

# University of California Accountability Framework

As a public entity, the University is accountable to the people of California and it must and it shall remain accountable to them for its actions, past and present, and for its future developmental trajectories. Accountability will be demonstrated in a variety of ways:

- by the transparency of the decision-making processes that govern the University and its campuses, medical centers, and laboratories; and
- by the manner in which key performance indicators are disclosed to and discussed with the broader public.



The Annual Accountability Report is produced by the Institutional Research Unit at the University of California Office of the President. We gratefully acknowledge the assistance provided by numerous departments and individuals both at the Office of the President and at UC campuses.

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www.universityofcalifornia.edu/accountability

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## Introduction

### **University of California 2013 Accountability Report**

#### **BACKGROUND AND PURPOSE**

Since the beginning of the great recession in 2008, public universities across the country have faced significant cuts in state spending. Combined with strong enrollment growth, these reductions have resulted in a sharp decline in per-student spending by the states and a cascade of other effects on key issues such as college affordability, enrollment capacity and academic quality. In many ways, these budgetary pressures and their consequences have been felt more acutely in California, and certainly at the University of California, than in many other states.

Introduced by Mark G. Yudof upon his appointment as president in 2008, the University of California's annual Accountability Report is designed to ensure greater accountability across the UC system. It explores how well and at what cost the University is meeting its key goals. It looks at how the University's core functions of teaching, research and public service are affected by internal and external changes. It supports strategic planning and budgetary decision-making, helps ensure responsible stewardship and reflects the University's commitment to be open and accountable to all Californians.

The report is written as a management tool for the University's leadership, faculty and staff. It is also intended to be a public document, written for the broad range of University stakeholders: state legislators, prospective donors, parents, teachers, students and alumni who contribute so much to the University. All of these groups have a need and a right to know how well UC is performing.

#### **KEY FINDINGS**

The most significant change in the University's external environment over the past five years has been the dramatic decline in state support. UC today relies on the same absolute level of funding as in 1997–98 even though it educates 79,000 more students. Despite extremely careful fiscal stewardship, student tuition and fees have increased dramatically. However, increased tuition and fee revenue has not made up even half of the budget shortfall faced by UC since the fiscal crisis began in 2008–09.

This year's report reflects the University's concern about the long-term impact that state budget cuts may have upon access to the University, affordability of a University education, and most importantly the academic quality of the institution. After two decades of state disinvestment, additional resources are needed to reinvest in UC's core academic infrastructure in ways that will restore instruction and research programs to the level of quality that was achieved through a long history of prior investment by the state. The data presented in this report look back over the past decade or longer. Some of the trends, such as increasing graduation rates, have been evident for the past 10 years; others, such as a drop in the number of ladder-rank faculty, are recent. The following key findings reflect major changes and concerns that these data reveal.

Introduction

- Over the past ten years, state educational appropriations have fallen over \$1 billion in inflation-adjusted dollars. And now, state educational appropriations constituted only 9 percent of UC's operating budget in 2011–12, compared to 23 percent in 2001–02. (Indicator 12.1)
- Since 1990–91, average inflation-adjusted expenditures for educating UC students have declined 25 percent. The share of expenditures borne by students in the form of fees has more than tripled, from 13 percent to 49 percent. (Indicator 1.5)
- Despite rising tuition and fees, demand for a
   UC education is increasing. In the two years
   between 2010 and 2012, freshman applications
   grew 26 percent compared to a 27 percent
   increase in the six years between 2003 and
   2009. Much of this growth was in domestic and
   international nonresidents, although California
   resident applications grew by 9.8 percent
   between 2011 and 2012. (Indicator 2.2)
- The proportion of nonresident undergraduate students rose from 4.6 percent in 2007–08 (before the state budget cuts) to 7.1 percent in 2011–12. That proportion is expected to grow as UC pursues strategies to replace lost state revenue. (Indicator 2.7.2)
- Both four- and six-year graduation rates for entering freshmen, as well as four-year graduation rates for transfer students, have steadily improved over the past decade. (Indicators 4.1 and 4.2)
- UC enrolls far more low-income and firstgeneration students than any other leading research university. (Indicators 2.6 and 3.5.1)
- The inflation-adjusted net cost paid by low-income students for their UC education is lower than it was in 2004–05, primarily due to UC's strong financial aid programs. The net cost has risen for students from middle- and upper-income families, leading to a slight increase in student debt levels. (Indicators 3.2, 3.3, 3.4 and 3.7)

- As professional degree fees have risen, so have debt levels of students in some professional degree programs, especially medicine, dentistry and law. (Indicators 5.3 and 11.2)
- In General Campus departments, Ladder and Equivalent faculty FTE grew fairly steadily from 1998 to 2009. Since then, during a time of state budget cuts to UC, the trend has been slightly downward, from 9,037 FTE to 8,894 FTE, as new hires have not kept pace with separations despite student enrollment growth. (Indicators 6.1 and 6.2)
- Since 2004, the number of staff supported by general funds has fallen as state funding for the University has been withdrawn. At the same time, staff funded by hospital and health science sources has risen. (Indicator 7.1)
- UC is anticipating a significant number of retirements over the next 10 years due to changes in the age distribution of both faculty and staff. In 2012, 31 percent of ladder-rank faculty were over the age of 55, compared to 21 percent in 1998; likewise, 36 percent of staff were over 50 in 2012, compared to 26 percent in 1998. (Indicators 6.2 and 7.2)
- The undergraduate student credit hours taught by Senate faculty are increasing. This reflects the impact of increasing undergraduate enrollments coupled with reductions in faculty numbers due to the state budget crisis. (Indicator 9.3)

#### **SCOPE**

This year's accountability report assesses the University's performance in achieving its key goals. The report includes over 100 unique indicators, presenting data on a wide spectrum of activity — from undergraduate access, affordability and success to the University's budget and finances.

#### **METHODOLOGY**

Three kinds of data are used in this report: longitudinal data that track campus trends over time; systemwide data that compare the UC campuses collectively to averages for the 28 non-UC public and 26 private U.S. research universities that belong to the American Association of Universities (AAU); and individual data that allow UC campuses to be compared to one another and to the eight research universities — four public (Illinois, Michigan, SUNY Buffalo and Virginia) and four private (Harvard, MIT, Stanford and Yale) — that UC historically has used to benchmark faculty salaries.

Conventions were adopted to ensure the report's accessibility to a general audience as well as its integrity and internal consistency:

- Indicators are based on data that are publicly available and may be reproduced.
- Preference is given to indicators that are commonly used nationally or internationally.
- Indicators are primarily presented graphically so that their meaning is visually apparent.
- Trend data for UC and its comparison institutions are preferred over single year snapshots.

The underlying data as well as information about sources and methods are available at www.universityofcalifornia.edu/accountability.

The UCOP *InfoCenter* has interactive dashboards, data tables, white papers and reports that are available at http://data.universityofcalifornia.edu.



Introduction iii



## **Chapter 1. Size and Shape of the University**

#### Goals

In 1960, California's Master Plan for Higher Education transformed a collection of uncoordinated and competing colleges and universities into a coherent system and unique model for higher education. It accomplished this by assigning each public segment — the University of California (UC), the California State University System (CSU) and the California Community Colleges (CCC) — its own distinctive mission and pool of students. The University of California became the state's public research university, with the responsibility to admit the top 12.5 percent of students from the state's graduating high school class, to conduct research and to award doctoral and professional degrees. The tripartite mission of the University of California was thus framed teaching, research and public service.

#### Declining state support

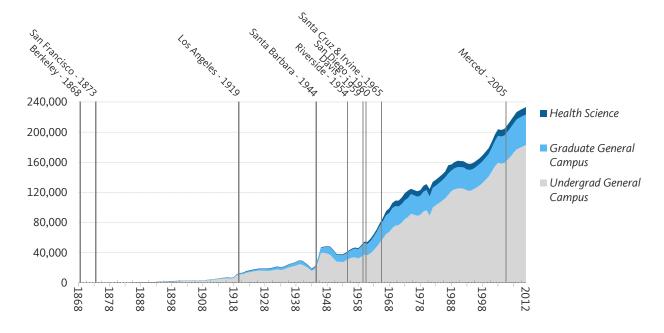
While UC has maintained its commitment to the Master Plan, the state's steadily declining support for all public services, including education, has resulted in a considerable unmet demand for high-quality, affordable higher education. At the same time that the number of well qualified California high school graduates is rising, California's capacity to accommodate these residents is constrained. This comes after years of decreased education budgets. All segments of California's public higher education system — community colleges, state universities and the University — have been affected.

The consequence is a statewide struggle to maintain a high level of opportunity without sacrificing academic quality. This chapter presents an overview of the size and shape of the University as it adapts to these new funding realities. It demonstrates the challenges that confront the University today: enormous growth in enrollment, steady declines in state support and increases in student tuition and fee levels (Chapter 3).

The indicators in this chapter also show the continuing vibrancy of the University as a wide and diverse community of students, faculty, staff and alumni. They show the complex array of revenues that the University relies upon to maintain its diverse enterprise. Together, they paint a picture of a strong institution, but one that is now at significant risk.

## Student enrollment at the University has quadrupled over the past 50 years.

1.1 Undergraduate and graduate student enrollment with campus opening date Universitywide Fall 1868 to 2012



Source: UC Statistical Summary of Students and Staff<sup>1</sup>

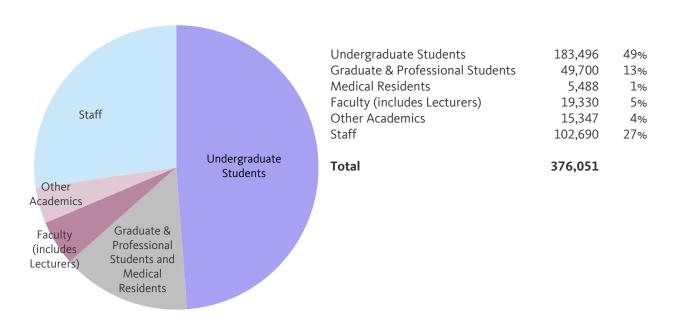
Enrollment growth, especially in the number of undergraduates, has been driven both by dramatic growth in the number of high school graduates and by UC's commitment to maintaining access for all well qualified students. The Master Plan guarantees a place at UC for the top 12.5 percent of the graduating high school class in California and to all qualified community college transfers.

As a consequence of rapid growth in undergraduate enrollment, the share of graduate and professional students has fallen. In 1961, UC enrolled 68 percent general campus undergraduates. In 2012, the University enrolled about 78 percent undergraduates. This change in the proportion of undergraduate to graduate students is one of the largest structural changes in the University over the past 50 years.

<sup>&</sup>lt;sup>1</sup> Does not include medical residents.

## The immediate UC community consists of about 239,000 students, 137,000 faculty and staff, 50,000 retirees and over 1.6 million living alumni.

1.2 UC community Universitywide Fall 2012



Source: UC Corporate Student and Personnel Systems<sup>1</sup>

Founded in 1868, the University of California system today encompasses ten campuses, five medical centers, sixteen health professional schools, five law schools and the state's only public veterinary school. UC annually generates about \$45 billion in economic activity in California and contributes about \$32.8 billion to the gross state product.

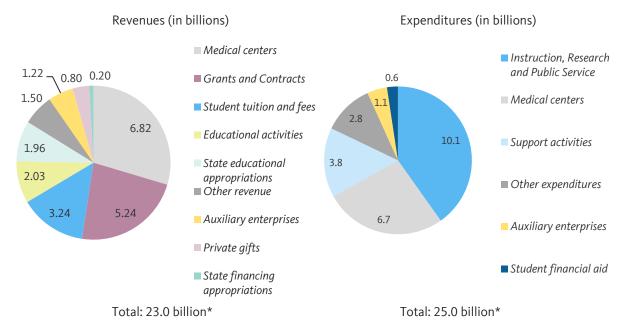
The immediate UC community includes 239,000 students, 137,000 faculty and staff, 50,000 retirees and over 1.6 million living alumni.

The broader UC community includes many more people. Patients at UC's hospitals account for 3.9 million outpatient clinic visits and almost 900,000 inpatient days annually. UC Extension provides instruction to approximately 300,000 course registrants annually. Numerous farmers and agriculturalists work with UC Cooperative Extension agents. Entrepreneurs and employees in industry use findings from UC's research. Many others attend concerts, movies and lectures at UC and visit its numerous museums, libraries, botanical gardens and natural reserves.

<sup>&</sup>lt;sup>1</sup> Counts above are unduplicated headcounts: student staff employees are excluded from staff counts and student academic employees excluded from academic employee counts.

# In 2011–12, the University generated \$23.0 billion in revenues from a wide range of sources. Most of the University's revenues are restricted in how they may be used.

1.3 Revenues by source and expenditures by function Universitywide 2011–12



Source: UC Audited Financial Statements<sup>1</sup>

In addition to providing instruction for 239,000 students annually and maintaining a multi-billion dollar research enterprise, the University engages in a broad spectrum of ancillary activities. These include the operation of teaching hospitals, preservation of world-class libraries, development of academic preparation programs for students in K-14 and operation of auxiliary enterprises such as student residence halls and dining services.

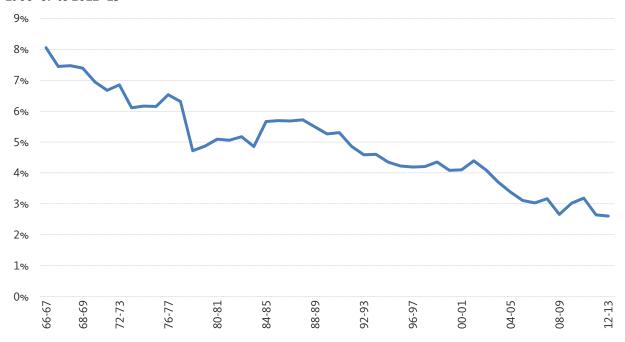
Funds that support the medical centers and auxiliaries, government contracts and grants are generally restricted to specific uses. They are not available to fill the funding gap left when the state cuts its contributions to UC's core instructional budget (see Indicators 1.4, 12.1 and 12.2).

<sup>\*</sup>Expenses in 2011-12 exceeded revenue available due to accounting adjustments as detailed in the audited financial statements.

<sup>&</sup>lt;sup>1</sup> Excludes DOE Laboratories. Other revenues include state financing appropriations, investment income and other miscellaneous revenues; more information can be found in the audited financial statements at www.universityofcalifornia.edu/reportingtransparency. Private gifts listed here are from the audited financial statements, which do not count pledged funds and which report campus foundations separately; figures in Chapter 12 on private giving do include these funds.

## The University's share of the state's general fund dropped from 8.1 percent in 1966-67 to 2.6 percent in 2012-13.

1.4 UC share of state budget Universitywide 1966–67 to 2012–13



Source: UC Budget Office

Historically, state funding has been the largest single source of support for the University's core instructional budget. Together with UC general funds¹ and student fee revenue, state funding has provided relatively stable funding for faculty salaries and benefits, academic and administrative support, student services, facilities operation and maintenance, and student financial aid.

State support has fallen more than \$1 billion in inflation-adjusted dollars since 1990–91. To compensate, the University has raised student tuition and fees, but these increases have only partially compensated for the loss of state support (Indicator 1.5).

In addition, campuses have laid off more than 4,000 employees, deferred faculty hiring, cut academic programs, eliminated courses, increased class size and cut back student services such as counseling and library hours.

<sup>&</sup>lt;sup>1</sup> UC general funds are mostly nonresident tuition revenue and indirect cost recovery from research grants and contracts.

#### 1.5. EXPENDITURES PER STUDENT

# Since 1990–91, the total expenditures per student of a UC education has declined by 25 percent. Students and their families have borne an ever-increasing share of that cost.

1.5 Per-student average expenditures for education Universitywide 1990–91 to 2012–13, selected years

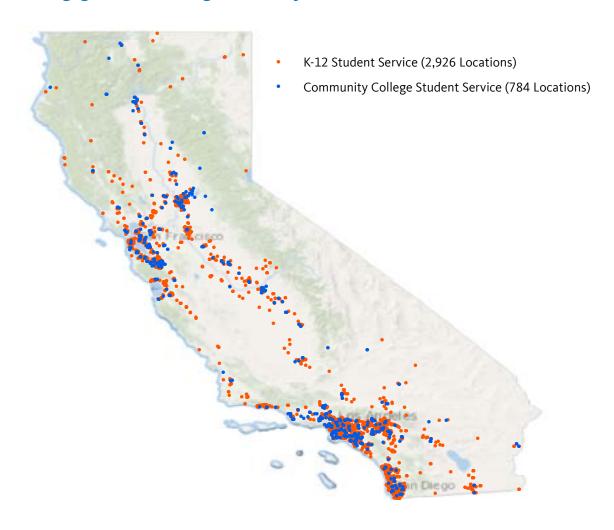


Source: UC Budget Office. Excludes financial aid. 2012-13 estimated does not include UC Retirement Program costs.

Since 1990–91, average inflation-adjusted expenditures for educating UC students have declined 25 percent. During the same time period, the state's share of expenditures has fallen even more steeply, by more than 65 percent. The share of expenditures borne by students in the form of fees has more than tripled, from 13 percent to 49 percent.

In other words, students and their families are bearing a growing proportion of the cost of their education. Increases in student fees have made up some (but not all) of the reductions in state support.

## UC engages students long before they are enrolled.

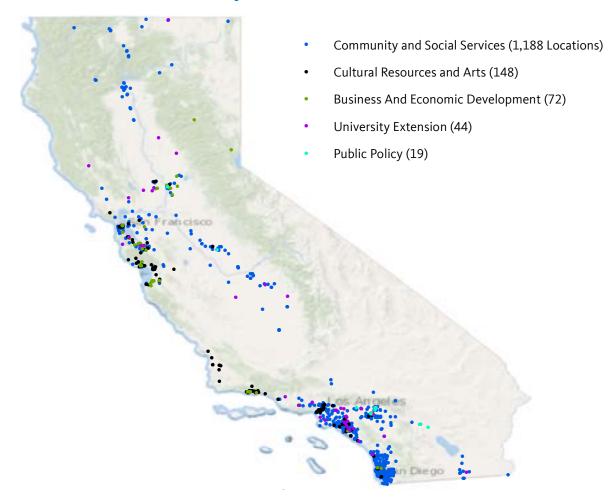


Source: UCOP Institutional Research

UC has long been engaged with public schools and community colleges through outreach programs, training and publications for high school and community college counselors, teacher preparation and professional development. The University's statewide preparation programs work in partnership with K-12, the business sector, community organizations and other institutions of higher education to raise student achievement levels and to close achievement gaps.

Through the Science and Mathematics Teacher Initiative (CalTeach), UC recruits and prepares mathematics and science majors for teaching careers by providing special coursework and field experiences in K-12 schools. UC undergraduates enrolled in the CalTeach program have worked with over 500 mentor teachers in over 400 schools.

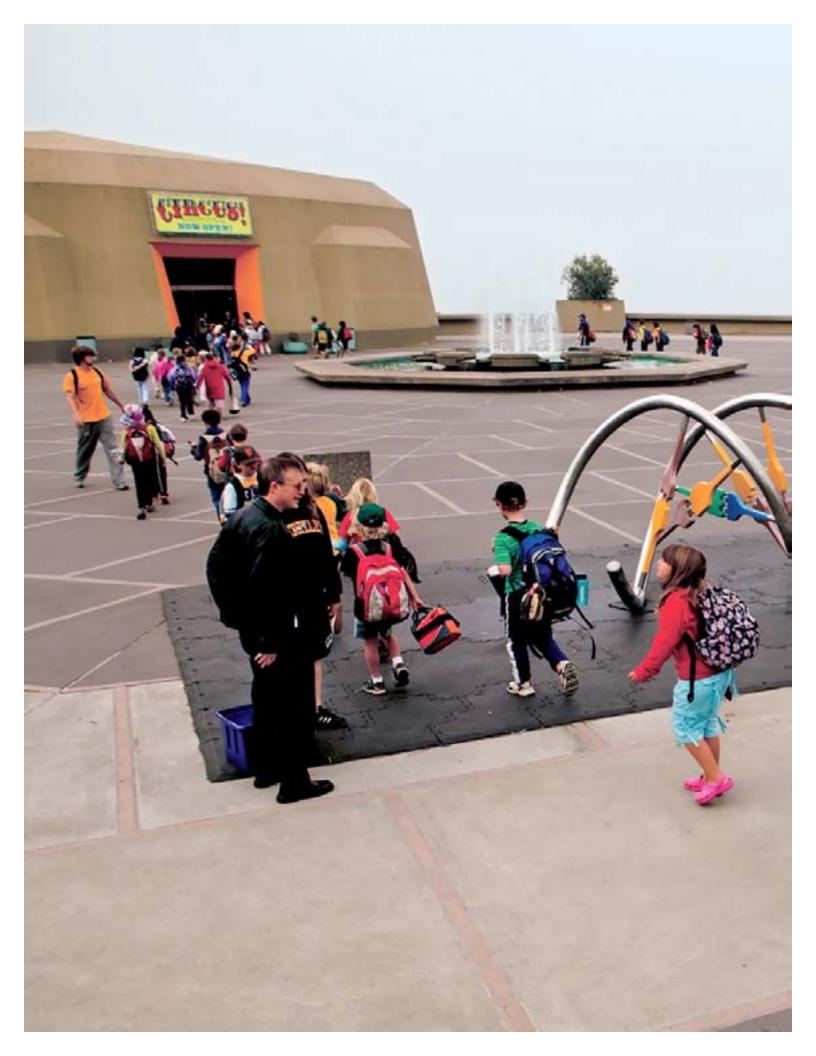
## UC is involved in the community.



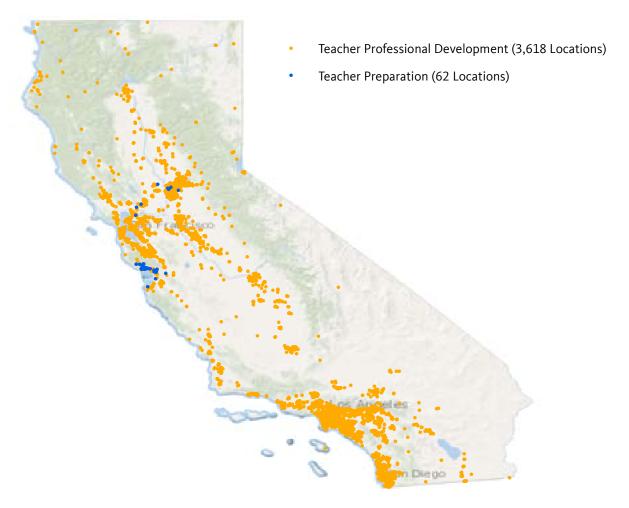
Source: UCOP Institutional Research

Programs in community and social services include public health partnerships and services, social welfare clinics, community law centers, neighborhood projects, internship programs, employment training, community volunteer programs, educational research collaboratives, and partnerships with all levels of education from preschool to community college. UC provides valuable arts education and outreach programs that

teach art, dance, drama, music and digital arts in the community. It has dozens of arts venues and archival collections. Its gardens and herbaria serve the public while providing important test beds for research.



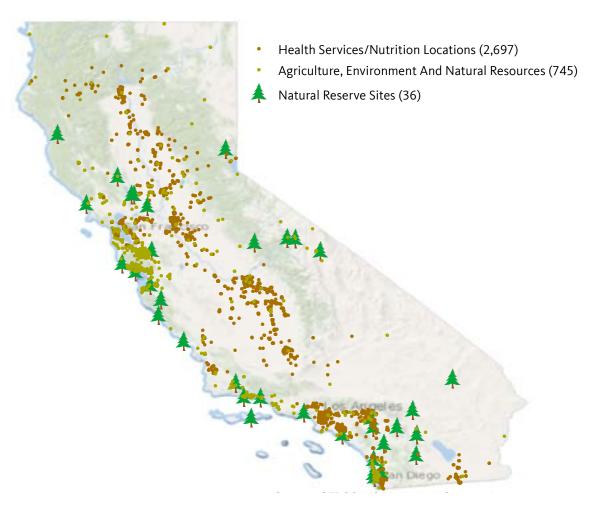
## UC supports all levels of education.



Source: UCOP Institutional Research

The California Subject Matter Project is a network of nine discipline-based statewide projects that support ongoing quality professional development to improve instructional practices and student achievement.

## UC maintains its roots in agriculture and natural resources.



Source: UCOP Institutional Research

The UC Natural Reserve System is a network of protected natural areas throughout California. Its 38 sites include more than 750,000 acres, making it the largest university-administered reserve system in the world. UC's Division of Agriculture and Natural Resources has 200 locally based advisors and specialists, 57 local offices throughout California, 130 campus-based specialists, nine

Research and Extension Centers, and 700 academic researchers. In addition, its six statewide programs include the Integrated Pest Management Program, the Master Gardener Program, and the Youth, Families and Communities Program, which includes programs for youth, nutrition, family and community.



## Chapter 2. Undergraduate Students — Admissions and Enrollment

#### Goals

One of the University of California's highest priorities is to ensure that a UC education remains accessible to all Californians who meet its admissions standards. This goal is clearly articulated in California's *Master Plan for Higher Education*, which calls for UC to admit all qualified freshmen in the top 12.5 percent of California's public high school graduates. It also calls for UC to admit all qualified California Community College transfer students.

#### Admissions trends

Demand for a UC education has risen dramatically over the past two decades. Applications to UC have more than doubled since 1994, and campuses that used to admit almost every eligible applicant have become considerably more selective. Compared to a decade ago, students admitted today are better prepared academically, as measured by high school grades, scores on standardized tests and the number of rigorous high school courses they have taken. Over 40 percent come from populations that have historically been underserved by higher education, such as low-income families and students who are the first in their families to complete a four-year degree.

Providing undergraduate access for a rapidly growing high school population has been a compelling state and University priority. However, the state's financial pressures have impacted the University's ability to maintain access, affordability and quality. In an effort to preserve quality in a time of unprecedented state budget cuts, UC took steps to better align its enrollment with available

resources, constraining entering California freshmen from 2009 to 2011. Those reductions were partially offset by increasing the number of new California Community College transfer students. Despite these reductions in freshman enrollment, UC campuses continue to enroll thousands of California undergraduates for whom it has never received funding from the state, estimated at 11,500 in 2011-12.

Despite these continuing financial pressures, the University continues to meet its Master Plan commitment to provide a space on one of the UC campuses to all California applicants who qualify for guaranteed admission and who wish to attend.

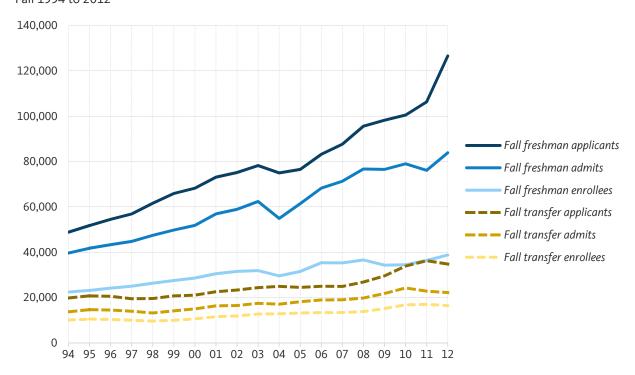
While enrollment of *California* students has been constrained by funding available from the state, certain UC campuses have capacity to enroll additional students. The number of nonresident domestic and international students has increased in recent years, but their proportion is still much lower than at comparable research universities. Nonresident students enrich and diversify the student body; they also pay supplemental tuition (\$22,878 in 2012–13) not charged to California residents. This extra revenue enables UC to improve educational programs for all students.

#### For more information

The University maintains an extensive website with information on admissions at www.universityofcalifornia.edu/admissions. Information on the *California Master Plan for Higher Education* is available at http://ucfuture.universityofcalifornia.edu/documents/ca\_masterplan\_summary.pdf.

# Fall applications to UC have more than doubled over the past 18 years. UC enrollments have grown 70 percent during the same period, but are still falling short of demand.

2.1 Undergraduate applicants, admits and enrollees Universitywide Fall 1994 to 2012



Source: UC Corporate Student System<sup>1</sup>

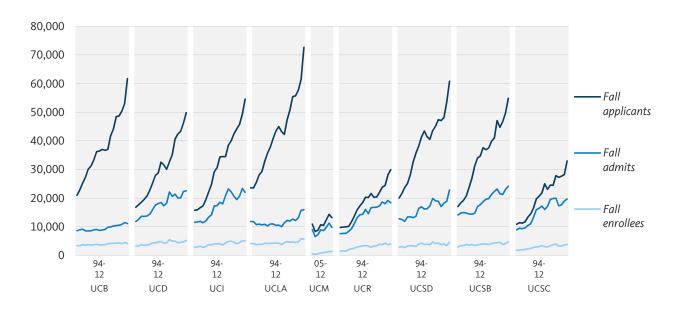
The rapid growth in freshman applications to UC over the past 18 years is a function of growth in the number of high school graduates, together with UC's continued popularity with California graduates. Despite recent efforts to bring UC's enrollment more in line with available State funding, UC has made providing access to California students a priority. UC currently enrolls about 11,500 California students for whom it has never received state support. In addition, UC

continues to maintain its obligations under the Master Plan by guaranteeing admission to all qualified students. Most applicants from California public high schools gained admission to a campus to which they applied, with additional applicants gaining admission through the admission guarantee pool, which comprises guaranteed applicants who are not offered admission at the campus they applied to but instead are admitted to another campus where there is sufficient capacity.

<sup>1</sup>Admits and enrollees here include the referral pool. Some campuses admit fall applicants for a subsequent term (winter or spring). These "rollover" admits and enrollees are excluded in the graphs here, which only show fall data.

# Every UC campus has experienced tremendous growth in applications and admissions since 1994. Trends in campus enrollments have been more stable over time.

2.2 Freshman applicants, admits and enrollees UC campuses Fall 1994 to 2012



Source: UC Corporate Student System<sup>1</sup>

Campuses have seen considerable growth in the number of freshman applications they receive, as demonstrated by the steep dark blue lines in the graphs above. One factor contributing to this growth is the increase in the number of UC campuses chosen by each applicant; this grew from about 2.8 campuses per applicant in 1994 to about 3.6 campuses per applicant in 2012.

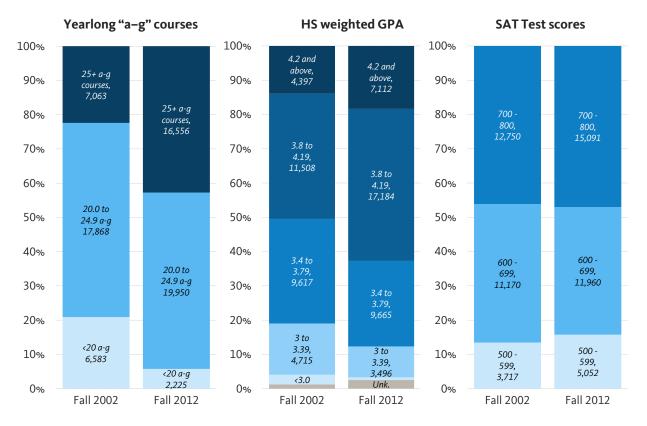
In just two years, from 2010 to 2012, freshman applications grew 26 percent, compared to a 27 percent increase in the six year period between 2003 and 2009. Much of this growth was in domestic and international nonresidents, although California resident applications grew by 9.8 percent between 2011 and 2012.

<sup>&</sup>lt;sup>1</sup> Applicants here *exclude* the "referral pool," which comprises eligible applicants who are not offered admission at the campus they applied to, but who are admitted to another campus where there is sufficient capacity. Some campuses admit fall applicants for a subsequent term (winter or spring). These "rollover" admits and enrollees are also excluded from the graphs here.

## Freshmen who entered the University in fall 2012 were better prepared academically than those who entered in fall 2002.

2.3.1 A-G (college preparatory)<sup>1</sup> courses, weighted grade point average (GPA) and standardized test scores of entering freshmen

Universitywide Fall 2002 and 2012



Source: UC Corporate Student System<sup>2</sup>

For admissions purposes, the University computes two different high school GPAs: weighted and unweighted. The weighted GPA (shown here) provides extra credit for succeeding in difficult courses, such as those in the College Board's Advanced Placement programs. An A in such a course receives 5 points, a B 4 points and so forth.

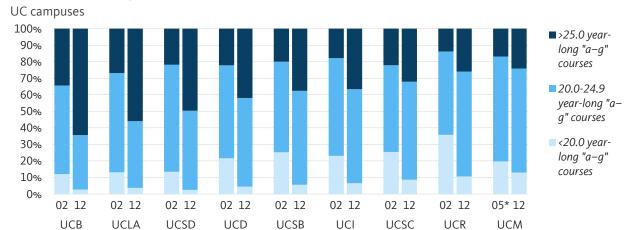
In other college preparatory courses, an A counts for 4 points, a B for 3 and so forth. During the 2010-2012 period, when changes in admissions policies of eligibility, evaluation and selection were being implemented, the academic qualifications of UC applicants and admitted students remained stable.

<sup>&</sup>lt;sup>1</sup> A-G courses refer to those high school courses that UC has reviewed and approved as college preparatory.

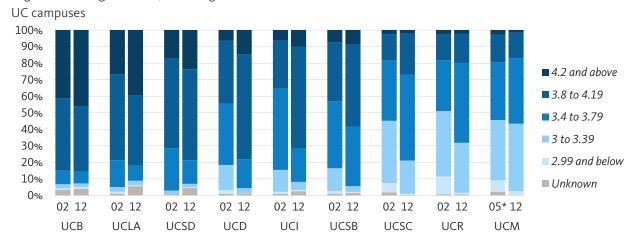
<sup>&</sup>lt;sup>2</sup> Fall 2002 test scores are the average of SAT I Math and Verbal scores and fall 2012 are the average of SAT Critical Reading and Math scores. Unknowns are excluded.

#### 2.3 FRESHMAN PREPARATION

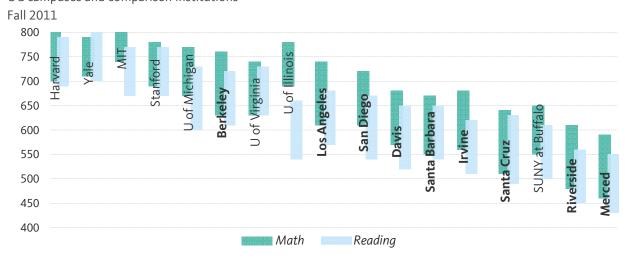
A-G courses, incoming freshmen



High school weighted GPA, incoming freshmen



2.3.2 SAT Reading and Math scores, 25th to 75th percentile UC campuses and comparison institutions

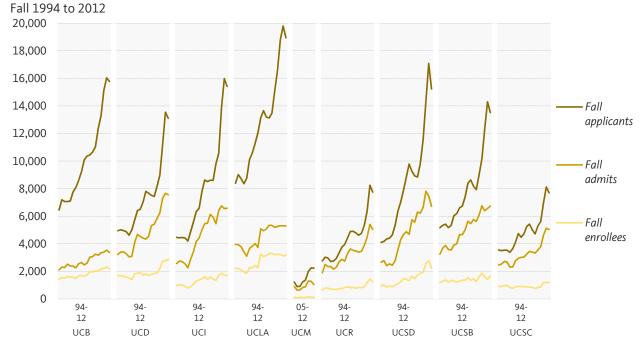


Source for SAT scores is IPEDS. Other data are from UC Corporate Student System<sup>1</sup>.

<sup>&</sup>lt;sup>1</sup> Data for the SAT Writing Test are not available for comparison institutions. \*Merced did not open until 2005.

# Since fall 2004, when new UC enrollment dropped due to that year's budget crisis, new fall freshman enrollment has grown 31 percent, while new fall transfer enrollment has grown 28 percent.

2.4.1 Transfer applicants, admits and enrollees UC campuses



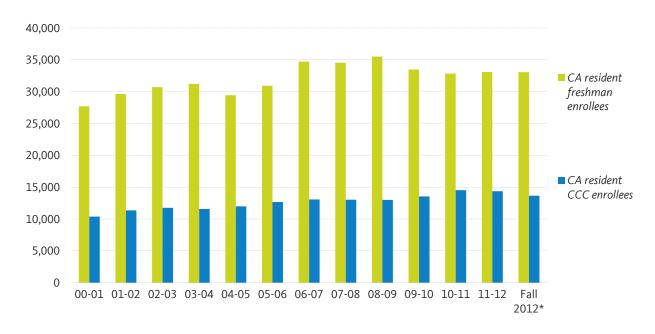
Source: UC Corporate Student System

UC prioritizes transfer enrollment. Since 1994, the fall enrollment of new California Community College (CCC) California resident transfers has increased 62 percent (from 8,423 to 13,656). In fall 2012, transfer applications dropped throughout the system. UC will monitor to determine whether this was a one-year deviation — possibly related to diminished transfer-level course offerings at the CCCs — or whether this is the beginning of a new pattern.

In June 2012, the Academic Senate approved a restructuring plan that will help clarify the transfer process for California Community College students interested in UC, and will also improve their preparation for UC-level work. The policy will be fully implemented by Fall 2015. The comprehensive review of transfer applicants will include an evaluation of lower-division major preparation.

#### 2.4 TRANSFER APPLICANTS, ADMITS AND ENROLLEES

2.4.2 New freshmen and transfers Universitywide 2000–01 to fall 2012



Source: UC Corporate Student System

The Master Plan calls for UC to accommodate all qualified California Community College (CCC) transfer students. It specifies that the University maintain at least a 60:40 ratio of upper-division (junior- and senior-level) to lower-division (freshman- and sophomore-level) students to ensure space for CCC transfers. Students transferring into the upper-division from the CCCs are crucial to maintaining this balance. To do so, UC should enroll one new CA resident CCC transfer student for each two new CA resident freshmen, or 67 percent new resident freshmen to 33 percent new resident CCC transfer students.

			New CA
	Percent	Percent	freshmen to
	resident	resident	new CA
	freshmen	CCC	transfer ratio
00-01	73%	27%	2.67
01-02	72%	28%	2.61
02-03	72%	28%	2.61
03-04	73%	27%	2.70
04-05	71%	29%	2.45
05-06	71%	29%	2.44
06-07	73%	27%	2.66
07-08	73%	27%	2.65
08-09	73%	27%	2.73
09-10	71%	29%	2.47
10-11	69%	31%	2.26
11-12	70%	30%	2.30
Fall 2012*	71%	29%	2.42

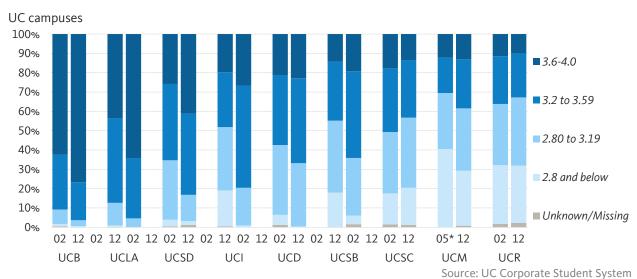
<sup>\*</sup>Only fall enrollment data are available for 2012–13. Other years include freshmen and transfer spring rollover enrollees and transfer winter/spring enrollees. This slightly understates the ratio of transfers to freshmen, because freshmen are more likely to enroll in the fall. Going forward, campuses are focusing on fall transfer enrollment so the differences between fall and full-year numbers will diminish.

## Like freshmen, UC transfer students in fall 2012 were better prepared academically than their counterparts in earlier years, as measured by their grades.

