain the size, scope and success of the academic research enterprise through this long period of decline in federal agency support by finding a combination of private and internal sources of funding. Nonetheless, federal support remains by far the largest contributor of external funding at UC, the majority of which comes from just two agencies, the National Institutes of Health (NIH) and the National Science Foundation (NSF). NIH generally provides nearly 60% of UC's federal funding, and recent NIH appropriation and funding practices brought on by federal budget issues have significantly impacted UC.

NIH funding over the past several years has been strongly affected by federal budget issues and the sequester, which took effect in March 2013. The most dramatic change from previous years is in funding from the National Aeronautics and Space Administration, where funding is up by $135 million over last year, thanks to a $132 million award to UC Berkeley for atmospheric research.



Q1 – Q3 Federal Agency Funding, FY 2012 - 2014

AGENCY	*Q1 – Q3 2012*	*Q1 – Q3 2013*	*Q1 – Q3 2014*	*$$ DIFFERENCE FROM 2013*	*% CHANGE FROM 2013*
NIH	1,304,353,270	1,113,687,182	1,184,734,670	71,047,488	6.4%
Other HHS	100,289,619	104,431,402	96,885,954	-7,545,448	-7.2%
NSF	354,509,593	338,919,778	369,198,255	30,278,477	8.9%
Defense	216,816,468	176,694,726	185,320,672	8,625,946	4.9%
Energy	107,125,883	61,957,010	67,275,576	5,318,566	8.6%
Education	37,501,492	34,306,270	36,003,835	1,697,565	4.9%
Commerce (incl. NOAA)	27,375,121	24,169,253	25,439,254	1,270,001	5.3%
Agriculture	63,171,150	36,549,669	36,579,382	29,713	0.1%
NASA	44,366,622	43,453,596	179,207,466	135,753,870	312%%
Interior	18,941,967	16,658,471	13,575,096	-3,083,375	-18.5%
Other Federal Agencies	72,057,197	70,304,854	89,494,163	19,189,309	27.3%
TOTAL	*2,346,508,382*	*2,021,132,211*	*2,183,714,323*	*162,582,112*	*8.0%*

IV. Award Trends by Project Type

Research awards during Q314 amounted to nearly $825 million, including $77 million in clinical trial sponsorship. Training, service and other awards came to about $143 million

Q3 Award Amounts by Project Type, FY 2006-2014 ($ Millions)

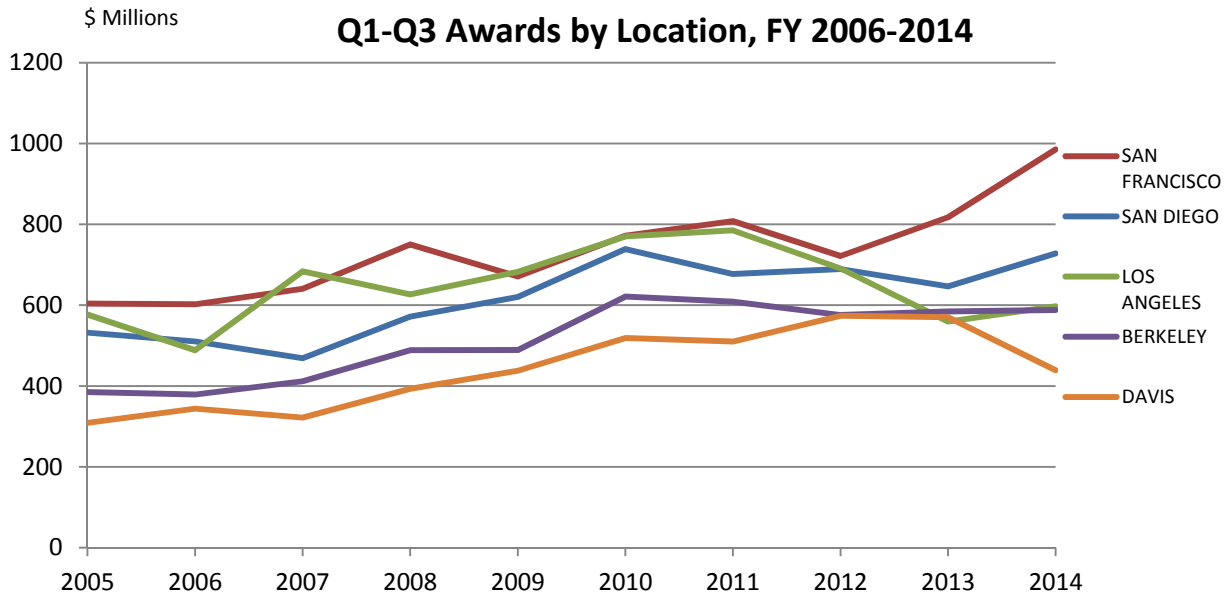
PROJECT TYPE	Q306	Q307	Q308	Q309	Q310	Q311	Q312	Q313	Q314
Research	610	683	787	700	862	748	787	805	847
Clinical Trials	30	40	40	37	49	32	59	106	77
Training	46	27	55	34	50	61	47	36	43
Service	81	39	59	85	58	69	46	46	58
Other	40	37	56	59	81	39	43	52	42
TOTAL	**808**	**826**	**997**	**915**	**1,099**	**949**	**982**	**1,045**	**1,068**

