

# 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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The *2012 Annual Accountability Report* includes photographs taken by Ansel Adams as part of a series commissioned by UC for its 100th anniversary in 1968, and published in book form with author Nancy Newhall as *Fiat Lux: The University of California* (1967). Adams and Newhall were charged not just with capturing the appearance of the University, but also with projecting a vision of the opportunities of the future.

The photographs in *Fiat Lux* have been digitized and re-published as the theme of the On the Same Page 2012 project at UC Berkeley, which this year invites the campus community and the wider public to participate in conversations about the University of California's vision, public mandate and future prospects at: <http://onthesamepage.berkeley.edu>. We include these photographs in the July 2012 Accountability Report to highlight both the impressive foundations of the University and the need to continually re-imagine the future.

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Photograph, page 156: *Students on veranda of the Humanities-Social Science Building*. UC Irvine, Ansel Adams image © the Regents of the University of California.

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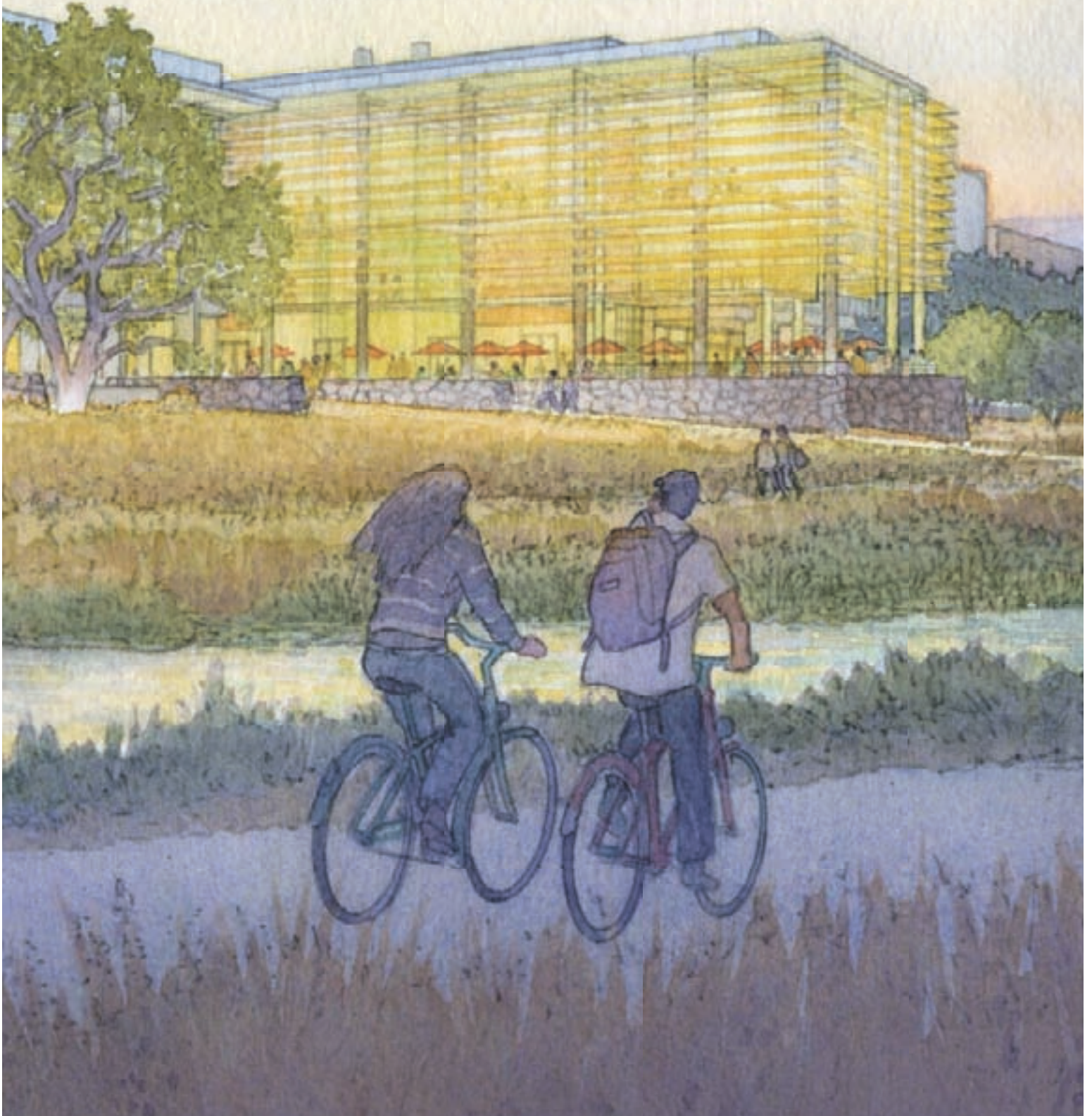
### DATA TABLES

[www.universityofcalifornia.edu/accountability](http://www.universityofcalifornia.edu/accountability)

online

PART I

# Introduction and Quality Trends at the University of California





# Introduction

## University of California 2012 Accountability Report

### BACKGROUND AND PURPOSE

Since the beginning of the great recession in 2008–09, 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 states' per-student spending and a cascade of other effects on key issues such as college affordability, enrollment strategies and capacity, and academic quality. California has not been immune to these pressures. In fact, 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 President Mark G. Yudof upon his appointment as president in 2008, the University of California's Accountability Report has been designed to ensure greater accountability across the UC system. Covering a wide range of topics, it measures 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 changes in internal and external environments. It also supports strategic planning and informs budgetary decision-making, helps ensure responsible stewardship of the institution, and promotes and reflects the University's commitment to be open and accountable to all Californians.

As a management tool, the report is written for the University's leadership, faculty and staff. However, 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 maintenance of this institution. All of these groups have a need and a right to know how well UC is performing.

### KEY FINDINGS

Certainly, the largest and most significant change in the University's external environment over the past four 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 73,000 more students. Despite extremely careful fiscal stewardship, student tuition and fees have increased precipitously. 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 accountability report reflects the University's concern about the long-term impact that state budget cuts may have upon access to the University, affordability, and most importantly the academic quality of the institution as a whole. For the first time, the report summarizes trends in academic quality across four key areas: undergraduate students, graduate students, faculty and research. In general, universities change slowly over time; however, the magnitude of the California state budget cuts has speeded up the process of change as the University grapples with ways to achieve fiscal solvency while simultaneously shoring up key strengths. 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 new. The following key findings reflect major changes and concerns that these data reveal.



- Despite rising tuition and fees, demand for a UC education remains very strong. Over the past 17 years, for example, freshman applications to UC have doubled, rising from 48,802 in 1994 to 106,309 in 2011. At the same time, the academic quality of entering freshman and transfer students has increased. (Indicators 2.1, 2.3 and 2.5)
- Although the University continues to offer each eligible undergraduate applicant a place somewhere in the system, access to the University for eligible high school graduates is strained. (Indicator 2.1)
- The proportion of undergraduate students paying nonresident tuition rose from 5.5 percent in 2007–08 (before the state budget cuts) to 6.7 percent in 2010–11. That proportion is expected to grow as UC pursues strategies to replace lost state revenue. (Indicator 2.7)
- 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 more low-income and first-generation students than any other leading research university. (Indicators 2.6 and 3.5)
- 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. (Indicators 3.2, 3.3 and 3.4)
- The inflation-adjusted net cost for lower-middle-income students has been almost flat during the last six years, but has risen for upper-middle-income and wealthier students. (Indicator 3.2)
- The University began charging professional degree supplemental tuition in 1994 for students in a few professional degree fields; since then, both the fees and the number of programs that charge them have grown. (Indicator 5.3)
- 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)
- Hiring of ladder- and equivalent-rank faculty fell in 2009–10 and 2010–11 in response to fiscal pressures. As a consequence, the number of core faculty — those responsible for the full range of teaching, research and public service responsibilities — has fallen 2 percent over the past two years. (Indicators 6.1 and 6.2)
- In 2010–11, UC employed about 130,000 headcount staff (or 97,000 full-time-equivalent staff); these numbers have been relatively stable over the past four years. Also, in 2010–11, significantly more staff were paid from hospital/health science funds than 10 years earlier; likewise, fewer were paid from general funds, which is the major funding source for staff salaries on the general campuses. (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 2011, 42 percent of ladder-rank faculty were over 55 compared to 28 percent in 1990; likewise, 36 percent of staff were over 50 in 2011 compared to 26 percent in 1998. (Indicators 6.2 and 7.2)
- Senate faculty taught more undergraduates, as measured by student credit hours, in 2010–11 than the previous year. This reflects the impact of increasing undergraduate enrollments coupled with reductions in faculty numbers due to the state budget crisis. (Indicator 9.3)

- Totalling \$5.4 billion, research expenditures (including both direct and indirect costs) constituted nearly one-fourth of UC's operating budget in 2010–11. (Indicator 10.2)
- In 2010–11 new gifts to the University totaled almost \$1.6 billion, an increase of almost 20 percent over 2009–10. Overall, 98 percent of new gifts are restricted for specific purposes. (Indicator 12.3.1)

## SCOPE

This year's accountability report assesses the University's performance in achieving key goals across a wide spectrum of activity from undergraduate access, affordability and success to the University's budget and finances. It is divided into two parts: the Academic Quality Essay (Part I) takes an in-depth look at an issue of timely importance to the University while the body of the report (Part II) uses data to assess progress in specific areas.