## 2.5 College grade point average (GPA) $^{\scriptscriptstyle 1}$ of entering transfer students Fall 2002 and 2012

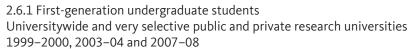
#### Universitywide

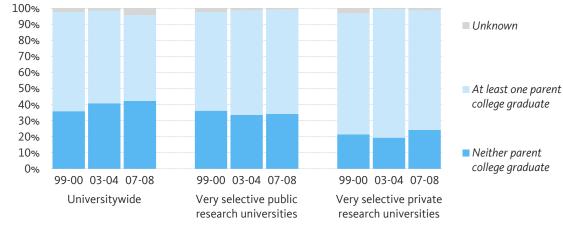




<sup>&</sup>lt;sup>1</sup> The transfer GPA is based on grades for college-level academic courses from the college(s) where students were previously enrolled. \*Merced opened in 2005.

## UC enrolls a higher proportion of first-generation students than other very selective public and private universities.





Source: NPSAS and UC Corporate Student System<sup>1</sup>

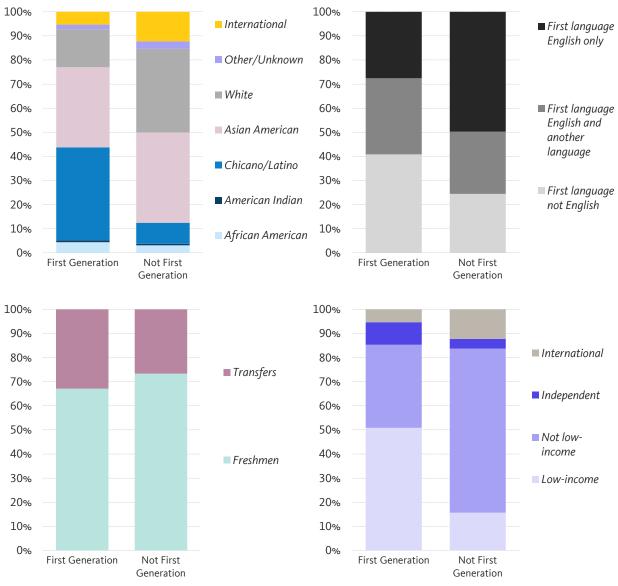
A first-generation student is one for whom neither parent holds a college degree. Having parents with college degrees can provide students with the role models, family expectations, knowledge and financial means that ease a student's transition from high school to college, and that contribute to student success in college. Students whose parents have not graduated from college may lack these resources and cannot benefit from the advantages they can confer.

<sup>&</sup>lt;sup>1</sup> Selectivity is as defined in IPEDS and based on two variables: 1) the centile distribution of the percentage of students who were admitted (of those who applied); and 2) the centile distribution of the midpoint between the 25th and 75th percentile SAT/ACT combined scores reported by each institution (ACT scores were converted into SAT equivalents).

UC's entering first-generation students are more likely to be from an underrepresented minority group, to have spoken a language other than English at home and/or to have lower incomes than students who had at least one parent who graduated from college.

2.6.2 Entering students by first generation status, race/ethnicity, first language spoken at home, income and entering level

Universitywide Fall 2012



Source: UC Corporate Student System<sup>1</sup>

<sup>1</sup>First-generation students do not have a parent with a 4-year college degree. Low-income students have family incomes less than \$45,000. Total of first-generation students is 23,374 (43.1%); non-first-generation students total 30,136 (54.7%); and missing/unknown are 1,209 (2.2%). Unknowns are excluded from charts.

## There are significant differences in the racial/ethnic/income profiles for students entering UC via these different paths.

2.6.3 Entering domestic undergraduates by race/ethnicity, income and class level Universitywide Fall 2012

		Freshmen	Transfers	All
Low-income	URM	15.0%	7.9%	12.9%
	Asian	13.6%	11.6%	13.0%
	White	4.4%	7.5%	5.3%
Low-income total *		32.9%	26.8%	31.1%
Non-low-income	URM	12.7%	9.5%	11.7%
	Asian	25.2%	13.4%	21.7%
	White	19.3%	18.6%	19.1%
Non-low-income total *		57.5%	41.9%	52.9%
Independent of parents		0.9%	20.2%	6.6%
International		8.9%	11.3%	9.6%
All		100.0%	100.0%	100.0%

Source: UC Corporate Student System

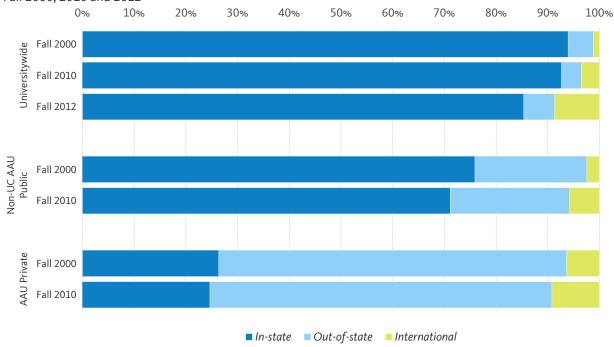
Underrepresented students constitute a larger proportion of the incoming freshman class than of the entering transfer class, both for low-income and non-low-income families. This is also true for Asian students, although those from non-low-income families are almost twice as prevalent in the freshman class as the transfer class.

The transfer route is being utilized by students of all racial/ethnic and income groups.

<sup>\*</sup> Totals include unknowns, not shown separately.

UC has a substantially lower proportion of out-of-state undergraduates than other AAU universities. In fall 2012, nearly 15 percent of new UC freshmen were out-of-state or international, compared to 29 percent and 75 percent for AAU publics and AAU privates respectively in the most recent year data are available.





Source: UC Corporate Student Systems and IPEDS

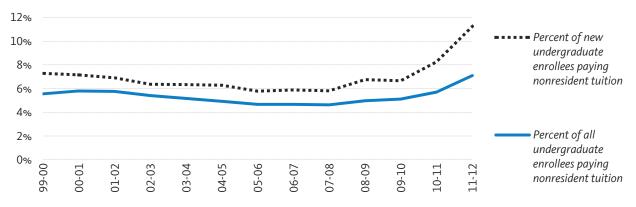
Nonresidents provide geographic diversity to the student body. They also pay the full cost of their education. In 2012–13, average tuition and fees for a UC nonresident undergraduate, including health insurance was \$36,089, compared to \$13,211 for resident students.

Nonresident applicants must meet higher criteria to be considered for admission. The minimum high school GPA for nonresident freshmen is 3.4, compared to 3.0 for California freshmen. The minimum college GPA for nonresident transfer students is 2.8, compared to 2.4 for California residents.

UC's priority is to enroll California residents for whom the state has provided funding. Campuses enroll nonresident students based on available physical and instructional capacity and the campus's ability to attract qualified nonresident students.

#### The proportion of undergraduate students paying nonresident tuition is rising.

2.7.2 Percentage of full-time-equivalent undergraduate enrollees paying nonresident tuition Universitywide 1999–2000 to 2011–12



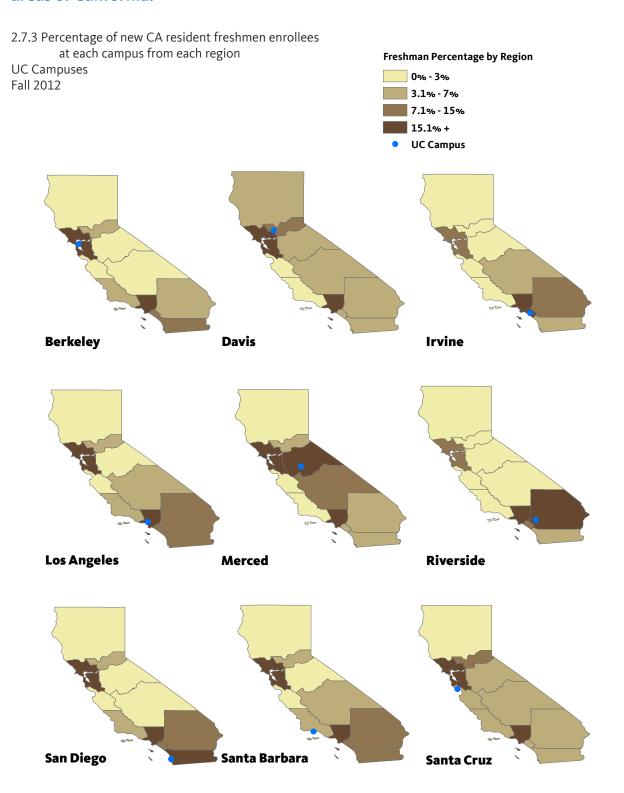
Source: UC Corporate Student System

There are some differences between the data shown in the graph above and the data shown earlier in this chapter. Here, the graph shows the annual full-time-equivalent undergraduates who pay nonresident tuition while the previous page shows new freshmen whose permanent address is outside California. These measures have different uses depending on the policy question under consideration.

The proportion of nonresident students at individual campuses will vary depending on a campus's capacity as well as its ability to attract nonresident students.<sup>1</sup>

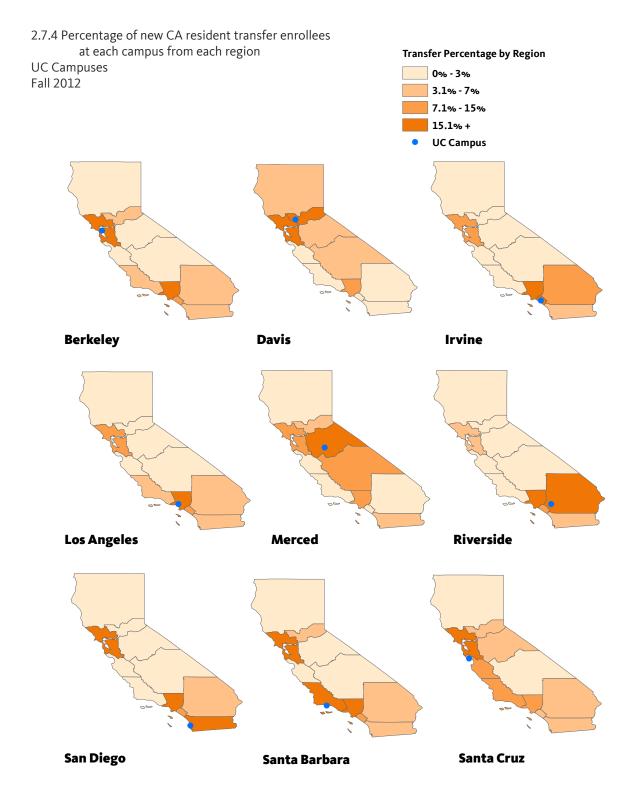
<sup>&</sup>lt;sup>1</sup> Not all nonresident students pay nonresident tuition. Some have statutory exemptions, such as AB540 students, children of UC employees and others designated by the state. AB540 students are considered California residents for tuition purposes as established by Assembly Bill 540, passed in 2001.

### UC campuses attract students from their local regions along with the major urban areas of California.

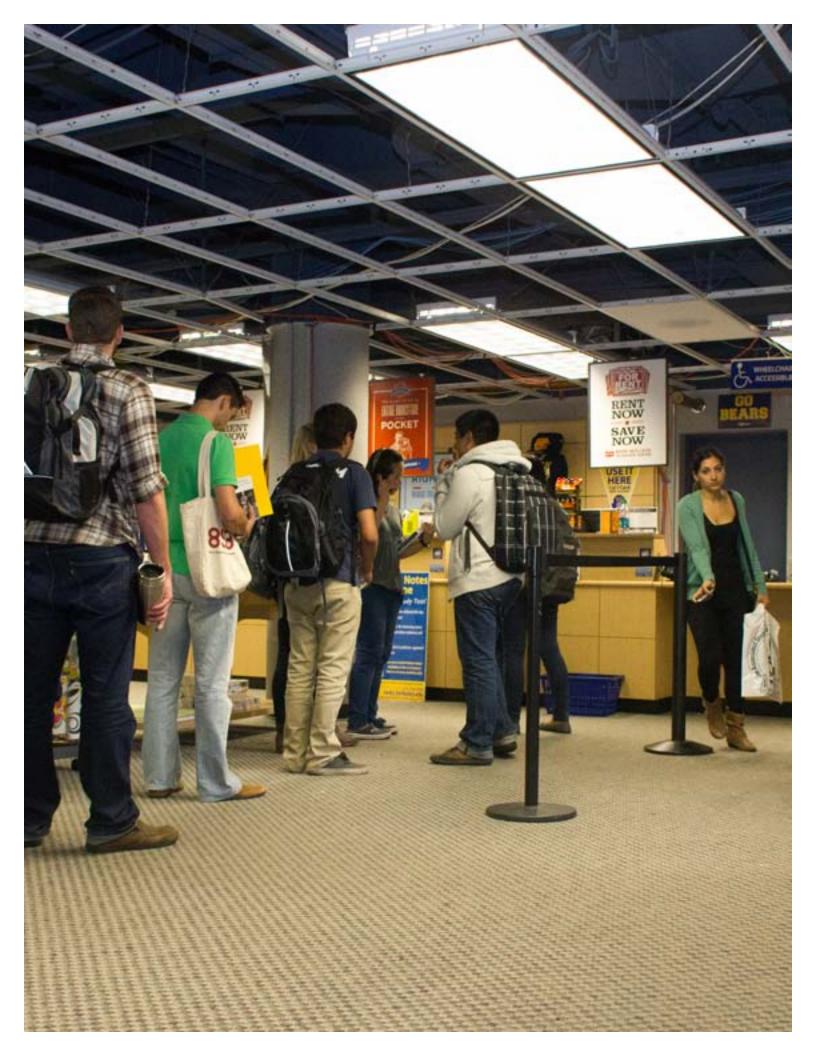


Source: UC Corporate Student System

## Regions with high freshman attendance rates also tend to have high transfer attendance rates.



Source: UC Corporate Student System



### **Chapter 3. Undergraduate Students — Affordability**

#### Goals

The goal of the University's undergraduate financial aid program is to ensure that the University remains accessible to all eligible students, regardless of their financial resources.

Affordability is among UC's highest priorities. The University has maintained a strong record of enabling families from all income levels to finance a high-quality education, and it closely monitors the impact of its pricing decisions and financial aid programs.

#### Maintaining access

Despite increases in tuition and fees, the indicators in this chapter demonstrate that the University remains accessible to students from all income groups, including low-income students. The inflation-adjusted net cost incurred by low-income students for a University education is lower than it was in 2004–05 due to the availability of grants and scholarships, and the proportion of low-income students enrolled at UC has increased. In 2011–12, 42 percent of all UC undergraduates qualified for Pell Grants, the largest percentage in the University's history, and the largest in the country for comparable research universities.

As the percentage of lower-income students has increased, the percentage of students from middle-income families has declined, from 44 percent in 2001–02 to 36 percent in 2011–12. This reflects, in part, a statewide decline in the proportion of middle-income families due to the economic recession.

#### Looking forward

UC's commitment to affordability is especially important at a time when the withdrawal of state support has forced the University to raise student tuition and fees. That commitment is evident in the University's systemwide Blue and Gold Opportunity Plan, which ensures that needy students with household incomes below \$80,000 receive gift aid to cover their tuition and fees. Students with greater financial need can qualify for additional grant support to help defray other educational expenses, such as books, housing and transportation.

Additionally, in 2011–12, UC provided a grant to cover the full cost of that year's tuition increase for students with need from families earning incomes up to \$120,000. The University is working to develop additional fund sources for student financial aid, including Project You Can, a fundraising initiative that raised \$671 million as of February 2013, and aims to raise \$1 billion in private support for student aid.

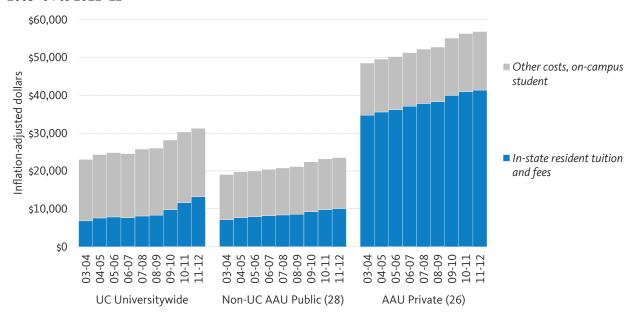
#### For more information

More information about UC costs and financial aid, including details about UC's Blue and Gold Opportunity Plan and links to financial aid estimators, is available at http://admission.universityofcalifornia.edu/payingfor-uc.

Detailed information about trends in UC financial aid can be found in the University's Annual Report on Student Financial Support, which is available at http://ucop.edu/student-affairs/data-and-reporting. Dashboards on access and affordability are at http://data.universityofcalifornia.edu.

In response to state budget cuts, UC resident tuition and fees have risen to levels that now exceed the national average for AAU public institutions. Total costs have risen at all institutions (public and private).

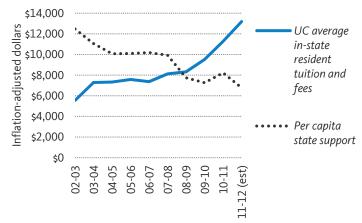
3.1 Total cost of attendance Universitywide and comparison institutions 2003–04 to 2011–12



Source: IPEDS1

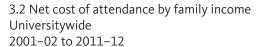
The total cost of attending college includes tuition and fees, as well as living expenses, books and supplies, transportation, health insurance, and personal expenses. The total cost of attendance is higher at UC than at AAU public comparison institutions partly because of the relatively high cost of living in California.

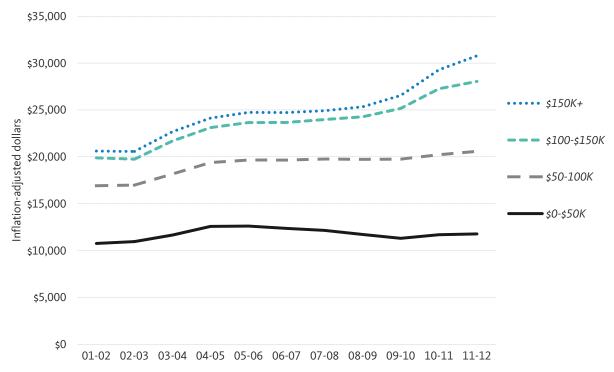
UC tuition and fees have risen as state support has declined, but increases have not been sufficient to offset the losses completely. In 2011–12, the University's average total cost of attendance for California resident undergraduates living on campus was \$31,255. Tuition and fees comprised 42 percent of this amount.



<sup>&</sup>lt;sup>1</sup> A list of the 28 non-UC AAU public and 26 AAU private institutions in the comparison groups can be found in the data glossary.

The net cost of attendance for students from families earning less than \$100,000 annually has remained fairly steady since 2004–05, but has increased for other families.





Source: UC Corporate Student System. Income ranges are approximate. Independent students are excluded. Net cost is the full cost of attendance less any grants, scholarships and fee exemptions. Income is based on amounts reported in either the Free Application for Federal Student Aid (FAFSA) or the UC Application for Undergraduate Admission, or if missing, is imputed based on demographic profiles.

A general measure of the University's affordability is its average net cost of attendance. This represents the actual cost of attending the University for undergraduates after taking into account scholarships and grants.

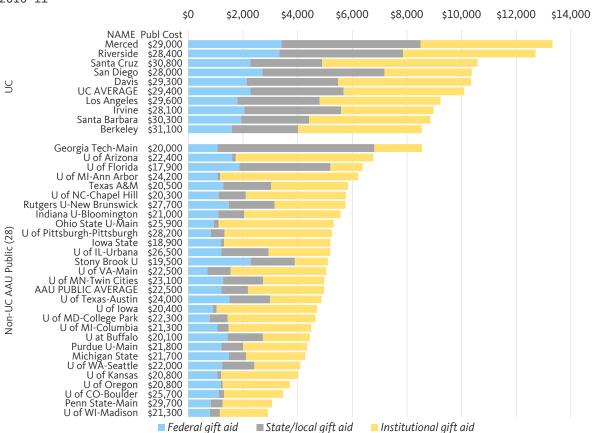
Scholarships and grants reduce the net cost of attending UC for students at all income levels, but have the greatest impact on students from low- and middle-income families.

The availability of scholarships and grants has mitigated the impact of cost increases on students from families earning below \$100,000.

Between 2001–02 and 2011–12, the average increase in inflation-adjusted net cost for **all** UC undergraduate students, including independent students, was approximately \$4,000. Inflation-adjusted increases ranged from \$1,000 for low-income students to about \$10,000 for high-income students.

### More gift aid is available to UC students than to students at other AAU public institutions.

3.3 Average per capita gift aid for new freshmen UC campuses and public AAU institutions 2010–11



"Publ cost" is the published cost for in-state students living on campus. Source: IPEDS1

One remarkable aspect of UC's financial aid awards is the high level of gift aid compared to other AAU public institutions. While federal Pell Grants are available to low-income students at any institution, UC students currently benefit from the combination of a strong state financial aid program (Cal Grants) and a strong UC aid program. AAU institutions in other states generally have either a strong state aid program or a strong institutional aid program, but not both.

Institutional gift aid is the largest source of grant and scholarship support for UC undergraduates. The primary source of institutional gift aid is the nearly one-third of all tuition and fee revenues that UC sets aside for need-based financial aid.

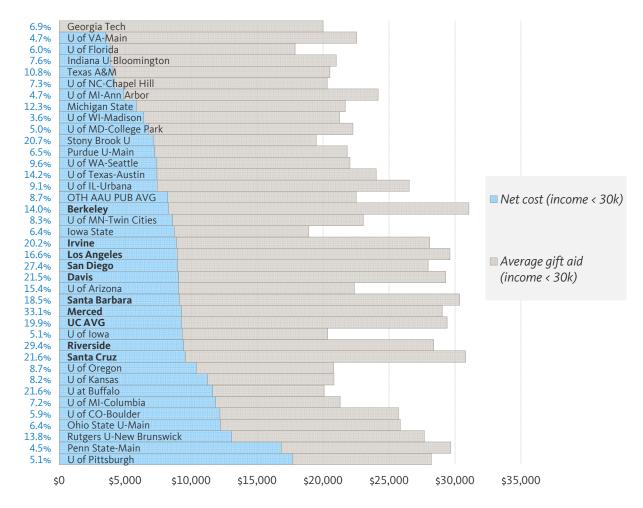
Although gift aid received by UC students is based on need, consistent with the University's access goal, one in six UC undergraduates receives a merit-based scholarship. In 2011-12, the average merit-based scholarship was about \$4,600, funded from a mix of federal, state, external private and institutional sources.

<sup>&</sup>lt;sup>1</sup>Figures include gift aid given to all full-time first-time students, while the data in Indicator 3.4 shows gift aid all to very-low-income students. Pell Grants are the main source of federal gift aid. For California students, Cal Grants are the main source of state gift aid.

For very-low-income students, the comparatively high cost of attendance at UC campuses is offset by the higher-than-average amounts of gift aid they receive. This enables UC to attract, support and graduate a sizable proportion of high-achieving students from low-income families.

3.4 Average gift aid, cost of attendance and net cost for very-low-income students UC campuses and public AAU institutions 2010–11

Percentage shown is the percentage of full-time, first-time freshmen whose families have incomes below \$30,000.



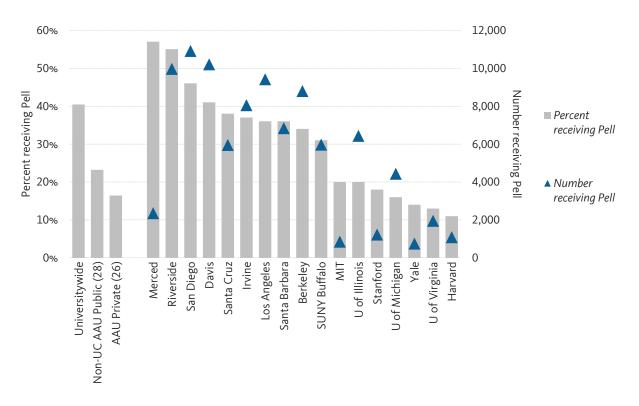
Source: IPEDS1

Despite a greater proportion of very-low-income students and higher total costs at UC, the net cost of UC for these students is comparable to that of other AAU public institutions.

<sup>&</sup>lt;sup>1</sup> Very-low-income students shown here have family income below \$30,000. Published Cost of Attendance = Tuition + Published Living Expenses. Living expenses vary depending on a student's housing choices and on the housing market around a campus. This leads to the slightly different averages shown in this chart for the different UC campuses.

## UC enrolls a higher percentage of Pell Grant recipients than any other top research university in the country.

3.5.1 Undergraduate Pell Grant recipients UC and comparison institutions 2010–11



Source: IPEDS<sup>1</sup>

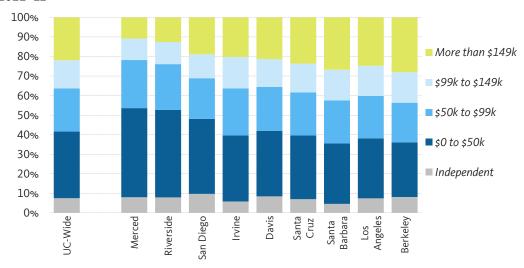
The percentage of undergraduate students with Pell Grants provides a useful means to compare different institutions in terms of their accessibility for low-income students. It is also a useful indicator for comparing the socio-economic diversity of an institution's undergraduate student population.

The data shown above represent the most recent year that data on comparison institutions are available. The proportion of UC undergraduates receiving Pell Grants went up from 31 percent in 2008–09 to 42 percent in 2010–11. This is primarily a result of increased federal spending, which made more students eligible for Pell Grants, as well as the economic downturn, which caused broad declines in family income.

<sup>&</sup>lt;sup>1</sup> Percentage reported is that of students who received Pell Grants at any time during the 2010–11 year as a percentage of all undergraduates. Note that Pell Grant eligibility criteria change annually, both because of the federal appropriations process and other formula changes. Thus, trend analysis of Pell recipients would not be a valid measure of changes in low-income students but rather would reflect the changes in eligibility criteria. A list of the institutions in the AAU comparison groups can be found in the data glossary.

## A large proportion of UC students come from low-income families. The proportion has grown over the past decade.

3.5.2 Undergraduate income distribution Universitywide and UC campuses 2011–12



Source: UC Corporate Student System<sup>1</sup>

While all UC campuses enroll a significant proportion of low-income students, the proportion varies across the campuses. For more information on low-income students, see indicator 2.6.2.

3.5.3 Number and proportion of undergraduate students by family income Universitywide 2001-02, 2006-07 and 2011-12

Family income				2001-02	2006-07	2011-12
(inflation-adjusted)	2001-02	2006-07	2011-12	distribution	distribution	distribution
Unknown	2,496	569	518	2%	0%	0%
Independent	11,484	10,918	13,110	8%	7%	7%
\$0 to \$50k	36,741	44,922	59,728	25%	28%	34%
\$50k to \$100k	33,602	37,077	38,651	23%	23%	22%
\$100k to \$150k	31,050	31,680	25,221	21%	20%	14%
More than \$150k	30,666	34,262	38,466	21%	21%	22%

Source: UC Corporate Student System

All income bands grew in enrollment during this period with the exception of the \$100k to \$150K level. This is likely reflective of state trends towards a widening income gap in California (resulting in proportionally fewer middle-income families).<sup>2</sup> The

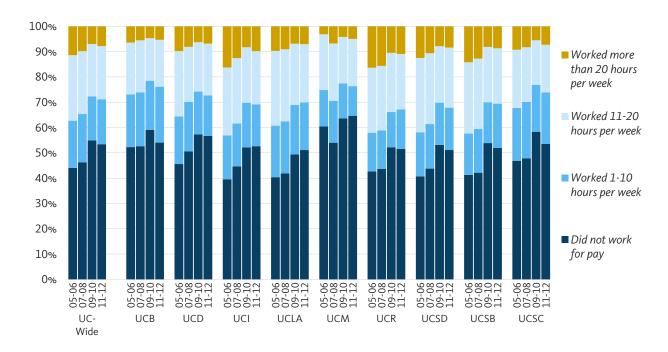
continued growth in the number of students from low-income families is supported through the combination of federal, state and institutional aid that is available to UC students.

<sup>&</sup>lt;sup>1</sup> Students with unknown incomes are not shown.

<sup>&</sup>lt;sup>2</sup> www.census.gov/prod/2011pubs/acs-16.pdf

# The proportion of students working for pay decreased from 2006 to 2012. The proportion working more than 20 hours a week decreased from 2006 to 2012 on all but one campus.

3.6 Undergraduate hours of work Universitywide and UC campuses 2005–06, 2007–08, 2009–10 and 2011–12



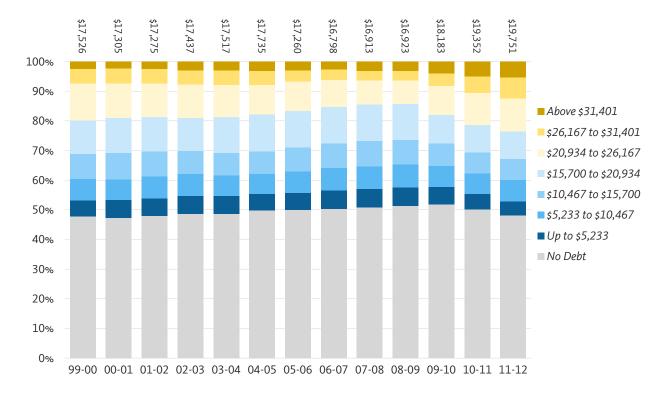
Source: UCUES

UC expects all students to help finance their education through a combination of work and borrowing. With respect to student work, the University's goal is for students to work at a reasonable level that does not impede progress toward completion of the baccalaureate degree. Studies show that work in excess of 20 hours a week may affect academic performance or progress to degree.

## The average inflation-adjusted debt at graduation of student borrowers increased 12.7 percent (from \$17,526 to \$19,751) over the past 12 years.

3.7.1 Student loan debt burden of graduating seniors, inflation-adjusted Universitywide

1999-2000 to 2011–12 (average debt of those with debt shown above each year)



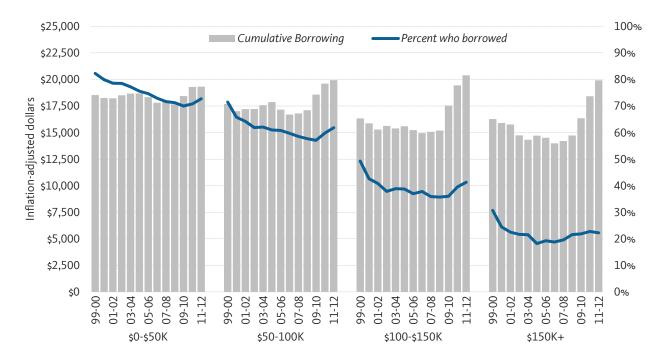
Source: UC Corporate Student System<sup>1</sup>

Roughly one-half of UC undergraduates graduate with no debt at all. For those who do borrow, the average student loan debt at graduation in 2011–12 was about \$19,800. The monthly repayment for this amount is about \$220 for 10 years at the 6 percent average interest rate that typically applies to student loans. Lower payments are available with longer repayment periods.

<sup>&</sup>lt;sup>1</sup> Figures adjusted for inflation in 2011 dollars. Figures exclude degree recipients who entered as transfer students. Borrowing shown here represents loans coordinated through the campus financial aid offices; some families also borrow from outside sources, which is not captured in this indicator.

## Despite recent increases, the proportion of students graduating with loan debt was still lower in 2011-12 than it was a decade ago.

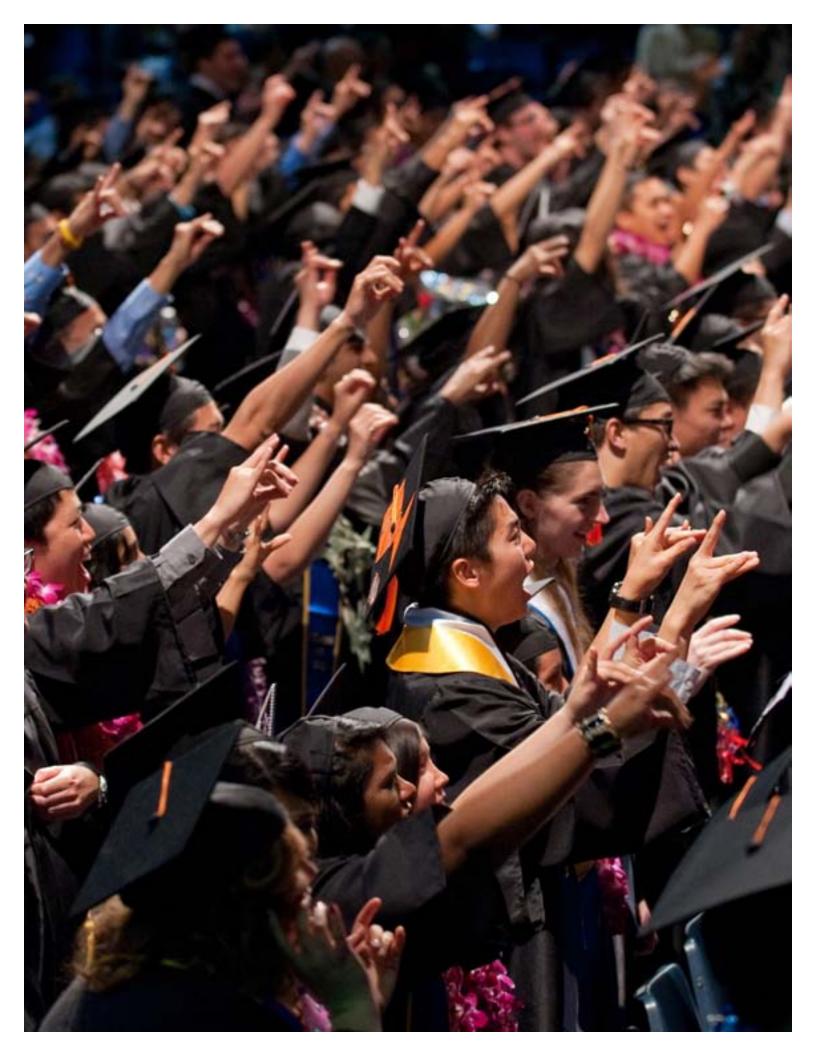
3.7.2 Student loan debt burden of graduating seniors by parent income Universitywide 1999-2000 to 2011–12



Source: UC Corporate Student System<sup>1</sup>

The proportion of students who borrow decreased steadily from 1999–00 through 2009–10 for students in nearly every income category. More recently, however, student borrowing has increased, both in percentage and in cumulative amount. The recent uptick in borrowing may reflect a combination of higher costs and a reduction in other borrowing alternatives (e.g., home equity loans).

<sup>&</sup>lt;sup>1</sup> Figures adjusted for inflation in 2011 dollars. Figures exclude degree recipients who entered as transfer students. Borrowing shown here represents loans coordinated through the campus financial aid offices; some families also borrow from outside sources, which is not captured in this indicator. Independent students and students with unknown parent incomes are not shown.



### **Chapter 4. Undergraduate Student Success**

#### Goals

The University of California seeks to enable all students to complete their undergraduate degrees in a timely fashion and to ensure that their education prepares them to be the next generation of leaders for California, the nation and the world.

#### Student outcomes

This chapter looks at the number of undergraduate degrees UC has awarded over the past 10 years, and at the percentage of undergraduates who complete their degrees on time — in four, five or six years. By these measures, UC's undergraduates are highly successful. Four-fifths of entering freshmen graduate from a UC campus within six years. Four years later, more than a quarter have enrolled in graduate or professional programs. As chapter 9 shows, a substantial proportion feel that their UC education has markedly enhanced their critical thinking and writing skills, as well as their knowledge of a specific field of study.

UC's four-year graduation rates for freshmen have risen significantly over the past ten years — from 37 percent for the 1992 entering cohort to 60 percent for the 2006 cohort. Six-year rates increased from 76 percent to 84 percent over the same period.

One-third of the undergraduate degrees UC awarded in 2010–11 were in STEM disciplines (science, technology, engineering and math). STEM degrees not only help address state and national workforce needs, but they are also are associated with higher individual rates of employment and earnings.

Overall, the number of undergraduate degrees awarded by UC over the past 10 years has grown by 41 percent, from 33,325 to 46,935 degrees. Increases in the size of the entering freshman class, and improving graduation rates have contributed to these positive developments.

#### Looking forward

Despite UC's record of success, there are issues of concern. As the July 2011 Accountability Report showed, graduation rates at UC tend to be lower for socioeconomically disadvantaged students (especially African-American and Chicano/Latino males) and for students from first-generation families.

Additionally, as Chapter 3 shows, the net cost of attendance has risen, especially for students from middle- and upper-income families, leading to a slight increase in student debt levels. However, levels of student satisfaction remain high; over four-fifths of graduating seniors report they are at least somewhat satisfied with their UC education. (Indicator 4.5)

UC continues to improve the information it has about its graduates. The University, for example, is currently collecting information about what its graduates earn by gender, major, degree and other related variables, and will present those data in future accountability reports.

#### For more information

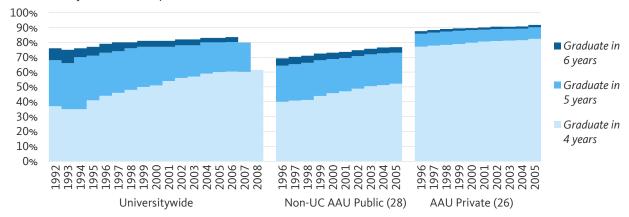
Dashboards on student success are available at http://data.universityofcalifornia.edu/student/stusuccess.html.

#### **4.1 FRESHMAN GRADUATION RATES**

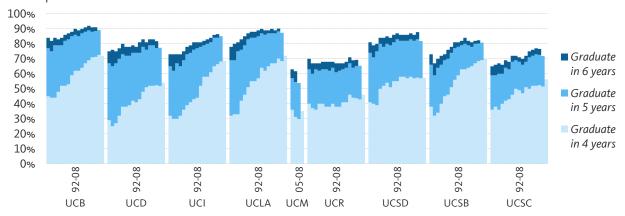
Graduation rates for students who enter as freshmen have improved substantially since 1995. They are better than the average graduation rates of students at AAU public institutions and, at some campuses, approach the rates of AAU private institutions.

#### 4.1 Freshman graduation rates Cohorts entering fall 1992 to 2008

#### UC Universitywide and comparison institutions



#### **UC** campuses



Source: UC Corporate Student System and IPEDS<sup>1</sup>

Systemwide, four-year graduation rates increased from 37 percent for the 1992 cohort to 60 percent for the 2006 cohort, while six-year graduation rates increased from 76 percent to 84 percent during this same time period. An interactive dashboard of graduation rates is available at

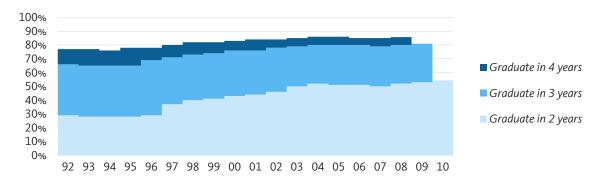
http://data.universityofcalifornia.edu/student/stu-success.html.

The steady improvement in graduation rates is likely due to many factors, including campus programs to encourage four-year completion, improvements in the academic preparation levels of incoming students and the rising costs of a UC education, which motivate students to complete their educations more quickly.

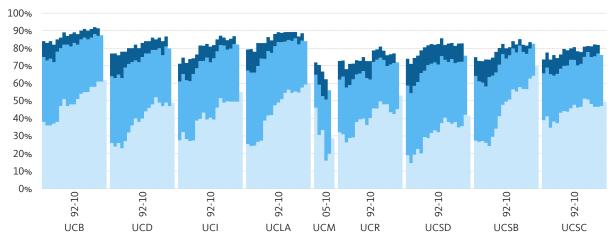
<sup>&</sup>lt;sup>1</sup> Comparison IPEDS data are available for more limited years. The AAU comparison institutions are in the data glossary. Graduation rates are weighted by total cohort size. Institutions with missing data are excluded for that year. Summer term is included in "prior year" rates for freshmen receiving degrees from 1995 onward, and for transfers receiving degrees from 1997 onward. Prior to those years, summer term graduates are counted in the "next year." Freshmen are those students who entered UC directly from high school and who had not matriculated at another postsecondary institution prior to enrollment.