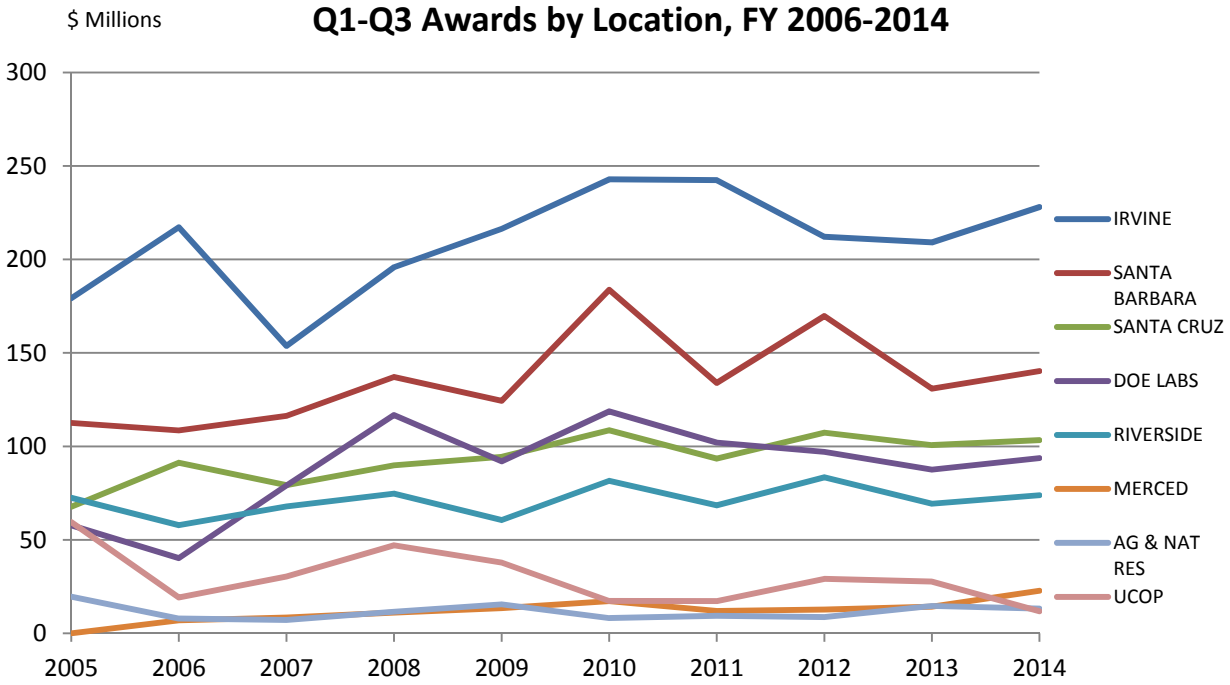
V. Award Trends by Recipient Location

Award totals for the first three quarters of FY 2013-14 were about 2.4% above last year. This modest increase was unevenly divided, with a few locations showing large percentage declines.

