



1111 Franklin Street  
Oakland, California 94607-5200  
Phone: (510) 987-9074  
Fax: (510) 987-9086  
<http://www.ucop.edu>

October 31, 2014

Director Michael Cohen  
Department of Finance  
915 L Street  
Sacramento, California 95814


Senator Mark Leno  
Chair, Joint Legislative Budget Committee  
1020 N Street, Room 553  
Sacramento, California 95814

Dear Director Cohen and Senator Leno:

Pursuant to Section 92670 of the Education Code of the 2014 Budget Act, enclosed is the University of California's preliminary report to the Legislature and the Department of Finance on Expenditures for Undergraduate and Graduate Instruction and Research Activities.

If you have any questions regarding this report, Associate Vice President Debora Obley would be pleased to speak with you. She can be reached by telephone at (510) 987-9112, or by email at [Debora.Obley@ucop.edu](mailto:Debora.Obley@ucop.edu).

Yours very truly,

  
Janet Napolitano  
President

Enclosure

cc: Senate Budget and Fiscal Review  
The Honorable Marty Block, Chair  
Senate Budget and Fiscal Review Subcommittee #1  
(Attn: Mr. Joe Stephenshaw)  
(Attn: Ms. Cheryl Black)  
The Honorable Al Muratsuchi, Chair  
Assembly Budget Subcommittee #2  
(Attn: Mr. Mark Martin)  
(Attn: Ms. Amy Rutschow)  
Mr. Michael Cohen, Department of Finance  
Mr. Mac Taylor, Legislative Analyst's Office  
Ms. Peggy Collins, Joint Legislative Budget Committee  
Mr. Daniel Alvarez, Secretary of the Senate  
Ms. Tina McGee, Legislative Analyst's Office

Ms. Amy Leach, Office of the Chief Clerk of the Assembly  
Mr. Jim Lasky, Legislative Counsel Bureau  
Mr. E. Dotson Wilson, Chief Clerk of the Assembly  
Provost and Executive Vice President Aimée Dorr  
Executive Vice President Nathan Brostrom  
Senior Vice President Dan Dooley  
Vice President Patrick Lenz  
Associate Vice President and Director Steve Juarez  
Associate Vice President Debora Obley  
Executive Director Jenny Kao  
Deputy to Vice President Marsha Sato

Preliminary Report  
Expenditures for Undergraduate and  
Graduate Instruction and Research Activities

November 2014

Legislative Report



UNIVERSITY *of* CALIFORNIA

**UNIVERSITY OF CALIFORNIA**  
**Preliminary Report**  
**Expenditures for Undergraduate and Graduate Instruction and Research Activities**

AB 94 Cost of Instruction Provision Article 7.5. requires that:

- (a) The University of California shall report biennially to the Legislature and the Department of Finance, on or before October 1, 2014, and on or before October 1 of each even-numbered year thereafter, on the total costs of education at the University of California.
- (b) The report shall identify the costs of undergraduate education, graduate academic education, graduate professional education, and research activities. All four categories listed in this subdivision shall be reported in total and disaggregated separately by health sciences disciplines, disciplines included in paragraph (10) of subdivision (b) of Section 92675, and all other disciplines. For purposes of this report, research for which a student earns credit toward his or her degree program shall be identified as undergraduate education or graduate education.
- (c) The costs shall also be reported by fund source, including all of the following:
  - (1) State General Fund.
  - (2) Systemwide tuition and fees.
  - (3) Nonresident tuition and fees and other student fees.
  - (4) University of California General Funds, including interest on General Fund balances and the portion of indirect cost recovery and patent royalty income used for core educational purposes.
- (d) For any report submitted under this section before January 1, 2017, the costs shall, at a minimum, be reported on a systemwide basis. For any report submitted under this section on or after January 1, 2017, the costs shall be reported on both a systemwide and campus-by-campus basis.
- (e) A report to be submitted pursuant to this section shall be submitted in compliance with Section 9795 of the Government Code.
- (f) Pursuant to Section 10231.5 of the Government Code, the requirement for submitting a report under this section shall be inoperative on January 1, 2021, pursuant to Section 10231.5 of the Government Code.