Part II is divided into 14 chapters, each focusing on an aspect of the academic enterprise. Chapters use a common format. Each begins with a description of Universitywide goals, and then identifies key themes and trends that emerge from the data that illuminate progress in achieving those goals. Part II includes over 100 unique indicators (some in multiple parts), 16 of them new since last year. Graphs, tables and charts have been comprehensively reformatted, making them easier to interpret, and more explanatory text has been provided, including headlines that focus on key issues and trends.

## METHODOLOGY

Three kinds of data are used in Part II: 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, in 2010, belonged to the American Association of Universities (AAU); and individual data that allow UC campuses to be compared to one another and to 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 for Part II 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.

A comprehensively revised appendix that presents the underlying data used in Part II as well as information about sources and methods is available at [www.universityofcalifornia.edu/accountability](http://www.universityofcalifornia.edu/accountability).

The UCOP Institutional Research Unit has a new *Info Center* with interactive dashboards, data tables, white papers and reports. It is available at <http://data.universityofcalifornia.edu>.

# Quality Trends at the University of California

The University is widely regarded as one of the world’s foremost public research university systems and has a long-standing and well-deserved reputation for the high quality of its academic enterprise. However, recent series of reductions in state funding for higher education present the University with the challenge of maintaining academic quality despite budgetary constraints.

To assess how well the University is managing this challenge, this section considers trends in four areas—undergraduate education, graduate education, faculty, and research—that together provide an overview of the academic enterprise. The trends are depicted here via small charts called sparklines. Legends and time scales remain the same throughout, except where noted. The red dot indicates the minimum value, shown in the first column of numbers. The blue dot indicates the maximum value, shown in the second column. The grey dot represents the most recent value, shown in the third column. Each graphic is scaled to three standard deviations above and below the mean value.

For example, the following graph shows that graduate enrollment as a percent of total enrollment was at a low of 21.4% in 2001–02, peaked in 2006–07 at 22.2% and was 21.5% in 2010–11.



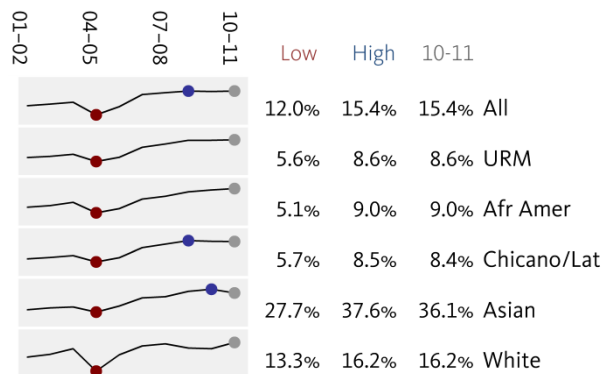
## UNDERGRADUATE ADMISSIONS, ACCESS AND EDUCATION

A key component of UC’s quality is the caliber of its students; this, in turn, is dependent on the quality of California public K-12 education, from which UC draws the majority of its undergraduates. This section shows that undergraduate competitiveness and student financial support are holding steady. Degree completion rates are improving as well.

### Undergraduate Access & Diversity

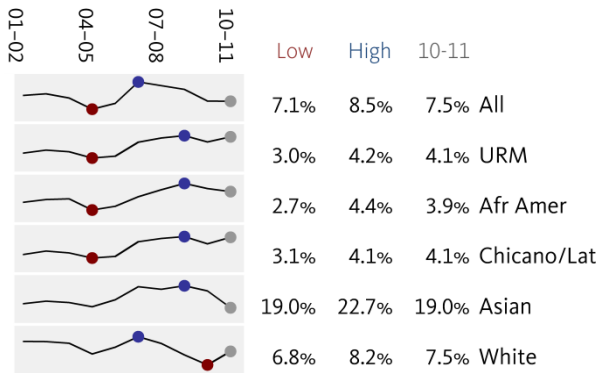
UC has increased the share of underrepresented minority public high school graduates who enroll. This growth, however, still fails to fully reflect the diversity of public high school graduates. The graph below shows the percent of each racial/ethnic group that is admitted. For example, 15.4% of all public high school graduates were admitted in 2010–11, while 9.0% of African American graduates were admitted. The following set of graphs shows that 7.5% of all public high school graduates enrolled.

Percent of CA public HS graduates who are admitted, by race/ethnicity



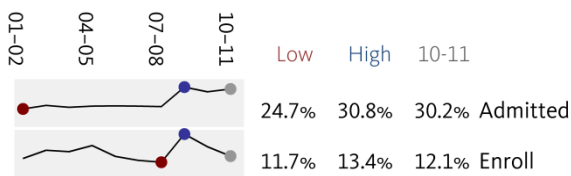


### Percent of CA public HS graduates who enroll, by race/ethnicity



While the percent of public school graduates enrolling at UC has remained fairly steady over the past several years, the percent of private school graduates enrolling has fallen.

### Percent of CA private HS graduates who are admitted/enrolled



### Undergraduate Student Support

UC's need-based financial aid programs have largely protected the lowest-income students from tuition increases as measured by net cost. Middle- and upper-income students have experienced higher costs over time.

### Net cost for dependent CA residents, by family income (thousands)



### Undergraduate Competitiveness

The average high school GPA of enrolling freshmen has increased over time.

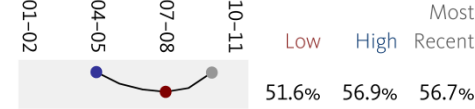
### Average high school GPA, enrolling freshmen



### Faculty Contact

Senate faculty are teaching more undergraduate student credit hours, reflecting a reduction in the number of lecturers and other faculty.

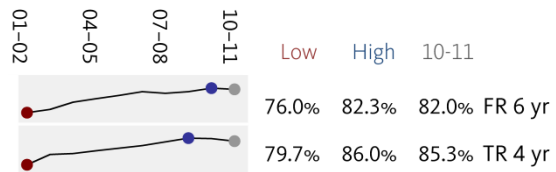
### Percent of undergraduate student credit hours taught by Senate faculty



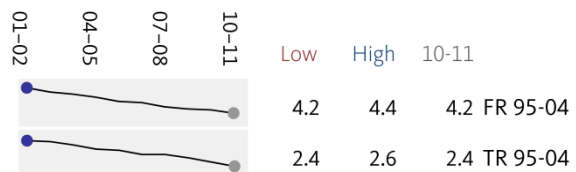
### Degree Completion

Graduation rates for both entering freshman and transfer students have risen over the past ten years. Time-to-degree has fallen for both groups of students.

### Six-year (freshmen) and four-year (transfer) graduation rates (note years: entering freshmen of 95-04, entering transfers of 97-06)



### Time-to-degree



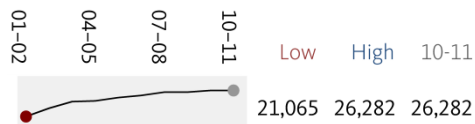
## GRADUATE EDUCATION

Graduate academic students play a vital role in contributing to the quality and effectiveness of UC’s research and teaching enterprises, and recruiting the best students is a major goal for UC’s graduate academic programs.