## Graduation rates for students who enter as transfers grew steadily for classes entering between 1994 and 2004, but have leveled off since then.

4.2 Transfer graduation rates Universitywide Cohorts entering fall 1992 to 2010



#### **UC Campuses**



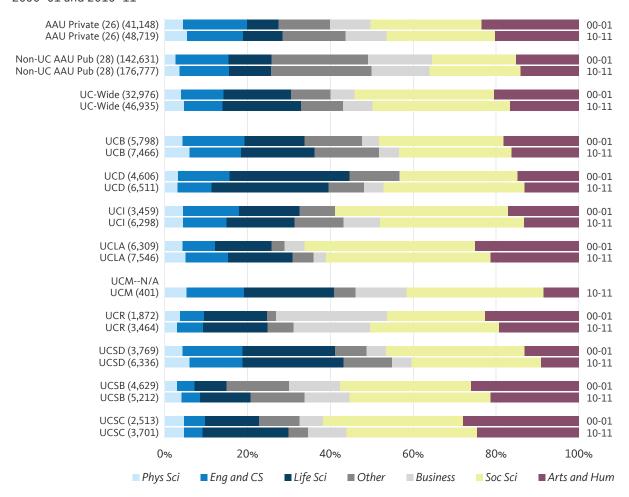
Source: UC Corporate Student System<sup>1</sup>

Transfer students entering UC since 2004 have a 50 to 53 percent two-year graduation rate and an 85 to 86 percent four-year graduation rate.

<sup>&</sup>lt;sup>1</sup> Comparison data on graduation rates for transfer students are not available. Summer term is included in "prior year" rates for freshmen receiving degrees from 1995 onward, and for transfers receiving degrees from 1997 onward.

## Over the past ten years, the number of undergraduate degrees awarded annually by UC has increased by 41 percent.

4.3 Undergraduate degrees awarded by discipline UC and comparison institutions 2000–01 and 2010–11

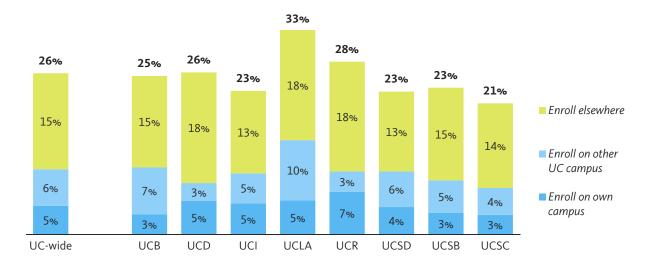


Source: IPEDS

A third of all undergraduate degrees UC awarded in 2010–11 were in STEM fields compared to about a quarter at AAU public and private comparison institutions. STEM degrees, which are awarded in science, technology, engineering and math fields, are important for meeting state and national workforce needs.

## An estimated 26 percent of UC students who graduated in 2004–05 with a bachelor's degree enrolled in another higher education program within four years.

4.4 Proportion of UC baccalaureate recipients who enroll in another institution within four years Universitywide and UC campuses
Graduating class of 2004–05



Source: National Student Clearinghouse<sup>1</sup>

Overall, an estimated 11 percent of 2004–05 graduates enrolled in a UC graduate academic or professional degree program. The balance (15 percent) enrolled at another institution.

Since not all institutions supply data on enrollment, the numbers presented here likely underestimate the proportion of UC students that go on to further education.<sup>2</sup>

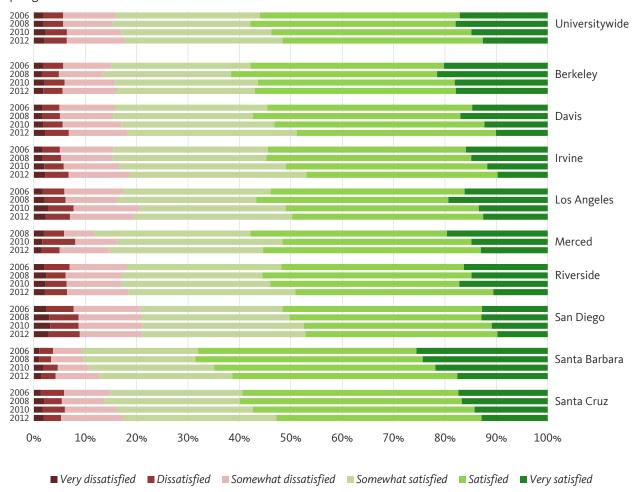
<sup>&</sup>lt;sup>1</sup> Percentages represent the proportion of UC graduates who were enrolled at a four-year college or university for at least two terms on a half-time basis or more after earning their baccalaureate degrees. Presumably, these are students who have gone on to seek postgraduate degrees.

<sup>&</sup>lt;sup>2</sup> There are other reasons why the National Clearinghouse data are likely an underestimate. First, students can block their information going to the Clearinghouse by using FERPA privacy protections. Second, the matching of UC records with Clearinghouse records is not necessarily a perfect process; when employing this matching algorithm UC follows a conservative rule that may not accept matches that are in fact valid.

#### 4.5 STUDENT SATISFACTION

Survey data suggest that graduating seniors' expressing satisfaction with their campus is strong, has been fairly steady over time and is largely consistent across campuses. However, the proportion that are very satisfied is falling and is an area of concern.

4.5 Student satisfaction, graduating seniors Universitywide and UC campuses Spring 2006 to 2012

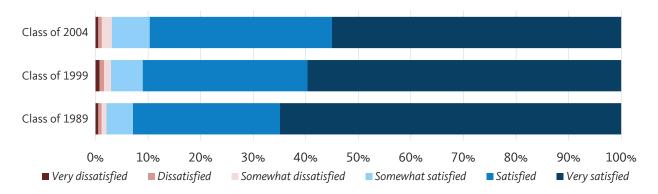


Source: UCUES1

<sup>&</sup>lt;sup>1</sup> Merced's 2006 data are not displayed because the campus had very few seniors that year.

## UC students who graduated in 1989, 1999 and 2004 report higher levels of satisfaction with their UC education than UC seniors surveyed in 2010.

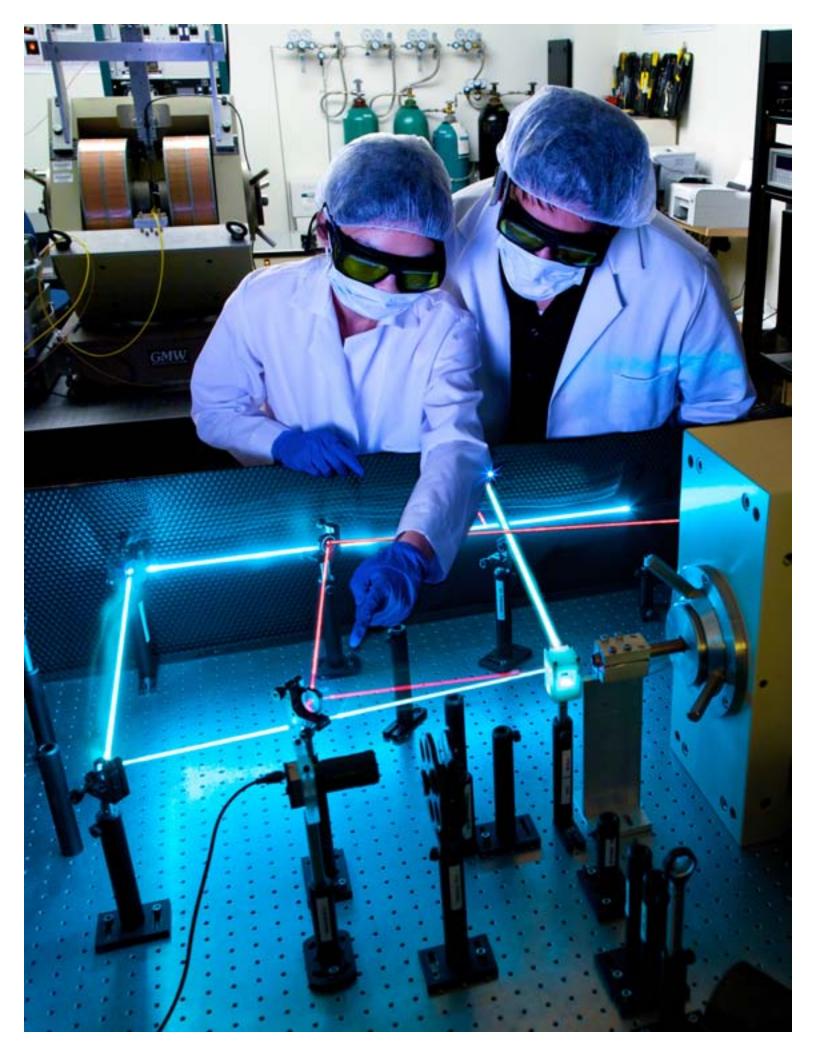
4.6 Long-term alumni academic satisfaction Universitywide 2010



Source: UC Alumni Survey 2010

In 2010, 83 percent of graduating seniors reported they were at least somewhat satisfied with their UC education compared to 98 percent of alumni from the graduating class of 1989.

The reasons for the differences in satisfaction across the different graduating classes are not entirely clear. The chart above suggests satisfaction may grow with time away from UC, upon reflection and as students settle into careers. Or it may be that students from earlier cohorts are more satisfied with their UC education than students today.



## **Chapter 5. Graduate Academic and Professional Degree Students**

#### Goals

The California Master Plan for Higher Education charges the University of California with the responsibility for preparing graduate academic and professional degree students to help meet California's and the nation's workforce needs. Graduate academic students are in master's and doctor's degree programs in the physical sciences, social sciences, arts, humanities and engineering. Professional degree students are in fields such as law, medicine, business, architecture, public policy and the arts. Included among UC's professional school offerings is the nation's largest health sciences instructional program.

#### Graduate education

Unlike undergraduate enrollment planning, which is based on California's *Master Plan*, graduate and professional enrollment planning is based on assessments of state and national needs, faculty expertise, program quality and available financial aid. During the last 50 years, as the University accommodated California's burgeoning number of high school graduates, undergraduate enrollment growth far outpaced that of graduates. As a result, the proportion of graduate and professional degree students has decreased from about 30 percent in the 1960s to about 20 percent today. By comparison, currently about 30 percent of public AAU and 50 percent of private AAU enrollments are graduate students.

Securing adequate and competitive financial support is a key factor for promoting graduate enrollment growth. At the undergraduate level, the goal of the University's financial aid program is to ensure that the University remains financially accessible to students at all income levels. At the graduate level, UC policy calls for the University to attract a diverse pool of highly qualified students

by providing a competitive level of support relative to other institutions. Increases in tuition and fees have challenged the University's ability to offer competitive student support packages to its graduate students and have placed additional strain on the dwindling fund sources that cover those costs.

Historically, UC's professional schools offered a top-quality education at a reasonable cost. In 1994, in response to state budget cuts, the University implemented professional degree supplemental tuition charges to build the resources necessary for professional schools to recruit and retain excellent faculty, provide an outstanding curriculum and attract high-caliber students. These charges are in addition to the base tuition paid by all students. Since then, both the number of professional schools that charge professional degree supplemental tuition and the amount charged have increased steadily, leading to a corresponding rise in student debt. In 2012-13, 57 professional schools charged supplemental tuition ranging from \$4,000 to \$38,500.

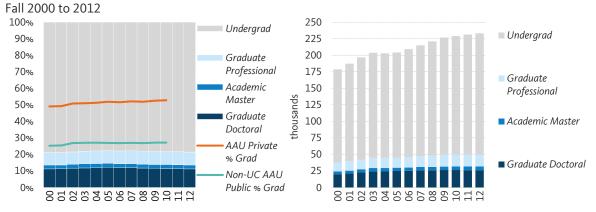
Affordability, student debt and success measures are presented in this chapter for graduate academic and professional degree students. Diversity measures are in Chapter 8. Chapter 10 presents information on research, relevant given the significant role that graduate students play in research. Information about UC's health sciences program is in Chapter 11. Chapter 14 presents rankings of graduate and professional degree programs.

#### For more information

For additional information, see the UCOP Office of Research and Graduate Studies website at www.ucop.edu/graduate-studies/.

## Graduate academic and professional degree enrollment at UC have been growing at a faster rate than at other AAU public and private universities.

5.1.1 Graduate and professional enrollment compared to undergraduate enrollment UC and comparison institutions



Source: IPEDS and UC Corporate Student System<sup>1</sup>

From fall 2000 to fall 2010, graduate enrollment at UC grew significantly and at a faster rate than the AAU comparison universities. However, this growth was matched with undergraduate growth, leaving the relative proportion of graduate students at UC about the same (between 21 and 22 percent).

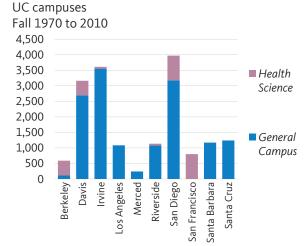
Graduate doctoral students are over 99 percent academic doctoral students, with the remainder professional doctoral students primarily in education. Academic master students include a small number of post-baccalaureate teaching credential students, who are characterized as undergraduate elsewhere in this report but treated as graduate for IPEDS comparison purposes. The graduate professional category includes professional master's (M.B.A., M.Ed., etc.) and professional practice (J.D., M.D., etc.). Growth at UC has been fairly evenly distributed across graduate master's, graduate doctoral and graduate professional programs.

	Graduate	Undergrad
	growth	growth
	2000 to 2010	2000 to 2010
UC	32%	27%
Non-UC AAU publics	19%	7%
AAU privates	26%	9%

<sup>&</sup>lt;sup>1</sup> A list of the institutions in the AAU comparison groups can be found in the data glossary. Enrollment data from other AAU institutions do not distinguish the types of graduate students, and data is only available to fall 2010.

## Graduate student enrollment growth has varied over time and by campus. These differences reflect the diversity and size of academic programs as campuses mature over time.

5.1.2 Graduate and professional degree student enrollment growth



The increase in graduate students at UC over the past 40 years has not been evenly distributed across the campuses, as chart 5.1.2 shows. Davis, Irvine and San Diego have increased the most, while the oldest campuses (Berkeley, Los Angeles and San Francisco) have not grown as much.

These differences in relative growth reflect the diversity and size of academic programs as campuses mature over time.

Source: UC Corporate Student System and UC Statistical Summary of Students and Staff

Academic doctoral students are critical to the University's operations because they make a direct contribution to its teaching and research functions. In 2011–12, 23,710 graduate students were employed as research assistants, teaching assistants, readers or tutors, and about equally divided between research and teaching assignments.

In fall 2010, the proportion of academic doctoral students varied across the general campuses from 5 percent at Merced to 16 percent at Berkeley. At San Francisco, an exclusively graduate health science campus, academic doctoral students made up 26 percent of fall 2010 enrollments.

Percent and number of fall 2010 students who are academic doctoral

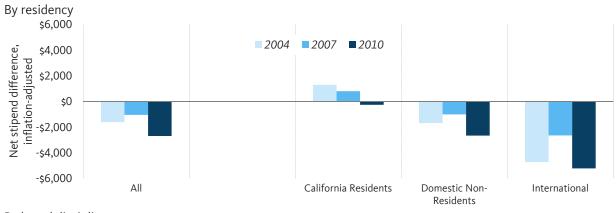
who are academic doctoral					
Berkeley	16%	5,910			
Los Angeles	13%	4,808			
Santa Barbara	11%	2,395			
Davis	11%	3,372			
San Diego	10%	3,058			
Irvine	10%	2,715			
Riverside	9%	1,841			
Santa Cruz	7%	1,191			
Merced	5%	200			
Universitywide	11%	26,282			

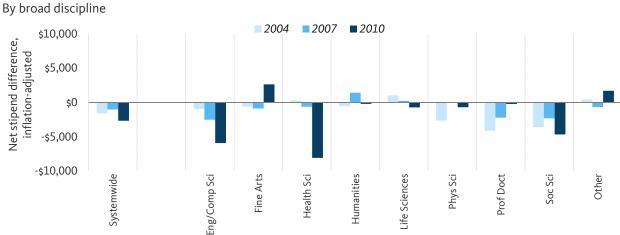
Source: UC Corporate Student System

## According to survey data, UC's financial aid awards are comparable to competitor institutions for California residents, while they are somewhat lower for nonresidents.

5.2.1 Average net stipend offered to graduate academic doctoral students admitted to UC compared to their first-choice non-UC schools

Universitywide 2004, 2007 and 2010





Source: UC Graduate Student Support Survey<sup>1</sup>

Doctoral students are crucial to a university's research enterprise and instructional programs. To attract the most highly qualified applicants, universities offer stipends to help offset tuition and living expenses. Net stipend is the amount of aid that students have for living expenses after tuition and fees are paid. It is calculated by subtracting

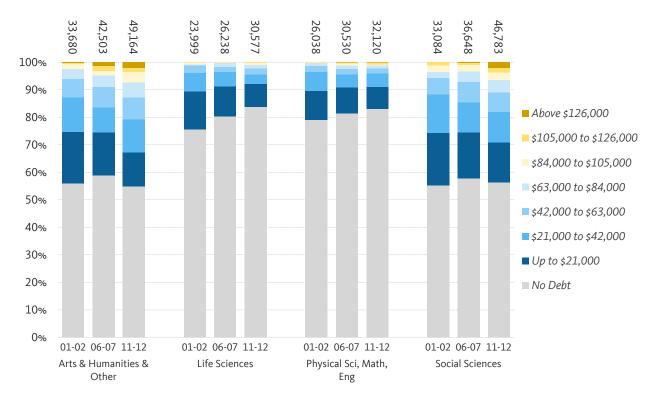
total tuition and fees from a student's support package (which includes gift aid and teaching or research assistantships). It does not include any loans that the student may be offered. The "stipend gap" varies by discipline as shown in the chart above.

<sup>&</sup>lt;sup>1</sup> 2004 and 2007 dollars adjusted to 2010 dollars based on changes in the Consumer Price Index. Figures for 2010 are not directly comparable to those from prior years because they are based on a somewhat different definition of broad discipline that relies on federal Classification of Instructional Programs (CIP) codes. This survey is periodically conducted by UCOP.

# The debt burden of academic doctoral students upon graduation varies by discipline, with doctoral students in the physical and life sciences graduating with less average loan debt than those in the social sciences, arts and humanities.

5.2.2 Academic doctoral students' graduate debt at graduation by discipline, inflation-adjusted Universitywide

Graduating classes of 2002, 2007 and 2012 (average debt for those with debt shown at top of bar)



Source: Corporate Student System<sup>1</sup>

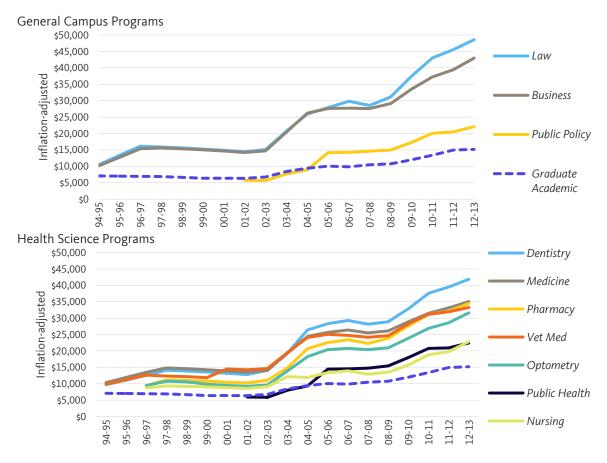
Depending on the field, between 80 percent (physical sciences) and 54 percent (social sciences) of UC doctoral students take on no additional debt during graduate school.

Several factors account for the difference in debt burden between doctoral students in the physical and life sciences and those in other disciplines. Physical and life science students are more likely to be supported by research grants. They also take less time on average to complete their degrees than doctoral students in the social sciences or arts and humanities.

<sup>&</sup>lt;sup>1</sup> Debt categories are inflation-adjusted in 2011 dollars.

# Since the University began charging supplemental fees for students participating in professional degree programs in 1994, both the fees and the number of programs that apply them have grown considerably.

5.3.1 Professional degree average student charges Universitywide 1994–95 to 2012–13



Source: UC Budget Office<sup>1</sup>

Professional degree supplemental tuition charges are approved by the Board of Regents for each program. Considerations in setting these rates include the tuition level of peer programs, availability of financial aid, proposed use of the additional fees and other factors. The full Regent's professional degree supplemental tuition policy can be found at

www.universityofcalifornia.edu/regents/policies/3103.html.

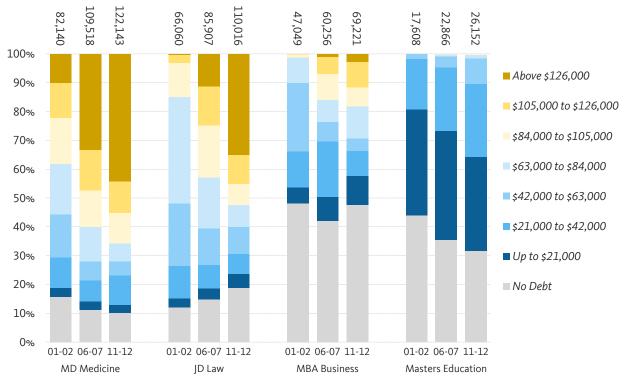
The graphs show average total charges for professional degree programs. They also show the average charge, including health insurance, for a graduate academic student who does not pay professional degree supplemental tuition.

<sup>&</sup>lt;sup>1</sup> Includes mandatory systemwide tuition, health insurance, campus-based fees and professional degree and supplemental tuition charges; excludes nonresident tuition. Not all programs are shown. Averages are simple averages based on campus amounts; the number of students in each program is not taken into account.

Where professional fees have risen, so has the debt level of professional degree students. Graduates with the highest debt levels come from professional schools that charge higher supplemental tuition, but their degrees can lead to careers with higher potential earnings.

5.3.2 Professional degree student debt at graduation by discipline, inflation-adjusted Universitywide

Graduating classes of 2002, 2007 and 2012 (average debt for those with debt shown at top of bar)



Source: UC Corporate Student System<sup>1</sup>

On average, about two-thirds of the aid awarded to professional degree students comes in the form of loans rather than fellowships or grants. By comparison, loans constitute only 8 percent of the aid awarded to graduate academic students. UC considers the greater reliance on loans incurred by professional degree students to be appropriate because their programs are of shorter duration and their incomes after graduation tend to be higher. Rates on loans can vary significantly and may affect their attractiveness to potential borrowers relative to other sources that are not tracked here, such as borrowing from family or home equity loans.

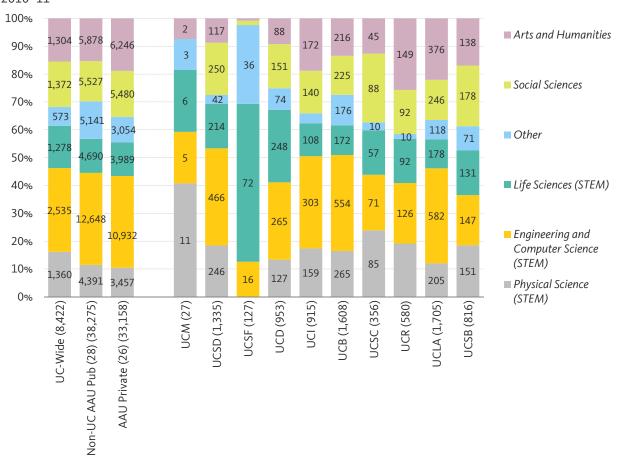
Most professional degree students finance part of their education by borrowing. The increases since 2001–02 in average inflation-adjusted debt levels of graduating professional degree students vary considerably, from \$8,500 in Education to \$40,000 in Medicine. Increases in graduate debt have resulted from a combination of factors, including steady growth in the level of supplemental tuition and greater reliance on federal student loan programs.

<sup>&</sup>lt;sup>1</sup> Average debt is for graduates with debt. Debt categories are inflation-adjusted in 2011 dollars.



# Like other AAU universities, UC awards a high proportion of Science, Technology, Engineering and Math (STEM) degrees, and this proportion has been fairly steady over the past decade.

5.4.1 Graduate academic degrees awarded by discipline UC and comparison institutions 2010–11



Source: IPEDS<sup>1</sup>

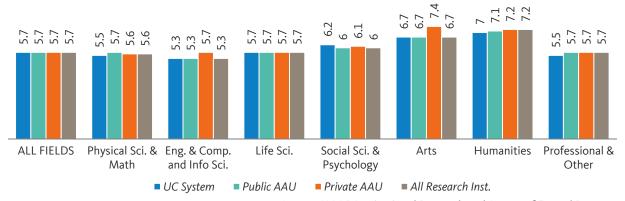
UC graduates have had major impacts on the nation and the world — creating much of California's biotechnology and computer industries, developing research breakthroughs that have led to major medical advances, shaping ideas about our world and culture, creating the economic and social infrastructure of our communities and assuming political leadership in California and the nation.

California's colleges and universities depend on UC Ph.D.s to teach their students. One out of five UC and California State University faculty members has a UC doctoral degree. At least 10 UC Ph.D.s have been awarded Nobel Prizes, recognizing achievements in chemistry, economics and physics that have brought great benefit to humanity.

<sup>&</sup>lt;sup>1</sup> "Other" are interdisciplinary and others.

# UC's overall elapsed time-to-doctorate is the same as or lower than the broad national comparison groups for all disciplines except the social sciences.

5.4.2 Elapsed time-to-doctorate (median years) by broad field Universitywide and comparison institutions 2007–09 exit cohorts



Source: UCOP Institutional Research and Survey of Earned Doctorates

The elapsed time-to-doctorate (ETD) at UC is roughly the same as at other research-intensive universities. There was no change in time-to-doctorate from the 2004–06 and 2007–09 cohorts from the Survey of Earned Doctorates for UC and the comparison institution groups. UC's individual campuses compare favorably to the AAU and the traditional public and private comparison institutions. For the 2007–09 cohorts, most UC campuses had the same ETD measure as the broad comparison institution groups. The 2011 Time-to Doctorate Report is available at www.ucop.edu/institutional-research/\_files/2011-uc-time-doctorate.pdf.

## Elapsed Time-to-Degree, UC-Wide

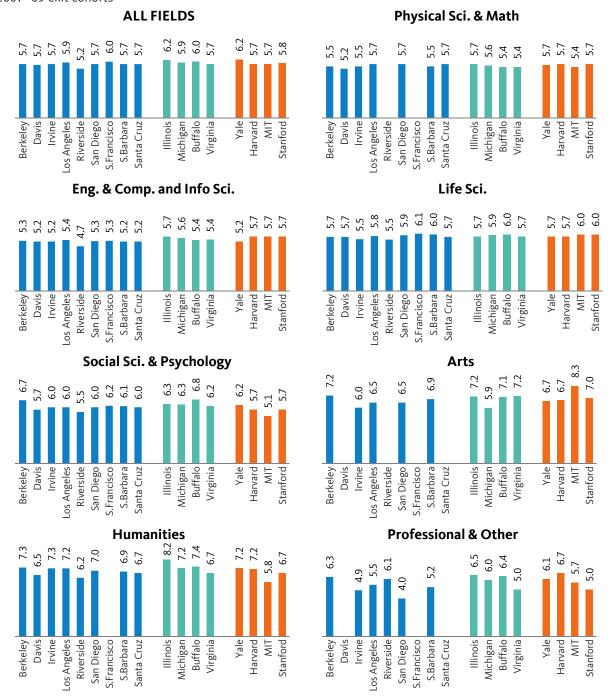
	2000-02	2004–06	2007-09
All fields	6.0	5.8	6.0
Physical Sciences	5.4	5.6	6.0
Eng. & Comp Sci.	5.4	5.2	5.5
Life Sciences	5.8	5.8	6.0
Social Sciences	7.0	6.4	6.3
Humanities	7.4	7.4	7.0
Arts	7.0	6.7	6.7
Prof Fields	5.8	5.8	5.7
Health Sciences	n/a	5.8	5.3

## The 2011 UC Doctoral Completions Report

(http://www.ucop.edu/institutionalresearch/ files/uc-doctoral-completions.pdf) presented information on persistence and completion rates for the 1988-90, 1992-94 and 1996–98 entry cohorts. Overall, persistence rates have been stable; 86 percent of entering doctoral students persisted into the second year and 71 percent into the fourth year. Rates are similar across broad disciplines, except engineering and computer science where lower rates may reflect the job opportunities for individuals holding a master's degree in those fields, and health sciences and professional degree students (e.g., education) where higher rates are likely due to job market incentives. The systemwide ten-year doctoral completion rate for the fall 1996–98 entering cohorts was 60 percent, an increase from the two previous cohorts. Life sciences (69%) and health sciences (72%) have the highest completion rates. Humanities (51%) and arts (54%) showed the lowest rates, owing to the longer normative time in those fields. Nearly all of the broad disciplines experienced an increase in completion rates. The biggest improvements were in engineering/ computer science, followed by social sciences and humanities. Only life sciences and professional fields experienced a decline.

# UC campuses show similar or lower median elapsed time-to-doctorate than the comparison institutions within each of the broad fields of study.

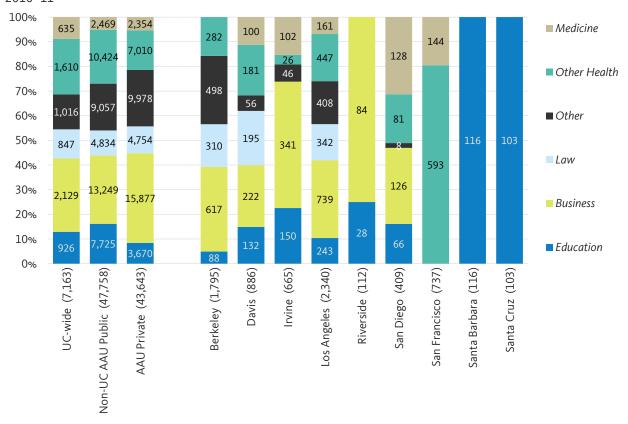
5.4.3 Elapsed time-to-doctorate (median years) by campus and broad field UC campuses and comparison institutions 2007–09 exit cohorts



Source: UCOP Institutional Research and Survey of Earned Doctorates. Excludes UC Merced, which opened in 2005.

# UC awarded 7,163 professional degrees in 2010–11: 31 percent in medicine and other health sciences, 30 percent in business, 13 percent in education and 12 percent in law.

5.5.1 Professional degrees awarded by discipline UC and comparison institutions 2010–11



Source: IPEDS1

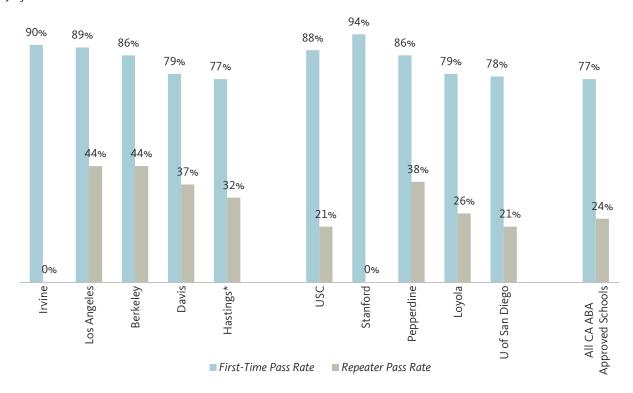
At UC, these proportions have remained fairly steady over time with one exception — business. UC campuses have met the increased demand for graduate business programs by expanding these programs over the past decade.

<sup>&</sup>lt;sup>1</sup> UC Merced has no professional degree students.

## 5.5 OUTCOMES — PROFESSIONAL DEGREE STUDENTS

More than 80 percent of UC law school graduates pass the California Bar Examination on their first attempt. This compares favorably with graduates of other California law schools.

5.5.2 California Bar Examination pass rates UC and other California law schools July 2012



Source: California State Bar Association. ABA is the American Bar Association. \*Hastings Law School in San Francisco is affiliated with the University of California.



# **Chapter 6. Faculty and Other Academic Employees**

The quality of the University of California is founded on its distinguished faculty, the source of innovation and discovery who provide top-quality educational opportunities to students and service to society. Recruiting and retaining world-class faculty is one of the University's highest priorities. No other public institution can claim as distinguished a faculty. The UC faculty includes 56 Nobel Prize laureates, 60 National Medal of Science recipients, 71 MacArthur ("Genius") Grant recipients, 377 members of the American Academy of Arts and Sciences and 245 members of the National Academy of Sciences.

Focusing primarily on demographic indicators, this chapter describes three major trends that are reshaping the structure and composition of UC's faculty: a reduction in the number of ladder-rank faculty due to state budget cuts; a shifting age demographic; and challenges maintaining the competitiveness of faculty salaries. Measures of faculty diversity, teaching workload and research productivity are in Chapters 8, 9 and 10.

UC employed about 16,300 faculty FTE in fall 2012.¹ Of these, over half were ladder- and equivalent-rank faculty — the core faculty, who are members of the Academic Senate, have a complete range of teaching, research and service responsibilities, and have tenure or potential for tenure. In contrast, the non-ladder faculty are not eligible for tenure. While some non-ladder faculty titles carry responsibilities as broad as those of ladder rank faculty, most of the non-ladder series emphasize a specific category of duties, such as teaching, clinical care or research.²

In General Campus departments, ladder and equivalent faculty FTE grew fairly steadily from 1998 to 2009. Since 2009, during a time of state budget cuts to UC, the trend has been downward, even as student enrollments have increased. In

Health Sciences departments over the same time period, ladder and equivalent faculty FTE also increased from 1998 to 2009, but only slightly. Since 2009, the trend has been almost flat. However, as clinical funds and extramural research awards have grown, FTE of Health Sciences faculty in the "In Residence", "Professor of Clinical \_\_" and "Health Sciences Clinical" positions have increased significantly.

With the end of mandatory retirement and the slowing of new faculty hiring, the age distribution of ladder-rank faculty has become more weighted toward older cohorts. In 2012, 40 percent of ladder-rank faculty were over 55, compared to 29 percent in 1998.

Lastly, faculty salaries at UC are still behind those at comparison institutions. UC compares itself against the average of salaries at four public institutions and the average of salaries at four private institutions. Historically, UC and the state have set a goal for UC salaries to be at the midpoint between those two averages, but UC salaries have continued to lag relative to this benchmark over the last 15 years.

# Looking forward

The Office of the President is working with campuses to meet recruitment and retention challenges by tracking faculty recruitment data to identify opportunities to diversify the faculty, sharing best practices in faculty mentoring and professional development, and enhancing effective programs, including family friendly policies and professional development support.

## For more information

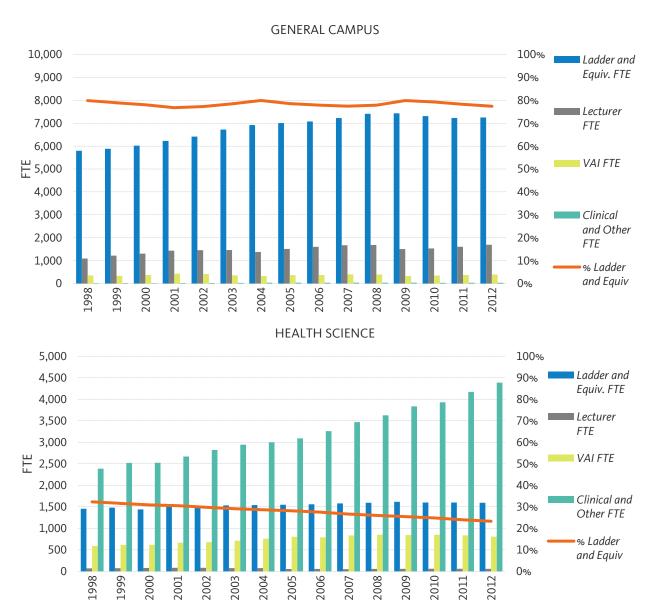
For additional information on faculty and academic policy issues, see the UC Academic Senate and UCOP's Academic Personnel unit websites at www.universityofcalifornia.edu/senate and www.ucop.edu/acadpersonnel.

<sup>&</sup>lt;sup>1</sup> Faculty FTE numbers are lower than headcount numbers because faculty with reduced appointments or split appointments as an academic administrator or researcher are counted as part-time.

<sup>&</sup>lt;sup>2</sup>Faculty in Professor in Residence and Professor of Clinical \_\_\_\_ titles, who account for about 25% of the non-ladder rank faculty, are Senate members, but other non-ladder rank faculty do not participate in shared governance.

# Ladder- and equivalent-rank faculty constituted 55 percent of the full-time-equivalent UC faculty appointments in fall 2012.

6.1.1 Faculty workforce FTE Universitywide Fall 1998 to 2012



"VAI" are "Visitors, adjuncts and instructional assistants (non-students). Source: Corporate Personnel System October snapshots and UC DSS — Earned in October, paid through November <sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Data shown are full-time-equivalent numbers. University Extension instructors are considered academic employees, not faculty. Distinction between General Campus and Health Sciences is based on the type of department associated with the base FTE. Health Sciences includes FTE in all departments of Medicine, Dentistry, Nursing, Optometry, Pharmacy, Public Health and Veterinary Medicine. General campus includes FTE in all other departments.

#### **6.1 ACADEMIC WORKFORCE**

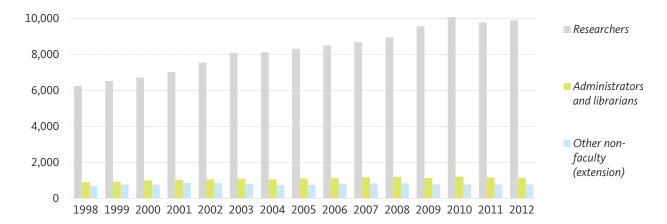
Faculty, shown on the previous page, are academic employees with a range of teaching, research and public service functions. This includes general campus instruction as well as clinical instruction in the health sciences.

Since 2009, the ladder- and equivalent-rank faculty have declined from 9,037 to 8,894 in FTE as campuses reduced hiring to address budget shortfalls.

Lecturer<sup>1</sup> titles tend to be more common on the general campuses (the non-health science side of the UC campuses). Lecturers increased by 50 percent in FTE from 1998 to 2012.

6.1.2 Other academics workforce Universitywide Fall 1998 to 2012 The category "visitors, adjuncts and instructional assistants" includes other types of faculty who do not have tenure or security of employment. Student assistants, such as teaching assistants and the equivalent, are not included.

The "clinical and other faculty" category includes professors in residence, professors of clinical X and health science clinical professors. Although there are exceptions, these faculty members are generally employed at the UC campuses with health science schools. These faculty are mostly supported by non-state dollars, that is, contract, grant and clinical revenues. This category of faculty has grown more quickly than the ladder- and equivalent-rank category.



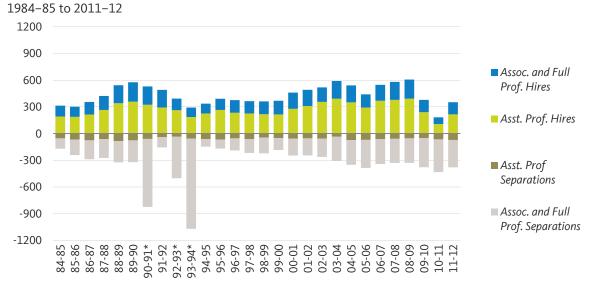
The increasing number of researchers shown on this page reflects continued growth in federal and other external funding available for research, including special augmentations in 2010–11 made through the American Recovery and Reinvestment Act (ARRA).

Source: UC Corporate Personnel System

<sup>&</sup>lt;sup>1</sup> Lecturers are also known as "Unit 18 Lecturers." UC also employs "lecturers with security of employment," of which there are fewer than 200 systemwide. "Lecturers with security of employment" are members of the Academic Senate and they are included in the "ladder- and equivalent-rank faculty" category throughout this report.