Paragraph (10) of subdivision (b) of Section 92675:

- (10) (A) The number of degree completions in science, technology, engineering, and mathematics (STEM) fields, disaggregated by undergraduate students, graduate students, and low-income students.

At this time, the University is submitting a preliminary report that responds to a portion of the language. The disaggregation of educational expenditures requested in the AB 94 language is not supported by the University's data systems. Funding is not appropriated to the University of California by level of student or by discipline, nor is funding spent that way on the campuses. Faculty are paid a salary and teach both undergraduate and graduate students, as well as perform other functions related to the research and public service missions of the University. Their salaries are not apportioned across these activities. In addition, undergraduate and graduate students take courses across multiple disciplines and different levels further complicating any attempt to identify expenditures by discipline and by level of student. Therefore, the University will require more time to provide this disaggregation. Similarly, the specifics related to reporting on health science disciplines and by STEM fields will be included in the final report.

While the AB 94 language requests expenditure information for only a limited set of fund sources, the University has also provided expenditures from additional fund sources in order to demonstrate the significant contributions from other resources that are required to maintain the quality of the instructional effort at UC. This dramatically demonstrates the significant leveraging effect of the State's investment in the educational mission and the critical part State funds play in attracting other fund sources to the University.

This preliminary report describes the University's methodology in deriving its estimates and provides information on instructional expenditures by fund source. The additional disaggregations specified in AB 94 will be submitted in approximately six weeks.

### **Background**

The University of California's mission is tripartite, encompassing not only teaching, but also research and public service.

- UC serves students at all levels of higher education and is the public segment primarily responsible for awarding the doctorate and many professional degrees in areas such as medicine and law.
- UC is the primary State-supported academic agency for research, which is inextricably linked with teaching at the graduate level and increasingly so at the undergraduate level. Research also creates a vital link between UC and the private sector and development of new knowledge and innovation leading to new industries and jobs.
- UC contributes to the well-being of communities, the state, and the nation through efforts including academic preparation programs, Cooperative Extension, and health clinics. UC's public service programs allow policy makers to draw on the expertise of UC's faculty and staff to address public policy issues of importance to the state and society at large.

The University is often asked what it costs to educate a student. This seemingly simple question has many possible answers, depending on the context of the question. Responses could reflect a narrow definition of instruction that includes only the direct and indirect costs associated with actually instructing students in classroom and laboratory settings. A broader answer could include not only the direct and indirect instructional costs, but also costs associated with attending a major research university where the idea of a diverse and comprehensive learning community assumes students will live on campus and experience the depth and breadth of intellectual, social, and cultural opportunities that are offered at the University of California. This report addresses both interpretations of this question.

It is also important to note the difference between "cost of education" and "expenditures for education." The data included in this report reflect expenditures for education – what the University actually spent for the activities and programs included in this report during the years covered. After years of disinvestment in higher education, the University is no longer adequately funded for the true "cost" of education. Shortfalls are reflected in high student-faculty ratios, large market gaps in staff and faculty salaries, chronic underfunding of critical academic support areas such as instructional technology, instructional equipment replacement, libraries, and ongoing building maintenance, all of which have a direct impact on the educational experience. The lower level of expenditures reflected for these years when the University is still suffering the effects of substantial budget reductions cannot be sustained and must not be mistaken as adequate in the long term for providing the quality of education the State expects from UC.