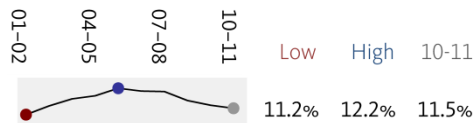
### Graduate Student Enrollment

The number of academic doctoral students enrolled has increased over the past ten years as shown in the first graph. The second and third graphs show that the percent of graduate academic doctoral students, and of all graduate students (including professional degree students), as a share of total enrollment has remained steady over the past ten years.

**Total academic doctoral enrollment**



**Percent graduate academic doctoral**



**Percent graduate (including professional)**

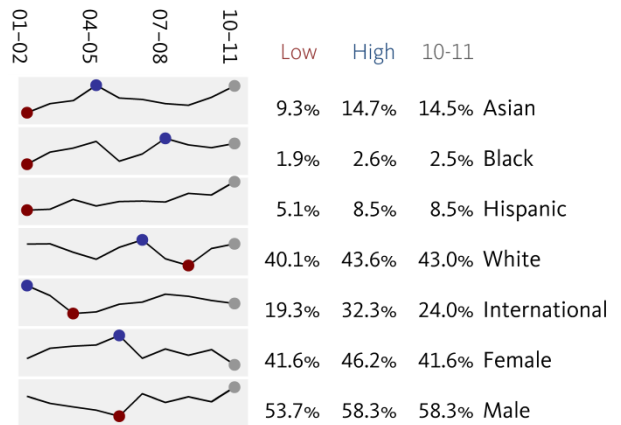


## Graduate Student Diversity

As with undergraduate students, a diverse graduate student body contributes to UC’s academic quality. Enrollment of underrepresented minorities in UC’s doctoral programs is low and has improved only slightly over time. The graphs below show the share of new doctoral student enrollment by racial/ethnic group. For example, 14.5% of new doctoral students were Asian in 2010–11.

At the graduate academic student level, citizenship/national origin can be an important contributor to diversity and the educational experience. International students provide global connections and ensure that UC attracts the world’s top applicants. In 2010–11, international students represented 24 percent of new doctoral students.

**New doctoral student enrollments, by race/ethnicity and gender<sup>1</sup>**



<sup>1</sup>American Indians and unknown not shown.

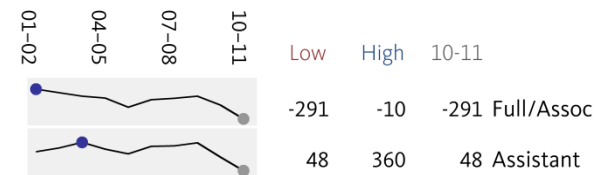
## FACULTY

The academic caliber of the University of California is determined by the quality of its faculty. Recruiting and retaining a world-class faculty is one of the University's highest priorities.

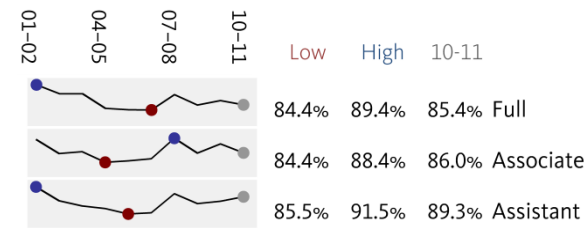
### Faculty Competitiveness

Fewer faculty are being hired, while departures of tenured and tenure-track faculty have remained fairly constant. As a result, the total number of faculty has shrunk, as shown in the net loss of 291 faculty in 2010–11. Faculty salaries have been fairly flat relative to comparator institutions.

#### Net hires



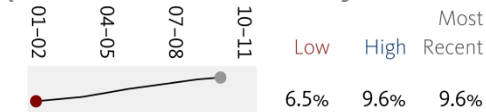
#### Faculty salaries as a percent of the “Comparison 8” benchmark, by rank<sup>1</sup>



#### Faculty recognition

UC faculty continue to garner recognition as measured by memberships in national academies.

#### AAAS, NAE, NAS or NatEd invited memberships as percent of ladder-rank faculty headcount<sup>2</sup>



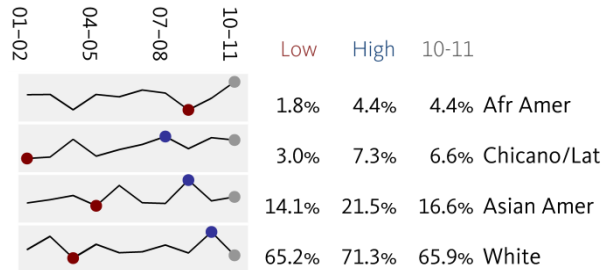
<sup>1</sup> The comparison 8 benchmark is halfway between the average of 4 public institutions (Illinois, Michigan, SUNY Buffalo and Virginia) and the average of 4 private institutions (Harvard, MIT, Stanford and Yale).

<sup>2</sup> American Association for the Advancement of Science, National Academy of Engineers, National Academy of Sciences and National Academy of Education.

## Faculty Diversity

A diverse faculty is an important aspect of the overall quality of the university's academic enterprise. In 2010–11, 4.4% of all hires were African American.

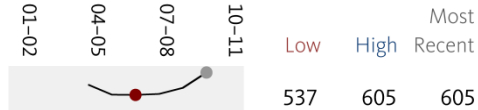
#### Faculty hires by race/ethnicity<sup>3</sup>



### Teaching Effort

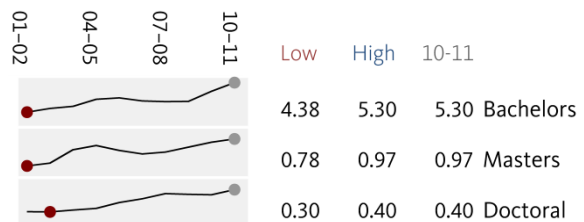
As UC has reduced the use of lecturers and slowed faculty hiring, existing faculty have responded by teaching more. This could be seen as an improvement in undergraduate education, but may simply reflect larger classes.

#### Student credit hours per ladder- and equivalent rank faculty FTE



### Degree Output

#### Degrees per ladder- and equivalent rank faculty FTE



<sup>3</sup> American Indians, Unknown, and Internationals are not shown.

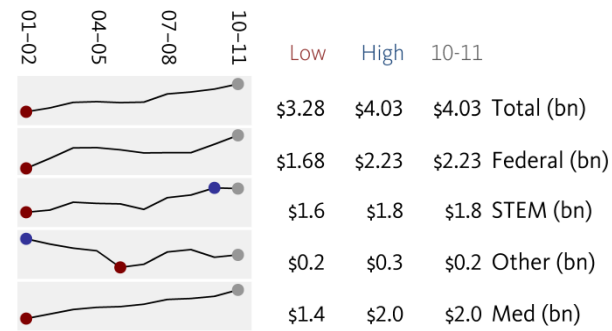
## RESEARCH

Performance toward achieving UC's research goals may be measured in many ways: the quantity of research that is conducted; the contribution to the public of research findings; and the economic and societal benefits that flow directly from research results. Measures of research quality and impact are difficult to generate, but it is evident that UC remains highly competitive in securing external funding for research; the success rate for research proposals also remains high.

### Research Funding

Research funding has been growing and remains strong. UC's share of the total awarded to academic institutions has remained fairly steady.

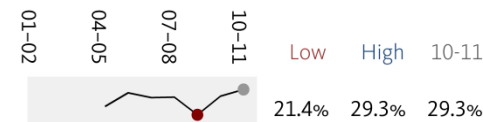
**Research expenditures:  
Total, federal and by discipline<sup>1</sup>, in billions**



### Proposal Success

Research funding varies widely by discipline; significantly more funding is available in health, biomedical and STEM (science, technology, engineering and math) fields.

**Award dollars as a percentage of proposal dollars**



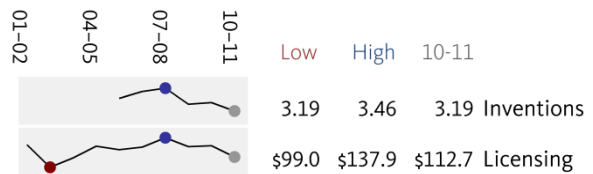
<sup>1</sup> Adjusted for inflation, direct research expenditures only, excludes indirect expenditures.