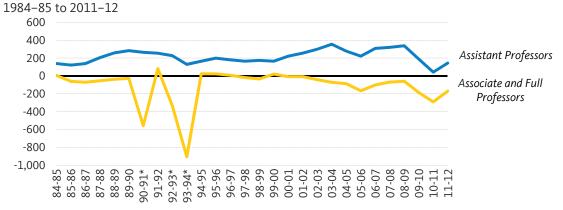
# In the past few years, hiring of new faculty has not kept pace with departures. As a result, the number of ladder-rank faculty has fallen.

6.2.1 New hires and separations of ladder- and equivalent-rank faculty Universitywide



Source: UC Academic Personnel Department<sup>1</sup>

6.2.2 Net change in ladder- and equivalent-rank faculty Universitywide

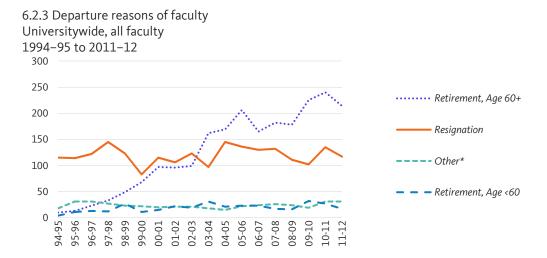


Since 2009–10, faculty hiring has dipped in response to recent fiscal constraints. Since 2003–04, faculty separations have exceeded 300 per year.

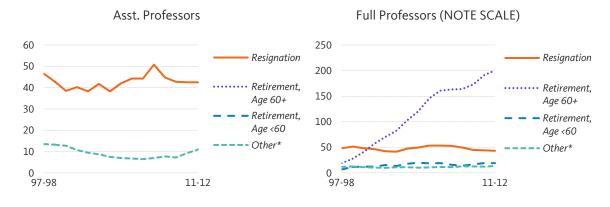
<sup>\*</sup>Years with Voluntary Early Retirement Incentive Program (VERIP).

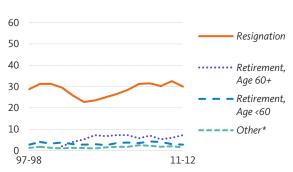
<sup>&</sup>lt;sup>1</sup>Associate and full professors shown here are tenured faculty; Assistant professors are nontenured tenure-track faculty. A very small number of lecturers with security of employment are included in the assistant category.

The number of faculty that have retired at age 60 or above has grown in the past 15 years as the faculty age; departures for other reasons have remained fairly constant.



Departure reasons by rank Moving four year average, 1997–98 to 2011–12





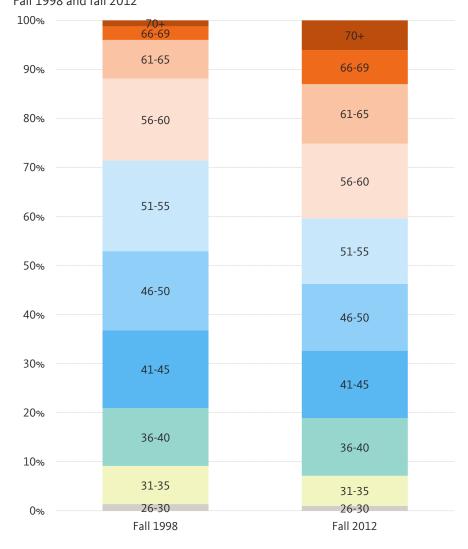
Assoc. Professors

Source: UC Academic Personnel Department<sup>1</sup> \*Other include faculty whose appointments ended or who were discharged.

<sup>&</sup>lt;sup>1</sup> The data shown are the average of the past four years. For example, the figure for 10–11 is the sum of departures from 07–08 to 10–11 divided by four.

# The faculty workforce was significantly older in 2012 than it was in 1998.

6.2.4 Age distribution of ladder- and equivalent-rank faculty Universitywide Fall 1998 and fall 2012

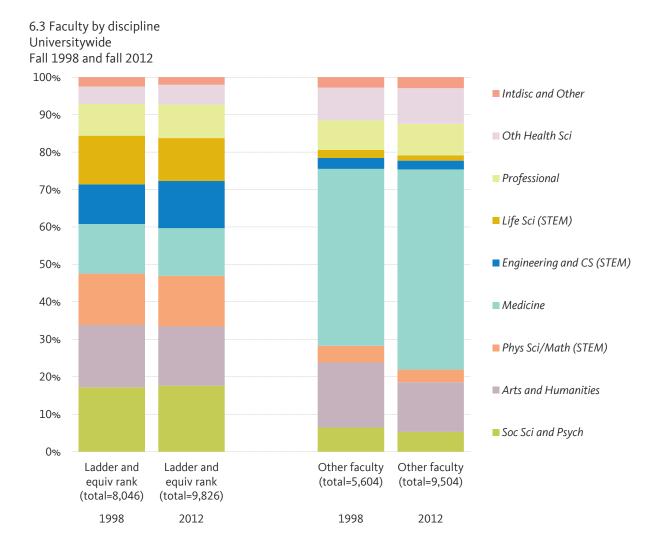


Source: UC Corporate Personnel System<sup>1</sup>

Within the next 5 years, over half of UC's ladder faculty will be eligible to retire.

 $<sup>^{\</sup>scriptscriptstyle 1}$  Excludes emeriti and recall faculty.

More than half of ladder- and equivalent-rank faculty are in STEM (Science, Technology, Engineering and Mathematics) and health science disciplines. Non-ladder- rank faculty are found primarily in the health sciences.

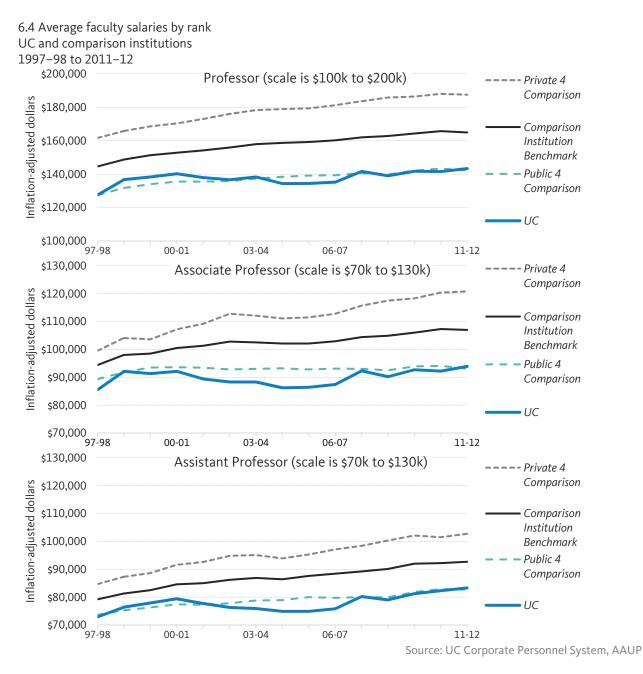


Source: UC Corporate Personnel System<sup>1</sup>

Note: Other faculty include lecturers, visitors, adjuncts, instructional assistants and clinical faculty.

<sup>&</sup>lt;sup>1</sup> Data shown are headcount numbers for all faculty members.

# UC faculty salaries are between 85 and 89 percent of the benchmark that UC has historically used to assess their competitiveness. This may challenge the University's efforts to recruit and retain high-quality faculty.



UC historically has used eight universities — four public and four private — against which to benchmark its faculty salaries. It uses the midpoint between the public average and the private average as its benchmark. The four public institutions are Illinois, Michigan, SUNY Buffalo and Virginia; the four private institutions are Harvard, MIT, Stanford

and Yale. UC's faculty salaries fall significantly below those of the comparison four privates and are just keeping pace with the four comparison publics.

# Postdoctoral scholars ("postdocs") are an integral part of the research function in many fields.

6.5 Postdoctoral scholars by discipline UC Campuses Fall 2012

	UCSD (1,226)	UCB (1,111)	UCSF (1,088)	UCLA (996)	UCD (788)	UCI (374)	UCSB (283)	UCR (152)	UCSC (137)	UCM (39)
Medicine (2,129)	559		864	434	149	120		3		
Life Sci (1,212)	176	403		75	329	67	32	84	38	8
Phys Sci/Mat (1,016)	h 217	248		161	82	106	79	47	63	13
Eng/CS (804)	131	205		121	108	36	147	8	33	15
Oth Health (574)	92	61	172	137	89	23				
Interdisc (197)	12	120	52	6	1	1	2	1		2
Soc Sci (172)	26	34		39	27	19	20	3	3	1
Professional (62)	5	31		18	3		1	4		
Arts & Hum (28)	8	9		5		2	2	2		

Data source: UCOP Decisions Support System, October 2012 Payroll Data. Includes all postdoctoral scholar titles: Employee, Fellow and Paid Direct. Includes those who may hold concurrent titles in other academic or staff categories. Professional Fields include: Architecture & Environmental Design, Business & Management, Communications, Education, Home Economics, Law, Library Science and Social Welfare. Other Health Professions & Clinical Sciences include: Dentistry, Nursing, Optometry, Other Health Professions, Other Health Sciences, Pharmacy, Public Health and Veterinary Medicine.

Most, if not all, postdoctoral scholars are paid from research grants, which explains why they are more prominent in the fields with more external research funding. Additional information on UC's research grants by discipline is presented in the research chapter of this report.

Postdoctoral scholars also contribute to the laboratory sciences by working with graduate students in the laboratory setting. They can also have a more formal relationship supervising graduate students in the laboratory, depending on the arrangements made by the faculty member in charge.



# **Chapter 7. Staff**

## Goals

The University aims to build a workforce that reflects the diversity of the people of California, and to attract and retain the highest-quality employees by offering competitive salaries and benefits.

The first of these goals is outlined in the University's diversity policy, adopted by the Board of Regents in 2007. The second goal was adopted by the Regents in 2005 as part of a ten-year plan to bring compensation and benefits to market levels. These goals are fundamental to the Human Resources' strategic plan in the areas of employee relations, labor relations, talent management, compensation and benefits. Refer to http://ucop.edu/human-resources/\_files/hr-strategic-plan.pdf.

#### Workforce size and structure

Like all universities, UC employs both academic and non-academic (i.e., staff) personnel. Academic personnel, covered in Chapter 6, constitute about one quarter of UC's workforce; staff constitute about three quarters. This chapter describes the size and structure of UC's staff workforce as well as its age distribution and compensation relative to market levels. Information about staff diversity is in the Diversity chapter.

Reflecting growth in both the size and complexity of the University, the number of UC staff has grown over the past ten years. As of fall 2012, UC employed 133,000 staff (or 98,000 FTE) across a wide range of occupational categories.

Funding sources and the structure and composition of the staff workforce have also changed significantly over the past decade. Hospital and health science funds, for example, contribute an increasingly large proportion of staff salaries, while general funds, which consist primarily of funds from the state of California and student fees and tuition, constitute a shrinking proportion. Indeed, growth in staff personnel has been driven primarily by expansion in teaching hospitals, with additional staff growth due to increases in research activity

and auxiliary enterprises, such as residence halls and food service. Consistent with an increase in UC's complexity and the dramatic proliferation of technology, the proportion of highly skilled professional staff has also increased — a shift that aligns with national trends.

## Looking forward

Recognizing that the quality of academic, management and staff personnel is essential for maintaining the excellence of the University, one of the University's highest concerns has been to achieve and maintain market-competitive total compensation, which includes salaries plus benefits, for its employees. Although the University was able to fund staff salary increases in fiscal years 2005–06 to 2007–08 and 2011, implementation of the Regents' broader plan to achieve market-comparable pay for staff has been delayed due to the ongoing state fiscal crisis.

The lack of general salary increases has created challenges in terms of attracting and retaining staff at UC. These challenges are likely to increase, particularly as the economy recovers, and other institutions as well as non higher education employers are in a position to recruit away UC's top performers. The staff turnover rate (which, at 8.9) percent in 2011-12, was almost at its lowest level in a decade) is also expected to increase as the economic recession ends and employment opportunities in California improve. Additionally, over one-third of UC staff are age 50 or older and will be reaching retirement age within the coming decade. This too will add to the talent management and staff renewal challenges facing the University and its multi-generational workforce.

## For more information

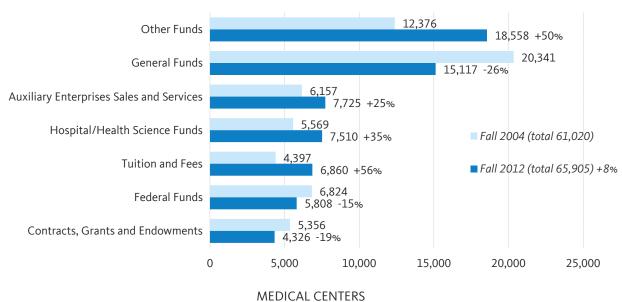
Statistical Summary of Students and Staff:
www.ucop.edu/ucophome/uwnews/stat/
Staff Workforce Profile:
http://atyourservice.ucop.edu/forms\_pubs/
alphabetical/vz.html
Annual Accountability Sub-Report on Diversity:
http://regents.universityofcalifornia.edu/regmeet/jan
13/e1.pdf

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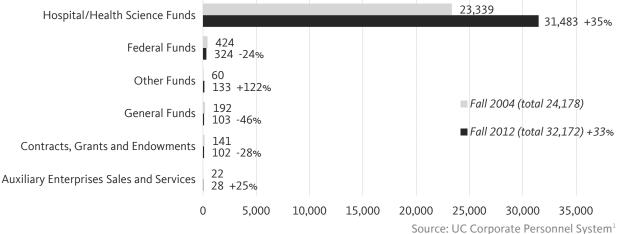
# Since 2004, the number of staff supported by general funds has fallen as state funding for the University has been withdrawn. At the same time, staff funded by hospital and health science sources has risen.

7.1.1 Staff FTE (full-time-equivalent) workforce by fund source General Campus and Medical Centers Fall 2004 and 2012

## GENERAL CAMPUS (includes ANR, UCOP)



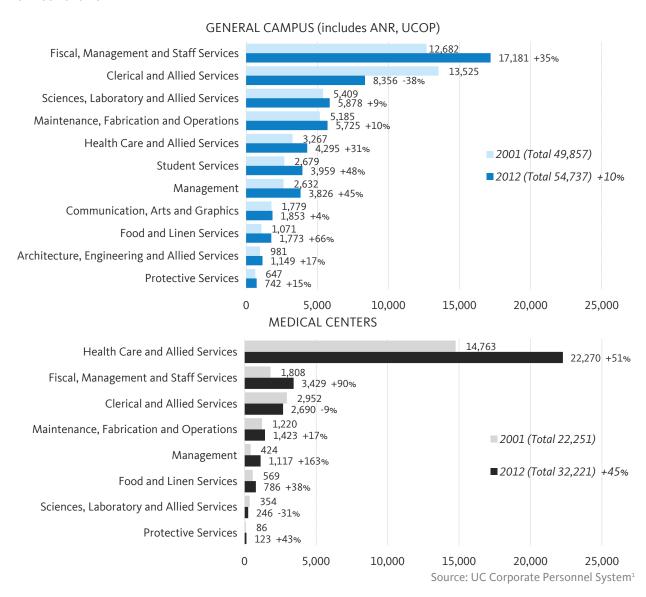




<sup>&</sup>lt;sup>1</sup> FTE numbers include student employees. Individual staff members may be split-funded on different sources. These data reflect the funding for staff base pay FTE (with 100% FTE corresponding to a regular 40-hour workweek). The UC Corporate Personnel System excludes staff members at Lawrence Berkeley National Laboratory, Hastings School of Law and Associated Students UCLA; these locations have stand-alone personnel systems. "Other Funds" are restricted gifts, endowment funds income and other educational activity. Other educational activity refers to funds generated and paid from activities related to dental clinics, neuropsychiatric hospitals and medical/dental compensation plans.

Over the past eleven years at UC, changing technology has led to a need for higher-level skills in such occupations as fiscal, management and staff services and has reduced the number of clerical jobs. This reflects the changing nature of work at the University and in the economy in general.

7.1.2 Career staff headcount by occupation group Universitywide Fall 2001 and 2012



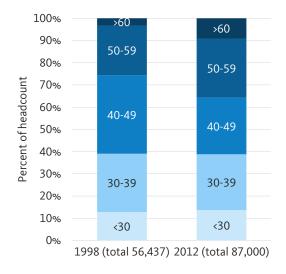
Health care employees are funded from revenues derived from patient services, not state funding or student tuition and fees.

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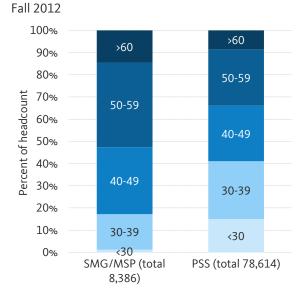
<sup>&</sup>lt;sup>1</sup> Only career staff are included.

# Overall, the UC staff career workforce had a higher average age in 2012 than in 1998. Twenty-six percent of career staff were age 50 or older in 1998, compared to 36 percent in 2012.

7.2.1 Age distribution of career staff Universitywide Fall 1998 and 2012



7.2.2 Age distribution of career staff by personnel program
Universitywide



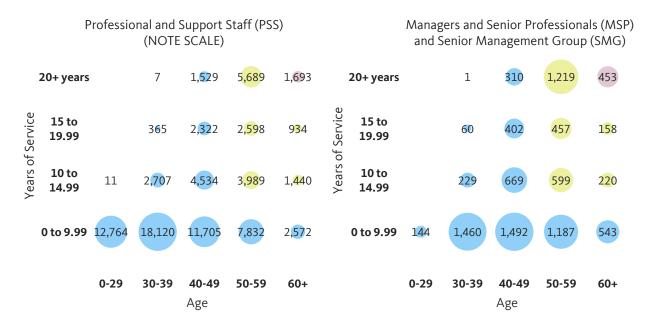
Source: UC Corporate Personnel System<sup>1</sup>

The Senior Management Group (SMG) and the Managers and Senior Professionals (MSP) personnel programs entail a higher level of experience and responsibility and have a higher proportion of older staff personnel than the Professional and Support Staff (PSS) program. Within the PSS program, there is no significant difference in age distribution between union-represented and non-represented staff.

<sup>&</sup>lt;sup>1</sup> See notes for Indicator 7.1.1 for more details.

# Fewer than 5 percent of staff are eligible to retire with maximum benefits.

7.2.3 UC retirement program active career staff headcount by age and years of service (YOS) Universitywide (excludes Lawrence Berkeley National Laboratory) Fall 2012



Source: UC Retirement System

#### **LEGEND**

BLUE Not eligible to retire and/or not eligible to retire with health benefits (under age 50 and/or <10 YOS)

GREEN Eligible to retire with reduced age factor and/or less than maximum UC retiree health benefit contribution (age 50–59, 10–19 YOS)

RED Eligible to retire with maximum age factor and maximum UC retiree health benefit contribution (age 60+, 20+ YOS)

The UC Retirement Plan benefits are designed so that highest benefits occur at age 60. Actual benefits depend on the total years of service and highest average compensation. To be eligible for the maximum UC contribution for retiree health benefits, a retiring employee must have 20 years of service.

UC monitors the number and proportion of staff nearing or at retirement age because the need to replace experienced staff is a critical component of managing staff resources. About two percent of the PSS staff and almost five percent of the

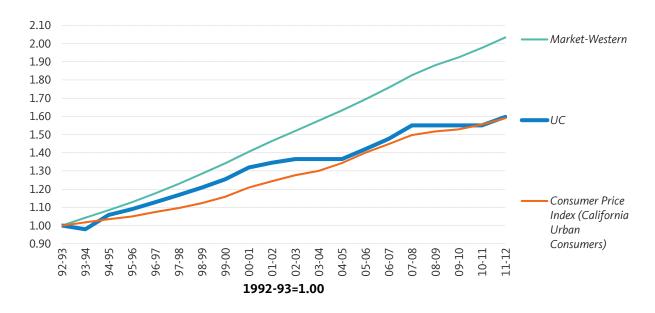
management staff are aged 60 or above with 20 or more years of service. This is somewhat higher than the proportions eight years prior (2004, data online).

The proportion of staff that are eligible to retire but not with the maximum age factor and/or eligibility for the maximum UC retiree health benefit contribution has grown slightly since 2004 (data online). It appears that the recent recession has not changed employee retirement behavior significantly.

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# Growth rates for staff salaries are below market rates in the "Western region" benchmark.<sup>1</sup>

7.3 UC base salary increases compared to inflation and market averages Universitywide 1992–93 to 2011–12



Source: UC Budget Office<sup>2</sup>

The chart above presents comparative data for cash compensation only. In recent years, salary increases generally have kept pace with inflation but have not grown as fast as market salaries. Going forward, UC employees will be contributing more to health care costs and the UC retirement system, which could further erode the competitiveness of UC compensation compared to the regional labor market.

<sup>&</sup>lt;sup>1</sup>The UCOP Budget Office, like many other employers, uses a comparison to the "Western U.S. region" from the annual *WorldatWork Salary Budget Survey*. This survey is conducted by the WorldatWork association of human resource professionals. <sup>2</sup>Excludes medical centers.

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# **Chapter 8. Diversity**

#### Goals

UC is committed to achieving diversity in the classroom, research lab and workplace. It strives to establish a climate that welcomes, celebrates and promotes respect for the contributions of all students, staff and faculty.

In 2007, the Board of Regents adopted the *University of California Diversity Statement* as policy. The statement defines diversity broadly as "The variety of personal experiences, values and worldviews that arise from differences of culture and circumstance. Such differences include race, ethnicity, gender, age, religion, language, abilities/disabilities, sexual orientation, gender identity, socioeconomic status, and geographic region, and more."

## Reflecting California's diversity

The indicators in this chapter provide a broad overview of the University community — faculty, staff and students — by race/ethnicity and gender. Survey data show how undergraduate students perceive the climate on their campuses by race/ethnicity, gender, sexual orientation and religion. The chapter also provides data on the racial/ethnic and gender composition of graduate students and faculty by broad disciplinary groups. Information on undergraduates by family income, parental education and first-generation status is in chapters 2 and 3 of this report.

UC often describes its diversity aspirations in terms of "reflecting the diversity of California." Both the University and the state are much more diverse than the country as a whole. However, University demographics have not kept pace with California's growing Chicano/Latino population.

Racial and ethnic diversity at the University changes slowly over time as populations turn over. At the undergraduate level, students turn over every 4-5 years, providing an opportunity for the University to become more responsive to demographic shifts in the graduating high school

population. At the other end, faculty careers can last 30–40 years, putting these population shifts on a longer trajectory. Since new faculty hires are more diverse than the faculty as a whole, slowing of faculty hiring could result in delays in diversifying the faculty.

The University is strongly committed to building a more diverse faculty, staff and student body that is inclusive of underrepresented racial/ethnic and gender populations. Accountability reports such as this that focus on diversity numbers help increase awareness of the importance of diversity in its many forms at the University of California.

# Looking forward

In July 2011, President Yudof announced that UC would conduct a systemwide study to gather data related to institutional climate, inclusion and worklife issues across UC's ten campuses and the Office of the President. Based on the study's findings, UC will develop strategic initiatives and action plans to address institutional climate challenges and promote institutional change throughout the UC system. UC is one of the first systems in the country to undergo such a comprehensive assessment of campus environment. The survey was administered fall 2012 through spring 2013; findings from the study will be presented in future accountability reports.

#### For more information

Detailed information about the diversity of UC students, faculty and staff, including each campus's Principles of Community, can be found on UC's diversity website at

www.universityofcalifornia.edu/diversity.

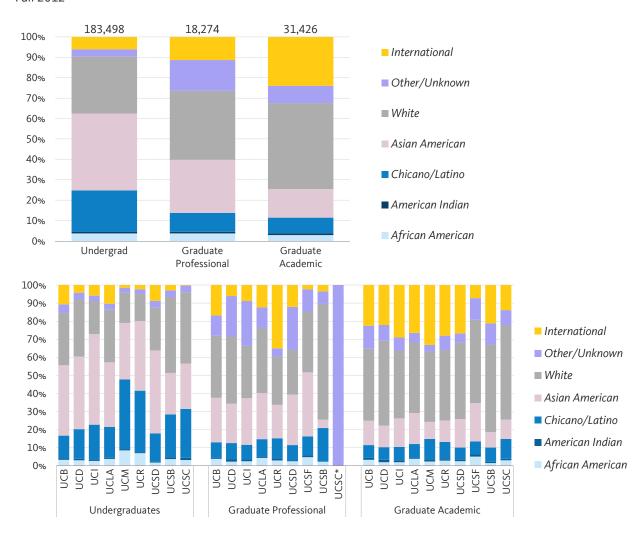
Also see the January 2013 Accountability Sub-Reports on Diversity at

http://regents.universityofcalifornia.edu/regmeet/jan13/e1.pdf.

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# Of the groups that compose the University community, undergraduate students and professional and support staff have the highest proportion of underrepresented groups; faculty have the lowest.

8.1.1 Racial/ethnic distribution of students Universitywide and by campus Fall 2012



Source: UC Corporate Student System \*Not shown due to small numbers. UC Merced does not have any graduate professional programs at this time.

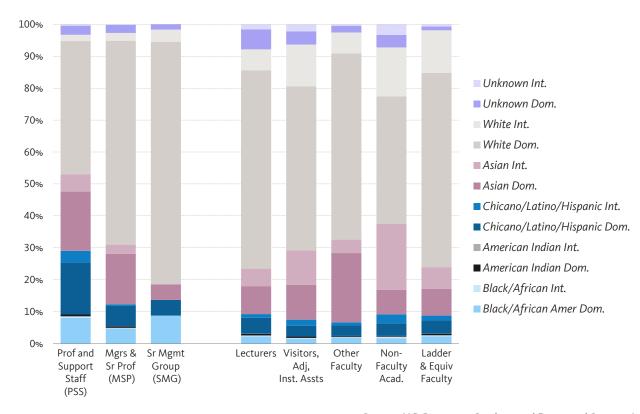
Undergraduates include approximately 300 postbaccalaureate teaching credential students.

While the University community has become increasingly diverse, it has not kept pace with demographic changes in California, especially the rapid growth of the Hispanic population. In 2008–09, the University community was 14 percent

Chicano/Latino compared to 34 percent for California as a whole. African Americans, on the other hand, represented 5 percent of the University community compared to 7 percent for California as a whole.

# The small number of Asian Americans in the Senior Management Group contrasts with relatively larger numbers of Asian Americans in other categories.

8.1.2 Racial/ethnic distribution of staff, faculty and academic employees Universitywide Fall 2012



Source: UC Corporate Student and Personnel Systems<sup>1</sup>

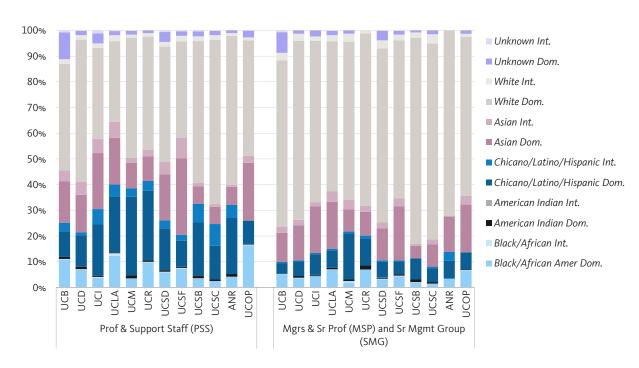
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<sup>&</sup>lt;sup>1</sup> International status for faculty and staff is based on citizenship status instead of IRS tax status which was used in the 2012 Accountability Report. For more information, please see http://regents.universityofcalifornia.edu/regmeet/jan13/e1.pdf. The "other faculty" group includes professors in residence, professors-clinical and health science clinical faculty. The "other academics" group includes only nonstudent employees and comprises many positions (e.g., librarians and administration categories) as well as academic researchers. The SMG and MSP groups exclude students in these positions. The PSS group includes both represented and non-represented employees, and excludes students.

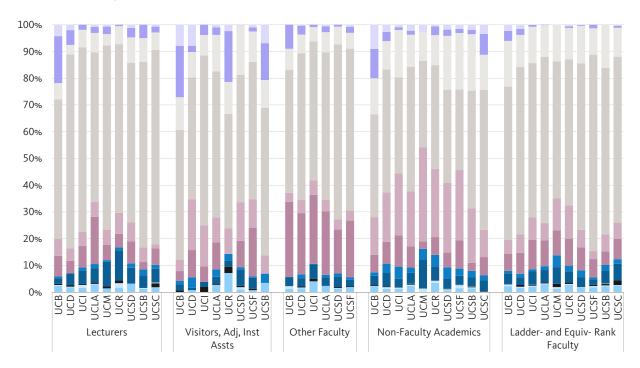
## 8.1 DIVERSITY OF THE UNIVERSITY COMMUNITY

8.1.3 Racial/ethnic distribution of staff, faculty and academic employees By campus Fall 2012

#### Non-student staff



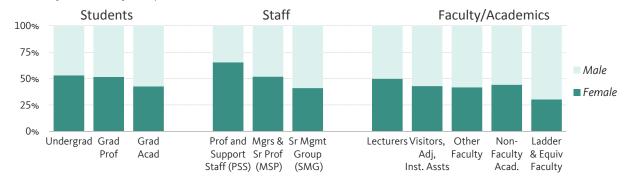
## Non-student faculty and academics



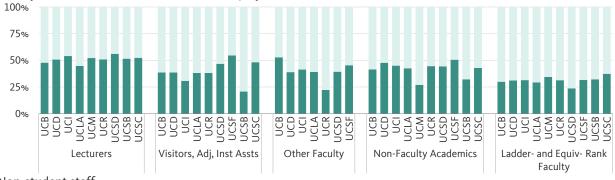
Note: ANR stands for Agriculture and Natural Resources. The Senior Management Group and certain subgroups at certain campuses are not shown due to very small counts.

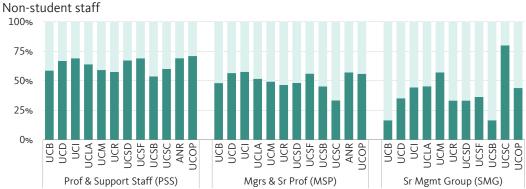
# Women constitute 40 percent or more of all student, staff and academic employee groups, except for ladder-rank faculty and senior managers.

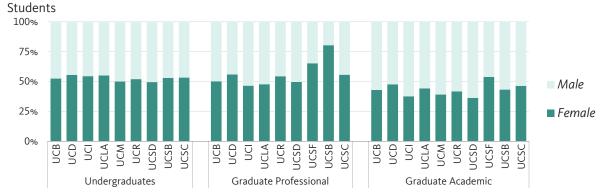
# 8.1.4 Gender distribution of the University community Universitywide and by campus, Fall 2012



## Faculty and other non-student academic employees







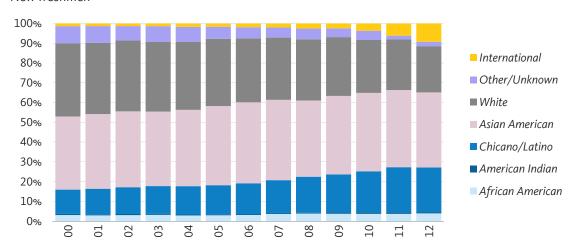
Source: UC Corporate Student and Personnel Systems. See note on 8.1.1 for more details.

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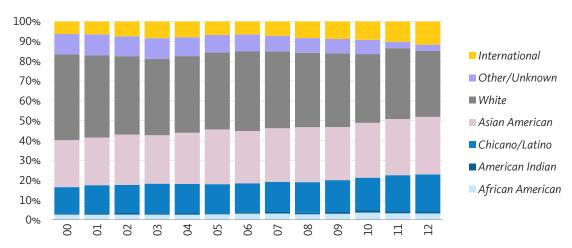
# Each year, UC enrolls a growing number of undergraduates from underrepresented groups; entering freshmen are slightly more diverse than entering transfer students.

8.2 Racial/ethnic distribution of new undergraduates Universitywide Fall 2000 to 2012

#### New freshmen



#### New transfers



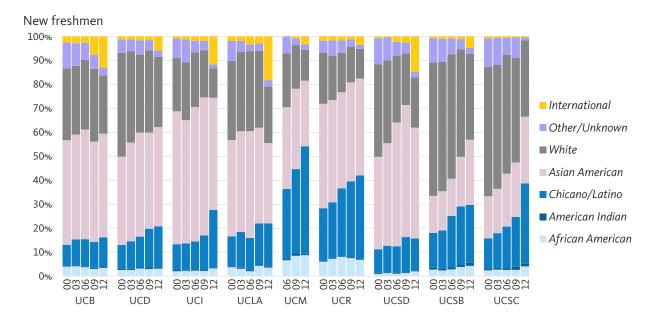
Source: UC Corporate Student System

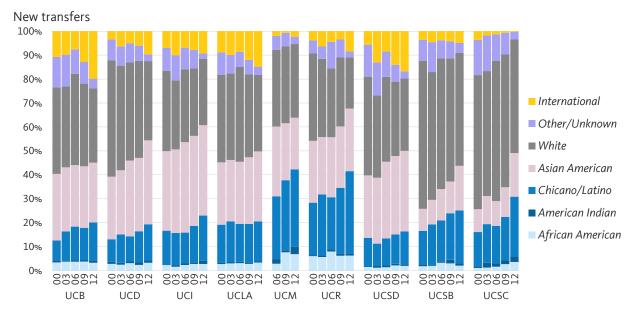
A number of factors may help explain why entering freshmen are more diverse than entering transfer students. Among the population of high school graduates sufficiently prepared to qualify for UC,

white students are more likely to be from highincome families and to choose private and out-ofstate colleges, while Asian American and Chicano/ Latino students are more likely to choose UC.

## **8.2 UNDERGRADUATE DIVERSITY**

Racial/ethnic distribution of new undergraduates UC campuses Fall 2000, 2003, 2006, 2009 and 2012



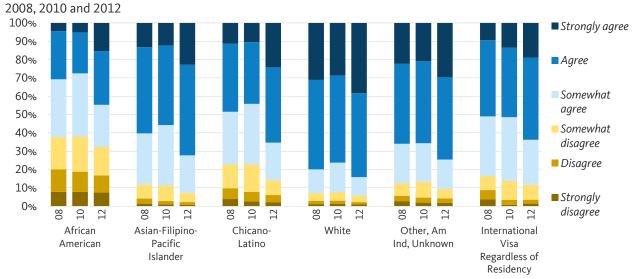


Source: UC Corporate Student System

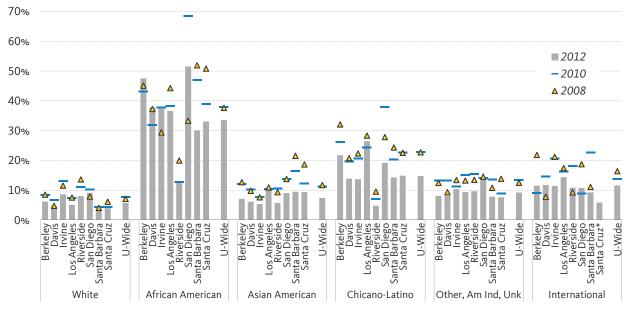
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Surveys show that most undergraduates feel that students of their race/ethnicity are respected on campus, but the proportion of African Americans who report feeling respected is lower.

8.3.1 Response to "Students of my race/ethnicity are respected on this campus" Universitywide and UC campuses



## Percentage that somewhat disagree, disagree or strongly disagree

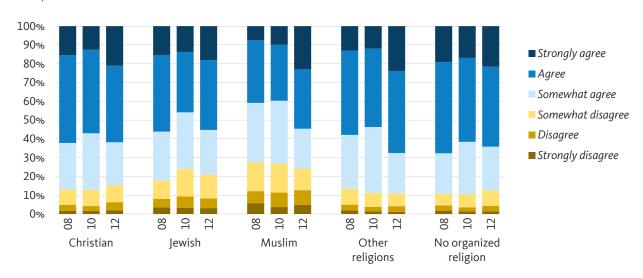


Source: UCUES

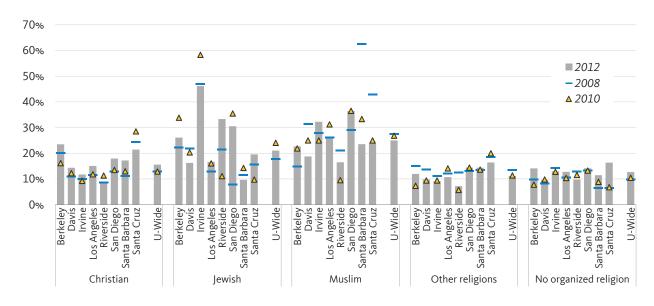
Results from the spring 2010 UC Undergraduate Experience Survey (UCUES) may have been influenced by a series of bias-related incidents that occurred on several UC campuses in the spring of 2010.

# Among religious groups, Muslim students are least likely to feel respected on campus.

8.3.2 Response to "Students of my religion are respected on this campus" Universitywide and UC campuses 2008, 2010 and 2012



## Percent that somewhat disagree, disagree or strongly disagree



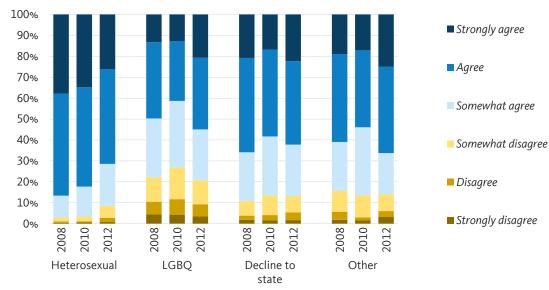
Source: UCUES

The University's goal is to assure that all students are respected on campus, regardless of religious affiliation.

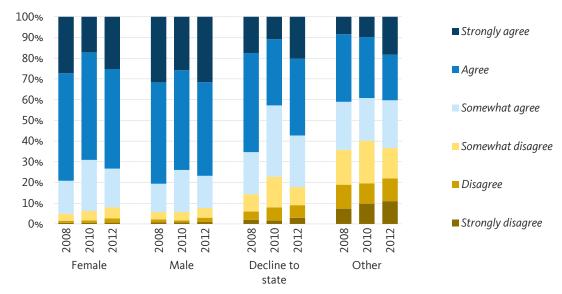
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# Undergraduates who identify as heterosexual or as male or female are more likely to feel respected on campus than students with a different gender or sexual orientation.

8.3.3 Response to "Students of my sexual orientation are respected on this campus" Universitywide 2008, 2010 and 2012



8.3.4 Response to "Students of my gender are respected on this campus" Universitywide 2008, 2010 and 2012



Source: UCUES<sup>1</sup>

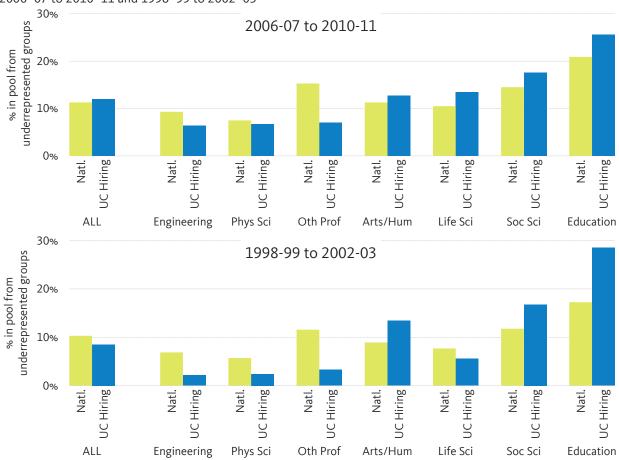
<sup>&</sup>lt;sup>1</sup> The LGBQ category includes: Gay/lesbian, Bisexual, Self-identified Queer and Questioning/Unsure. The Other category is its own category in UCUES; the data shown here do not include any other responses. Because the numbers for some of the groups are small, campus data are not reported separately.