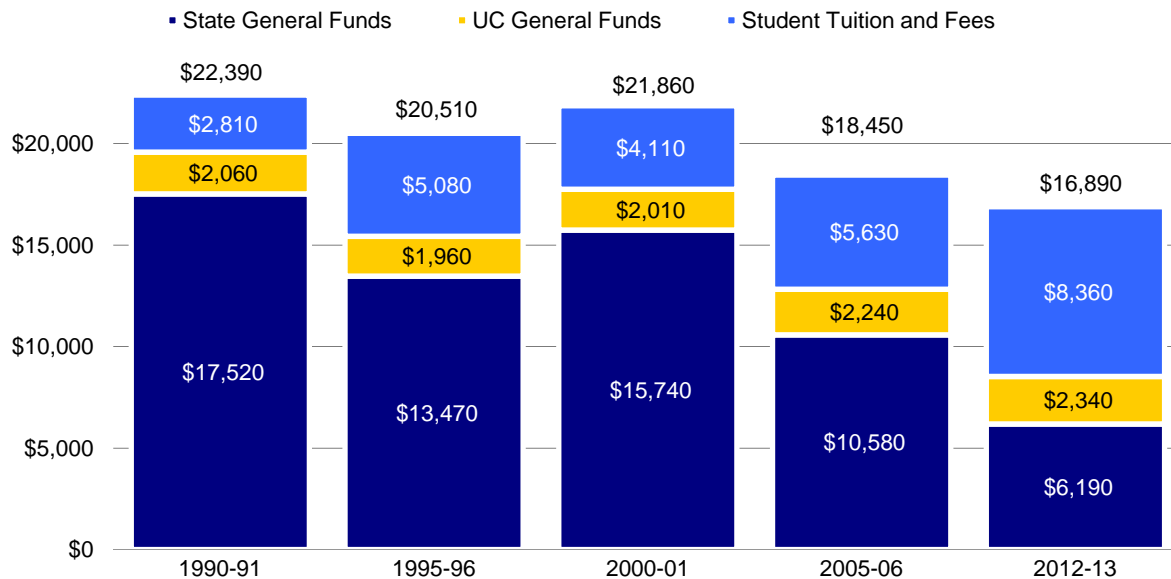
### Existing Methodology (“Average Cost of Instruction”)

The University has reported for more than 20 years a calculation known as the Average Cost of Instruction. The calculation of this figure is based on a long-standing methodology developed by the segments and the California Postsecondary Education Commission (CPEC) to describe the resources available to support basic educational costs.

The average cost is a systemwide average of actual expenditures (again, expenditures, rather than cost) per general campus student for the instructional program and associated support activities. The figure represents the estimated total funding from State General Funds, UC General Funds, and student fees on a per-student basis (again, general campus only) that is available to support instruction (faculty salaries and benefits, instructional support, instructional equipment and technology) and other activities such as libraries, student services, administration, and operation and maintenance of plant. It excludes financial aid, which is treated in the standard CPEC methodology as an expenditure to support access, not an expenditure to provide the instructional program. The State and UC General Fund components also exclude funding for health sciences instruction, research, and public service, as well as the health sciences, research, and public service components of support activities.

In 2012-13, the average cost figures based on the actual expenditures for the general campus instructional program and its support activities totaled \$16,890, composed of \$8,360, or 49%, student fees; \$2,340, or 14%, UC General Funds; and \$6,190, or 37%, State General Funds.

**Display 1: Per-Student Average Core Funds Expenditures for Education (2012-13 dollars)**



Average inflation-adjusted resources per general campus student. Excludes financial aid and UCRP funds.

Initially, the University considered using this methodology in response to AB 94, but this is not possible because of the way UC’s data is collected. While it would likely be possible to replicate this methodology for each campus, UC would not have the ability to break out STEM majors, for example, and could not be responsive to the request for health sciences information.

### Other Methodologies explored

The University explored a number of other methodologies currently in use for estimating the cost of instruction at other institutions.