## Technology Transfer

One significant aspect of the University of California's public service mission is to ensure that the results of its research are made available for public use and benefit. This "technology transfer" is accomplished in many ways: through educating students; through publishing results of research; and, by ensuring that inventions are developed into useful products in the commercial marketplace.

UC's portfolio of active inventions increased by 4.6% from 09-10 to 10-11. The number of inventions newly covered by a utility license, option, or letter of intent increased by 8.4%. Invention disclosures as a ratio to research spending have remained steady. Total income from technology transfer reached a record of \$164.6 million, \$86.2 million of which represents a prepayment of future royalty income.

**Invention disclosures per \$10 mil of research expenditures and licensing income<sup>2</sup>**

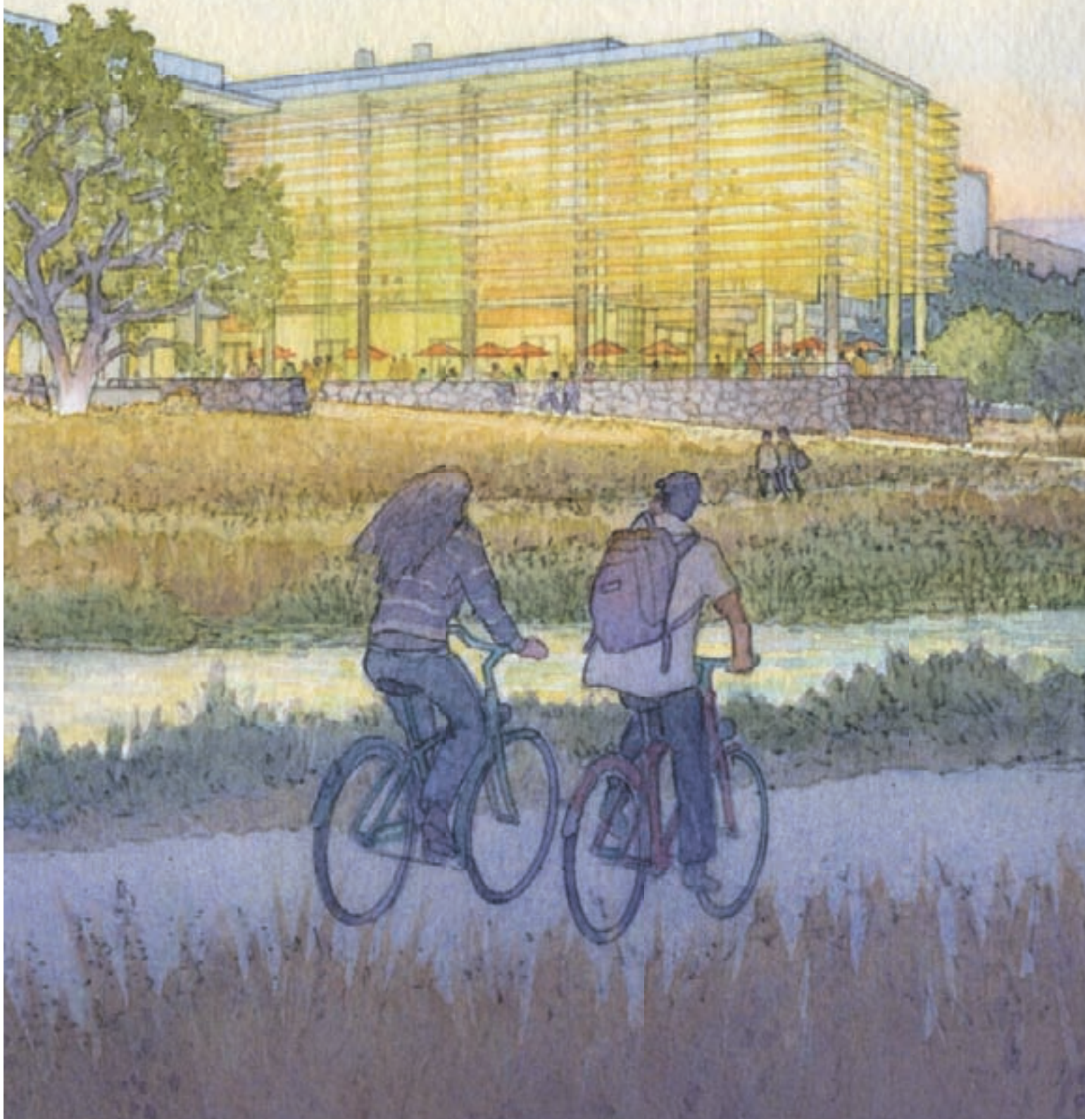


<sup>2</sup> Research expenditures averaged over last five years. Licensing income is inflation adjusted.

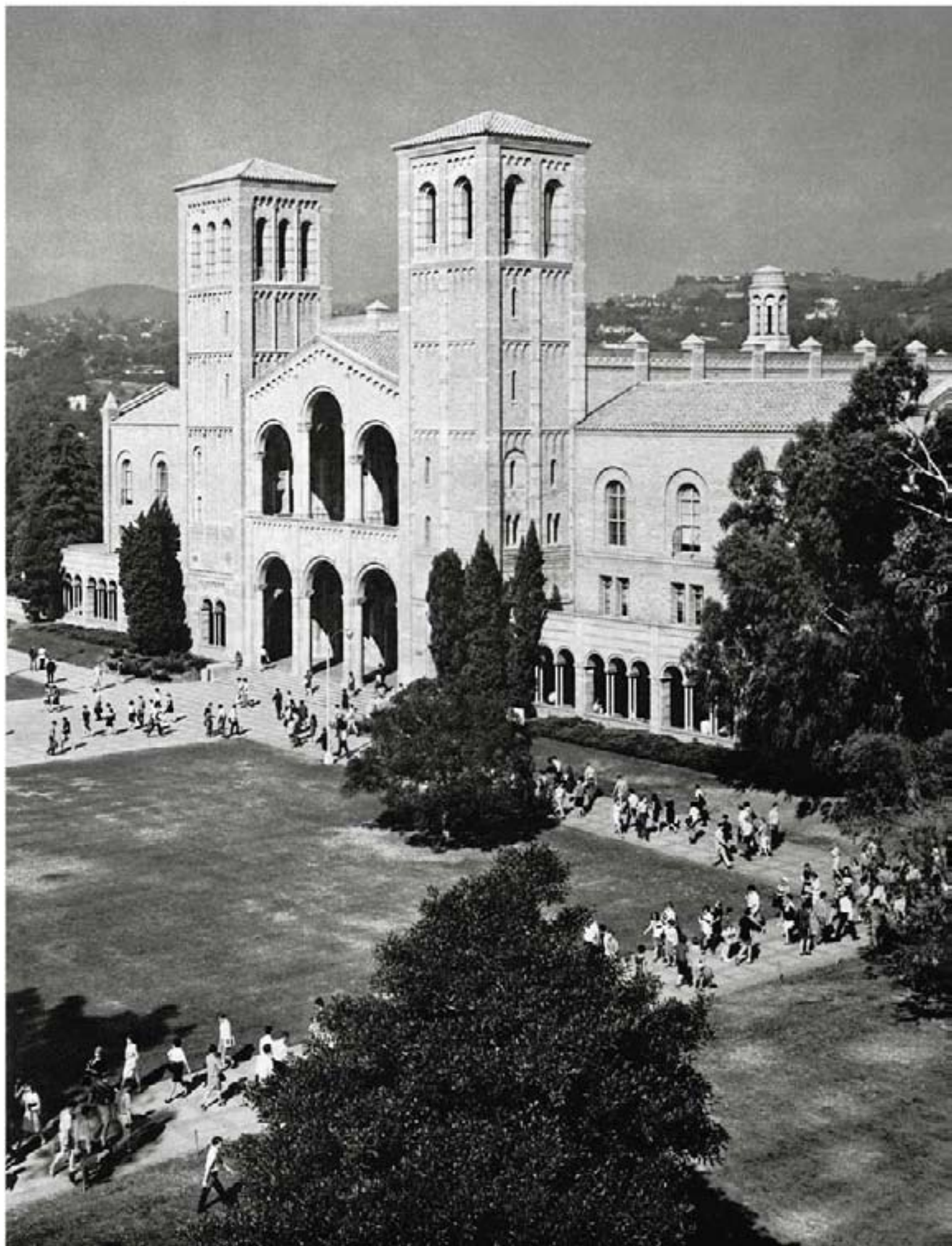


PART II

# Universitywide Trends and Campus Comparisons







# 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 eligible students from traditionally underrepresented groups is increasing, and the volume of applications from these and other demographic segments is growing, California's capacity to accommodate these well-qualified residents is constrained. This comes after years of decreased education budgets, and the prospect of more cuts to come. All segments of California's public higher education system — community colleges, state universities and the University — have been affected.