# Hiring of new assistant professors from underrepresented race/ethnic groups has increased across every broad disciplinary group and now is slightly higher overall than the national pool of available candidates.

8.4.1 New assistant professors compared to national availability for underrepresented race/ethnic groups by discipline

Universitywide 2006–07 to 2010–11 and 1998–99 to 2002–03



Source: UC Academic Personnel Department and Survey of Earned Doctorates

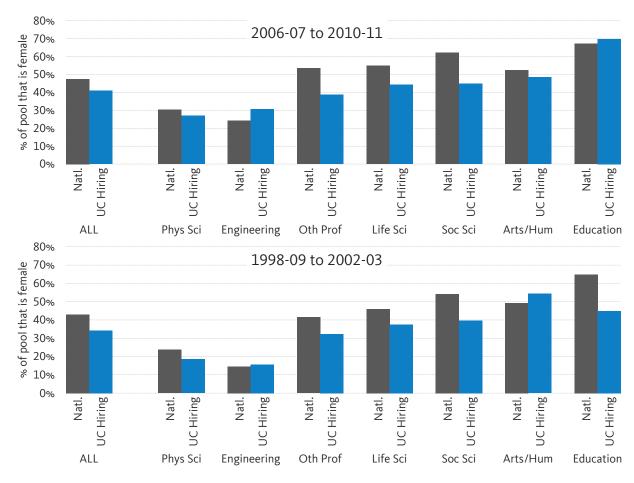
The University is committed to building a more diverse faculty, inclusive of underrepresented racial and ethnic populations in the U.S. In the coming decades, a more diverse faculty will be an important measure of a great university.

The University has been more successful in recent years in hiring new faculty from underrepresented groups than in earlier years. Overall, underrepresented minorities accounted for 11 percent of the pool of nationwide doctoral degree recipients between 2006–07 and 2010–11, and 12 percent of UC's new assistant professors.

Because faculty careers span 30 years or more, faculty diversity evolves slowly. As Chapter 6 demonstrates, hiring of new faculty has slowed down recently, which could affect UC's ongoing efforts to diversify its faculty.

## Between 2006–07 and 2010–11, the proportion of women hired at the new assistant professor level was below national availabilities in all disciplines except engineering and education.

8.4.2 New assistant professors compared to national availability by gender and discipline Universitywide 2006–07 to 2010–11 and 1998–99 to 2002–03



Source: UC Academic Personnel Department and Survey of Earned Doctorates<sup>1</sup>

Overall, between 2006–07 and 2010–11, women constituted almost half of the nationwide pool of new doctoral degree recipients, but only about 40 percent of UC's new hires.

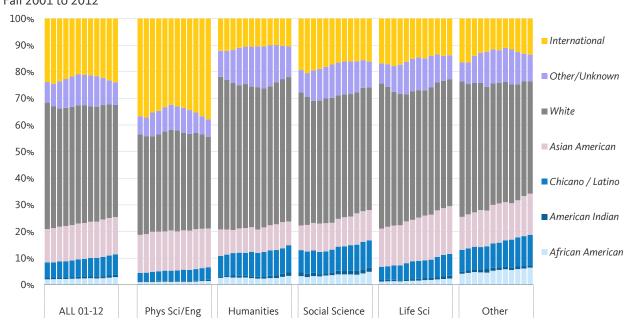
At a time when the nation's pool of doctoral degree recipients is showing increasing numbers and percentages of women, outreach and recruitment efforts at UC are not generating faculty hires that are fully reflective of changes in national availability pools.

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<sup>&</sup>lt;sup>1</sup> This analysis follows the campus practice required for federally mandated affirmative action plans; UC is required by Proposition 209 to satisfy federal reporting requirements in this area.

## UC is making slow but steady progress in diversifying the racial/ethnic make-up of its graduate academic students.

8.5.1 Racial/ethnic distribution of graduate academic students by discipline Universitywide Fall 2001 to 2012



Source: UC Corporate Student System<sup>1</sup>

Enrollment of underrepresented race/ethnic groups in UC's graduate academic programs has been growing over the past decade. In 2010-11, UC awarded about as many or more academic doctoral degrees to underrepresented race/ethnic groups as our peers.

### Proportion of underrepresented race/ethnic groups receiving academic doctoral degrees, 2010-11

	Other AAU		AAU
	UC	Public	Private
Arts & Humanities	14%	8%	9%
Social Sciences	13%	10%	8%
Life Sciences	8%	6%	8%
Physical Sciences	6%	4%	3%
Engineering & Computer Science	4%	5%	5%
		Sour	ce: IPEDS

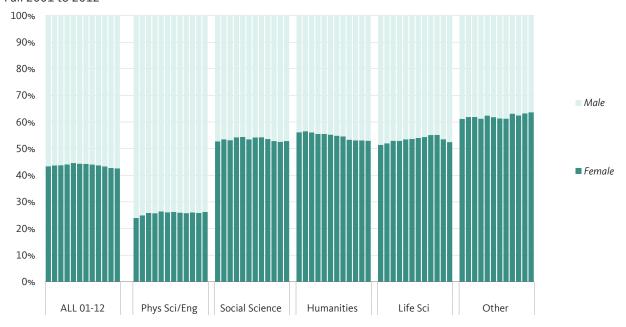
UC's graduate programs draw students from across the nation and around the world, including its own undergraduate students. Because of this, UC's efforts to diversify its undergraduate students can also help to diversify its graduate academic population.

Since recent Ph.D.s constitute the pool for new faculty, a critical means for increasing the diversity of the faculty is to increase the diversity of the pool of doctoral degree recipients.

<sup>&</sup>lt;sup>1</sup> "Other" disciplines include interdisciplinary areas, miscellaneous fields such as criminology and academic degrees in professional fields such as a Ph.D. in business or law.

## Overall, 43 percent of UC's graduate academic students are women compared to 53 percent of its undergraduates.

8.5.2 Gender distribution of graduate academic students by discipline Universitywide Fall 2001 to 2012



Source: UC Corporate Student System<sup>1</sup>

The proportion of graduate academic students who are women varies by discipline. Half or more of the graduate academic students in the life sciences, social sciences and humanities are women, compared to about one-quarter in the physical sciences.

Overall, UC has not made much progress over the last 10 years in increasing the proportion of women in graduate academic programs.

### Proportion of women receiving academic doctoral degrees, 2010-11

	Other AAU		AAU
	UC	Public	Private
Life Sciences	57%	55%	55%
Arts & Humanities	54%	56%	56%
Social Sciences	54%	59%	56%
Physical Sciences	33%	35%	33%
Engineering & Computer Science	23%	22%	24%

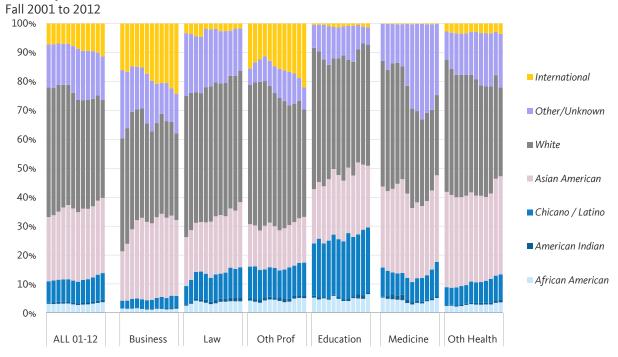
Source: IPEDS

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<sup>&</sup>lt;sup>1</sup> "Other" disciplines include interdisciplinary areas, miscellaneous fields such as criminology and academic degrees in professional fields such as a Ph.D. in business or law.

## The proportion of students from underrepresented racial/ethnic groups enrolled in UC's professional degree programs varies widely — lowest in business and highest in education.

 $8.6.1 \ Racial/ethnic \ distribution \ of \ graduate \ professional \ degree \ students \ by \ discipline \ University wide$ 



Source: UC Corporate Student System<sup>1</sup>

Overall, students from underrepresented groups constituted 14 percent of all professional degree students in fall 2012 compared to 11 percent in fall 2001.

### Proportion of underrepresented students receiving professional degrees, 2010-11

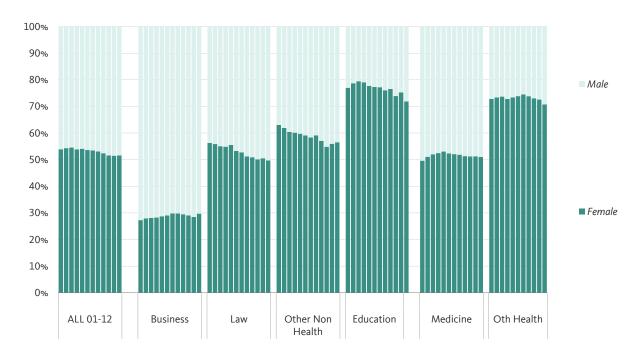
	Other AAU		AAU
	UC	Public	Private
Education	22%	11%	17%
Law	13%	12%	15%
Other Health Sci	11%	9%	11%
Medicine	9%	9%	13%
Business	5%	8%	8%

Source: IPEDS

<sup>&</sup>lt;sup>1</sup> "Other Health" includes dentistry, nursing, optometry, pharmacy, public health and veterinary medicine; "Other Professional" includes programs such as architecture, library and information science, public policy and social welfare, and other small programs. Medical residents are not included.

## The proportion of women enrolled in UC's professional degree programs varies widely and is trending downward in nearly all fields.

8.6.2 Gender distribution of graduate professional degree students by discipline Universitywide Fall 2001 to 2012



Source: UC Corporate Student System<sup>1</sup>

The proportion of women enrolled in UC's professional degree programs has trended downward slightly since 2003.

According to data shown in the table to the right, UC graduated roughly the same proportion of women in professional degree programs as the comparison groups; somewhat higher in law and non-medical health sciences and somewhat lower in business.

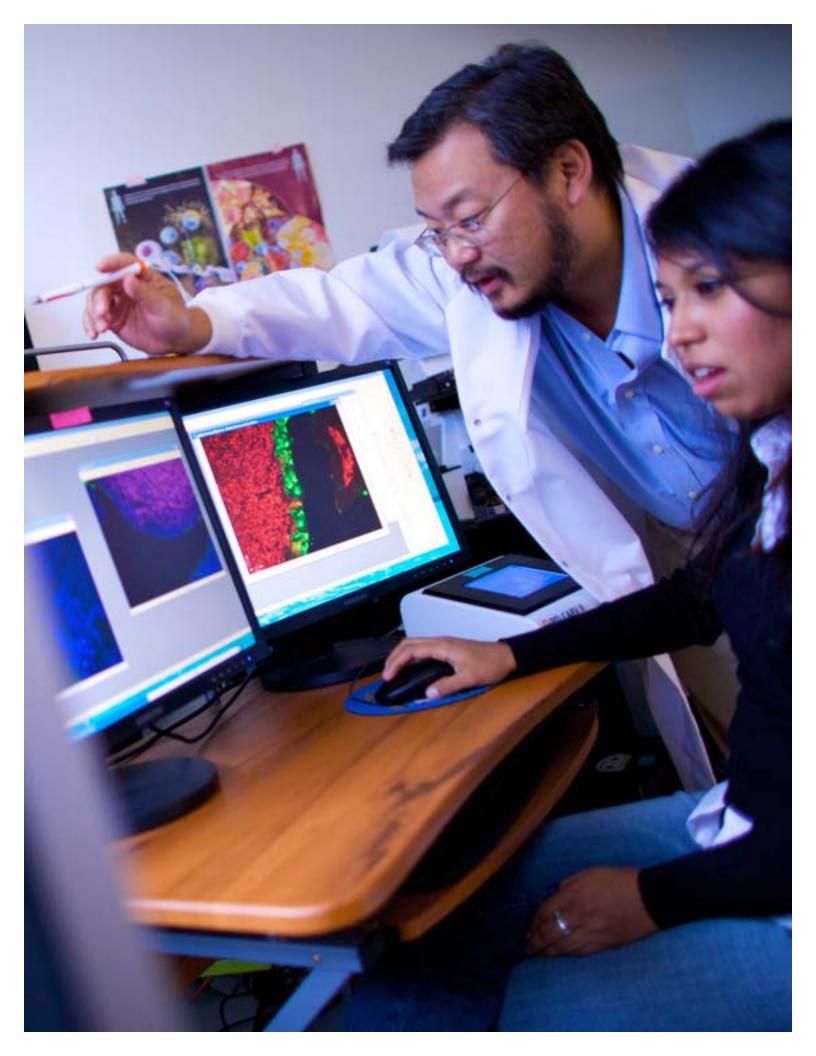
### Proportion of women receiving professional degrees, 2010-11

	O	AAU	
	UC	Public	Private
Education	76%	75%	77%
Other Health Sci	75%	71%	73%
Medicine	51%	51%	49%
Law	50%	45%	45%
Business	30%	35%	33%

Source: IPEDS

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<sup>&</sup>lt;sup>1</sup> "Other Health" includes dentistry, nursing, optometry, pharmacy, public health and veterinary medicine; "Other Disciplines" include programs such as architecture, library and information science, public policy and social welfare.



### **Chapter 9. Teaching and Learning**

#### Goals

The University of California seeks to provide its students with a distinctive learning environment created by faculty who are actively engaged in both teaching and academic research. UC strives to ensure that all students have an opportunity to take small classes, seminars and lab sections, and that they have access to faculty and others active in research. The ultimate goal is to ensure that students develop critical thinking, writing and other academic skills along with an in-depth understanding of their specific fields of study.

#### **Educating students**

This chapter includes indicators that illuminate aspects of the undergraduate teaching and learning experience, including student access to ladder-rank faculty, small classes and opportunities to participate in research. Using survey data, it reports students' reflections on their undergraduate education — the extent to which they have developed mastery in their chosen fields and improved their critical thinking and other skills. It also describes faculty workload, including both the amount of teaching faculty do and the number of doctoral degrees produced per hundred faculty. The chapter concludes with a review of the educational opportunities that UC provides through its extension programs to hundreds of thousands of Californians, most of them in adult professional and continuing education.

While these indicators begin to describe the nature of the educational enterprise, they can only provide a partial assessment of educational effectiveness and instructional quality. Therefore, at UC, individual academic departments and degree programs are responsible for defining learning objectives and for assessing students' progress in meeting them. These objectives and assessments are subject to scrutiny by faculty from external institutions as part of routine program reviews conducted by the campuses. In recent years, academic objectives and assessments have become a major focus of reviews conducted by UC's regional accreditation agency (Western Association of Schools and Colleges) as well as reviews by many professional accrediting and related bodies. Information about program learning objectives is available on departmental websites, and each campus posts materials related to accreditation.

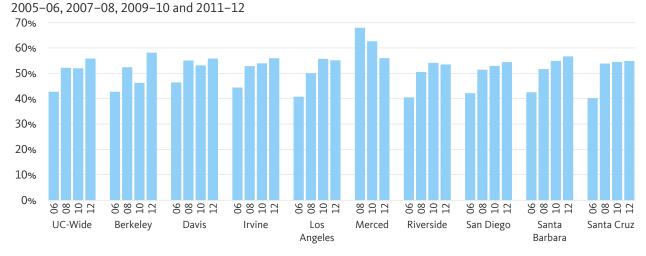
#### Looking forward

The University of California has undergone considerable and rapid changes in the last decade in its size and shape and in the level and source of funds available to support instruction. These changes have led to increases in tuition, growth in average class sizes, reductions in course availability and curtailment in faculty hiring. Some campuses are also rethinking curricular requirements and exploring new modes of instructional delivery, including online instruction and better use of summer sessions. How these changes affect students' educational experience is not yet clear, but may begin to emerge from the data reported in this section in the years to come.

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The proportion of undergraduates reporting having a research experience in their senior year has grown over the past six years, while the proportion that report taking a small research seminar with a faculty member in their senior year has grown slightly.

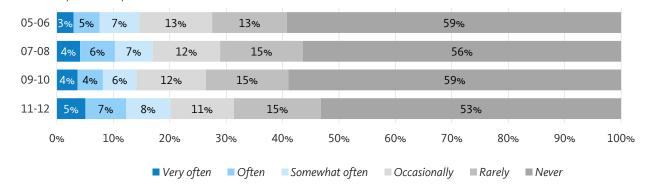
9.1.1 Seniors who assisted faculty in research or a creative project Universitywide and UC campuses



Source: UCUES<sup>1</sup>

9.1.2 Seniors' response to the survey question: "In this academic year how many times have you taken a small, research-oriented seminar with faculty?"

Universitywide 2005–06, 2007–08, 2009–10 and 2011–12



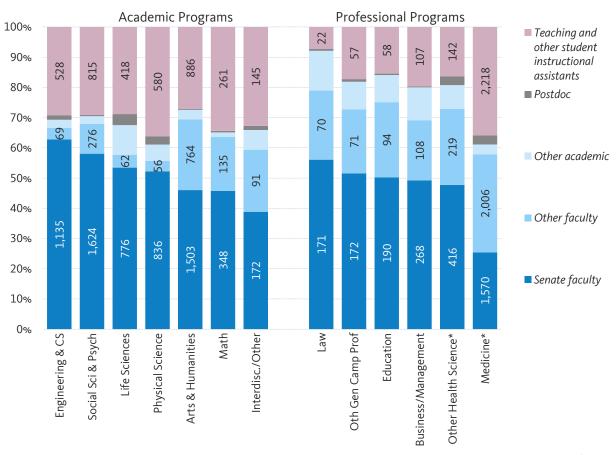
Source: UCUES

Data are derived from the University of California Undergraduate Experience Survey (UCUES), which is conducted every two years to solicit student opinion about all aspects of the UC experience. The most recent UCUES survey was administered in spring 2012.

<sup>&</sup>lt;sup>1</sup> Research and creative projects statistics combine three items: "Assist faculty in research/creative project, with course credit," "for pay without course credit" and "as a volunteer, without course credit."

### Many groups, including faculty, postdoctoral researchers and students, contribute to instruction in proportions that vary by academic discipline.

9.2 Instructional workforce FTE (full-time-equivalent) composition by employee type and discipline Universitywide 2011–12



Source: UC Corporate Personnel System<sup>1</sup>

In most disciplines, Senate faculty constitute more than half of the instructional workforce. There are two exceptions: medical education relies more heavily for instruction on non-Senate faculty, who also have other clinical roles; and non-Senate faculty are also found in greater proportions in disciplines such as math, writing and languages, which have heavy "service teaching" loads driven by campus general education requirements.

"Other faculty" include clinical faculty, most lecturers, adjuncts, faculty in residence and visiting faculty.

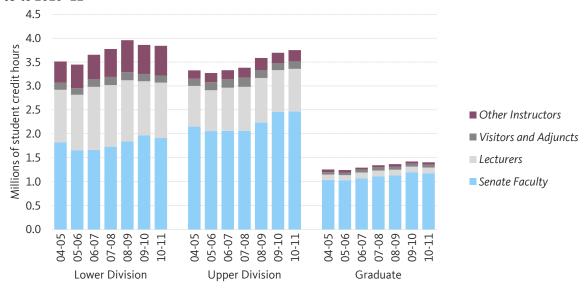
"Student instructional assistants" include students acting in supporting roles, such as teaching assistants, readers and tutors. They are most numerous in disciplines catering to undergraduates and lead primarily non-credit lab and discussion sections that complement a lecture course.

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<sup>&</sup>lt;sup>1</sup> Support staff, including students working in staff titles, are excluded. The "Other academic" category includes administrators and researchers who have instruction functions. \*Medicine and other health sciences are excluded from general campus indicators presented later in this chapter. Data are for full-time-equivalent number of academic employees paid with instructional funds.

### As a group, Senate faculty are teaching increasing numbers of student credit hours across all levels of students.

9.3.1 Student credit hours by faculty appointment and class type Universitywide 2004–05 to 2010–11



Source: UC Faculty Instructional Activities dataset<sup>1</sup>

One measure of faculty teaching workload is student credit hours (SCH), defined here as the number of student enrollments in a course multiplied by the number of credits available from that course. A 4-credit class with 50 students generates 200 SCH; a 2-credit class of 15 students generates 30 SCH.

SCH is used in Chart 9.3.1 to show the relative distribution of teaching load among different types of instructors at different levels of instruction. This measure can serve as a proxy for the types of instructors students will come into contact with as they progress through their academic careers.

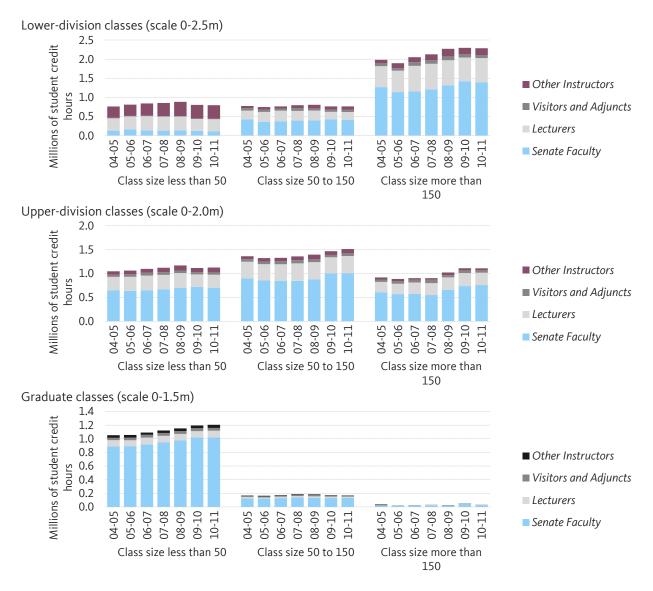
In lower-division courses, students take more writing, language and other required courses that are most often taught by lecturers. Introductory courses to the major are often taught by Senate faculty. In upper-division courses, students are taking courses core to their major, and these offerings are more likely to be taught by Senate faculty.

The increase in SCH provided by Senate faculty over the past few years reflects the impact of increasing enrollments and reductions in faculty numbers (see Indicators 6.1 and 6.2).

<sup>&</sup>lt;sup>1</sup> Data are for general campus courses only. These data are submitted annually by UC campuses and contain information on all general campus courses taught in that year.

### In 2010–11, 21 percent of lower-division credit hours were earned in courses with less than fifty students, compared to 30 percent of upper-division credit hours.

9.3.2 Student credit hours by faculty appointment, class type and class size Universitywide 2004–05 to 2010–11



Source: UC Faculty Instructional Activities dataset

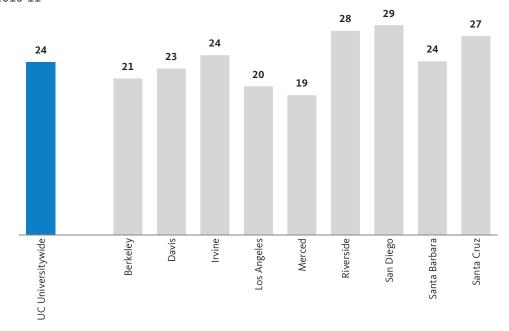
The distribution of student credit hours gives a sense of how students experience their courses and instructors. Lower-division students are often taught by Senate faculty in large lecture classes or by non-Senate faculty in small general education requirement classes. Upper-division students' contact with Senate faculty is fairly evenly

distributed across classes of all sizes. Graduate academic students are almost uniformly taught by Senate faculty in classes with fewer than 50 students. Across lower- and upper-division classes, there has been a shift towards increased SCH in larger classes.

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## Student-faculty ratio is affected by several factors, including a campus's financial resources and the size of its graduate population.

9.4 General campus student-faculty ratio Universitywide and UC campuses 2010-11



Source: UC Institutional Research Unit<sup>1</sup>

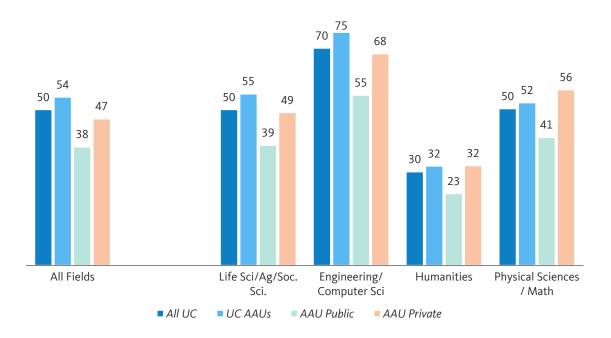
The student-faculty ratio can reflect resources available for instruction and the average availability of faculty members to every student. The ratio presented here is an aggregate measure for each campus. It varies considerably, as will a student's experience of it, by instructional level (lower-division, upper-division and graduate) and by degree and major.

Student-faculty ratios are strongly influenced by an institution's financial resources and the size of its graduate programs. Graduate programs are influential because their small class sizes bring down (improve) an institution's student-faculty ratio.

<sup>&</sup>lt;sup>1</sup> Student enrollment is based on full year FTE, including summer session. Faculty is based on general campus instructional faculty payroll FTE.

# Overall, UC campuses confer more doctoral degrees per tenured and tenure-track faculty member than other non-UC AAU public institutions, and are on par with the AAU private institutions.

9.5 Doctoral degrees awarded per 100 faculty (annual average) UC and comparison institutions 2006–07 to 2010–11



Source: IPEDS and 24 non-UC Public and 16 Private AAU Institutions<sup>1</sup>

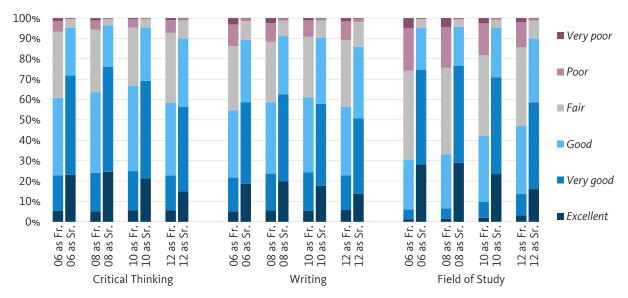
The data reflect favorably on the UC faculty's role in producing doctoral degrees. UC has proportionally fewer terminal master's degrees than other AAUs, meaning that UC faculty's graduate instruction is more concentrated on doctorates. These data may also reflect differences in the way institutions define and count faculty in the data they report nationally. These data were calculated based on tenured and tenure-track faculty headcount.

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 $<sup>^{\</sup>scriptscriptstyle 1}$  UC Campus data excludes UC San Francisco, an exclusively graduate Health Sciences campus.

UC students report experiencing significant gains between their freshman and senior years in their critical-thinking skills, writing skills and understanding of a specific field of study.

9.6 Self-reported skill levels Universitywide Spring 2006, 2008, 2010 and 2012

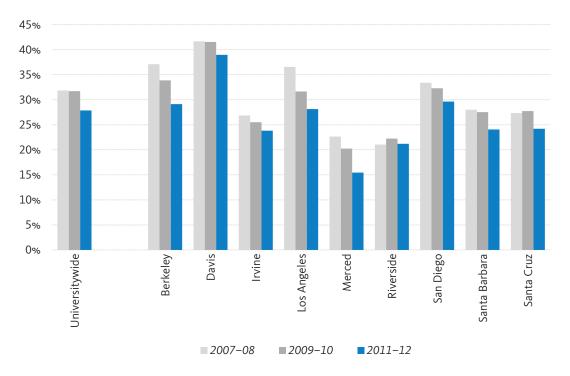


Source: UCUES

Data from the 2008 UCUES survey show that undergraduate students feel they have benefited greatly from their UC education. In the spring 2010 and 2012 surveys, however, the reported gains in learning outcomes were not quite as large.

## Internships are an important experiential learning activity for undergraduate students. At UC, almost one-third of students participate in internships.

9.7 Undergraduates who participated in or completed internships Universitywide and UC campuses 2007–08, 2009–10 and 2011–12



Source: UCUES<sup>1</sup>

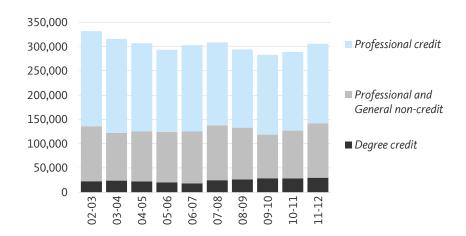
Types of internships vary from research-oriented positions with UC faculty members to clinical and cooperative learning assignments. The reported percentage of students with internships decreased in 2012.

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<sup>&</sup>lt;sup>1</sup> Note: Students with internship experiences refer to those who participated in internships under the direction of a faculty member or completed another type of internship (e.g., co-op, clinical assignment).

## UC is a significant provider of continuing education to Californians. Adult learners take about 300,000 courses each year from University Extension programs.

9.8 Continuing education enrollments Universitywide 2002–03 to 2011–12

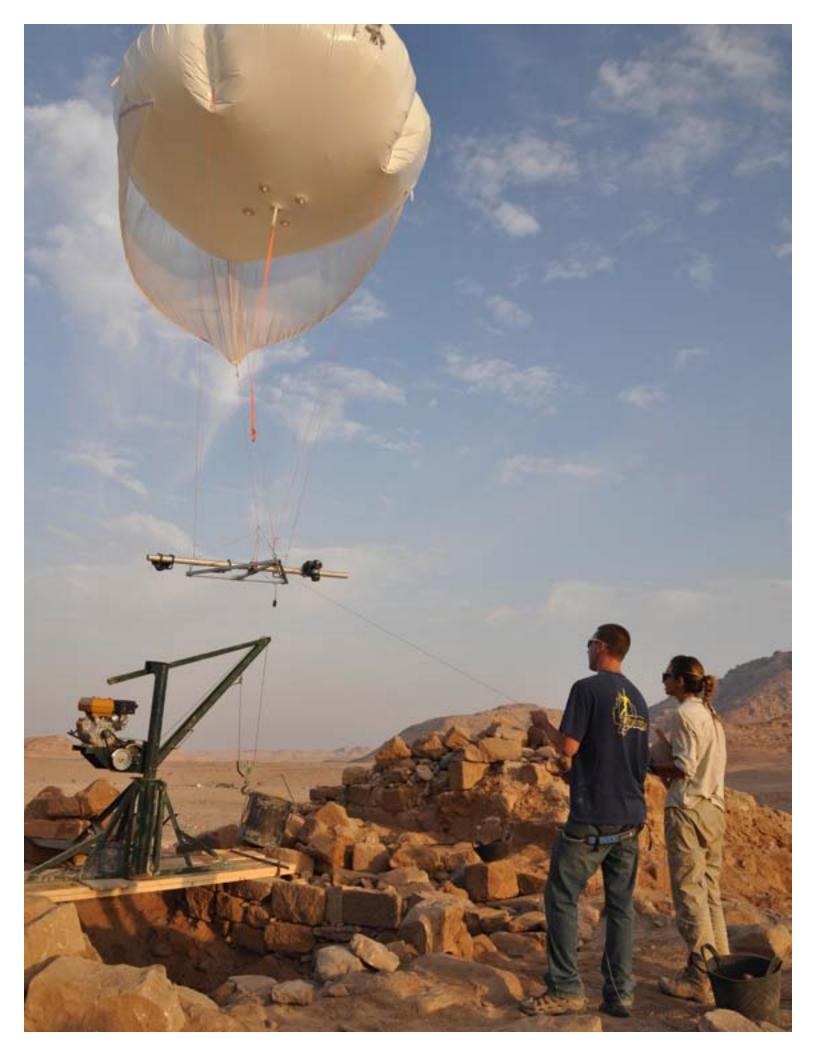


Source: UC Extension Financial Statements<sup>1</sup>

UC Extension offers a highly diverse range of courses designed to serve the continuing-education needs of working professionals through both credit and non-credit programs. UC Extension is completely self-supporting. Each campus extension program addresses particular educational needs in its own geographic area.

<sup>&</sup>lt;sup>1</sup> "Degree credit" courses lead to formal UC degree credit, developed and presented in partnership with campus faculty and graduate degree programs. "Professional credit" courses provide Senate-approved academic credit but are not associated with a specific UC degree program. "Professional & General non-credit" courses are high-quality continuing education courses and workshops. These programs may satisfy continuing-education requirements of public agencies and professional associations but do not convey UC Senate-approved credit.

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### Chapter 10. Research

#### The broad scope of UC research

The California Master Plan for Higher Education designates the University of California as the primary state-supported academic agency for research. UC research contributes to the state and to the nation through discoveries that improve health, technology, welfare and the quality of life.

UC has more than 800 research centers, institutes, laboratories and programs, and spans 10 campuses, five medical centers, a national energy laboratory and numerous specialized research facilities. It has established an unparalleled international reputation for innovative, leading-edge research. All academic disciplines are represented in the research enterprise, from telescopic explorations of the far reaches of the universe to advanced imaging technologies that map the workings of the human brain; from the development of new commercial strains of strawberries to the development of medical treatments through the use of stem cells; from the study of the art of ancient China to the analysis of the writings of Mark Twain. The extraordinary diversity and quality of research at UC is reflected in the uniformly high rankings assigned to UC campuses and programs by every published ranking of U.S. and worldwide universities (see Chapter 14).

#### Research enterprise metrics

UC's performance in meeting its research goals may be assessed in a variety of ways: the quantity of research that is conducted, as reflected in research expenditures; the academic quality and impact of UC's research; the enhancement of the educational experience of UC students; the contribution to the public of research findings; and the economic and societal benefits that flow directly and indirectly from research results. Measures of research quality and impact are notoriously difficult to generate, and there is little agreement on their validity or use. This chapter focuses on measures of research quantity, including research expenditures and journal publication. The emphasis on research finances demonstrates the increasing importance

of research at UC, which now represents nearly one-fourth of the annual budget. However, these fiscal measures do not present a comprehensive account of UC's diverse research programs. They significantly underrepresent research in the arts, humanities, social sciences and theoretical scientific disciplines, because work in these fields leaves less of a direct fiscal footprint.

### Looking forward — reduced federal support for research

UC faces numerous challenges in pursuing its research mission, including the recruitment and retention of a world-class faculty; remaining competitive in attracting graduate students who play a vital role in conducting research; and fully funding the research enterprise because the University does not recover the full costs of research from either governmental or private research sponsors.

The most immediate concern facing UC, together with every other research university in the United States, is the cutback in federal appropriations for academic research and development that begins with the 2013 federal fiscal year. The federal government has implemented a sequester, which is an across-the-board spending cut that will mean a reduction in UC's federal research support. The decline in federal research dollars from the sequester is reinforced by the final expenditures of Recovery Act funds, which provided a temporary bump in federal research funds that is reflected in UC's research expenditures from 2009–10 to the present.

The sequester cuts about \$3.5 billion from federal academic research support nationwide, a reduction of about 7 percent. For UC, which received nearly \$3 billion in federal research funds during 2011–12, this translates into a drop of about \$200 million in federal research funding for the current (2012–13) fiscal year. Federal awards for other activities, such as training and service programs, will be reduced as well.

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The impact of these reductions, though not yet reflected in the research expenditure figures for FY 2011-12, is already evident in the data on award funding. During the first two quarters of UC's 2012-13 fiscal year, new federal research awards fell by \$224 million, to \$1.3 billion, compared to \$1.53 billion for the first two quarters of the previous year.

This shortfall in new research awards, during what is traditionally the largest award period of the year, is not expected to be made up in the final two quarters of the current fiscal year. Most federal agencies, anticipating the sequester and perhaps even greater long-term cutbacks in research appropriations, have altered their funding practices, beginning with the end of UC's previous fiscal year. Both the National Institutes of Health (NIH) and the National Science Foundation — UC's two largest sources of research support — began issuing smaller awards, and funding projects for shorter durations. And with the start of the sequester, they now project issuing fewer awards as well.

One bright spot on the research-funding horizon is that contracts and grants from private and other non-federal sources are increasing with the recovering economy. However, they constitute but a small portion of the award total and cushion the impact of the federal fall-off only slightly.

#### Research workforce changes

Research award data serve as leading indicators of structural changes in the University's research enterprise and the composition of the research workforce. The decline in federal funding due to sequestration will mean decreased research expenditures during 2012-13 and beyond. And, as wages and benefits represent more than half of all research expenditures, some shrinkage of the research workforce is inescapable. Additional research personnel will also lose support when all Recovery Act research funding is spent, as it must be by September 2013.

The effect of these cutbacks on the research workforce will vary by campus and by discipline, with more of an impact on those fields, such as medical research, that depend heavily on project funding from NIH. Inevitably, there will also be an impact on the University's instructional mission, as research funding provides a major source of support for graduate students and post-doctoral researchers in many fields, and there is no clear source of alternative funding to compensate for the dramatic decline in federal support.

UC must prepare for the challenge of lower levels of federal support for research, which will mean a research workforce and a research enterprise smaller than it is today.

#### For more information

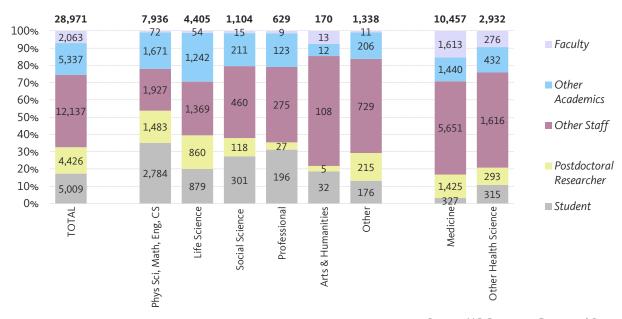
UC's Budget for Current Operations 2013–14 contains information on the contributions and impacts of UC's research enterprise on the California economy. It can be found at www.ucop.edu/operating-budget/\_files/rbudget/2013-14-budget.pdf.

The UCOP Office of Research and Graduate Studies website, www.ucop.edu/research-graduate-studies/, contains a number of resources about UC's research enterprise.

The UCOP Institutional Research Unit provides dashboards on key metrics at www.ucop.edu/institutional-research.

# In 2011–12, funded research projects provided employment for about 29,000 full-time-equivalent personnel. This represents 30 percent<sup>1</sup> of the total UC full-time-equivalent workforce, including student employees.

10.1 Research workforce by discipline Universitywide 2011–12



Source: UC Corporate Personnel System<sup>2</sup>

A diverse community of faculty, other academics, postdoctoral researchers, students, professional researchers and support staff all participate in UC's research enterprise. Student researchers (primarily graduate students) contribute significantly to research in all disciplines and comprise almost one-third of the paid research workforce in the physical sciences and technology fields.

The 2011-12 research workforce is about 3 percent larger than it was last year, due principally to research funding provided by the American Recovery and Reinvestment Act funds (ARRA). This is, however, a temporary increase, as all ARRA funds must be expended by September 2013. Reductions in federal research funding are likely to result in a smaller research workforce in years to come.

The employment shown above includes only staff and students paid an externally funded research program or by UC's own research funds. It does not capture the effort of faculty and students who engage in research in the normal course of their work, or the staff who provide administrative, facilities and equipment maintenance support as part of the overall University mission. In most disciplines without significant external research funding, such as the arts and humanities, this work contributes the lion's share of the total research effort.

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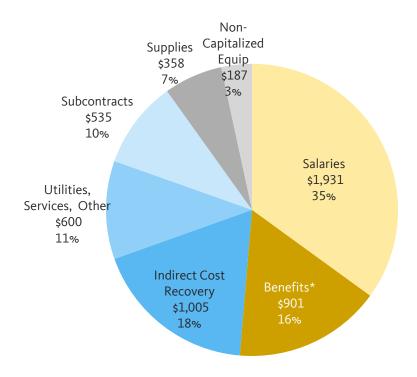
<sup>&</sup>lt;sup>1</sup> UC has about 98,000 full-time-equivalent employees.

<sup>&</sup>lt;sup>2</sup> Data shown here represents full-time-equivalent personnel receiving earnings from research accounts.

#### Salaries and benefits represent more than half of all research expenditures.

10.2.1 Research expenditures by type Universitywide 2011–12

Millions of Dollars, Total = \$5,517 Million



\*Includes post-employment benefit accruals. Source: UC Corporate Financial System

Research expenditures of \$5.5 billion in 2011–2012, which includes about \$1 billion in recovered indirect costs, represent about one-fourth of UC's total operating budget.