- **NACUBO.** The National Association of College and University Business Officers (NACUBO) conducted a project to develop a common methodology for calculating the cost of an undergraduate education at the full range of colleges and universities around the country. The NACUBO methodology takes expenses from the Campus Financial Schedules for instruction, academic support, student services, operations & maintenance of plant, depreciation and amortization, public service, institutional support and student financial aid divided by a weighted student FTE (undergraduate FTE plus a graduate FTE that is weighted 1.25 to convert them to undergraduates). A full description can be found in the National Association of Colleges and Universities Business Officers (NACUBO) Cost of College Study (<http://www.nacubo.org/documents/research/cofcfinalreport.pdf>). UC's methodology builds on NACUBO's in that it relies on data from published financial schedules.
- **Delta Cost Project.** The Delta Cost Project (<http://www.deltacostproject.org/>) uses standardized Integrated Postsecondary Education Data System (IPEDS) data sources to calculate six metrics of spending, revenues, productivity, and enrollment in higher education institutions. One of the measures – education and related (E&R) costs – includes all spending for instruction and student services, plus a portion of spending on academic and institutional support and for operations and maintenance of buildings. It includes spending from all revenue sources, for all students including undergraduates, graduates and others, and all courses of instruction across types of disciplines, and thus represents average institutional spending across these categories. Within any institution, there can be considerable variations in costs within this average, with lower spending on average for undergraduates than graduates, as well as considerable variation by discipline. The Delta methodology does not provide a way to disaggregate by level or discipline.

While these methodologies have the advantage of allowing comparison with other institutions, and in some cases, are already familiar on a national basis, elements of these models do not adequately capture expenditures for instruction at the University of California.

### Calculation of Expenditures for Instruction

The University of California model leverages functional expense categories reported in published financial statements and identifies expenditures that can be considered **direct expenditures** on education (e.g., instruction, academic support), as well as **indirect expenditures** (e.g., institutional support, maintenance, depreciation).

### Expenditures for Instruction – A Narrow Definition

For the narrow definition of direct expenditures on general campus instruction, the University included all expenditures categorized as instruction as well as those sub-components within Academic Support and Student Services related to instruction. In addition, the University calculated Instruction's share of indirect expenditures by calculating the proportion of expenditures that is related to Instruction compared to the total expenditures for Instruction, Research, and Public Service. That percentage was applied against indirect expenditures to derive Instruction's share of costs related to administration, Operation and Maintenance of Plant, and depreciation. Expenditures categorized as Auxiliary

Enterprises and expenditures related to the University’s Medical Centers were excluded from these calculations.

For the narrow definition, the University assumed that instruction is enhanced by the faculty’s research endeavors and thus all of the faculty’s base salaries in the Instruction function are included in the calculation. Base pay for General Campus faculty – that is, their nine-month academic year salaries – assumes faculty will be engaged in teaching, research, and public service. In a research university, instruction and research are inextricably tied. Students attending the University of California are choosing UC in large part to be taught by faculty directly engaged in the discovery and creation of new knowledge often participate in that research. The instruction of these students is enriched by the experience of the faculty teaching them. Because instruction, research, and public service are inextricably tied together, there is no easily applicable method for attributing a portion of a faculty member’s salary to any one of the three missions on which they focus – all are equally important to the University, and the degree to which faculty are engaged in any one mission varies considerably by year and by term. Capturing all of a faculty member’s base salary in the expenditures for instruction is intended to serve as a reasonable proxy for including research activities related to Instruction. (Note that additional salary some faculty may earn for research conducted during the summer and funded by grants or other external sources is not included here.)

The University’s financial schedules separately report the Instruction category for General Campus and Health Sciences. Therefore, for that portion of the calculation for Health Sciences, direct expenditures were easily identified. However, other categories of expenditures were not so easily separated between General Campus and Health Sciences. In addition, the University’s financial schedules do not separately report expenditures for STEM fields. Finally, the disaggregation by level of student (graduate vs. undergraduate) is extremely difficult. The University will report on these expenditures in its final report.

**2012-13 Expenditures for Instruction Per Student – Narrow Definition (All Student Levels\*)**

	State General Funds	Tuition and Fees	Nonresident Tuition	Other UC General Funds	Subtotal Core Funds	All Other Funds	Total, All Funds
General Campus	\$6,164	\$7,963	\$1,652	\$1,186	\$16,965	\$7,271	\$24,236

\*Undergraduate, graduate academic, and graduate professional. Excludes Health Sciences.