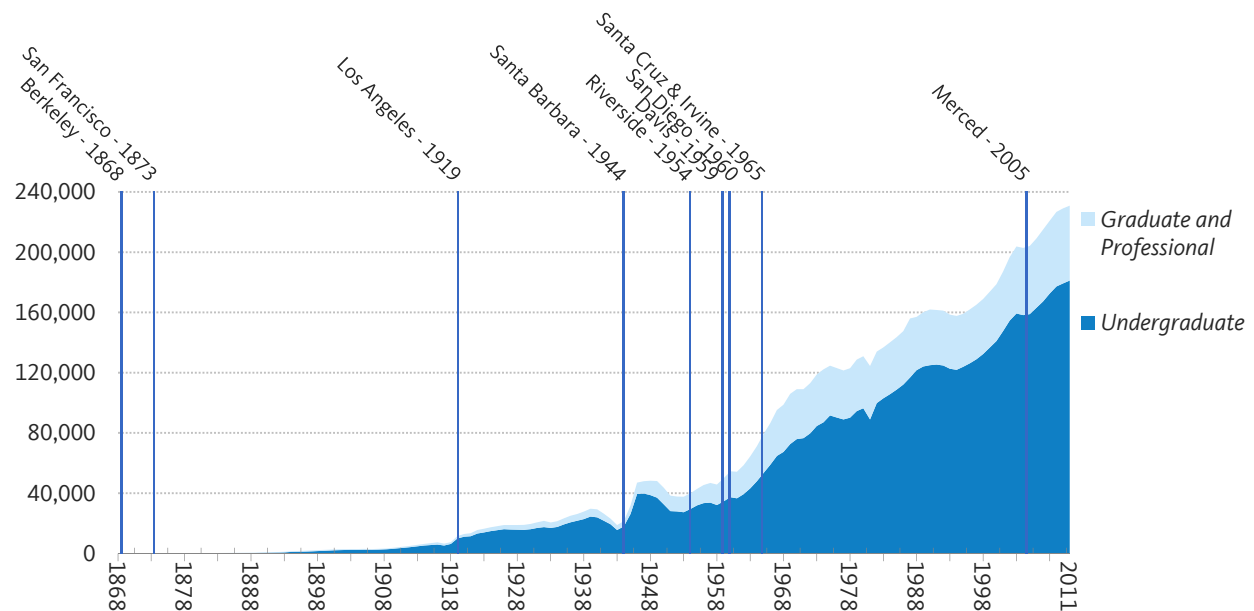
The consequence is a statewide struggle to maintain a high level of opportunity without sacrificing academic quality. Through a few key quantitative measures, this chapter presents an overview of the size and shape of the University as it adapts to these new funding realities. It demonstrates the challenges 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.

## 1.1 STUDENT ENROLLMENT

### 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 2011



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 eligible 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 eligible community college transfers.

As a consequence of growth in undergraduate enrollments, the number of undergraduates has outstripped graduate and professional degree students. In 1961, UC enrolled 68 percent undergraduates compared to 32 percent graduate and professional degree students. In 2011, the University enrolled about 78 percent undergraduates compared to 22 percent graduate and professional degree students.

This change in the ratio of undergraduate to graduate students is one of the largest structural changes in the University over the past 50 years.

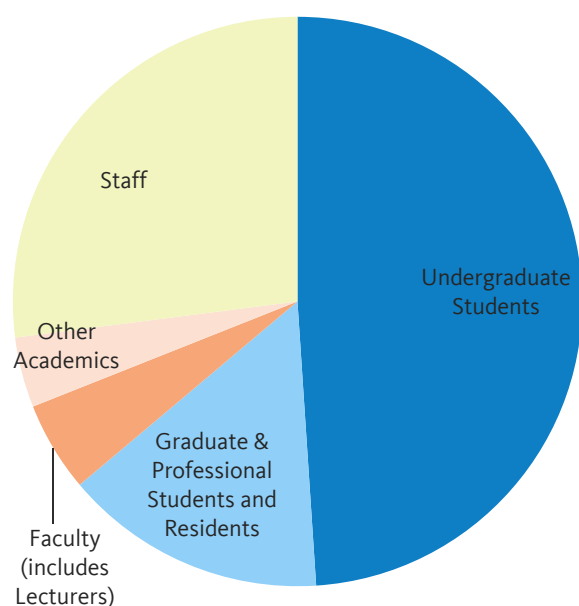
<sup>1</sup> Does not include medical residents.



## 1.2 UNIVERSITY COMMUNITY

The UC community consists of about 236,000 students, 134,000 faculty and staff, 50,000 retirees, and nearly 1.6 million living alumni.

1.2 UC community  
Universitywide  
Fall 2011



Undergraduate Students	181,197	49%
Graduate & Prof. Deg. Students	49,740	13%
Medical Residents	5,423	1%
Faculty (includes Lecturers)	18,946	5%
Other Academics	14,767	4%
Staff	100,019	27%
<b>Total</b>	<b>370,092</b>	

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 generates about \$46.3 billion in economic activity in California and contributes about \$32.8 billion to the gross state product annually.

The immediate UC community includes 236,000 students, 134,000 faculty and staff, 50,000 retirees, and nearly 1.6 million living alumni.

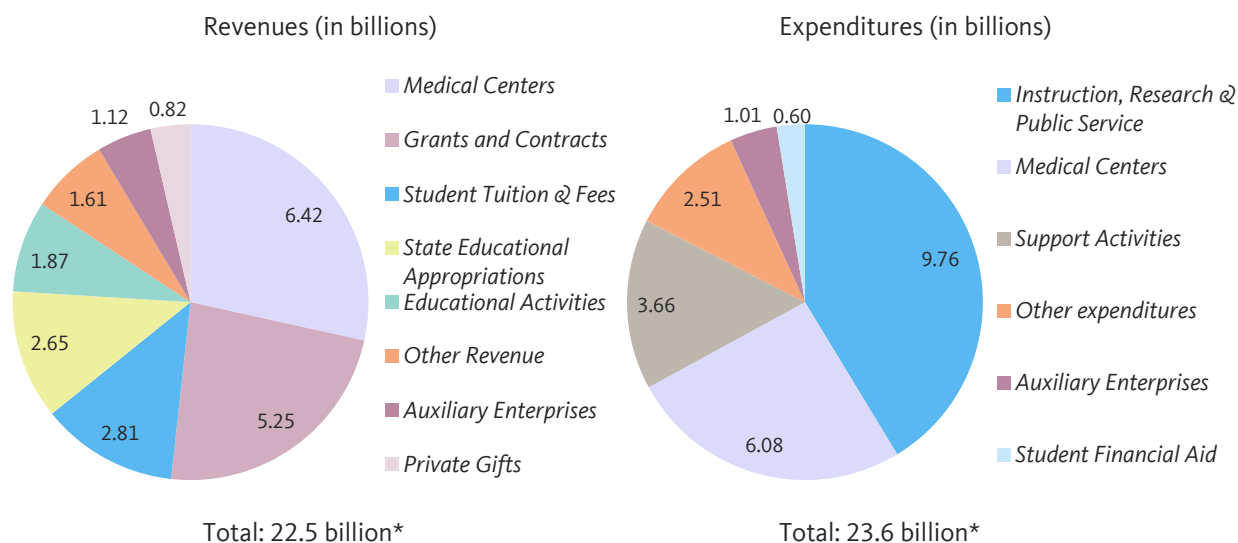
However, the broader UC community includes many more people. Patients at UC's hospitals account for 3.8 million outpatient clinic visits and more than 850,000 inpatient days annually. UC Extension provides instruction to approximately 300,000 course registrants annually. Numerous farmers and agriculturalists work with UC Cooperative Extension agents. Entrepreneurs and employees in industries 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>1</sup> Counts above are unduplicated headcounts: student staff employees are excluded from staff counts and student academic employees excluded from academic employee counts. Also, counts exclude approximately 300,000 University Extension enrollments (extension enrollments are duplicated so it is unknown how many unique students these enrollments represent).