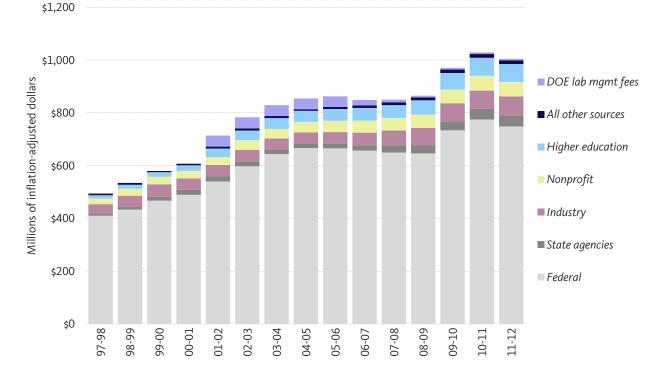
About 17 percent of the salaries paid to support research went to ladder-rank and other faculty. Twenty-four percent went to post-doctoral researchers and students, primarily graduate students, providing a critical source of support.

#### **Research Salary Distribution**

, = 100100	
	(\$ millions)
Faculty	335
Academic Researchers	426
Other Staff	710
Post-Doctoral Researchers	231
Students	228
Total	1,931

### The true costs of conducting sponsored research at UC are significantly greater than the amounts the University receives, even for federally funded projects.

10.2.2 Research indirect cost recovery by source Universitywide 1997–98 to 2011–12



Source: UC Corporate Financial System

Budgets for externally funded research projects include both a direct cost component — the actual amount of salaries, benefits, equipment and materials needed to conduct the project — plus a percentage to cover the facilities and administration required to house and support the research project, including debt service, maintenance, libraries and the like. These facilities and administrative costs are called "indirect costs" and are billed at a percentage of the direct charges.

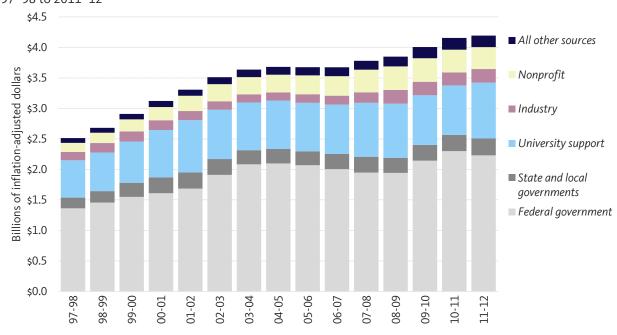
The true indirect costs of research, however, are typically much higher than the rate that research sponsors are willing to pay to UC or, for that matter, to other research universities. Actual

indirect cost recovery rates vary widely among research sponsors. Rates negotiated with federal agencies are among the highest, but are nonetheless estimated to run between 5 and 18 percentage points below the true indirect costs of conducting research. Non-federal research sponsors, including many corporations, most nonprofit organizations and the state of California, have policies that limit indirect cost recovery to well below federal rates. UC estimates that the true costs of its research exceed direct and indirect cost recovery by as much as \$600 million annually, and it must make up for this deficit from other sources. For these and other reasons, the UC Commission on the Future set an annual goal of \$300 million in additional indirect cost recovery.

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#### Federally funded research accounts for the majority of all research expenditures.

10.2.3 Direct research expenditures by source Universitywide 1997–98 to 2011–12



Source: UC Corporate Contracts and Grants System<sup>1</sup>

Fifty-three percent of UC's research expenditures in 2011–12 came directly from federal sources. A further 8 percent of the direct expenditure total represents federal flow-through funds that came to UC as sub-awards from state and private sources. Together, a total of 61 percent of UC's research expenditures start out as federal funds.

About three quarters of UC's federal research funds came from two agencies: the National Institutes of Health and the National Science Foundation.

Fluctuations in federal appropriations have a major impact on research expenditures. Cutbacks at key federal agencies during 2006, for example, accounted for the slight dip in research expenditures shown here, while the increase shown

for 2009–10 and 2010–11 is due largely to American Recovery and Reinvestment Act (ARRA) funding to UC, which has totaled over \$1 billion since the program's inception in 2009. Cutbacks in federal appropriations for research & development are expected to have a significant impact on UC's research enterprise in FY 2012-13.

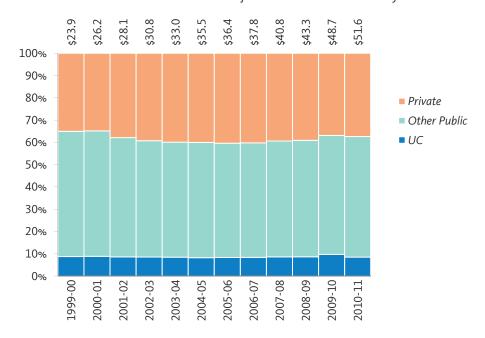
University support, which accounted for 22 percent of all direct research expenditures in 2011–12, comes from a variety of sources. These institutional funds include UC general funds (which include a portion of the dollars returned as indirect cost recovery), student tuition, state government specific appropriations, endowment income, and gifts from industry and foundations.

<sup>&</sup>lt;sup>1</sup> Amounts have been adjusted for inflation and do not include accrual funds for postemployment retirement benefits or indirect cost recovery funds.

## The University of California performs about one-twelfth of all the academic research and development conducted in the United States.

10.2.4 UC share of U.S. research expenditures Universitywide 1999–2000 to 2010–11

Note: totals in billions of non inflation-adjusted dollars shown above year

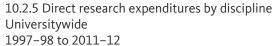


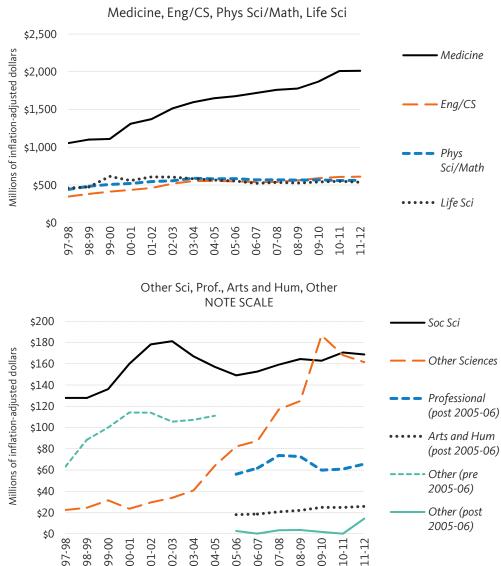
Source: IPEDS

UC's contribution to the academic research and development activity in the U.S., as reported through IPEDS, has remained fairly constant over the last decade, at about 8 percent. UC's growth has kept pace with all other public universities, although overall, the proportion of research conducted at private institutions has increased slightly since 1999–2000.

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## Expenditures for research in the medical fields have increased by 90 percent since 1997–98, compared to 46 percent for all other disciplines.



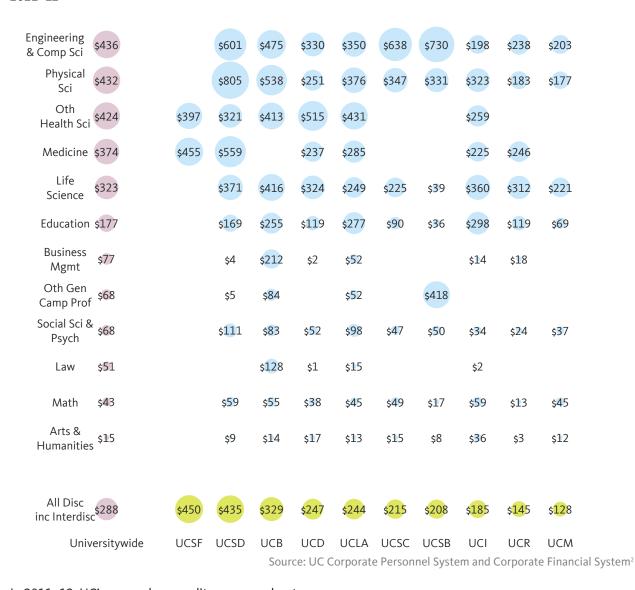


Prior to 2005-06, "Other" included Professional and Arts and Humanities. Source: UC Corporate Financial System

Research expenditures in all STEM (Science, Technology, Engineering and Mathematics) and medical fields represented over 90 percent of total research expenditures each year during the past decade. Measures based on research expenditures substantially underrepresent research activity in the social sciences, arts and humanities, and professional disciplines, which make important contributions to scholarship and the quality of life, yet have relatively little access to external research funding.

### Annual research expenditures per eligible principal investigator are highest in Engineering and Computer Science and in Physical Sciences.

10.2.6 Average research expenditure per eligible principal investigator¹ by discipline, thousands of dollars Universitywide and UC campuses 2011–12



In 2011–12, UC's research expenditures were about \$4.2 billion, and 14,500 individuals were eligible to be principal investigators, resulting in the Universitywide average of \$288,000 per PI shown in

the chart above.

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<sup>&</sup>lt;sup>1</sup> A principal investigator is a person authorized by the Academic Personnel Manual to apply for and receive grants. Nearly all are faculty, professional researchers or academic administrators. For more information, see the data glossary.

<sup>&</sup>lt;sup>2</sup> Amounts in this chart were calculated by finding the total of direct research expenditures by discipline, then dividing that amount by the number of individuals in those disciplines on each campus who were eligible to serve as principal investigators.

#### The number of faculty publications is one measure of faculty research productivity.

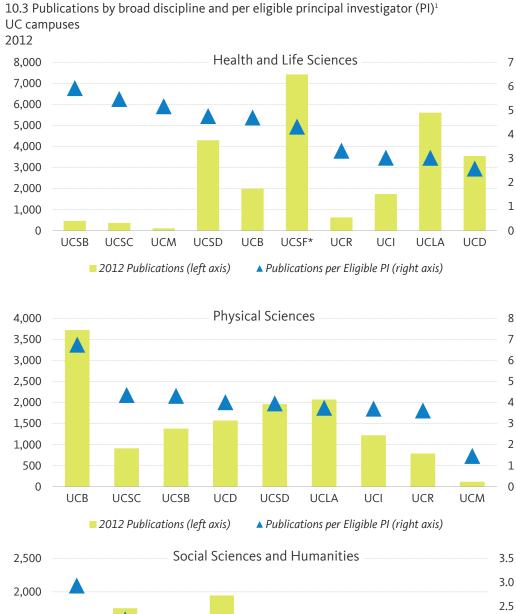
The charts on the following page show faculty publications across three broad academic disciplines: health and life sciences, physical sciences and engineering, and social sciences and humanities. Some important caveats guide their interpretation and use.

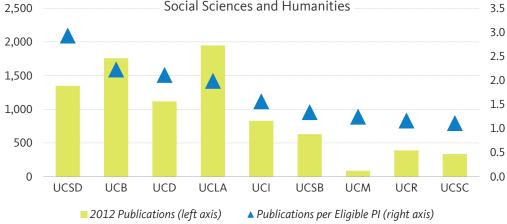
Within a given academic discipline, differences in the level of faculty publications are due to a number of factors, among them the nature of scholarship in a given field, size of departments and the number of faculty at each campus working in a particular field. Davis, Irvine, Los Angeles, San Diego and San Francisco, for example, all have large medical schools and associated faculty and researchers, and accordingly show disproportionately high levels of publications in the health and life sciences.

Published outputs cannot be used to compare faculty research productivity across disciplines. The range of types, frequency and venues for the dissemination of research varies greatly among academic disciplines. Also, the number of newly hired faculty and researchers can affect a campus's measure here, as it takes time for a new hire to publish articles.

Some disciplines favor shorter, multi-authored publications while other disciplines favor longer, sole-authored publications. Co-authorship, for example, is more common in the life and physical sciences, where credit may be shared with a team of researchers, than in the social sciences and humanities, where papers tend to be single-authored. Thus, faculty in the life and physical sciences may have more publications credited to them than faculty in the social sciences and humanities, in part because of different publication norms.

Faculty in the social sciences and the humanities also publish books as well as scholarly articles; however, the 2012 Web of Science database, from which the data for this indicator are drawn, focuses principally on journals, and its coverage of books is much less thorough. Thus, it underestimates faculty research contributions in the arts, social sciences and humanities.



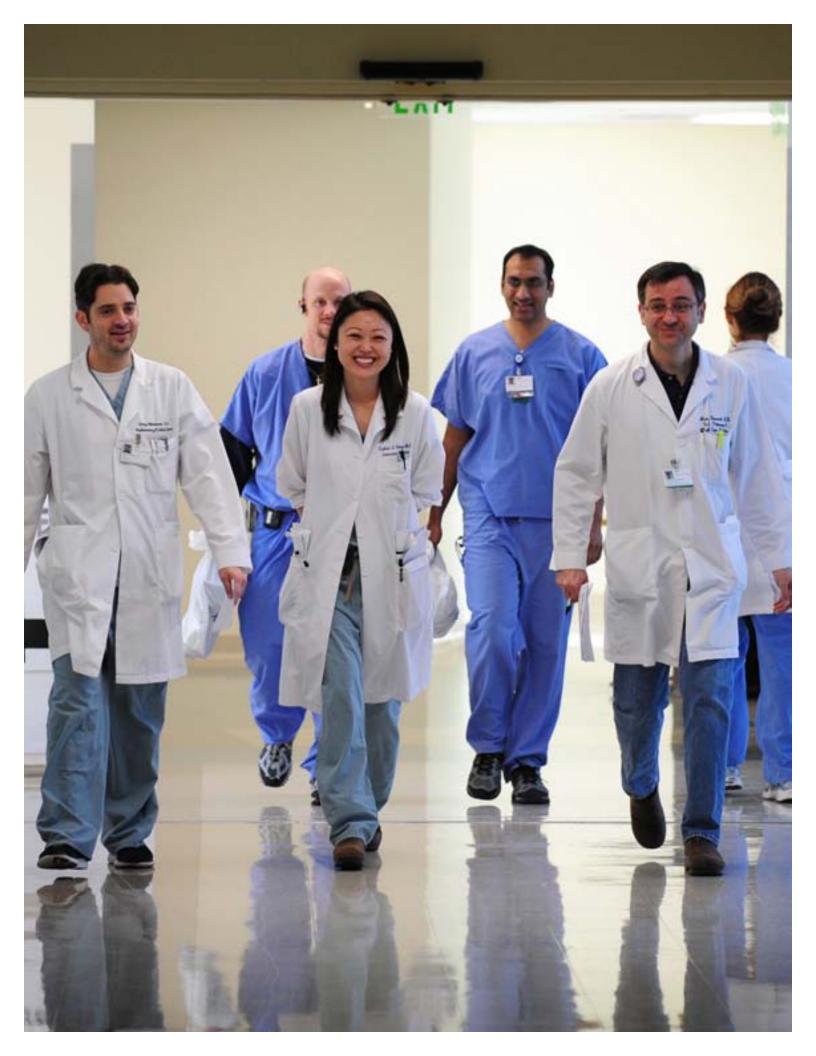


Source: Web of Science and UC Corporate Personnel System. All UCSF publications are included in health/life sciences.

Eligible PI count is from winter 2011-12.

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<sup>&</sup>lt;sup>1</sup> Information on eligible principal investigators (PI) can be found in Indicator 10.2.6.



### **Chapter 11. Health Sciences and Services**

#### Goals

Under California's *Master Plan for Higher Education*, the University of California is delegated primary responsibility in public higher education for doctoral education. For the health professions, this means that UC is the only California public institution chartered to grant the following professional degrees: D.D.S. (Doctor of Dental Science), M.D. (Doctor of Medicine), O.D. (Doctor of Optometry), Pharm.D. (Doctor of Pharmacy) and D.V.M. (Doctor of Veterinary Medicine). Along with other public educational institutions, UC also provides doctoral education leading to Ph.D. degrees in Nursing and Public Health, as well as the Dr.P.H. (Doctor of Public Health) degree.

UC health sciences programs have grown and emerged as national and international leaders in teaching, research and clinical care. In support of these programs, Health Sciences and Services (HSS) provides leadership and strategic direction to advance the missions of the University's 17 health professional schools and ten hospitals, collectively referred to as UC Health. HSS works within and across the system to advance operational initiatives at individual UC health sciences campuses and to develop systemwide initiatives that add value beyond the sum of individual campus contributions.

#### Keeping California healthy

The University of California operates the largest health sciences instructional program in the nation, enrolling more than 14,000 students annually. The systemwide instructional program includes six schools of medicine and three smaller medical education programs (located in Berkeley, in Fresno, and at the Charles R. Drew University of Medicine and Science); three schools of nursing (and one program in nursing science); two schools each of dentistry, pharmacy and public health; and one school each of optometry and veterinary medicine. The long-standing medical education program that has operated as a joint program between UC Riverside and UCLA for more than 30 years has transitioned to an independent UC medical school,

which will enroll its inaugural class of 50 students in fall 2013.

The University of California's five academic medical centers (Davis, Irvine, Los Angeles, San Diego and San Francisco) provide a vast resource for the clinical training programs of UC health professional schools. These centers prepare future generations of health professionals; catalyze major advances in biomedical and clinical research; and serve as California's fourth largest health-care delivery system, employing approximately 5,000 faculty physicians and more than 36,000 hospital staff, including 10,000 nurses. UC staffs five major trauma centers, providing half of all transplants and one-fourth of extensive burn care in the state. UC medical centers manage more than 144,000 inpatient admissions, 290,000 emergency room visits and 3.9 million outpatient visits each year. Approximately 60 percent of UC patients are uninsured or covered by Medi-Cal. Roughly 60 percent of all hospital days are from Medicare, Medi-Cal or uninsured patients. In support of its teaching, research and public service missions, UC health programs also maintain active relationships with more than 100 affiliated Veterans Affairs, county and community-based health facilities located throughout California.

In view of the size and contributions of healthrelated programs across the UC system, select performance indicators related to students, faculty and research are included both in this chapter and in the respective sections of this report that are devoted to those categories. For example, indicators related to students enrolled in UC professional degree programs are also included in Chapter 5 (Graduate Academic and Professional Degree Students). Chapter 6 (Faculty and Other Academic Employees) includes indicators related to UC faculty appointments, headcounts and conference of doctoral degrees. Information regarding diversity is found in Chapter 8. Research workforce indicators for medicine and health sciences, as well as indicators for general funding and expenditures, are included in Chapter 10 (Research).

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In addition, this chapter includes information and performance indicators for various aspects of the University's health sciences system, including information regarding health professional degree students; health science instruction and research expenditures; and the health science academic workforce. This section also includes a number of indicators and metrics related to the University's health care delivery system.

#### Looking forward

California's population is growing, aging and increasing in diversity. Already the most populous state in the nation, California's population is projected to grow 39 percent from 2012 to 2060.1 Statewide shortages of health providers already exist in many health professions and future shortages loom in others. These challenges will grow as health care reforms drive increasing demand for quality and accountability in the delivery of health services. At a time of unprecedented budgetary challenges, the financial success of UC medical centers has been an important resource for helping to back-fill diminishing state support for UC schools of medicine. However, the changing environment for health care signals changes that threaten this financial success and the ability of the medical centers to help support the academic mission of UC medical schools. Among these financial challenges are: 1) reductions in federal and state spending for programs such as Medicare, Medi-Cal and the National Institutes of Health; and 2) challenges associated with the implementation of health care reform.

Notwithstanding these challenges and the uncertainties related to health reform, UC Health is working to support new initiatives and developments to help meet current and future health care needs. Within the health professions, these include: the opening of the Betty Irene Moore School of Nursing at UC Davis; the creation of new programs at each UC medical school in medical education focusing specifically on the needs of medically underserved communities; and the

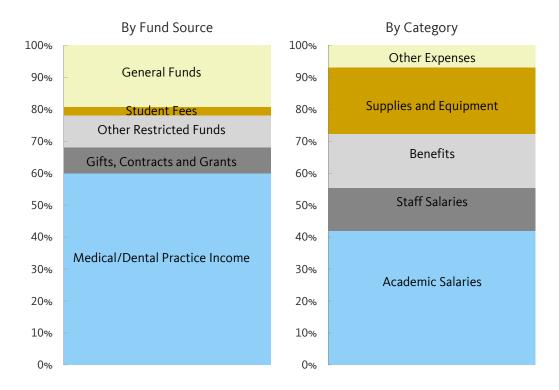
<sup>1</sup> CA Department of Finance: www.dof.ca.gov/research/demographic/reports/ projections/interim/view.php opening of a new medical school at UC Riverside concentrating on the needs of California's Inland Empire, making UCR the first new allopathic (MD-granting) medical school to open in California in more than 40 years. To recognize and accelerate implementation of innovative practices in clinical care, UC Health launched the new UC Center for Health Quality and Innovation in 2010. The center is expected to promote innovations in clinical care that improve patient outcomes and quality of care within the UC system and beyond. These and other activities are among the many initiatives now underway at UC to help improve quality, access and value in the delivery of health services.

#### For more information

The UC health sciences and services website, www.universityofcalifornia.edu/sites/uchealth, contains additional information about health sciences education, research and patient care activities. The January 2010 Accountability Sub-Report on Health Sciences and Services provides a fuller description of the broad sweep of the University's activities in health sciences and services, and is available at www.universityofcalifornia.edu/accountability/report. html#subreports.

# Medical and dental practice income supported over half of the instructional expenditures in the health sciences in 2011–12 (primarily for their respective educational programs).

11.1.1 Health science instructional expenditures Universitywide 2011–12



Source: UC 2013-14 Budget for Current Operations<sup>1</sup>

UC general funds provided about a fourth of expenditures in health sciences instruction. Student fees, primarily professional school fees (i.e., Professional Degree Supplemental Tuition) also contributed to funding health sciences instruction.

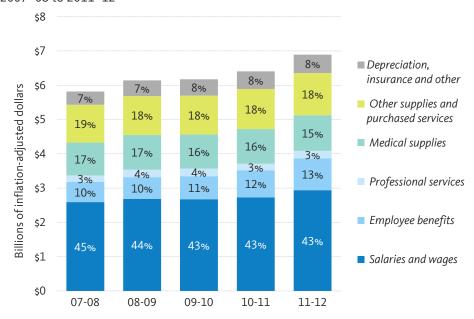
Academic and staff salaries and benefits constitute more than 70 percent of all health sciences instructional expenditures.

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<sup>&</sup>lt;sup>1</sup> For additional information, see: www.ucop.edu/operating-budget/\_files/rbudget/2013-14-budget.pdf.

## Reflecting growth in UC's clinical enterprise, inflation-adjusted medical center operating expenses have increased 26 percent over the past five years.

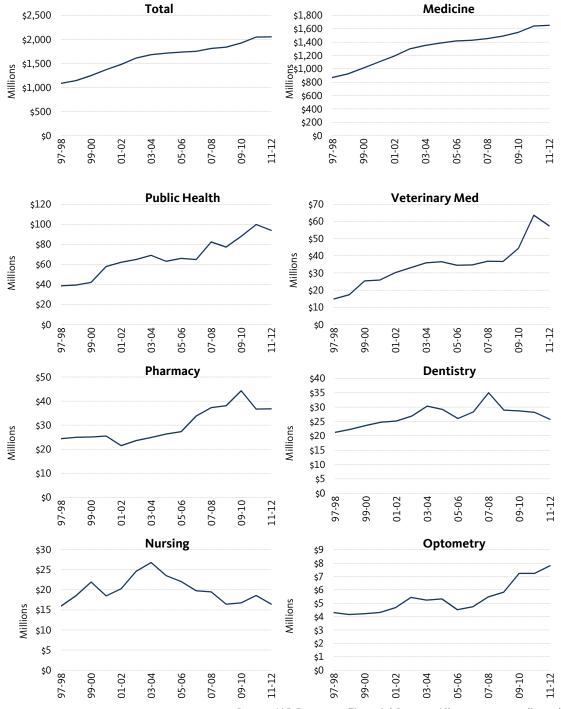
11.1.2 Medical center operating expenses Universitywide 2007–08 to 2011–12



Source: UC Medical Centers Audited Financial Statements

## Research expenditures in the health sciences made up 46 percent of all UC direct research expenditures in 2011–12 compared to 43 percent in 1997–98.

11.1.3 Research expenditures by health science discipline Universitywide 1997–98 to 2011–12

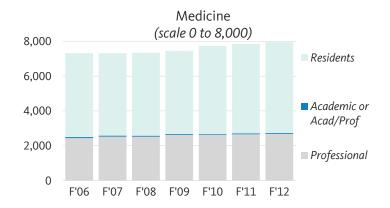


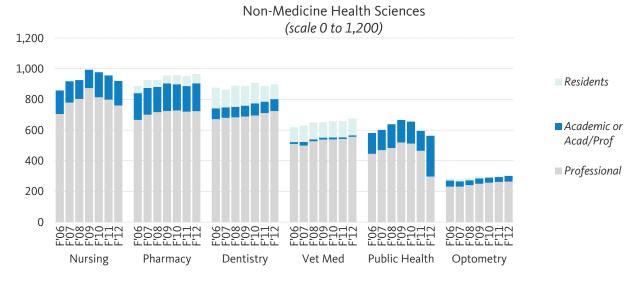
Source: UC Corporate Financial System. All amounts are adjusted for inflation.

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# Medicine is by far the largest UC health professional degree program. Medical students and residents together make up roughly two-thirds of all UC health professions students.

11.2.1 State-supported graduate health science students by discipline Universitywide Fall 2006 to 2012





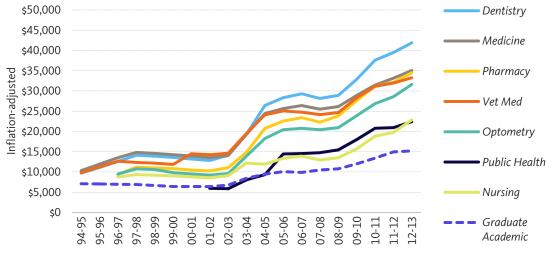
Source: UC Corporate Student System

Health science students are in one of three program categories: professional degree programs, academic programs or residency programs. Professional degree programs lead to degrees such as the M.D., D.D.S or D.V.M. Academic programs lead to the Ph.D. Residents are professional school graduates (i.e., dental, medical, optometry, pharmacy and veterinary medical schools) who participate in specialty training programs after completing their degree programs.

In addition to the approximately 12,300 students and residents described above, there are approximately 2,100 UC health science students in health-related, life-science disciplines such as biomedical science, bioengineering, neuroscience and epidemiology.

# Tuition and fees for UC students in health professions have grown rapidly over the past few years.

11.2.2 Average total charges¹ for UC Health professional degree students Universitywide 1994–95 to 2012–13



Source: UC Budget Office

Student charges include tuition and fees assessed systemwide to all graduate students, along with professional degree supplemental tuition, campusbased fees and health insurance assessed at the campus program level to professional degree students.

Professional degree fees (now referred to as professional degree supplemental tuition) vary across programs and across campuses; the figures shown above are the averages across all campuses with the associated programs.

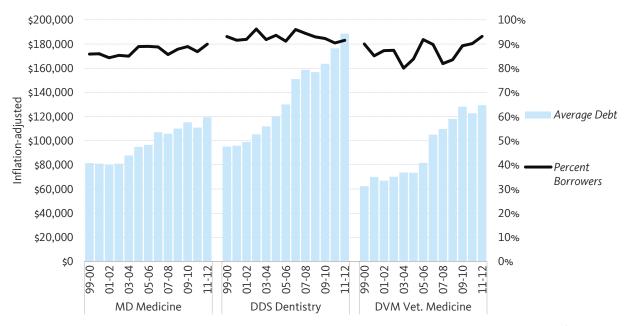
State support for UC's professional schools declined significantly during recurring state fiscal crises that began in the early 2000s. This has resulted in a dramatic increase in professional fees. The figures above demonstrate the steady and substantial rise in total required charges over the past decade. Between 2002–03 and 2012–13, average total inflation-adjusted charges for UC medical schools increased from approximately \$14,000 to \$35,000 for California residents — a jump of 149 percent. Total charges now exceed those of comparison public institutions and in some cases may be equal to or greater than the average for comparison private institutions.

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<sup>&</sup>lt;sup>1</sup> Calculated as the mean of total California resident charges at each campus. Includes mandatory tuition and fees (educational and student services), professional degree supplemental tuition, health insurance, campus-based fees and other fees where applicable. Averages are simple averages based on campus amounts; the number of students in each program is not taken into account.

## As fees for UC health professional degree students have increased, so has student debt.

11.2.3 UC Health student debt at graduation Universitywide 1999–2000 to 2011–12



Source: UC Corporate Student System<sup>1</sup>

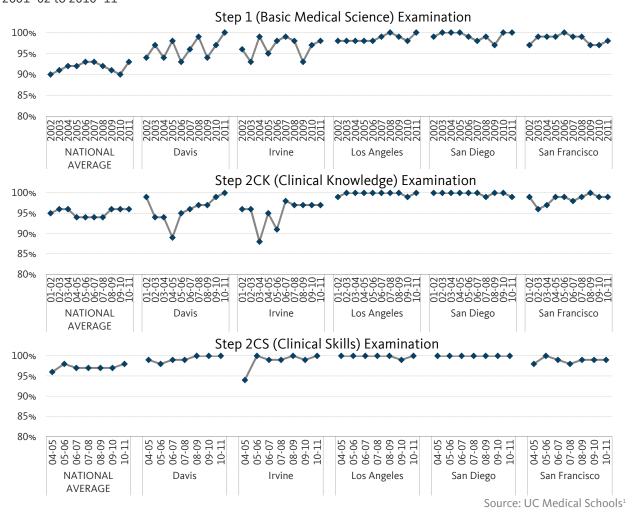
Increases in tuition over the past decade have increased the debt burden of UC health professional degree students. Rapid increases in the average student debt of graduates of UC schools of dentistry, medicine and veterinary medicine are illustrated in the figure shown above, and are representative of debt patterns for other health science professional programs. With rising tuition and fees comes a cumulative impact over the course of a student's enrollment in a program. For example, a medical student graduating in 2000 would have paid approximately \$57,000 in tuition and fees over four years when adjusted for inflation. A medical student graduating in 2012 would have paid approximately \$120,000 (inflationadjusted). The figure above aligns with the increase in debt burden over this same period.

At least one-third of the revenue from professional school fees is used to provide financial aid to help maintain the affordability of a professional school education. Nonetheless, the cumulative impact of these rapid increases raises serious concerns regarding the educational debt burden for graduates of UC's professional degree health science programs and the University's ability to recruit the most highly qualified health science students. Anticipated debt levels are also identified as a major concern by students who have previously expressed interest in primary-care careers and/or one day practicing in a medically underserved community or health professional shortage area.

<sup>&</sup>lt;sup>1</sup> Average debt is for those with debt.

# The proportion of UC medical students passing the United States Medical Licensing Examination (USMLE) is consistently higher than the national average.

11.2.4 United States Medical Licensing Examination (USMLE) pass rates UC medical schools 2001–02 to 2010–11



Sponsored by the Federation of State Medical Boards and the National Board of Medical Examiners, the United States Medical Licensing Examination is the examination for medical licensure in the United States.

Step 1 assesses whether a student understands and can apply important concepts of the sciences to the practice of medicine, with special emphasis on

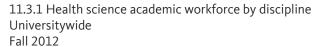
principles and mechanisms underlying health, disease and modes of therapy.

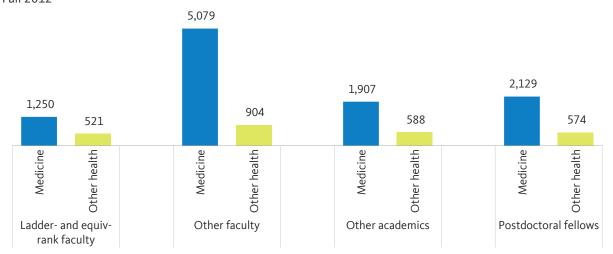
Step 2 assesses whether a student can apply medical knowledge, skills and understanding of clinical science, including emphasis on health promotion and disease prevention. Step 2 has two components: Clinical Knowledge (CK) and Clinical Skills (CS).

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<sup>&</sup>lt;sup>1</sup> Data presented here represent overall pass rates; students can take the USMLE exams multiple times if they do not pass. The national average is based on M.D. students in the United States and Canada. Step 1 results are collected based on the calendar year while Step 2CK and 2CS are collected on a fiscal year basis. The availability of historical data differ by exam.

# In fall 2012, about 40 percent of all UC faculty worked in health science disciplines. These faculty made up a fifth of all ladder rank faculty and two-thirds of all other faculty across the UC system.<sup>1</sup>





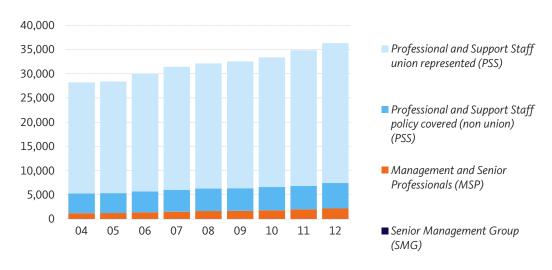
Source: UC Corporate Personnel System and Decision Support System

Other faculty are primarily clinical faculty; other academics are primarily researchers. In fall 2012, 44 percent of postdoctoral fellows were in health science disciplines.

<sup>&</sup>lt;sup>1</sup> Statistics are by headcount rather than FTE. Headcount numbers tend to be larger than FTE, especially in the health sciences, because non-ladder-rank health science faculty, such as clinical faculty, are more likely to have joint or partial appointments.

# The majority of medical center staff are in UC's Professional and Support Staff (PSS) personnel program; the majority of these are unionized.

11.3.2 Medical center staff by personnel program Universitywide Fall 2004 to 2012



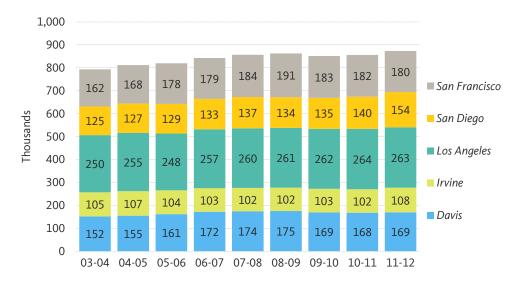
Source: UC Corporate Personnel System

Three unions — AFSCME Patient Care Technical Union, the California Nurses Association and the UPTE Health Care Professionals — represent more than 90 percent of the unionized medical center employees.

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# UC hospitals provide almost 900,000 inpatient days a year and serve a significant number of patients statewide.

11.4.1 Hospital inpatient days UC medical centers 2003–04 to 2011–12



Source: UC Medical Centers' Audited Financial Statements<sup>1</sup>

The University's academic medical centers operate in urban areas. Three of the five centers are former county hospitals. Each medical center has several primary care and specialty clinics distributed in the communities they serve.

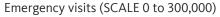
In addition to providing primary and specialty care, UC medical centers treat critically ill newborns, care for cancer patients and treat half of all transplant patients and one-quarter of extensive burn cases in California. As tertiary and quaternary care centers, they also treat patients from other hospitals that have exhausted all other efforts.

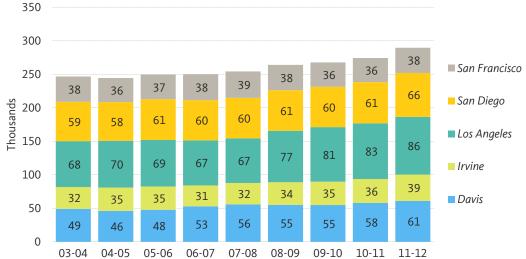
"Inpatient days" represents the total number of days that all patients spend in a hospital bed. The graphs presented here display the total number of inpatient days at the five UC medical centers.

<sup>&</sup>lt;sup>1</sup> UCLA Medical Center = UCLA Medical Center, Ronald Reagan, Santa Monica and Resnick Neuropsychiatric UCSD Medical Center = UCSD Medical Center, Hillcrest and Thorton UCSF Medical Center = UCSF Medical Center, Parnassus and Mt. Zion

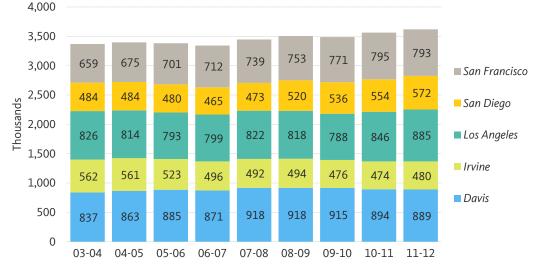
## UC medical centers handle almost 4 million outpatient visits per year.

11.4.2 Outpatient visits UC medical centers 2003–04 to 2011–12





Other outpatient visits (includes home health, clinic and other visits) (SCALE 0 to 4 million)



Source: UC Medical Centers Audited Financial Statements

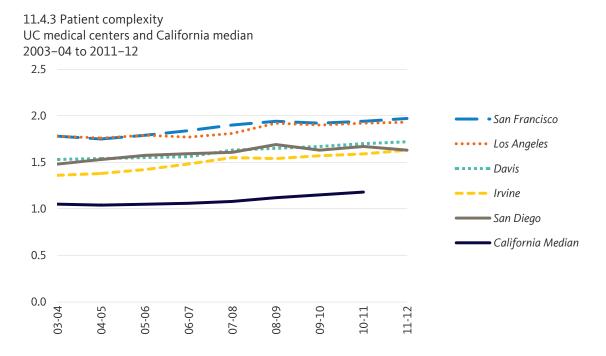
Outpatient visits are defined as visits during which patients see either a physician or a nurse practitioner in a clinic. Visits to other units, such as radiology, laboratory and physical therapy, are not counted as outpatient visits.

application of new knowledge and the development of new diagnostic and therapeutic techniques.

The medical centers provide a full range of health care services and are sites for testing the

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The cases treated by UC medical centers tend to be more complicated than are typical for medical centers and hospitals in California. The difference has grown during the past eight years.

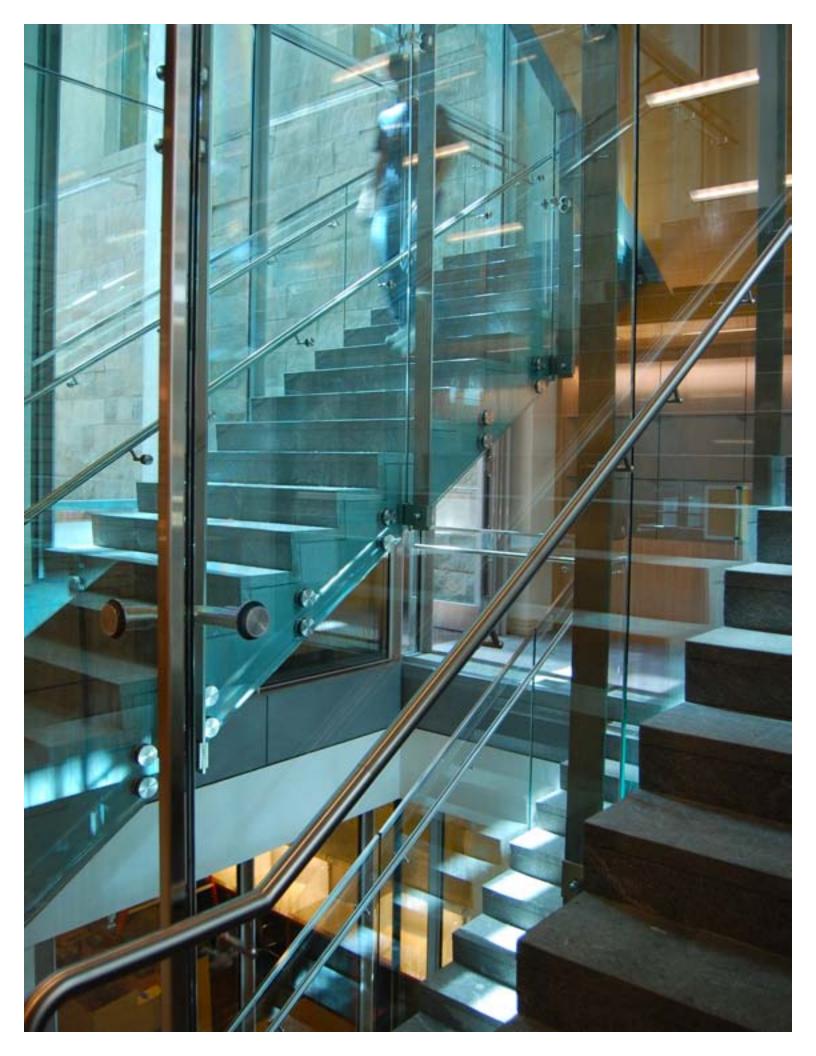


Source: UC Medical Centers' Audited Financial Statements and the CA Office of Statewide Health Planning and Development

The "Case Mix" Index is a standard hospital metric for addressing the question: "How sick are our patients?" Hospitals with patients who tend to be more seriously ill score higher on the index, which translates into more resources used per patient by the hospital and higher costs. A patient of average complexity scores 1.0 on the index. The index has been rising at each of the medical centers, reflecting growth in highly complex care, including complex surgical cases and transplants.