**Expenditures for Education – A Broader Definition**

The University of California holds strongly to the view that the educational experience consists of much more than classroom instruction, course work, and lab experiments in the sciences. Attending the University of California means exposure to a wide diversity of cultures, intellectual pursuits, and student life experience for which a discussion of expenditures for education should account. Co-curricular activities supported through student service expenditures teach students critical interpersonal skills, including how to interact with others, lead meetings, organize events – skills that employers seek and that help students succeed in the workforce. In addition, the University prides itself on a financial aid program that fosters diversity within the student population across economic, ethnic, and geographic lines. Students learn from one another both in and outside the classroom and interacting with students of different backgrounds is critical to developing intellectual maturity and perspective.

The broad definition of expenditures for education, therefore, includes programs that were excluded from the narrower definition. For this calculation, all of Academic Support, Student Services, and Financial Aid are included. In addition, a portion of research expenditures is also included as part of the indirect expenditures for graduate, and, to a much smaller degree, undergraduate education. Where



the narrow definition only accounted for research expenditures by attributing the full salary of the faculty, this broader calculation also includes a proportion of research expenditures attributable to educating graduate students.

**2012-13 Expenditures for Instruction – Broader Definition (All student levels\*)**

	State General Funds	Tuition and Fees	Nonresident Tuition	Other UC General Funds	Subtotal Core Funds	All Other Funds	Total, All Funds
General Campus	\$7,907	\$9,579	\$1,381	\$992	\$19,858	\$13,366	\$33,225

\*Undergraduate, graduate academic, and graduate professional. Excludes Health Sciences.

**Cost of Instruction vs. Expenditures for Instruction**

As noted earlier, the data included in this report is based on actual expenditures related to instruction and the educational experience at UC. This data cannot be considered a reflection of the *cost* of education, however. The recent financial crisis – indeed the inability to recover even partially from the last two fiscal crises which occurred within the same decade – has had a “deflating” impact on the resources available for the academic mission, as has ongoing State disinvestment. UC can only expend the resources it has, but the true *cost* of providing a world-class education is higher than what is reflected in this report.

The University is developing a calculation of the shortfall in several critical areas that contribute to the educational mission, which will be quantified in its final report. Areas which relate directly to academic quality that have been underfunded, either gradually due to disinvestment by the State or suddenly during the recent fiscal crisis, include maintaining or even improving the student-faculty ratio, funding the ongoing salary gap for faculty and staff, UC’s deferred maintenance backlog, libraries, and instructional equipment replacement. Without funding these costs, UC cannot provide the quality of education its students expect – and deserve.

**Conclusion**

The University of California is a complex institution consisting of a wide spectrum of programs that serve an equally wide range of constituents. UC not only instructs undergraduate students within an incredibly diverse universe of major areas of studies, but also educates at the graduate level the highly skilled workforce needed for a knowledge-based economy, treats millions of patients through its medical center enterprise, provides advice and developing knowledge to a variety of public stakeholders such as the agriculture industry and K-12 schools, and brings art and culture to the communities in which its campuses are housed.

At the core of its activities, however, lies the commitment to teaching and education that helps define the University and focus its mission. Teaching and learning occur in a variety of settings that include not only the classroom, but also the research lab, a patient’s bedside in a medical center, or a farm field. The task of delineating activities within this broad spectrum among levels of students and types of disciplines is extremely challenging. Funds are neither budgeted nor spent according to these categories. Moreover, there is more to education than just attaining a degree. Exposure to world-class researchers, to a diverse student body, to critical thinking and social mobility – these measures may not be quantifiable in the way a narrow definition of instruction is, but they are also necessary for UC to be

the university envisioned by the Master Plan. Thus, the information contained in this and the final report should be used cautiously.

The University will continue to work on the further disaggregation of data requested by AB 94 and submit its final report as soon as it is available.