### 1.3 OPERATING BUDGET

**In 2010–11, the University generated \$22.5 billion in revenues from a wide range of sources. Most of the University’s revenues are restricted in the way that they may be used.**

1.3 Operating revenues by source and expenditures by function  
Universitywide  
2010–11



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

In addition to providing instruction for more than 236,000 students annually and maintaining a multibillion dollar research enterprise, the University engages in a broad spectrum of ancillary activities. These include the operation of teaching hospitals, maintenance of world-class libraries, development of academic preparation programs for students in K-12, and operation of auxiliary enterprises such as student residence halls and dining services.

Funds that support the medical centers, auxiliaries, and 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).

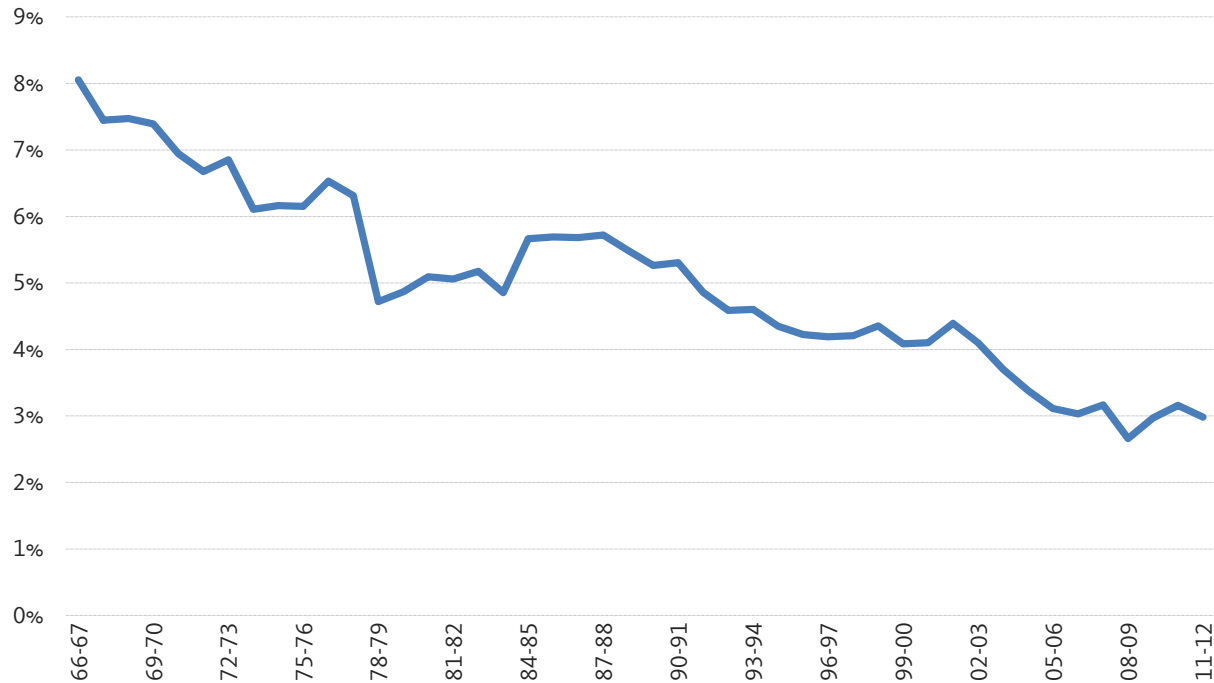
\*Expenses in 2010-11 exceeded revenue available due to accounting adjustments as detailed in the audited financial statements.

<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/finreports/index.php?file=10-11/pdf/fullreport\\_1011.pdf](http://www.universityofcalifornia.edu/finreports/index.php?file=10-11/pdf/fullreport_1011.pdf). 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.

## 1.4 STATE SUPPORT

### The University's share of the state's general fund dropped from 8.1 percent in 1966–67 to 2.8 percent in 2011–12.

1.4 UC share of state budget  
Universitywide  
1966–67 to 2011–12



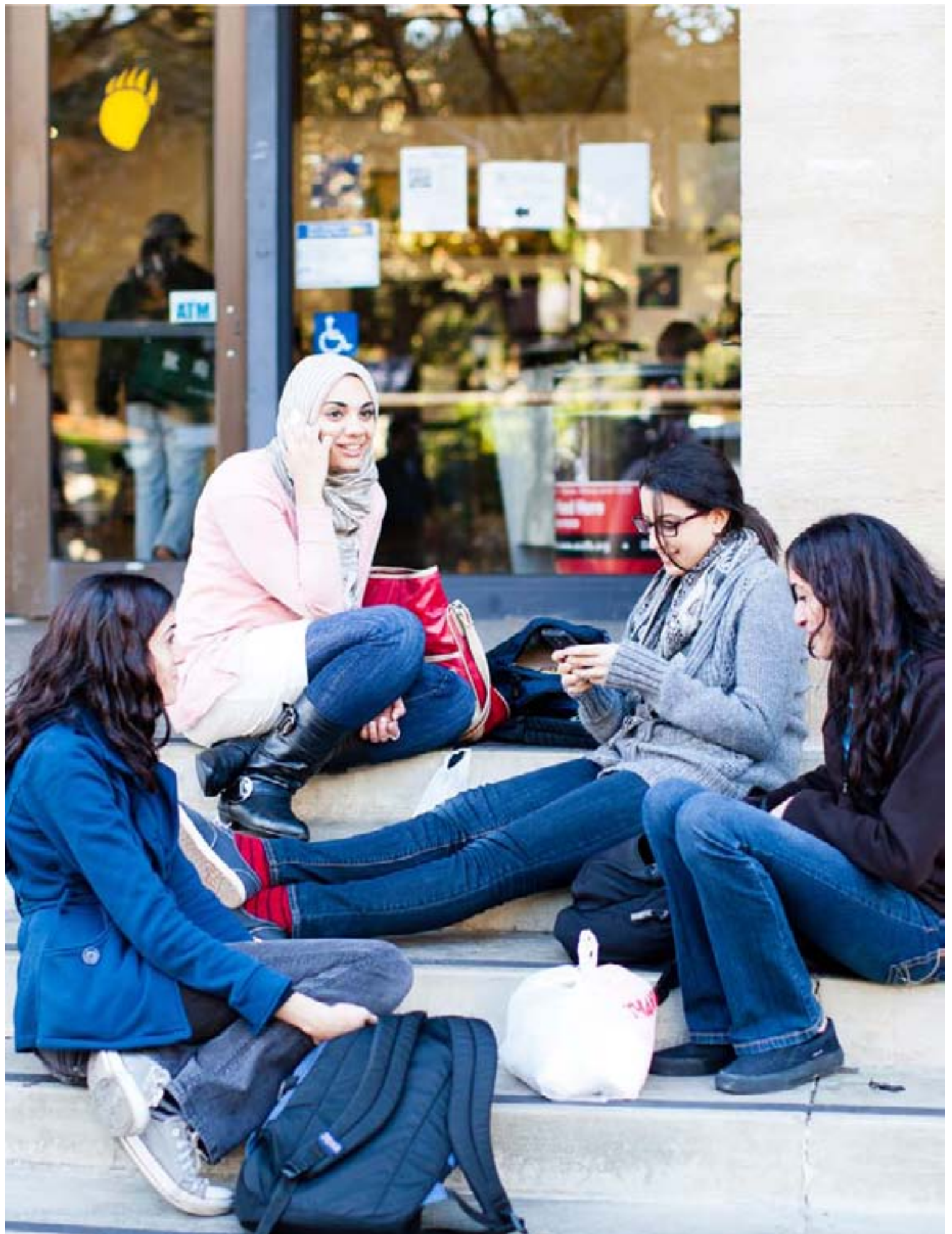
Source: UC Budget Office

Historically, state funding has been the largest single source of support for the University's core instructional budget. Together with UC general funds<sup>1</sup> and student fee revenue, state funding has provided permanent 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 12.1).