The patient mix at the UC medical centers reflects the role of these centers as tertiary referral hospitals that often serve sicker patients and those with the most complex cases. As noted earlier, they treat critically ill newborns, care for cancer patients and treat half of all transplant patients and one-quarter of extensive burn cases in California.

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## **Chapter 12. University Finance and Private Giving**

#### Goals

The University of California seeks to develop reliable and growing sources of revenues, including a strong investment from the state, and to utilize these resources in a strategic and cost-effective manner to sustain its tripartite mission of teaching, research and public service.

## Funding trends

Totaling \$23 billion in 2011–12, the University's revenues fund its core mission activities, as well as a wide range of support activities, including teaching hospitals, the Lawrence Berkeley National Laboratory, UC Extension, housing and dining services, and other functions.

Prior to 2010–11, state funding was the largest single source of support for the education function at the University. Over the past ten years, state educational appropriations have fallen over \$1 billion in inflation-adjusted dollars despite the fact that UC has added students over this period. As a consequence, state educational appropriations constituted only 9 percent of UC's operating budget in 2011–12 compared to 23 percent in 2001–02. Since 2007-08, the State has cut UC's budget by \$900 million, including \$750 million in 2011-12 alone.

To help mitigate declines in state funding, the University has sought to increase revenues from other sources, such as student tuition and fees, federal indirect cost recovery and private giving. The University has also moved aggressively to reduce operating costs. Chapter 13 identifies some of the cost savings the University has achieved. Yet even under the most optimistic assumptions, efficiency improvements and alternative revenue generation can offset only a portion of the budget shortfalls projected over the next few years.

This chapter summarizes the financial challenges that the University has faced up through the 2011–12 fiscal year. Revenue and expenditure data show changes in both the amounts generated (or

expended) over time and their distribution across various areas. Development data cover trends in private support, donor restrictions on private giving, alumni donations and endowment per student. Other chapters in this report describe the impacts of budget cuts on the University's core mission activities and on its ability to balance its objectives of academic quality, access and affordability.

## Looking forward

The November 2012 passage of Proposition 30 by California voters combined with improvements in the California economy promise to bring some stability to the state budget and thus to the UC budget. UC met the recent budget challenges by reducing operating costs and identifying alternative sources of revenues. In addition, the University is making comprehensive changes in the way funds flow within the University.

Historically, certain revenues have been collected centrally by the UC Office of the President and redistributed across campuses to promote systemwide priorities. Following lengthy consultation with campus leadership, and beginning in 2011–12, all campus-generated funds — tuition and fees, research indirect cost recovery, and patent and investment income — have been retained by or returned to the source campus. To support central operations, the University has established a broad-based, flat assessment on campus funds. The University anticipates that these changes — referred to as the Funding Streams Initiative — will simplify University financial activity, improve transparency and motivate campuses to maximize revenue.

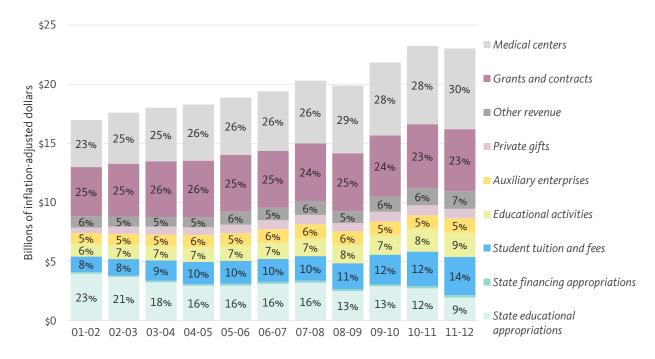
#### For more information

For more information on UC's budget, refer to www.ucop.edu/operating-budget/budgets-and-reports/index.html.

More information about private support is available in the *Annual Reports on University Private Support* at www.ucop.edu/institutional-advancement/.

# Between 2001-02 and 2011-12, state educational appropriations decreased from 23 percent of UC revenues to 9 percent.

12.1 Revenue by source Universitywide 2001–02 to 2011–12

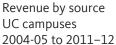


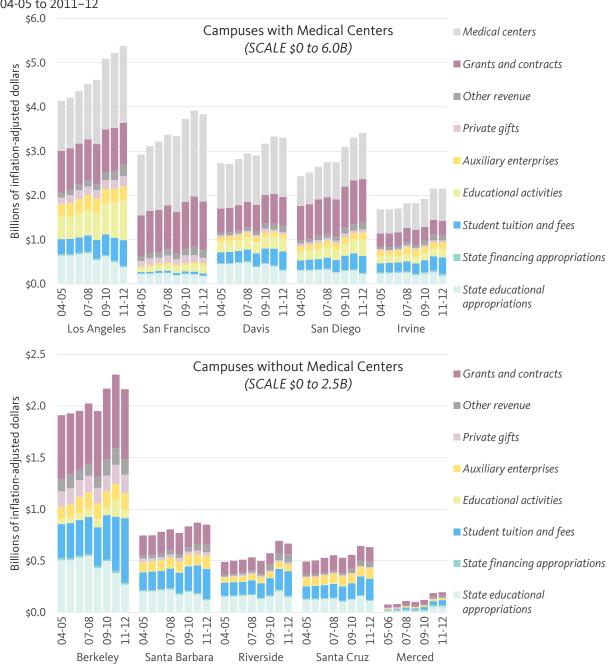
Source: UC Corporate Financial System (see footnote on following page)

The steep decline in state educational appropriations as a proportion of UC's total revenues over the past decade is a function of two trends: firstly, a long-term decline in state support from \$3.9 billion to \$2.8 billion in inflation-adjusted dollars; and secondly, an increase in revenues from other sources, such as medical centers, contracts and grants, and student tuition and fees.

Private gift funding shown in the chart above does not include gifts to UC foundations (\$740 million in 2011-12) that are reported in the foundations' audited financial statements, not the UC-wide statements.

#### 12.1 REVENUE



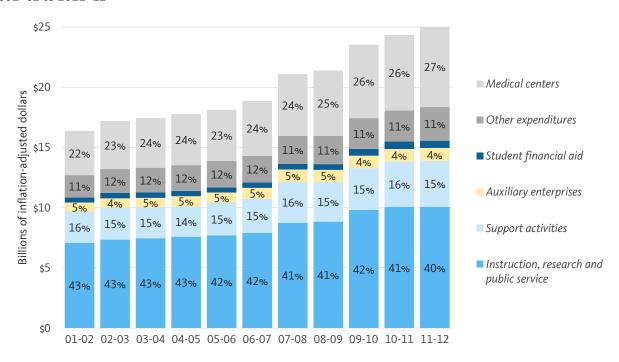


Source: UC Audited Financial Statements<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Figures are in billions of inflation-adjusted 2011–12 dollars; Department of Energy laboratories, including the Lawrence Berkeley National Laboratory, are excluded. The Davis, Irvine, Los Angeles, San Diego and San Francisco campuses operate medical schools and teaching hospitals. In addition to the funds associated with medical school and teaching hospital operations, these programs help campuses attract additional contract and grant revenue. Campus data are not available prior to 2004-05.

# Although total expenditures have increased by about 50 percent in the last decade, the distribution of expenditures by function has remained stable.

12.2 Expenditures by function Universitywide 2001–02 to 2011–12



Source: UC Audited Financial Statements<sup>1</sup>

Teaching, research and public service accounted for 40 percent of total expenditures during 2011–12.

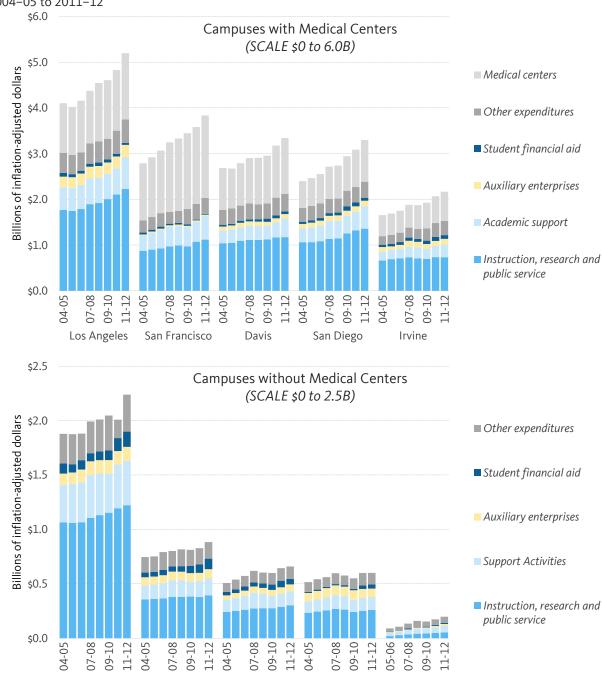
Medical centers and auxiliary enterprises, such as housing and dining services, accounted for 31 percent of operating expenditures in 2011–12.

Libraries and other academic support services, such as instructional technology, student services, administration and general campus (but not medical center) operation and maintenance of plant, accounted for 15 percent of total expenditures.

<sup>&</sup>lt;sup>1</sup> Figures are in billions of inflation-adjusted 2011–12 dollars. Medical centers include UC's hospitals and other patient care activities; auxiliaries include operations such as food service, parking and student housing; other expenses include interest, depreciation and other miscellaneous expenses. Department of Energy laboratories, including the Lawrence Berkeley National Laboratory, are not included in the data above. Audited financial statements are at www.universityofcalifornia.edu/reportingtransparency.

### **12.2 EXPENDITURES**





Source: UC Audited Financial Statements<sup>1</sup>

Riverside

Santa Cruz

Merced

**Finance and Private Giving** 

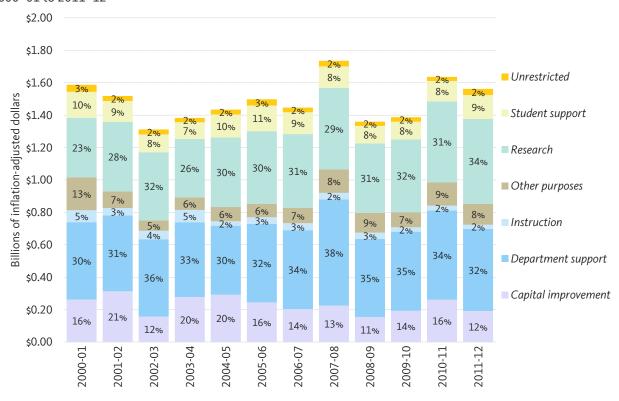
Berkeley

Santa Barbara

<sup>&</sup>lt;sup>1</sup> Figures in billions of inflation-adjusted 2011–12 dollars. The Davis, Irvine, Los Angeles, San Diego and San Francisco campuses operate medical schools and teaching hospitals. In addition to the funds associated with medical school and teaching hospital operations, the programs help campuses attract additional contract and grant revenue.

## Virtually all gift funds (98 percent) are restricted by donors in how they may be used.

12.3.1 Current giving by purpose Universitywide 2000–01 to 2011–12



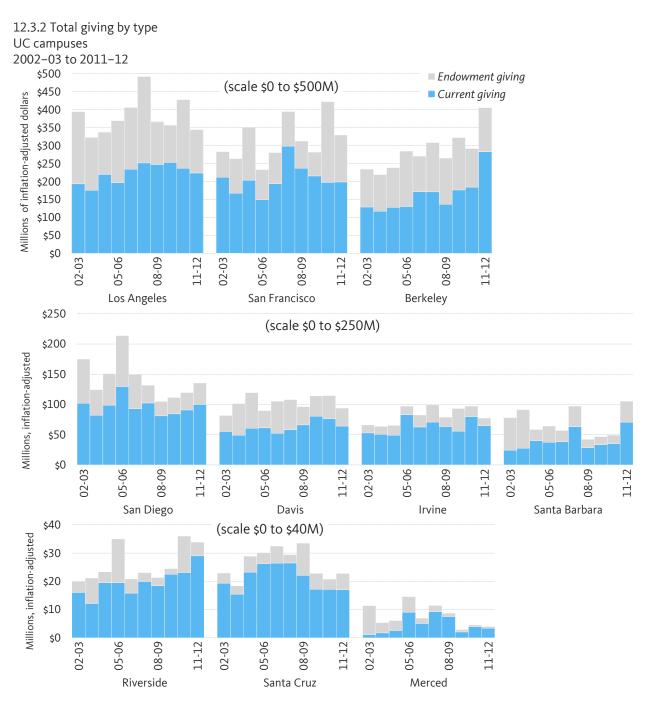
Source: UC Institutional Advancement, figures are adjusted for inflation

In 2011–12, new gifts to the University totaled more than \$1.5 billion, the second year that UC has achieved this milestone. It was also the twelfth consecutive year that UC's fundraising efforts resulted in more than \$1 billion in annual gifts and donations. Virtually all of these funds are restricted for specific purposes and are not available to support general operating costs. In addition, approximately \$335 million was designated for endowment, so only the income/payout is available for expenditure.

The University's remarkable achievement in obtaining private funding in recent years — even during state and national economic downturns — is a testament to UC's distinction as a leader in philanthropy among the nation's colleges and universities and the high regard in which the University is held by corporations, foundations, its alumni and other supporters.

The University is aggressively pursuing increased philanthropic giving as a means to help address budget shortfalls and expand student financial aid.

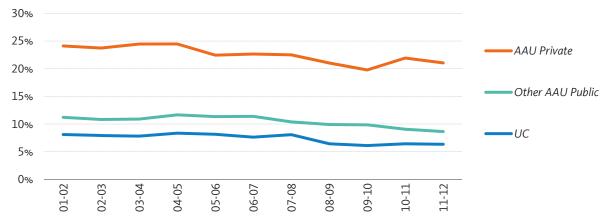
# A campus's ability to raise money is related to its age, number of alumni and presence of health science programs, which attract nearly half of all private support at UC.



Source: Council on Aid to Education (CAE)

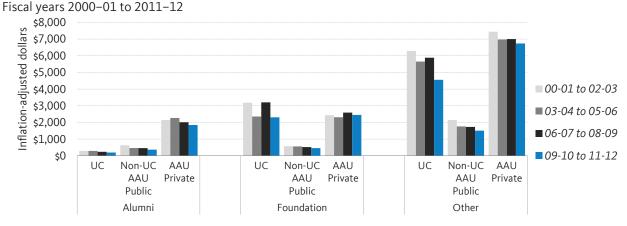
# Over the last decade, the percent of alumni who donate to their alma mater has declined at both public and private institutions.

12.3.3 Percent of alumni who donate Universitywide and comparison institutions 2001-02 to 2011–12



Source: Council on Aid to Education (CAE). Calculated as the percent who donate at each campus and divided by the number of campuses in the group. UC Merced is excluded due to small numbers of alumni.

12.3.4 Support from specific groups per alumni of record Universitywide and comparison institutions



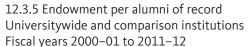
Source: Council on Aid to Education (CAE). Calculated as the amount per alumni of record at each campus and divided by the number of campuses in the group. UC Merced is excluded due to small numbers of alumni.

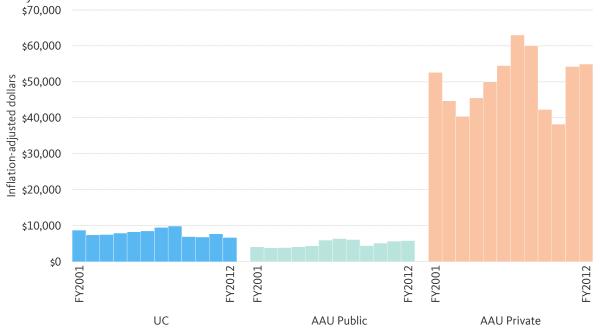
Alumni: In general, alumni from public institutions are less likely to donate to their alma mater than alumni from private institutions. While UC has a significant number of very generous alumni, historically, the importance of private giving has not been emphasized. As a result, alumni giving has stayed at a low level.

**Foundations**: UC's preeminence in numerous academic areas results in considerable support from private foundations, especially in the areas of medical and scientific research.

Other sources: These are donors such as corporations, non-profit organizations, faculty, staff, parents and current students. UC does better on a per-alumni basis from other sources than the other AAU publics.

# On average, UC has a slightly higher endowment per alumni than the AAU publics, but significantly less than the AAU privates.



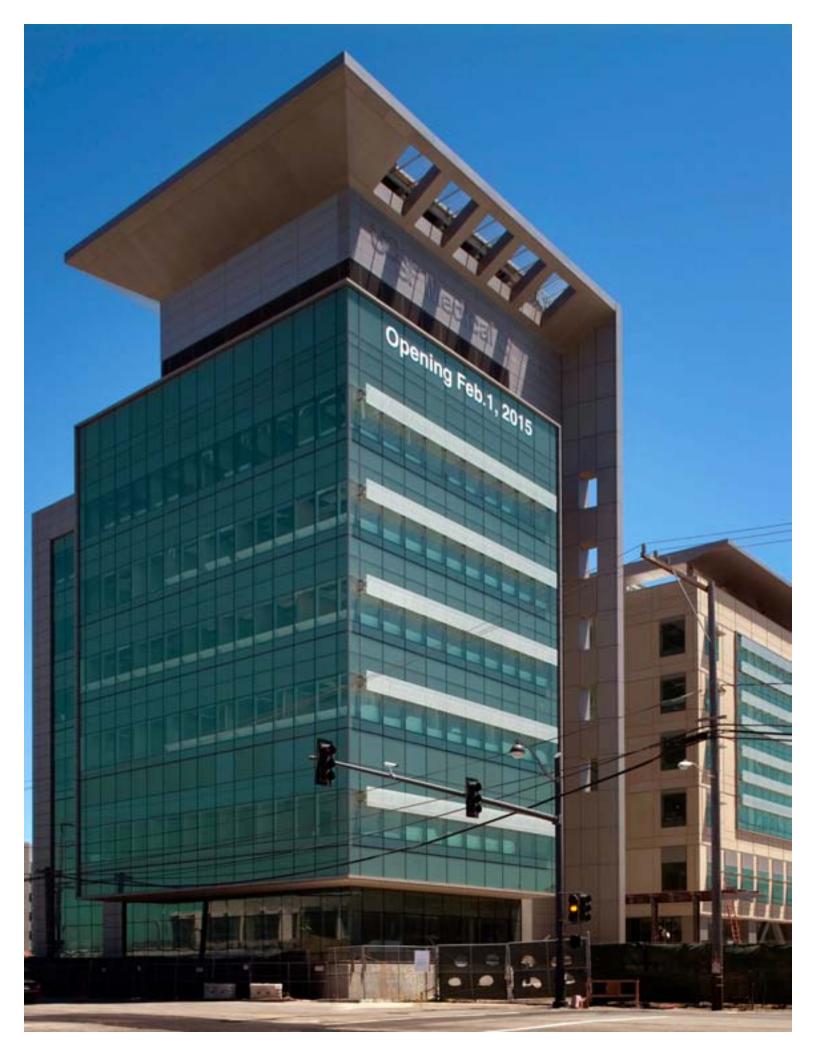


Source: Council on Aid to Education (CAE). Calculated based on the endowment per alumni of record at each campus divided by the number of campuses in each group. UC Merced is excluded.

UC's endowment consists of money or property donated to the University, usually with the stipulation that the principal be maintained. The total value of UC's endowment as of June 2012 was \$10.3 billion. Of this, only 8 percent of UC endowment funds are unrestricted, with the remainder earmarked by donors for specific purposes. The distribution from interest earned by the endowment supports a range of activities, including research and student financial aid. In 2011–12, UC's endowment distributed \$380 million, an increase of \$25 million from the prior year. Only \$16 million of these distributions were unrestricted.

As the University's state appropriation continues to decline, the importance of endowment funding grows. However, it will not readily replace lost state support. The University's endowment would have to increase two and a half times from its current value (from \$10.3 billion to more than \$25 billion) in order to cover the \$750 million reduction in state funding UC suffered in 2011–12 alone. Restrictions on the use of endowment funds imposed by donors would also have to be eliminated, raising legal and ethical concerns.

University endowment funds declined significantly from their high-water mark in 2007–08 because of the global economic downturn and its impact on the financial markets. However, endowments have recently recovered and are roughly equal to their value of several years earlier.



## **Chapter 13. Capital Program and Sustainability**

## UC's capital program

The University maintains more than 5,000 buildings enclosing 130 million square feet on approximately 30,000 acres across its ten campuses, five medical centers, nine agricultural research and extension centers, and the Lawrence Berkeley National Laboratory. With such a substantial infrastructure, the University strives to be a good steward of the capital resources entrusted to its care.

The amount and predictability of state funding is the largest single issue currently facing UC's capital program. Over the past ten years, state funds have accounted for only about one-fifth of UC's capital program; non-state sources have funded the remaining projects. To the extent non-state funds are used to support core academic capital needs, less funding is available to support other functions that cannot be funded by the state.

Approximately half of UC's existing space is eligible for state-funded maintenance; the other half is self-supporting space. However, since the mid-1980s, state funding for capital renewal and deferred maintenance has not been stable or predictable. This has had a significant impact on the University's limited resources and its ability to maintain its facilities.

## UC's sustainability program

UC was one of the first major research institutions to commit to environmental sustainability. In 2004, the President issued the University of California Policy for Sustainable Practices. As expressed by the Regents, "sustainability refers to the physical development and institutional operating practices that meet the needs of present users without compromising the ability of future generations to meet their own needs, particularly with regard to use and waste of natural resources." This policy,

updated in 2011, now contains eight action areas, including Green Building, Clean Energy, Climate Protection, Transportation, Recycling and Waste Management, Procurement and Food Service. The policy demonstrates the University's commitment to wise stewardship of its resources and the environment.

## Looking forward

Five indicators in this chapter describe UC's capital program; three additional indicators demonstrate UC's commitment to environmental sustainability. However, sustainability – like the capital program – affects every aspect of University operations, and in both areas it is difficult to represent UC's performance with just a few indicators. Moving forward, the University is working rapidly to develop programs that will reduce capital project costs. It is also launching better data collection systems to allow for standardized information about campus energy performance and facilitate benchmarking.

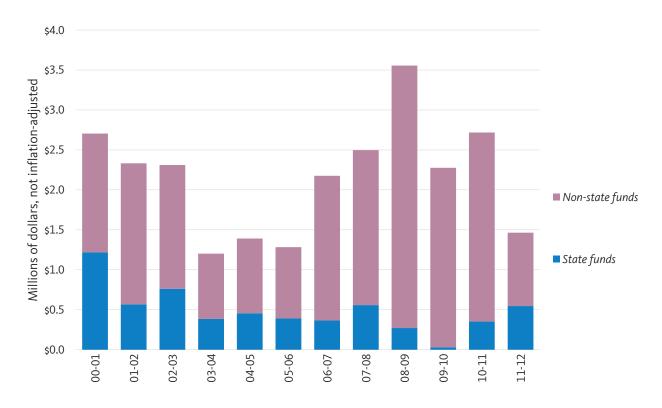
### For more information

For information about UC's capital program, visit the Capital Projects Portal at www.ucop.edu/capital-resources-management/capital-projects-portal/index.html.

For information about UC's sustainability programs, see UC's sustainability website at www.universityofcalifornia.edu/sustainability/ and UC's Annual Sustainability Report at http://sustainability.universityofcalifornia.edu/reports.html.

## The major portion of UC's capital project funding derives from non-state fund sources.

13.1.1 Sources of capital spending Universitywide 2000-01 to 2011-12



Source: UC Capital Resources

UC's capital program is funded by a combination of state and non-state funds. State funds have historically been the primary source of funding for core academic facilities. Non-state sources fund self-supporting enterprises, such as housing, parking, athletics and medical enterprises, which are generally not eligible for state funding.

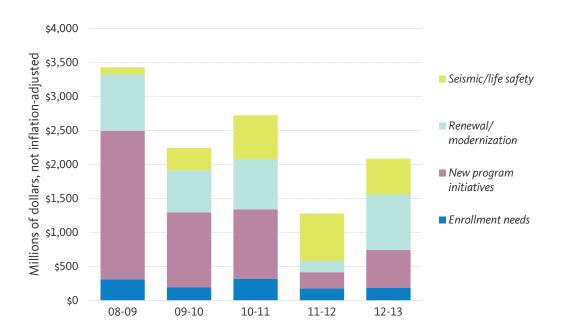
Non-state funds, which include gifts, grants, bonds and other sources, have accounted for almost 80 percent of UC's capital program funding since 2000-01.

State funding for capital projects has been unpredictable and has diminished significantly in the last few years.

The University estimates that it will need more than \$1 billion in capital funding each year over the next five years to address its most pressing facilities needs for core academic activities. These include new research and teaching facilities; correction or replacement of seismically deficient facilities; renewal or replacement of building systems; and improvements to campus utility systems.

# The majority of capital funds spent between 2008–09 and 2012–13 were for projects addressing core academic needs arising from enrollment growth and academic programs.

13.1.2 Types of capital projects Universitywide 2008–09 to 2012-13



Source: UC Capital Resources<sup>1</sup>

Enrollment needs have largely driven the University's requirement for new laboratories, classrooms, student housing and recreational facilities.

Academic, research and clinical priorities change over time. New program initiatives require specialized space, involving renovation of existing infrastructure or construction of new facilities.

As campus facilities age, they must be periodically renewed and modernized to ensure safety, extend the useful life of the building and improve energy efficiency. Heating, ventilation, electrical and plumbing systems, elevators and roofs all need to be replaced or renewed multiple times during the lifespan of a building. The University has a substantial backlog of deferred maintenance.

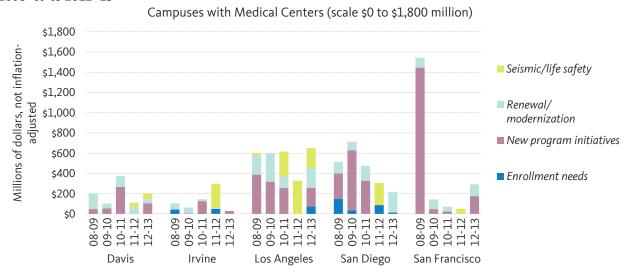
From 2008-09 to 2012-13, the University devoted \$2.3 billion to seismic and life safety corrections to buildings. As of September 2011, 87 percent of necessary seismic improvements have been completed, as measured by square footage. Much of the remaining necessary improvement is located at either Berkeley or Los Angeles campuses.<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> All non-state funds for 2012–13 are proposed, not yet approved. Figures include both state-supported and non-state-supported capital projects.

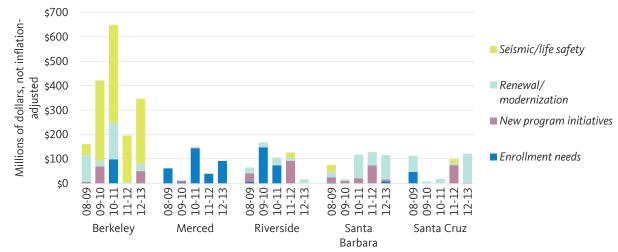
 $<sup>^2\</sup> http://www.universityofcalifornia.edu/regents/regmeet/jan12/gb3.pdf$ 

# The age of a campus and the presence of a medical school are two key factors affecting the types of capital projects recently undertaken.

13.1.3 Types of capital projects UC campuses 2008–09 to 2012–13



## Campuses without Medical Centers (scale \$0 to \$700 million)



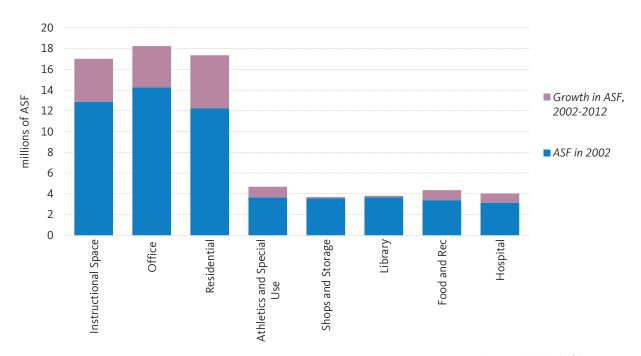
Source: UC Capital Resources<sup>1</sup>

Since 2007–08, the majority of projects at Merced, Santa Cruz and Riverside focused on facilities needs resulting from growth in enrollment. Berkeley spent a majority of its capital funds on seismic upgrades. Campuses with medical centers tended to spend the majority of their capital funds on new program initiatives, which include research and patient care facilities.

<sup>&</sup>lt;sup>1</sup> All non-state funds for 2012–13 are proposed, not yet approved. Figures include both state-supported and non-state-supported capital projects.

# Most of the growth in space over the last ten years has been for instruction and research, offices and residential uses.

13.1.4 Assignable Square Footage (ASF)<sup>1</sup> Universitywide 2002 to 2012



Source: UC Capital Resources

Total assignable square feet (ASF) of space has increased 16.4 million ASF Universitywide since 2002.

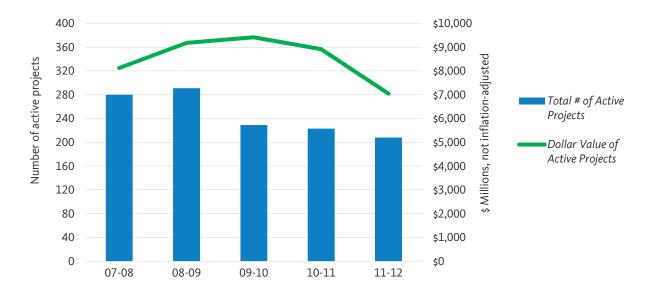
Residential space has grown as campuses work toward the sustainability goals of housing more of their student populations on campus to reduce commuting effects. Instruction, research and office space have increased over the last ten years as a new campus, UC Merced, has opened and grown, and as other campuses have experienced growth and the introduction of new programs. Overall increases in the student population have required increases in athletic, recreational and food service space.

Demand for health care at UC's teaching hospitals has increased at the same time that seismic regulations have required hospital replacements.

<sup>&</sup>lt;sup>1</sup> Assignable square footage is the space available for program uses. It does not include corridors, bathrooms or building infrastructure.

# Despite difficulties in raising capital, the University has managed a relatively steady stream of capital projects since 2007-08.

13.1.5 Active Projects Universitywide 2007-08 to 2011–12

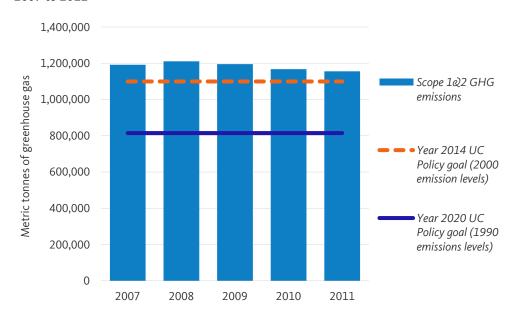


Source: UC Capital Resources

Active projects are those with approved budgets and that are under design or construction as of the last day of the fiscal year. Since capital projects typically take from three to five years to design and construct, the data for any single year represent a snapshot of a cumulative process going on over several years.

# The University has made consistent progress toward its greenhouse gas emission goals.

13.2.1 Greenhouse gas emissions Universitywide 2007 to 2011



Source: UC Capital Resources

UC has committed to reduce its greenhouse gas emissions to year-2000 levels by 2014; to 1990 levels by 2020; and to achieve climate neutrality — or zero-net impact on the earth's climate — as soon as possible. The University's goals are in line with California's statewide commitments, as articulated in Assembly Bill 32 (2006) and Executive Order S-03-05 (2005).

Campus emissions inventories for calendar years 2005-2010 have been reported and third-party verified through The Climate Registry<sup>1</sup>. Year 2000 and 1990 baseline emission inventories have not been third-party verified. The data presented here are for emissions associated with purchased electricity and steam, stationary combustion of natural gas, fuel for campus vehicle fleets, refrigerants and other industrial gases.

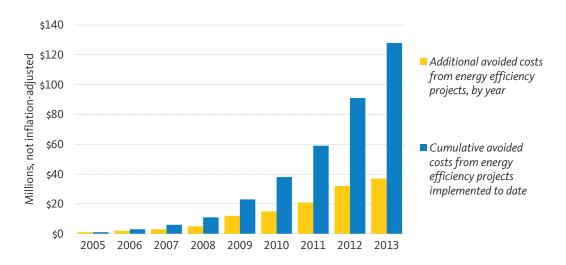
UC's climate goals are not growth-adjusted. The University has succeeded in reducing its greenhouse emissions for two consecutive years despite growth in square footage and enrollment.

The data above only account for Scope 1 and Scope 2 emissions. Scope 1 encompasses emissions that result directly from campus activities, primarily fossil fuel combustion. Scope 2 covers emissions associated with electricity and steam that are generated by a third party and sold to a campus. Scope 3 refers to emissions resulting from faculty, student and staff commute, and from university-funded air travel. There is a higher degree of comparability between campuses' Scope 1 and Scope 2 emissions inventories than there is between inventories of Scope 3 emissions.

 $<sup>^{\</sup>scriptscriptstyle 1}\,www.the climate registry.org/public-reports/$ 

# Energy efficiency upgrades have resulted in cumulative net avoided costs for the University of \$128 million since 2004.

13.2.2 Energy efficiency cost avoidance Universitywide 2005 to 2013



Source: UC Capital Resources

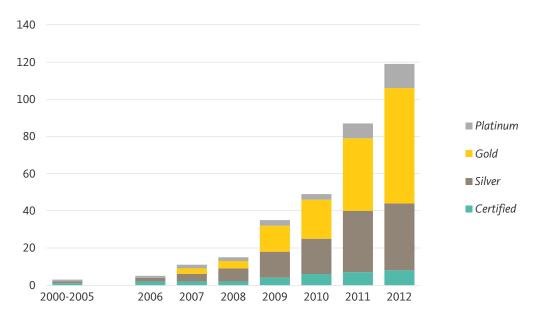
The University's investment in energy efficiency projects has significantly reduced energy consumption, operating costs and annual greenhouse gas emissions.

One source of savings is reducing laboratory heating, cooling and ventilation costs by using hightech, air quality sensors to lower or raise ventilation rates depending on lab occupancy. These sensors also improve personal safety in labs by quickly increasing the supply of clean replacement air in case of contaminant release. The savings in utilities costs ("avoided costs"), shown above are only the start; they will become even greater as electricity and gas prices rise in the future. Net savings will increase again in future years as the bond financing is paid.

The University continues to seek future funding from the state's utility companies to maintain its program of energy efficiency projects.

# By the end of 2012, UC had achieved 119 LEED certifications, more than any other university in the country.

13.2.3 LEED certifications Universitywide 2000 to 2012



Source: UC Capital Resources

Leadership in Energy and Environmental Design (LEED) standards were developed by the non-profit US Green Building Council, and have emerged as an internationally recognized benchmark for high-performance green design. In 2011, UC's LEED certifications in the higher levels of Gold and Platinum surged, tripling the number achieved in the previous year. UC has committed to achieving LEED certification on all new construction and on renovation projects over \$5 million.

Construction projects are not the only way the University implements LEED. UC is among the first universities in the nation to adopt LEED for Existing Buildings, Operations and Maintenance (LEED-EBOM), which seeks to "green" the day-to-day, ongoing environmental performance of its existing facilities. The University currently has fifteen LEED-EBOM-certified projects, with forty more projects in progress or in planning.



## **Chapter 14. Rankings**

The University of California does not endorse any particular set of rankings nor does it have any specific goals with respect to any particular ranking. The University recognizes that rankings of colleges and universities, although limited in scope, can give an indication of institutions' overall academic quality and allow them to assess their performance relative to their peers in a public way.

This chapter provides information about the rankings of the UC campuses across five national, and two international, ranking schemes. Each of the ranking schemes uses different criteria to rank colleges and universities and combines their criteria in different ways to produce a ranking that is unique to each.

Two organizations — U.S. News and World Report and the Washington Monthly — both rank undergraduate institutions, but they define academic quality very differently. U.S. News, for example, focuses on academic reputation, graduation rates, student selectivity and financial resources to create its list of America's Best Colleges; in contrast, the Washington Monthly defines academic quality in terms of an institution's contribution to the public good. Three ranking systems — the National Research Council, U.S. News and the Center for Measuring University Performance — look at the quality of graduate and professional education in the U.S. Two other ranking schemes — the Shanghai Academic Ranking of World Universities and the Times Higher Education — provide global rankings of institutions, primarily using measures of faculty research productivity.

The University cautions readers to consider the different methodologies employed by the different ranking indices, since changes in methodology can result in substantial differences in rankings across indices and across years.

All UC campuses except Merced are included in these rankings. Ranking a small six-year old campus like Merced against larger, well-established universities on indicators based on size, history and resources is not appropriate. Therefore, Merced has not yet participated in these national ranking systems.

The seven rankings selected for publication are:

U.S. News: America's Top National Universities

Washington Monthly: National University Rankings

National Research Council: Assessment of Research Doctorate Programs

U.S. News: Graduate Program Rankings

Center for Measuring University Performance: Top American Research Universities

Shanghai Ranking Consultancy: Academic Ranking of World Universities

Times Higher Education: World University Rankings

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First published in 1983, the *U.S. News and World Report* college rankings are the oldest and most well known of all college rankings. These rankings are based on seven major factors: peer assessment, graduation and retention rates, faculty resources, student selectivity, financial resources and alumni-

giving rates. *U.S. News's* rankings of top national universities focus on academic reputation, financial resources and selectivity — factors that tend to privilege older, well-established, elite private institutions.

14.1.1 *U.S. News*: America's Top National Universities 2007 to 2013<sup>1</sup>

	2007	2008	2009	2010	2011	2012	2013
Berkeley	21	21	21	21	22	21	21
Davis	47	42	44	42	39	38	38
Irvine	44	44	44	46	41	45	44
Los Angeles	26	25	25	24	25	25	24
Riverside	88	96	89	96	94	97	101
San Diego	38	38	35	35	35	37	38
Santa Barbara	47	44	44	42	39	42	41
Santa Cruz	76	79	96	71	72	75	77
Illinois	41	38	40	39	47	45	46
Michigan	24	25	26	27	29	28	29
SUNY Buffalo	3rd tier	3rd tier	121	121	120	111	106
Virginia	24	23	23	24	25	25	24
Harvard	2	2	1	1	1	1	1
MIT	4	7	4	4	7	5	6
Stanford	4	4	4	4	5	5	6
Yale	3	3	3	3	3	3	3

14.1.2 *U.S. News*: America's Top National Public Universities 2007 to 2013

	2007	2008	2009	2010	2011	2012	2013
Berkeley	1	1	1	1	1	1	1
Davis	13	11	12	11	9	9	8
Irvine	12	13	12	14	11	13	12
Los Angeles	4	3	3	2	2	2	2
Riverside	39	45	40	43	41	41	46
San Diego	8	8	7	7	7	8	8
Santa Barbara	13	13	12	11	9	10	10
Santa Cruz	33	35	45	29	29	31	32
Illinois	10	8	10	9	15	13	13
Michigan	2	3	4	4	4	4	4
SUNY Buffalo	>50	>50	>50	>50	58	54	51
Virginia	2	2	2	2	2	2	2

<sup>&</sup>lt;sup>1</sup> U.S. News labels its undergraduate rankings for the prospective year; the 2013 rankings were published August 2012. UC San Francisco is not included in U.S. News's "America's Best Colleges" rankings because it is a graduate health sciences campus; Merced, which opened in 2005, also is not yet included in these rankings.