Q1 – Q3 Awards by Location

UC LOCATION	FYTD 2011-12	FYTD 2012-13	FYTD 2013-14	% change
BERKELEY	575,588,524	584,437,070	587,782,517	0.57%
SAN FRANCISCO	721,768,990	817,563,724	985,333,354	20.5%
DAVIS	573,462,646	570,158,592	439,021,421	-23.0%
LOS ANGELES	690,849,130	559,503,408	597,237,898	6.7%
RIVERSIDE	83,437,144	69,346,086	73,848,897	6.5%
SAN DIEGO	689,070,291	646,608,849	728,028,093	12.6%
SANTA CRUZ	107,335,724	100,620,666	103,305,200	2.7%
SANTA BARBARA	169,731,212	130,875,390	140,318,932	7.2%
IRVINE	212,117,385	209,136,302	227,986,404	9.0%
MERCED	12,647,562	14,237,056	22,766,895	59.9%
UCOP	29,113,226	27,634,514	11,839,383	-57.2%
LBNL	97,059,528	87,534,769	93,729,961	7.1%
AG & NAT RES	8,607,635	14,601,122	13,173,954	-9.8%
TOTAL	**3,970,788,997**	**3,832,257,548**	**4,024,372,909**	5.0%





VI. Significant Awards

During Q314, UC received about 6,200 contracts and grants from over 1,600 different sponsors (in addition to many hundreds of Material Transfer Agreements). The largest of these was a $132 million award to UC Berkeley from NASA Goddard Space Flight Center for ionospheric research. Second largest was a $40 million award to UCSF from Daiichi Sankyo Co., Ltd. for research into neurodegenerative diseases. Listed below are the largest or most

significant awards reported this quarter by campuses, Agriculture & Natural Resources, Lawrence Berkeley National Lab and the Office of the President.