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





# 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 eligible freshmen in the top 12.5 percent of California's public high school graduates. It also calls for UC to admit all eligible California Community College transfer students.

## Admissions trends

Demand for a UC education has risen dramatically over the past two decades. Applications to UC have doubled since 1994, and campuses that used to admit almost every eligible applicant have become 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. Almost 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, in response to state budget cuts, UC reduced the number of entering California freshman over the past three years (2009–11); those reductions were partially offset by increasing the number of new California community college transfer students. Despite these reductions in freshmen enrollment, UC campuses continue to enroll over 11,000 California undergraduates for whom no state funding was received.

While enrollment of *California* students has been constrained by funding available from the state, 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.

Despite continuing financial pressures, the University continues in its commitment to provide a space on one of the UC campuses to all California applicants who meet minimum criteria for guaranteed admission and who wish to attend. In doing so, however, fewer students have been offered admission to a campus of their choice.

## Looking forward

In 2012, the University introduced new eligibility criteria that broadened opportunity for more students to be considered for admission to UC. The University will report on the outcomes of the 2012 admissions cycle to the Board of Regents in September 2012; the July 2013 Accountability Report will also describe how changes to UC's admissions process impacted the fall 2012 entering freshman class.

Over the next four years, the UC campuses also plan to enroll additional nonresident undergraduate students. Nonresident students enrich and diversify the student body; they also pay supplemental tuition (\$22,878 in 2011–12) not charged to California residents. This extra revenue enables UC to improve educational programs for all students.

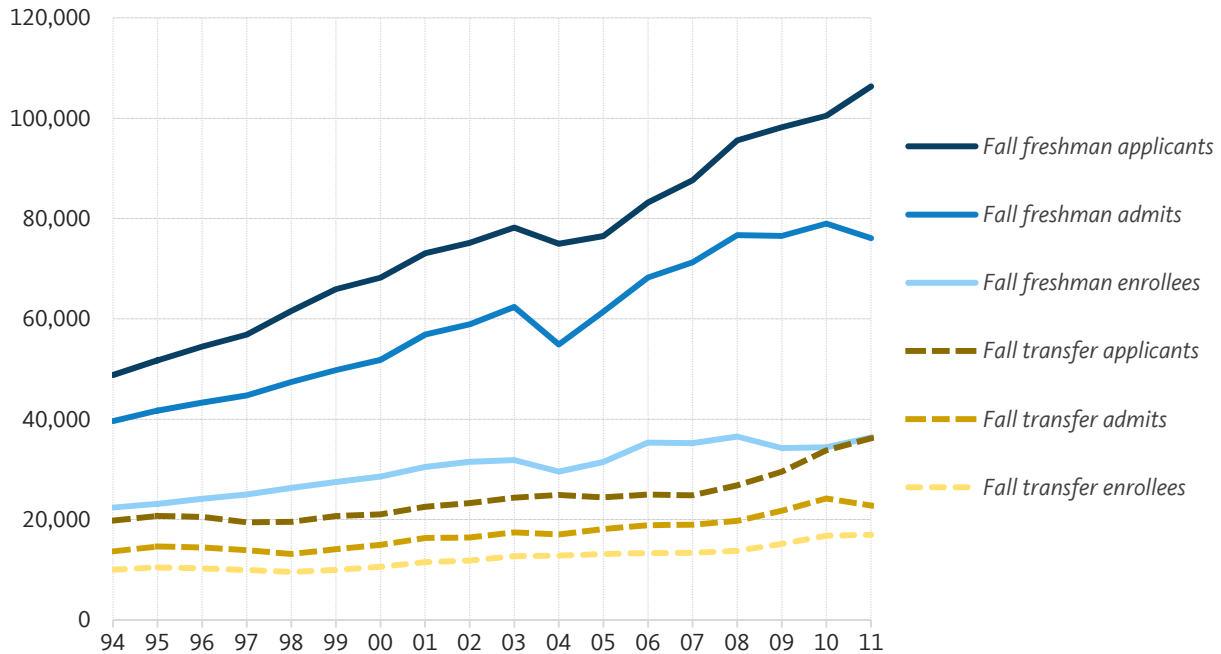
## For more information

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

## 2.1 APPLICANTS, ADMITS AND ENROLLEES

**Applications to UC have doubled over the past 17 years. UC enrollments have grown 59 percent during the same period, but are still falling short of demand.**

2.1 Undergraduate applicants, admits and enrollees  
Universitywide  
Fall 1994 to 2011



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

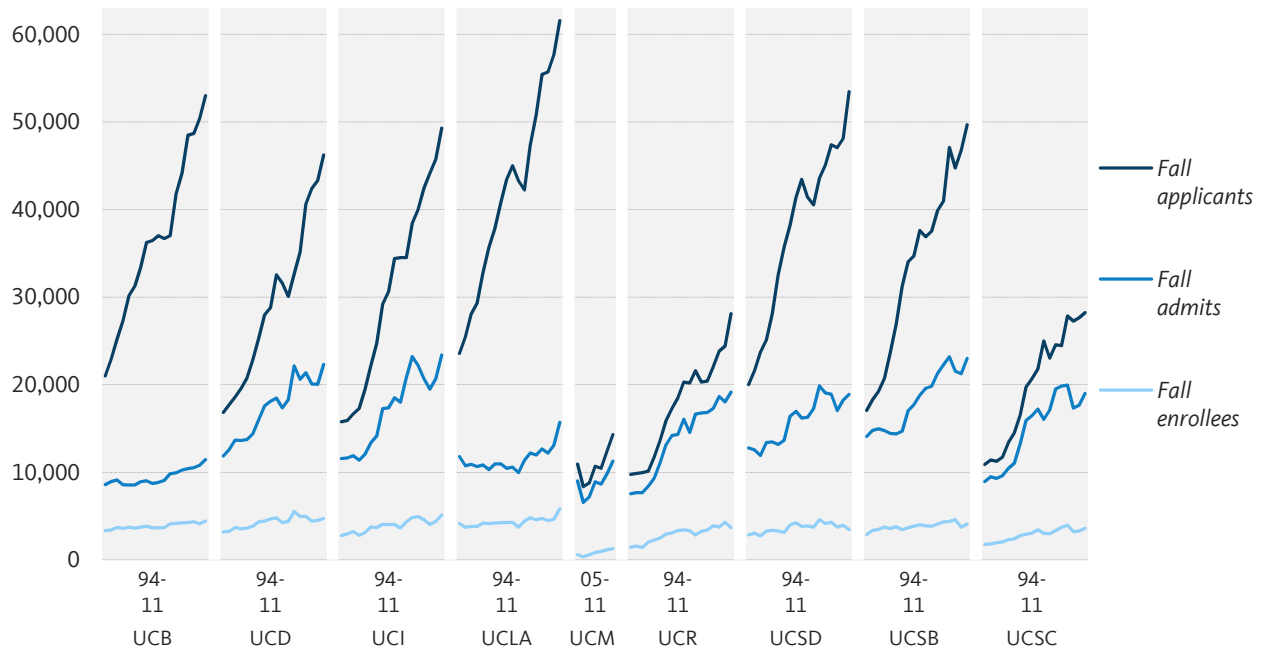
The rapid growth in freshman applications to UC over the past 17 years is a function of growth in the number of high school graduates and UC's continued popularity with California graduates. Despite recent efforts to bring UC's enrollment more in line with reductions in state funding, UC has made providing access to California students a priority. In 2011–12, UC enrolled more than 11,000 California students for whom it received no state support. In addition, UC continues to maintain its obligations under the Master Plan by guaranteeing admission to all qualified students, both freshmen and transfers, although not necessarily to a campus of their choice.

<sup>1</sup> Applicants here include the "referral pool", which comprises eligible applicants who are not offered admission at the campus they applied to but instead are admitted to another campus where there is sufficient capacity. In the recent past, these campuses have been Riverside and Merced. 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.