### 14.2 WASHINGTON MONTHLY: NATIONAL UNIVERSITY RANKINGS

Washington Monthly developed its ranking system in 2005 as an alternative to U.S. News's America's Best Colleges rankings. Unlike U.S. News, which ranks institutions on their prestige, resources and selectivity, Washington Monthly ranks institutions on their contributions to the public good. Its rankings are based on three broad factors: how well each institution fosters social mobility (e.g., percentage of students receiving Pell Grants); furthers research (e.g., faculty awards and Ph.D. production); and serves the country (e.g., student participation in ROTC and the Peace Corps).

14.2 Washington Monthly: National University Rankings 2005 to 2012

	2005	2006	2007	2008 <sup>1</sup>	2009	2010	2011	2012
Berkeley	3	2	3	-	1	2	3	5
Davis	17	10	8	-	10	6	8	17
Irvine	nr	72	49	-	nr	50	60	117
Los Angeles	2	4	2	-	3	3	2	6
Riverside	nr	22	15	-	16	40	5	9
San Diego	8	6	4	-	2	1	1	1
Santa Barbara	nr	57	36	-	21	11	13	14
Santa Cruz	nr	68	76	-	56	93	70	67
Illinois	13	16	11	-	24	27	38	22
Michigan	10	18	6	-	18	7	10	13
SUNY Buffalo	nr	203	111	-	101	121	160	202
Virginia	22	20	16	-	26	59	53	48
Harvard	16	28	27	-	11	9	6	11
MIT	1	1	27	-	12	15	11	15
Stanford	5	7	13	-	4	4	4	3
Yale	15	12	38	-	23	33	39	41

Note: nr denotes not ranked.

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<sup>&</sup>lt;sup>1</sup> Washington Monthly did not publish rankings for 2008.

#### 14.3 NATIONAL RESEARCH COUNCIL: RESEARCH-DOCTORATE PROGRAM RANKINGS

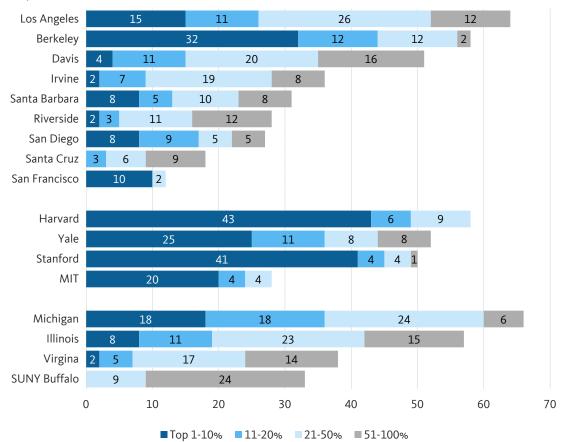
The National Research Council's (NRC) assessments are the most comprehensive evaluations of Ph.D. programs in the United States. The most recent rankings, published in 2010 and revised in 2011, used data from the 2005–06 academic year to evaluate 4,838 doctoral programs at 212 universities.

The 2010–11 NRC rankings provoked significant debate and discussion within the academic community. The level of attention reflects the

influence that the NRC rankings have over perceptions of the quality of universities' doctoral programs and by extension, their research enterprises.

UC graduate programs did well in the 2011 NRC rankings, primarily because of the weighting the rankings assign to faculty research productivity and academic honors and awards — areas in which UC faculty do well in comparison to those at other institutions.

14.3 National Research Council: Research-Doctorate Program Rankings 2005–06 (published in 2011)



Source: National Resource Council Assessment of Research Doctorate Programs<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> The figures listed here are based on a lexicographic ordering of the S-Ranking; the weights for each field varied depending on the emphasis that faculty members in each field assigned the different variables collected by NRC. Additional information can be found here: http://sites.nationalacademies.org/pga/resdoc/index.htm. These rankings use the updated dataset released on April 21, 2011.

*U.S. News* has ranked American universities' graduate programs in business, education, engineering, law and medicine since 2000. Like its college rankings, *USNWR*'s graduate program rankings are controversial. The absence of an

14.4 U.S. News: Graduate Program Rankings 2007 to 2013

07 08

09 10 11 12 13

Campus

Campus	07	80	09	10	11	12	13
Stanford	2	1	2	1	1	1	1
Harvard	1	1	1	1	2	1	1
MIT	4	4	4	3	3	4	4
				7	7	7	7
Berkeley	8	7	7				
U of Virginia	12	14	15	13	13	13	12
∝ Yale ≝ U of Michigan	14	13	10	11	10	10	13
್ತ <u>ಆ</u> U of Michigan	11	12	13	12	14	13	14
S Los Angeles	16	11	14	15	14	15	14
<sup>co</sup> Davis	44	40	42	42	28	36	40
U of Illinois	38	38	42	42	37	37	47
Irvine	44	nr	36	36	40	49	49
San Diego							73
SUNY at Buffalo	nr	nr	nr	nr	75	89	75
Riverside	nr	nr	nr	nr	nr	97	nr
Harvard	3	6	6	3	2	2	3
Stanford	2	1	2	5	4	4	5
			5				
Los Angeles	5	3		6	6	6	8
U of Michigan	6	9	14	14	9	12	11
<b>⊝</b> Berkeley	8	7	7	10	12	13	12
मूं U of Illinois	25	48	25	25	23	22	19
을 U of Virginia	31	24	21	21	22	23	22
Berkeley  U of Illinois  U of Virginia  Irvine	nr	nr	nr	nr	48	43	37
Santa Barbara	nr	nr	nr	nr	58	63	40
Davis	nr	nr	nr	nr	58	63	60
Riverside	nr	nr	nr	nr	66	67	74
Santa Cruz	nr	nr	nr	nr	58	71	81
MIT	1	1	1	1	1	1	1
Stanford	2	2	2	2	2	2	2
Berkeley	3	3	3	3	3	3	3
U of Illinois	5	5	5	5	5	5	5
			9		9		
U of Michigan	9	9		8		8	9
San Diego	13	11	12	13	14	14	14
Los Angeles	16	13	14	15	14	16	16
ஐ Santa Barbara	19	19	18	19	21	21	20
a Santa Barbara	23	22	18	19	18	19	23
<u>்</u> Davis	32	33	32	32	31	31	33
Yale	39	40	39	39	35	34	34
Irvine	37	35	36	36	39	39	37
U of Virginia	38	37	39	39	39	39	38
SUNY at Buffalo	nr	nr	nr	nr	52	54	61
Riverside	nr	nr	nr	nr	66	64	67
Santa Cruz	nr	nr	nr	nr	78	87	87
Yale	1	1	1	1	1	1	1
Harvard	3	2	2	2	2	2	2
Stanford	2	2	3	3	3	3	3
U of Virginia	8	10	9	10	10	9	7
O .							7
Berkeley	8	8	6	6	7	9	
≱ U of Michigan	8	8	9	9	9	7	10
Los Angeles	15	15	16	15	15	16	15
Davis	34	44	35	28	28	23	29
U of Illinois	27	25	27	23	21	23	35
Hastings	36	38	39	42	42	42	44
CLINIV + D CC 1	77	100	0.5	3rd	3rd	0.4	00
SUNY at Buffalo	77	100	85	tier	tier	84	82

institution from a top ranking does not necessarily imply it received a lower ranking: Berkeley, Riverside, Santa Barbara and Santa Cruz, for example, do not offer M.D. degrees and thus are not ranked in medicine.

Campus	07	08	09	10	11	12	13
San Francisco	8	6	5	5	4	3	4
υ U of Michigan	45	17	7	14	20	8	8
ੁੱਲ Los Angeles	18	12	10	14	16	10	11
≥Harvard	13	7	15	17	15	15	14
E U of Virginia	38	35	29	39	20	19	18
는 Davis	26	35	20	20	41	24	19
ji San Diego	35	26	28	28	33	27	39
Stanford Wirvine Yale						63	62
Irvine	nr	nr	nr	nr	nr	86	66
≥ Yale	nr	nr	nr	nr	67	74	72
SUNY at Buffalo	nr	nr	nr	nr	86	nr	79
Harvard	1	1	1	1	1	1	1
Stanford	7	8	6	11	5	4	2
San Francisco	5	5	5	4	5	5	4
ਲੂ Yale	8	9	6	6	5	7	7
Staniou S San Francisco Egyale U of Michigan	10	11	11	6	10	10	8
San Diego	13	9	11	11	13	13	13
-⊑ San Diego	14	14	15	16	15	16	15
ਰੂ U of Virginia				25	22	25	26
≥̃ Davis	48	48	47	47	42	42	42
Irvine	43	45	47	47	42	44	42
SUNY at Buffalo	nr	nr	nr	nr	55	57	64
San Francisco					4		
©U of Michigan Sylale					6		
Yale					7		
∠ Los Angeles					21		
Irvine					nr		
_ San Francisco	1					1	
든 U of Michigan 는 SUNY at Buffalo	5					7	
	21					14	
San Diego	32					23	
_ Harvard					3		
Head Head Head Head Head Head Head Head					4		
<b>≝</b> Berkeley					8		
Los Angeles Sale					10		
음 Yale					13		
O OI VIIGIIIIa					36		
Davis					2		
> ĕ U of Illinois					19		

Notes: '-' denotes years when programs were not evaluated. "nr" denotes the program was not rated in that year. Professional programs are listed here by what *U.S. News* calls the "edition" year which is one year after the "ranked in" year. For example, the 2013 rankings above were published in the 2013 edition but ranked in 2012.

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## 14.5 THE CENTER FOR MEASURING UNIVERSITY PERFORMANCE: TOP AMERICAN RESEARCH UNIVERSITIES

The Center for Measuring University Performance at Arizona State develops an annual list of Top American Research Universities. While the Center's rankings are not as well known as other systems, its methodology is unique in that each of its nine factors is weighted equally.

Other systems presented in this chapter weight specific criteria (e.g., faculty publications, research expenditures) differently. The Center instead awards one point for each of nine areas when an institution crosses a pre-determined threshold. The main areas are research expenditures, faculty honors and awards, endowment assets, annual giving, doctorates awarded, number of post-docs and SAT scores.

The Center relies exclusively on objective measures and does not include academic reputation in its ranking scheme. However, its rankings are biased towards institutions with large research funding and resource bases. Data from the Center are also not normalized by faculty size, resulting in lower rankings for smaller institutions.

14.5 The Center for Measuring University Performance: Top American Research Universities 2005 to 2011

	(higher is better)								
	2005	2006	2007	2008	2009	2010	2011		
Berkeley	8	8	8	7	7	7	7		
Davis	2	2	2	2	3	3	2		
Irvine	-	1	-	-	1	1	1		
Los Angeles	7	7	7	7	7	7	7		
Riverside	-	-	-	-	-	-	-		
San Francisco	6	6	6	6	6	-	-		
San Diego	5	5	5	5	6	5	5		
Santa Barbara	-	1	1	1	1	1	1		
Santa Cruz	-	-	-	-	-	-	-		
Illinois	5	5	4	4	3	3	4		
Michigan	8	8	8	8	8	7	8		
SUNY Buffalo	-	-	-	-	-	-	-		
Virginia	2	2	2	2	2	2	1		
Harvard	8	9	9	8	8	8	8		
MIT	9	9	9	9	9	9	9		
Stanford	9	9	9	9	9	9	9		
Yale	7	7	7	8	7	7	7		

#### 14.6 SHANGHAI RANKING CONSULTANCY: ACADEMIC RANKINGS OF WORLD UNIVERSITIES

The Academic Rankings of World Universities (ARWU) was created by Shanghai Jiao Tong University in China in 2003 to determine the global standing of Chinese research universities. Since 2009, the Shanghai Ranking Consultancy has published these rankings; see www.arwu.org/aboutARWU.jsp.

The Shanghai Ranking Consultancy ranks the top 1,200 universities worldwide; their rankings are based entirely on measures of research strength and faculty honors and awards. English-speaking universities, especially those in the United States, tend to dominate the ARWU rankings.

This ranking system emphasizes research outputs, such as total research expenditures. Because research outputs are not normalized by number of faculty, larger institutions tend to rank more highly than smaller ones. Institutions with strong research programs, especially in the sciences, also tend to score higher than those whose major strengths are in the humanities and social sciences.

14.6 Shanghai Ranking Consultancy: Academic Rankings of World Universities 2006 to 2012

	2006	2007	2008	2009	2010	2011	2012
Berkeley	4	3	3	3	2	4	4
Davis	42	43	48	49	46	48	47
Irvine	44	45	46	46	46	48	45
Los Angeles	14	13	13	13	13	12	12
Riverside	102-150	102-150	101-151	101-151	101-150	102-150	101-150
San Diego	13	14	14	14	14	15	15
San Francisco	18	18	18	18	18	17	18
Santa Barbara	35	35	36	35	32	33	34
Santa Cruz	102-150	102-150	101-151	101-151	101-150	102-150	101-150
Illinois	25	26	26	25	25	25	25
Michigan	21	21	21	22	22	22	22
SUNY Buffalo	201-300	203-304	201-302	201-302	201-300	201-300	201-300
Virginia	102-150	102-150	95	91	96	102-150	101-150
Harvard	1	1	1	1	1	1	1
Harvard	Ţ	1	1	1	1	1	1
MIT	5	5	5	5	4	3	3
Stanford	3	2	2	2	3	2	2
Yale	11	11	11	11	11	11	11

Note: Campuses ranked below the top 100 are placed into ranges in lieu of an exact ranking.

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The British-based *Times Higher Education* (THE) significantly revised its educational rankings in 2011; thus, institutional scores from prior years are not comparable to current rankings.

The rankings are based on five "headline" categories: teaching, research, citations, industry income and international outlook.

14.7 *Times Higher Education*: World University Rankings 2010–11 to 2012–13

	Reputational Ranking			Overall Ranking			
	2011	2012	2013	2010-11	2011-12	2012-13	
Berkeley	4	5	5	8	10	9	
Davis	38	44	48	54	38	44	
Irvine	nr	nr	nr	49	86	96	
Los Angeles	12	9	8	11	13	13	
Riverside	nr	nr	nr	117	143	154	
San Diego	30	36	34	32	33	38	
San Francisco	34	31	40	nr	nr	nr	
Santa Barbara	51-60	51-60	51-60	29	35	35	
Santa Cruz	nr	nr	nr	68	110	122	
Illinois	21	nr	24	33	31	33	
Michigan	13	23	12	15	18	20	
SUNY Buffalo	nr	12	nr	nr	nr	198	
Virginia	nr	nr	nr	72	135	118	
Harvard	1	nr	1	1	2	4	
MIT	2	nr	2	3	7	5	
Stanford	5	1	6	4	2	2	
Yale	9	2	10	10	11	11	

Note: nr denotes not ranked. Campuses in the reputational ranking below the top 50 are placed into ranges and in lieu of an exact ranking.

# **Data Glossary**

The following provides brief information on data sources and terms used in the 2013 Accountability Report and hyperlinks for further information. The majority of the data for this report was generated by UCOP's Institutional Research (IR) Unit. In addition, some other UC policy departments provided data as noted.

### Association of American Universities (AAU)

The Association of American Universities (AAU) is an association of 62 leading public and private research universities in the United States and Canada. A list of the institutions can be found in Table 6 of this glossary. Membership in AAU is by invitation and is based on the high quality of programs of academic research and scholarship and undergraduate, graduate and professional education in a number of fields, as well as general recognition that a university is outstanding by reason of the excellence of its research and education programs. Throughout this report, the two AAU institutions in Canada are excluded from the "Non-UC AAU Public" group because the Canadian institutions do not submit data to the U.S. Department of Education, which is the source of the AAU data used here. For more information, visit www.aau.edu.

#### American Association of University Professors (AAUP)

The American Association of University Professors is an organization of professors and other academics in the United States. It conducts an annual survey of faculty compensation, used in this report to compare UC's faculty salaries. More information on the AAUP data set can be found at: www.aaup.org/our-work/research/annual-report-economic-status-profession.

#### California Health Care Foundation

The California Health Care Foundation is a nonprofit philanthropy that provides policy and data analysis on health care issues facing California. More information can be found at: www.chcf.org.

#### California Postsecondary Education Commission (CPEC)

The California Postsecondary Education Commission existed from 1974 to 2011. The Commission provided the legislative and executive branches of government with advice and information about major policy and planning issues concerning education beyond high school. For more information, visit www.cpec.ca.gov.

#### **California State Bar Association**

The California State Bar Association is California's official bar association and is responsible for managing the admission of lawyers to the practice of law. More information can be found at: www.calbar.ca.gov.

#### California State Department of Finance

The California State Department of Finance is a state cabinet-level agency that is responsible for preparing, explaining and administering the state's annual financial plan. The Department also is responsible for creating and monitoring current and future economic forecasts for the state, estimating population demographics and enrollment projections. More information can be found at: www.dof.ca.gov.

### **Carnegie Classifications**

The Carnegie Classification has been the leading framework for recognizing and describing institutional diversity in U.S. higher education for the past four decades. Starting in 1970, the Carnegie Commission on Higher Education developed a classification of colleges and universities to support its program of research and policy analysis. Derived from empirical data on colleges and universities, the Carnegie Classification was originally published in 1973, and subsequently updated in 1976, 1987, 1994, 2000, 2005 and 2010 to reflect changes among colleges and universities. This framework has been widely used in the study of higher education, both as a way to represent and control for institutional differences, and also in the design of research studies to ensure adequate representation of sampled institutions, students or faculty. This report uses "Research Universities with very high research activity" (RU/VH) (2005 Classification) and "Research University-Extensive" (2000 Classification) as a comparison group for the UC. For more information, visit http://classifications.carnegiefoundation.org.

#### Comparison 8 (Comp 8)

The "Comparison 8" institutions are the eight universities — four public and four private — with which UC regularly compares faculty pay scales and student fees. This group is widely recognized as appropriate for purposes of comparison by such external agencies as the California Department of Finance. The public universities are: University of Illinois, University of Michigan, University of Virginia and SUNY Buffalo. The private universities are: Harvard University, Massachusetts Institute of Technology, Stanford University and Yale University.

#### Consumer Price Index (CPI)

The CPI is a measure of inflation experienced by consumers, and an important indicator of the condition of the economy. It can be used to adjust other economic data for changes in price level and to convert them into inflation-free dollars. For example, retail sales and income data are "deflated" to assess their "real" movements over time. This report uses the calendar year average of the CPI-W (CA) which is the Consumer Price Index for Urban Wage Earners and Clerical Workers. For more information on the CPI-W (CA), visit www.dof.ca.gov/HTML/FS DATA/LatestEconData/FS Price.htm.

### Council for Aid to Education (CAE)

The Council for Aid to Education (CAE) is a national nonprofit organization based in New York City. Initially established in 1952 to advance corporate support of education and to conduct policy research on higher education, today CAE is also focused on improving quality and access in higher education. CAE's Voluntary Support of Education (VSE) survey is the authoritative national source of information on private giving to higher education and private K-12 classrooms, consistently capturing about 85 percent of the total voluntary support to colleges and universities in the United States. CAE has managed the survey as a public service for over 50 years. For more information, visit www.cae.org.

### **Integrated Postsecondary Education Data System (IPEDS)**

IPEDS is a system of interrelated surveys conducted annually by the U.S. Department's National Center for Education Statistics (NCES). IPEDS gathers information from every college, university, and technical and vocational institution that participates in the federal student financial aid programs. The Higher Education Act of 1965, as amended, requires that institutions that participate in federal student aid programs report data on enrollments, program completions, graduation rates, faculty and staff, finances, institutional prices, and student financial aid. IPEDS provides basic data needed to describe — and analyze trends in — postsecondary education in the United States, in terms of the numbers of students enrolled, staff employed, dollars expended and degrees earned. IPEDS forms the institutional sampling frame for other NCES postsecondary surveys, such as the National Postsecondary Student Aid Study and the National Survey of Postsecondary Faculty. For more information, visit http://nces.ed.gov/ipeds.

#### National Research Council's (NRC) Assessment of Research Doctoral Programs

The National Research Council (NRC) periodically assesses research doctoral programs. Data in this report are from the Data-Based Assessment of Research-Doctorate Programs which was originally released on September 28, 2010 with a revised data release in April 2011. Data were collected from about 5,000 doctoral programs across 62 fields at 212 research universities. Data are based on the 2005-06 academic year; and for some data elements, for prior years as well. More information can be found at: http://sites.nationalacademies.org/pga/Resdoc/index.htm.

#### National Postsecondary Student Aid Study (NPSAS)

The National Postsecondary Student Aid Study is the most comprehensive, nationally representative survey of student financing of postsecondary education in the United States. Since 1987, NPSAS has been conducted every 3 to 4 years by the National Center for Education Statistics (NCES) of the Institute of Education Sciences, U.S. Department of Education. Previous NPSAS surveys were administered during the academic years 1986–87, 1989–90, 1992–93, 1995–96, 1999–2000, 2003–04 and 2007-08. Undergraduate and graduate students enrolled at all types of postsecondary institutions are represented. These include public, private not-for-profit and private for-profit sector institutions at every level: less-than-2-year, 2-year, 4-year and graduate-only institutions. For more information, visit http://nces.ed.gov/surveys/npsas.

#### **National Student Clearinghouse**

The National Student Clearinghouse is an industry-sponsored consortium that was established to proactively enhance the overall student loan program and simplify enrollment verification. It collects and provides data on student enrollments and allows institutions to track students who transfer to other institutions. For more information, visit www.studentclearinghouse.org.

### **Survey of Earned Doctorates (SED)**

The Survey of Earned Doctorates (SED) is a federal agency survey conducted by the National Opinion Research Center (NORC) for the National Science Foundation and five other federal agencies (National Institutes of Health, U.S. Department of Education, National Endowment for the Humanities, U.S. Department of Agriculture and the National Aeronautics and Space Administration).

The SED gathers information annually from 45,000 new U.S. research doctorate graduates about their educational histories, funding sources and post-doctoral plans. Each year the SED data are added to a larger historical record of doctorate-degree graduates, the Doctorate Records File (DRF). Begun in 1920, the DRF contains annual information used to track the number of graduates in various fields; the educational paths of scientists, engineers and humanists; movement of graduates into the labor market; and similar information.

### **UC Academic Personnel Department**

The UCOP Academic Personnel department is the primary liaison in all matters related to academic appointees, including faculty, research and health science clinical faculty, librarians, lecturers, graduate student and postdoctoral appointees. The department maintains a number of policy documents and data related to faculty and other academic employees. More information can be found at: www.ucop.edu/acadpersonnel.

### UC Alumni Survey 2010

UC undertook a survey of baccalaureate degree recipients 5, 10 and 20 years after receiving their degrees (in 2004, 1999 and 1989, respectively) in order to fill a major gap in the information for assessment of student learning outcomes and success. The survey sample was designed to support the analysis of students in different cohorts and disciplines. It will also permit some analysis of the experience of students drawn from different socio-economic, racial and ethnic groups. A survey response rate deemed adequate to support campus comparison was deemed to be too costly to implement. Accordingly, the data will not support campus-level analysis with statistical reliability.

Using addresses contributed by campus alumni associations and development offices, a total of 86,439 alumni who received their baccalaureate degrees in 1989, 1999 or 2004 were contacted and invited to respond to the survey instrument by email or by post. A total of 5,976 useable responses were received for an overall response rate of 8 percent, with individual campus response rates ranging from 5 percent to 10 percent. A comparison of respondents to the population of each of the three graduating cohorts revealed that there was no response bias related to gender, entry status, ethnicity, first-generation college status, first language, final UC GPA, campus, residency status at the time of admission and Pell Grant recipient status.<sup>1</sup>

#### **UC Audited Financial Statements**

UC, like all public entities, is audited by an external auditing firm. UC's external audit is performed by Price Waterhouse Coopers, an external independent certified public accounting firm reporting to the Regents. UC's audited financial statements can be accessed at: www.universityofcalifornia.edu/reportingtransparency.

### **UC Budget for Current Operations**

UC budget documents can be found at: www.ucop.edu/operating-budget/budgets-and-reports/index.html.

#### **UC Budget Office**

The UCOP Budget and Capital Resources department maintains a wealth of budget and capital resources information which can be found at: www.ucop.edu/budget-capital-resources/.

<sup>&</sup>lt;sup>1</sup> Response bias testing for the class of 1989 was limited to gender, entry status, ethnicity, final UC GPA and campus because data on the other variables was not collected when this cohort entered UC.

#### **UC Corporate Contracts and Grants System (CGX)**

The Corporate Contracts and Grants System (CGX) is a set of databases and processes that provides information about sponsored projects at the University of California. More information can be found at: www.ucop.edu/irc/systems/cgx.html.

### **UC Corporate Financial System (CFS)**

The Corporate Financial System (CFS) contains financial data for all UC campuses and is available to corporate functional offices for inquiry and reporting purposes. The primary source of data in the CFS is a monthly transmittal file from each of the ten UC campuses. Each campus file contains data reflecting current financial, budgetary and encumbrance balances and current month financial activity in the campus's general ledger. More information can be found at: www.ucop.edu/irc/systems/cfs.html.

### **UC Corporate Personnel System (CPS)**

The Corporate Personnel System (CPS) is a reporting system that provides Office of the President management and staff with demographic, personnel and pay activity data on employees paid at the ten campuses, the Office of the President, the Division of Agricultural and Natural Resources, the Lawrence Berkeley National Laboratory, Hastings College of Law and the Associated Students of UCLA (ASUCLA). More information can be found at: www.ucop.edu/irc/systems/cps.html.

### **UC Corporate Student System (CSS)**

The Corporate Student System (CSS) is a set of databases and processes that provides information to meet the management, analytical and operational needs of the UC Office of the President related to student enrollment and performance. The seven CSS databases contain information about enrollment, undergraduate and graduate admissions, financial support, degrees conferred, and health science resident and postdoctoral fellow appointees. The databases are created and/or updated with edited data received from the campuses and other sources, and are organized to allow both cross-sectional analyses and longitudinal studies of performance and persistence. Registrant and financial support databases are updated quarterly; remaining databases are updated annually. More information can be found at www.ucop.edu/irc/systems/css.html.

### UC Faculty Instructional Activities dataset ("TIE" data collection)

UC conducts annual data collections from campuses on faculty instructional activities. This data collection was originally undertaken in response to a state reporting requirement which was not renewed. The 2007 annual report to the Legislature was the last mandated report; it can be found at: /www.ucop.edu/academic-planning-programs-coordination/\_files/documents/fia/fia\_annlrpt2007.pdf. Since that time, UC has continued to collect these data for management and accountability purposes.

#### **UC Graduate Student Support Survey**

The UCOP Student Affairs department conducts periodic surveys of the competitiveness of UC graduate student support. Reports on this survey can be found at: www.ucop.edu/student-affairs/data-and-reporting/graduate-student-support/index.html.

#### **UC Institutional Advancement Department**

The UCOP department of Institutional Advancement facilitates and encourages financial support for the University through private giving and other support. More information can be found at: www.ucop.edu/institutional-advancement/.

#### **UC Medical Centers Audited Financial Statements**

The UC medical centers, like all public entities, are audited by an external auditing firm. The medical center audited financial statements are published separately from UC's external audit. They are performed by Price Waterhouse Coopers, an external independent certified public accounting firm reporting to the Regents. UC's audited financial statements can be accessed at: www.universityofcalifornia.edu/reportingtransparency.

### **UC Medical Schools**

Five UC campuses include medical schools: Davis, Irvine, Los Angeles, San Diego and San Francisco. UC is also planning for a sixth medical school at Riverside. More information on these schools can be found at: http://health.universityofcalifornia.edu/medical-centers/.

#### UC Statistical Summary of Students and Staff (StatSumm)

Each spring, UC Information Resources and Communications publishes the Statistical Summary of Students and Staff, which summarizes data supplied by all campuses and serves as the official record of student enrollment at the University of California. Additional information can be found at: www.ucop.edu/ucophome/uwnews/stat.

### **UC Student Financial Support Annual Reports**

These reports, produced by the UCOP Student Affairs department, can be found along with other financial aid information at: www.ucop.edu/student-affairs/data-and-reporting/index.html.

### University of California Undergraduate Experience Survey (UCUES)

The University of California Undergraduate Experience Survey (UCUES) biennially solicits student opinions on all aspects of the UC experience. UCUES content is broad and covers most aspects of students' academic and cocurricular experiences. Students evaluate such things as instruction, advising and student services. All respondents answer questions in the core as well as one of three or four modules of additional questions to which they have been randomly assigned. Thus, the number of respondents can vary greatly for any given items. The systemwide response rate for UCUES was 38 percent in 2006, 39 percent in 2008, 42 percent in 2010 and 36 percent in 2012. More information can be found at: http://studentsurvey.universityofcalifornia.edu/.

Table 1. UC Student Enrollment Classification Using UC Corporate Student System

Level	UC Degree Level	UC Student Level Code	Disciplines (CIP Categories)		
Graduate Academic			Excludes P	ost-baccs in discipline b	reakdowns
Academic Doctoral	PhD	6, 7, 8	Visual/Performing Arts English Literature	Foreign Languages Philosophy Area Studies	History Liberal Arts Bio/Life Sciences
Academic Masters	MA, MS	5 or Post-bacc.	Engineering Computer Science Math Physical Science	Psychology Social Sciences Agricultural Science	Conservation Science Interdisciplinary Other/Unknown
Professional Doctoral	EdD, DEnv, DPh, DPT, DNS, etc.	6, 7, 8	Business Architecture Education	Public Admin. Law (non-J.D.) Communications	Criminology Health Sciences Library Science
Graduate Professional		Include self- supporting			
Professional Masters	MBA, MPP, MPH, MSW, MLS, M. City Planning, MA/MS in Education, MEng, MFT, etc. JD, MD, OD,	5	Business Architecture Education Arts (MFT only)	Public Admin. Law (non-J.D.) Communications	Criminology Health Sciences Library Science
Professional Practice	DDS, PharmD, DVM, AudD, etc.	5 or 6	Law (JD only) Medicine (MD only)	Other I	Health Sciences
Health Science Resident		R	Health Sciences		
Undergraduate	BA, BS	1-4	All Disciplines, group	ed into broad disciplin	es

Table 2. UC and Comparative Student Data Classification Using IPEDS Data

Enrollment Level	Degree Classification	IPEDS Degree	Disciplines (CIP Categories)			ories)		
	Graduate Academ							
	Academic Doctoral	Doctor's Degree (old)  Doctor's Degree – research/scholarship (new)	Visual/Perf. Arts English Literature Engineering	Foreign Languages Philosophy Area Studies Psychology Social Sciences Agricultural Science		History Liberal Arts Bio/Life Sciences Conservation		
	Academic Masters	Master	Computer Science Math Physical Science			Science Interdisciplinary Other/Unknown		
Graduate & Professional	Professional Doctoral	Doctor's Degree (old)  Doctor's Degree – research/scholarship (new)	Business Public Admin. Architecture Law (non-J.D.) Education Communications Military Parks & Science Recreation Homeland Agricultural Security Science		Criminology Health Sciences Library Science Theology			
	Conducto Durfaccional							
	Graduate Professional							
	Professional Masters	Master	Business Architecture Education Military Science Homeland Security	Public Admin. Law (non-J.D.) Communications Parks & Recreation		Criminology Health Sciences Library Science Theology		
	Professional Practice	First Professional (old)  Doctor's Degree – professional practice (new)	Law (J.D. only)  Medicine (M.D. only)  Other Theolo		· Health Sciences ogy			
Undergraduate	Undergraduate	Bachelor	All Disciplines, grouped into broad disciplines		lisciplines			

**Table 3. Broad Discipline Classification** 

Broad Discipline	CIP Categ	CIP Categories Included			
Broad Discipline	When Using UC Corporate Data	When Using IPEDS Degree Data			
	Visual/Performing Arts	Visual/Performing Arts			
	English Literature	English Literature			
Arts & Humanities	Foreign Languages	Foreign Languages			
Arts & Humanities	Philosophy	Philosophy			
	History	History			
	Liberal Arts	Liberal Arts			
	Bio/Life Sciences	Bio/Life Sciences			
Life Sciences	Conservation Science	Conservation Science			
	Agricultural Science (select 01 CIPs)	Agricultural Science (select 01 CIPs)			
Physical Sciences, Technology,	Math	Math			
Engineering and Mathematics	Physical Science	Physical Science			
(PSTEM)	Engineering	Engineering			
(PSTEINI)	Computer Science	Computer Science			
	Area Studies	Area Studies			
	Psychology	Psychology			
Social Sciences	Social Sciences (except UCSD Pacific	Social Sciences			
Social Sciences	Affairs, UCI Criminology)	Agricultural Business/Production			
	Agricultural Business/Production	(select 01 CIPs)			
	(select 01 CIPs)				
	Interdisciplinary	Interdisciplinary			
	Other/Unknown	Other/Unknown			
	Business	Business			
	Architecture	Architecture			
	Education	Education			
	Public Admin.	Public Admin.			
	Law (non-J.D.)	Law (non-J.D.)			
Other Disciplines	Communications	Communications			
	Criminology	Criminology			
	Health Sciences	Health Sciences			
	Library Science	Library Science			
	Social Sciences (UCSD Pacific Affairs	Theology			
	and UCI Criminology)	Parks & Recreation			
		Military Science			
		Homeland Security			

# Table 4. Faculty Discipline Groupings By UAS Academic Discipline Code

idemic Discipline Code	
UAS Discipline	Discipline Grouping - Accountability
Interdisciplinary Studies	Interdisciplinary/Other
Biological Sciences	Life Sciences
Agriculture & Natural Resources	Life Sciences
Mathematics	Math
Computer & Information Sciences	Engineering & Computer Science
Physical Sciences	Physical Science
Engineering	Engineering & Computer Science
Psychology	Social Science & Psychology
Social Sciences	Social Science & Psychology
Area Studies	Social Science & Psychology
Fine & Applied Arts	Arts & Humanities
Foreign Languages	Arts & Humanities
Letters	Arts & Humanities
Theology	Arts & Humanities
Physical Education	Interdisciplinary/Other
Military Sciences	Interdisciplinary/Other
Business & Management	Business/Management
Education	Education
Architecture & Environmental Design	Other General Campus Professional
Law	Law
Criminology	Other General Campus Professional
Social Welfare	Other General Campus Professional
Communications	Other General Campus Professional
Library Science	Other General Campus Professional
	Interdisciplinary/Other
	Medicine
	Other Health Science
•	Other Health Science
Other Health Professions	Other Health Science
	UAS Discipline Interdisciplinary Studies Biological Sciences Agriculture & Natural Resources Mathematics Computer & Information Sciences Physical Sciences Engineering Psychology Social Sciences Area Studies Fine & Applied Arts Foreign Languages Letters Theology Physical Education Military Sciences Business & Management Education Architecture & Environmental Design Law Criminology Social Welfare Communications

## Table 4 (continued). Faculty Discipline Groupings By Discipline Grouping - Accountability

	UAS Acad	
Discipline Grouping - Accountability	Disc Code	UAS Discipline
Arts & Humanities	410	Fine & Applied Arts
Arts & Humanities	420	Foreign Languages
Arts & Humanities	430	Letters
Arts & Humanities	440	Theology
Business/Management	610	Business & Management
Education	620	Education
Engineering & Computer Science	220	Computer & Information Sciences
Engineering & Computer Science	240	Engineering
Interdisciplinary/Other	020	Interdisciplinary Studies
Interdisciplinary/Other	510	Physical Education
Interdisciplinary/Other	520	Military Sciences
Interdisciplinary/Other	690	Home Economics
Law	640	Law
Life Sciences	110	Biological Sciences
Life Sciences	120	Agriculture & Natural Resources
Math	210	Mathematics
Medicine	810	Medicine
Other General Campus Professional	630	Architecture & Environmental Design
Other General Campus Professional	650	Criminology
Other General Campus Professional	660	Social Welfare
Other General Campus Professional	670	Communications
Other General Campus Professional	680	Library Science
Other Health Science	820	Veterinary Medicine
Other Health Science	830	Dentistry
Other Health Science	840	Nursing
Other Health Science	850	Pharmacy
Other Health Science	860	Public Health
Other Health Science	870	Optometry
Other Health Science	880	Other Health Professions
Physical Science	230	Physical Sciences
Social Science & Psychology	310	Psychology
Social Science & Psychology	320	Social Sciences
Social Science & Psychology	330	Area Studies

Mapping Developed 1/7/2011
UC Institutional Research and Academic Personnel

### **Table 5. Inflation Adjustments**

Unless otherwise noted, all inflation adjustments are to 2011 calendar year dollars using the consumer price index for urban wage earners and clerical workers, California (CPI-W) published by the California Department of Finance at: www.dof.ca.gov/HTML/FS\_DATA/LatestEconData/documents/BBFYCPI.XLS.

Calendar Year	Fiscal Year	Academic Year	CCPI-W, CA (1982- 84=100)	Calendar Year	Fiscal Year	Academic Year	CCPI-W, CA (1982- 84=100)
1993	FY 1994	1993-94	144.7	2003	FY 2004	2003-04	183.8
1994	FY 1995	1994-95	146.6	2004	FY 2005	2004-05	188.9
1995	FY 1996	1995-96	149.1	2005	FY 2006	2005-06	195.9
1996	FY 1997	1996-97	152.0	2006	FY 2007	2006-07	203.3
1997	FY 1998	1997-98	155.0	2007	FY 2008	2007-08	209.9
1998	FY 1999	1998-99	157.6	2008	FY 2009	2008-09	217.6
1999	FY 2000	1999-00	162.2	2009	FY 2010	2009-10	216.3
2000	FY 2001	2000-01	168.1	2010	FY 2011	2010-11	219.7
2001	FY 2002	2001-02	174.7	2011	FY 2012	2011-12	226.4
2002	FY 2003	2002-03	179.0				

Table 6. AAU Member Universities (United States only)

UC	Non-UC Public	Private
Berkeley	Georgia Institute of Technology — Main Campus	Boston University
Davis	Indiana University — Bloomington	Brandeis University
Irvine	Iowa State University	Brown University
Los Angeles	Michigan State University	California Institute of Technology
San Diego	Ohio State University — Main Campus	Carnegie Mellon University
Santa Barbara	Pennsylvania State University — Main Campus	Case Western Reserve University
	Purdue University — Main Campus	Columbia University in the City of New York
	Rutgers University — New Brunswick	Cornell University
	Stony Brook University	Duke University
	Texas A & M University	Emory University
	The University of Texas at Austin	Harvard University
	University at Buffalo	Johns Hopkins University
	University of Arizona	Massachusetts Institute of Technology
	University of Colorado at Boulder	New York University
	University of Florida	Northwestern University
	University of Illinois at Urbana — Champaign	Princeton University
	University of Iowa	Rice University
	University of Kansas	Stanford University
	University of Maryland — College Park	Tulane University of Louisiana
	University of Michigan — Ann Arbor	University of Chicago
	University of Minnesota — Twin Cities	University of Pennsylvania
	University of Missouri — Columbia	University of Rochester
	University of North Carolina at Chapel Hill	University of Southern California
	University of Oregon	Vanderbilt University
	University of Pittsburgh — Pittsburgh Campus	Washington University in St Louis
	University of Virginia — Main Campus	Yale University
	University of Washington — Seattle Campus	
	University of Wisconsin — Madison	