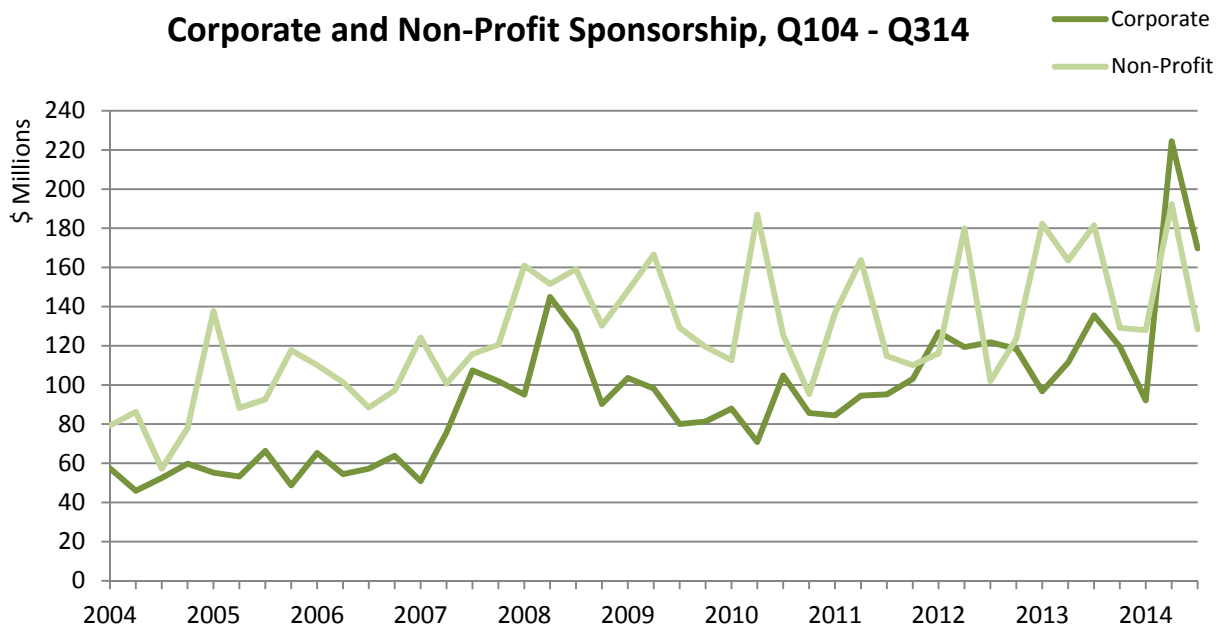
LOCATION	SPONSOR CATEGORY	SPONSOR	PROJECT TITLE
Agriculture & Natural Resources	Federal	US Geological Survey	Identification of Seasonal and Decadal Drought Through Monitoring and Modeling
Berkeley	Federal	NASA Goddard Space Flight Center	The Ionospheric Connection Explorer (ICON)
Davis	State	California Department of Health Care Services	Developing Capacity in Data Analytics to Work with Big Data Held in Health Care Systems
Irvine	Federal	Department of Education, Assistant Secretary for Educational Research & Improvement	The Pathway to Academic Success: A Cognitive Strategies Approach to Text-Based Analytical Writing to Improve Academic Outcomes
Lawrence Berkeley National Lab	Business	Sematech, Inc.	Microexposure Tool Imaging for Extreme Ultraviolent Resists and Mask Research
Los Angeles	Foreign Gov't.	King Abdulaziz City for Science and Technology (KACST)	Joint KACST/California Center of Excellence on Nano Science and Engineering for Green and Clean Technologies
Merced	Federal	National Institutes of Mental Health	Role of H2A.Z Isoforms in Neuronal Transcription and Synaptic Plasticity
Office of the President	State	Department of Education Curriculum and Instruction	California Subject Matter Projects, No Child Left Behind Technical Assistance and Support Program
Riverside	Federal	National Institute for Food and Agriculture	Reducing Losses to Potato and Tomato Late Blight by Monitoring Pathogen Populations, Improved Resistant Plants—Education and Extension
San Diego	Federal	NIH: National Institute on Aging	Alzheimer's Disease Research Center
San Francisco	Business	Daiichi Sankyo Co., Ltd.	Therapeutics and Molecular Diagnostics for Neurodegenerative Diseases
Santa Barbara	Federal	Advanced Research Projects Agency – Energy	Ultimate Switches
Santa Cruz	Federal (flow-through)	University Affiliated Research Center	ATM Software Development And Testing

VII. Private Funding

With the federal share of the award total at historic low levels, and unlikely to show any significant increase for the next few years, private sources of extramural funding become increasingly important in sustaining UC's research enterprise. During the first three quarters of FY 2013-14, funding from industry and the non-profit sector provided about $935 million, which is about $64 million more than last year.

Q1- Q3 Extramural Funding Sources, % of Total

	2005	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*
FEDERAL	66.5%	64.1%	61.0%	57.7%	58.8%	65.9%	64.2%	59.1%	52.7%	56.7%
STATE	7.3%	8.5%	8.1%	7.6%	8.7%	7.1%	7.8%	8.6%	11.0%	7.6%
OTHER GOV'T	1.5%	2.3%	3.0%	2.3%	3.0%	1.9%	1.9%	2.7%	3.2%	2.8%
BUSINESS	5.9%	6.2%	7.6%	10.5%	7.9%	6.3%	6.7%	9.3%	8.9%	12.1%
NON-PROFIT	10.7%	10.4%	11.1%	13.4%	12.5%	10.1%	10.2%	10.0%	13.5%	11.2%
ACADEMIA	8.1%	8.5%	9.2%	8.6%	9.1%	8.6%	9.2%	10.3%	10.6%	9.6%

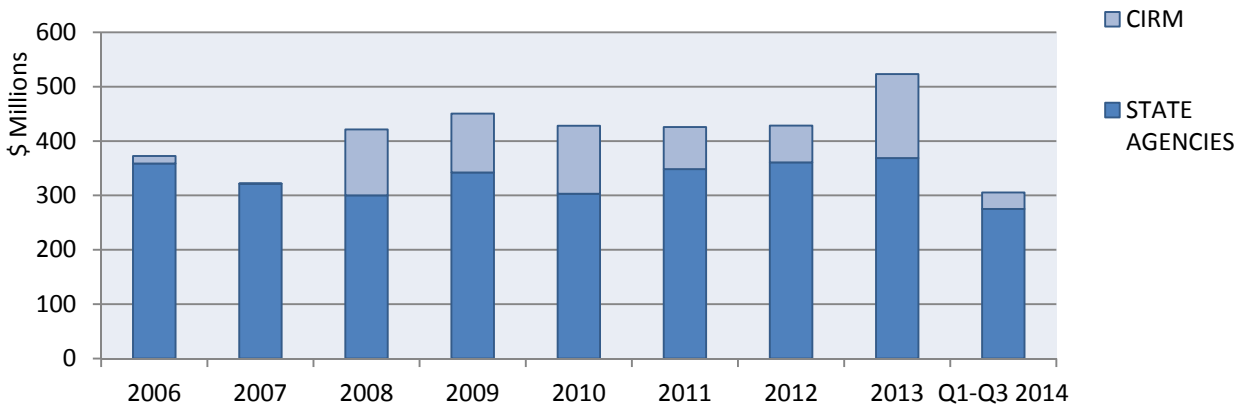


The year-to-date increase in corporate funding, as noted in last quarter's report, is attributable in large part to two Alzheimer's clinical trial research awards to UCSD from industry, totaling about $111 million.

VIII. CIRM's Contribution to State Funding

The California Institute for Regenerative Medicine (CIRM) continues to provide significant research and infrastructure funding to UC, representing a substantial proportion of all state awards.

During Q314, CIRM awarded UC nearly $20 million, bringing the lifetime total of reported awards to nearly $700 million. In addition to the research and training awards reported here, CIRM has provided well over $200 million in infrastructure grants to UC, which are not reported through Sponsored Projects Offices. In total, UC has received about half of the $1.8 billion CIRM has distributed to date.



CIRM and Other State Agency Funding
($ Millions)

Sponsor	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*
State Agencies	359	321	300	342	303	348	361	369	275
CIRM	14	0	121	108	125	77	68	154	30
State Total	***372***	***322***	***421***	***451***	***428***	***426***	***429***	***523***	***305***
CIRM %	*3.70%*	*<0.01%*	*28.74%*	*24.02%*	*29.21%*	*18.18%*	*15.78%*	*27.86%*	*9.96%*

IX. Shifts in Funding

Federal award data for the first three quarters of 2013-14 suggest that agency funding levels are returning to about where they were prior to the sequester. Adjusting for inflation, this is also about the same funding level received prior to the recession and the Recovery Act. Given current federal budget forecasts, overall agency funding levels are unlikely to increase for the next few years. Major awards, such as the NASA funding to Berkeley this past quarter, do occasionally appear, but they are hard to predict.

Any consistent growth in UC's research enterprise, then, will have to come from non-federal sources. So far this year, however, both state and non-profit sources of funding are lagging well behind last year's pace. Industry funding is well above last year's total, but as noted previously, this is mainly due to two very large industry awards for Alzheimer's research at UCSD.

State and private funding sources are, at base, more volatile and less reliable than the proposal-driven, federal award system. The uncertainty of these sources makes it more difficult for UC to maintain continuity in its research programs and a stable research enterprise.

Charles Drucker
Institutional Research
July, 2014