## 2.2 FRESHMAN APPLICANTS, ADMITS AND ENROLLEES

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

2.2 Freshman applicants, admits and enrollees  
UC campuses  
Fall 1994 to 2011



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 has grown from about 2.8 campuses per applicant in 1994 to about 3.6 campuses per applicant in 2011.

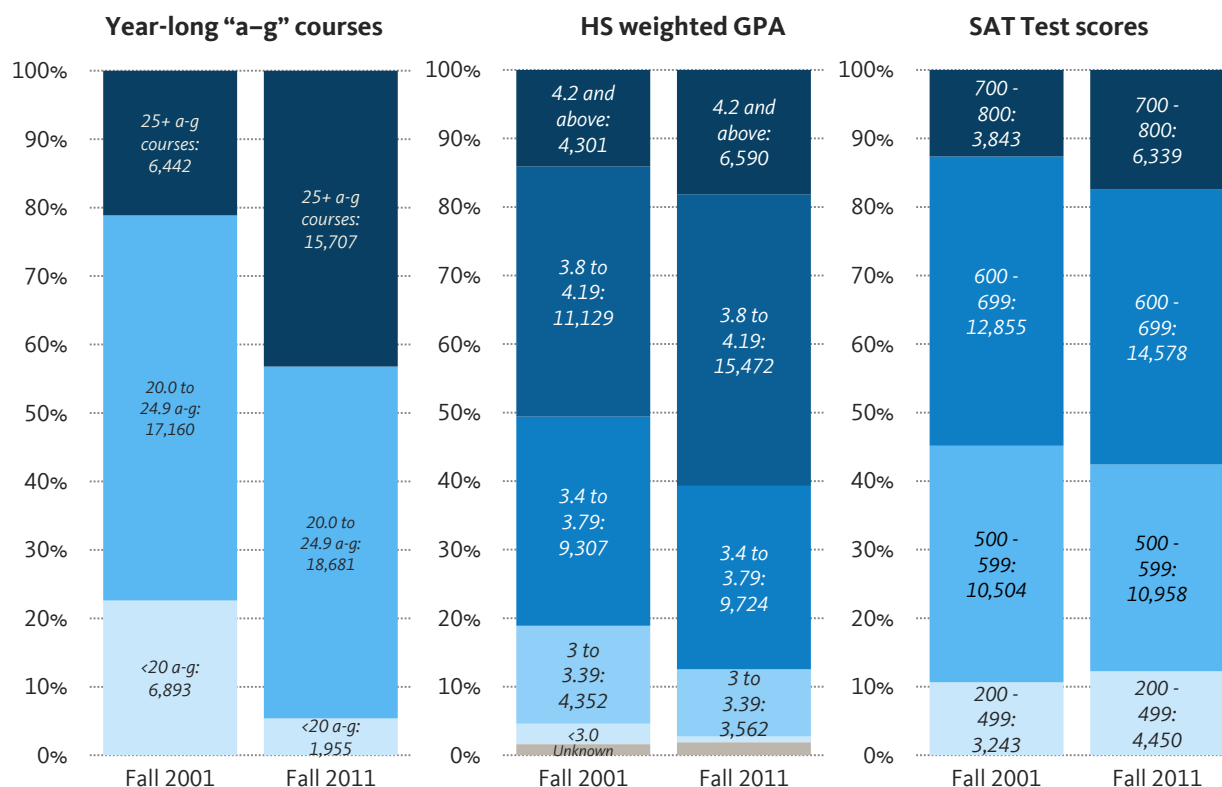
<sup>1</sup> Applicants here *exclude* the “referral pool”, which comprises eligible applicants who are not offered admission at the campus they applied to, but who are admitted to another campus where there is sufficient capacity. Some campuses admit fall applicants for a subsequent term (winter or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

## 2.3 FRESHMAN PREPARATION

### Freshmen who entered the University in fall 2011 were better prepared academically than those who entered in fall 2001.

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 2001 and 2011



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.

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

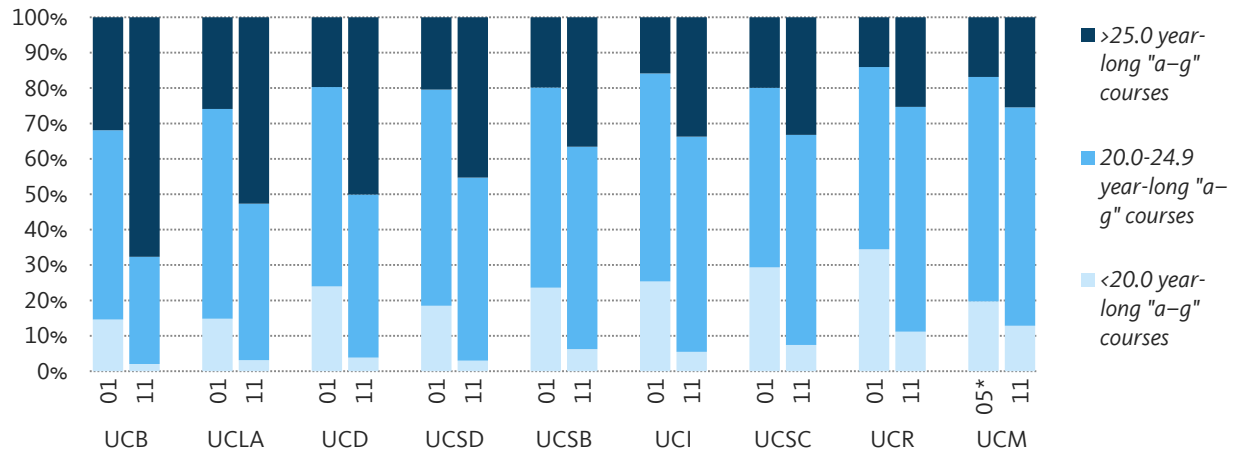
<sup>2</sup> San Francisco does not enroll freshmen. Grades shown here are weighted; a grade in a UC-approved honors class, such as Advanced Placement, is given an extra grade point. Fall 2001 test scores are the average of SAT I Math and Verbal scores and fall 2011 are the average of SAT Critical Reading and Math scores. Unknowns are excluded.



## 2.3 FRESHMAN PREPARATION

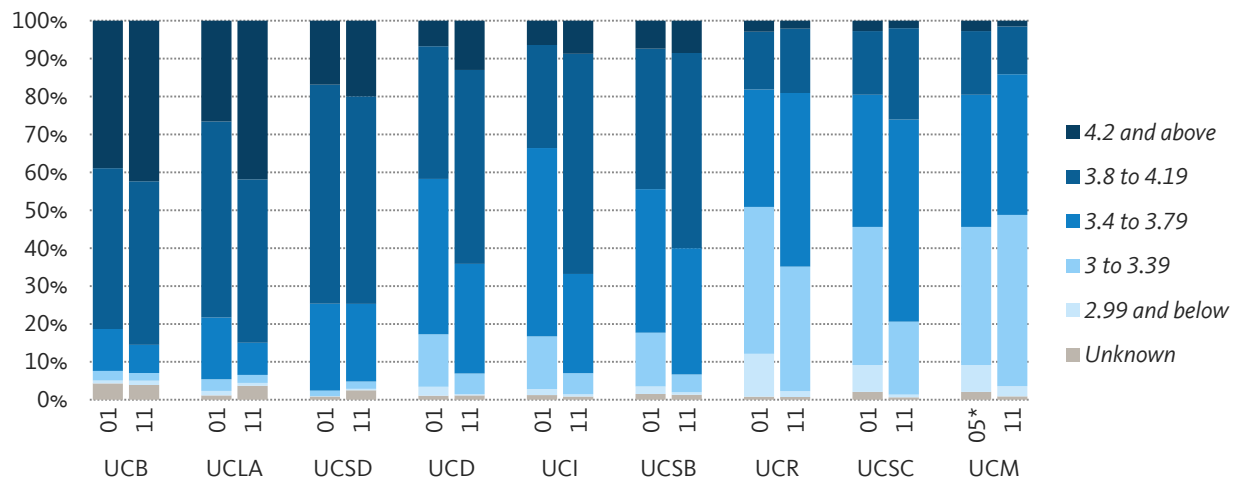
### A-G courses, incoming freshmen

#### UC campuses



### High school weighted GPA, incoming freshmen

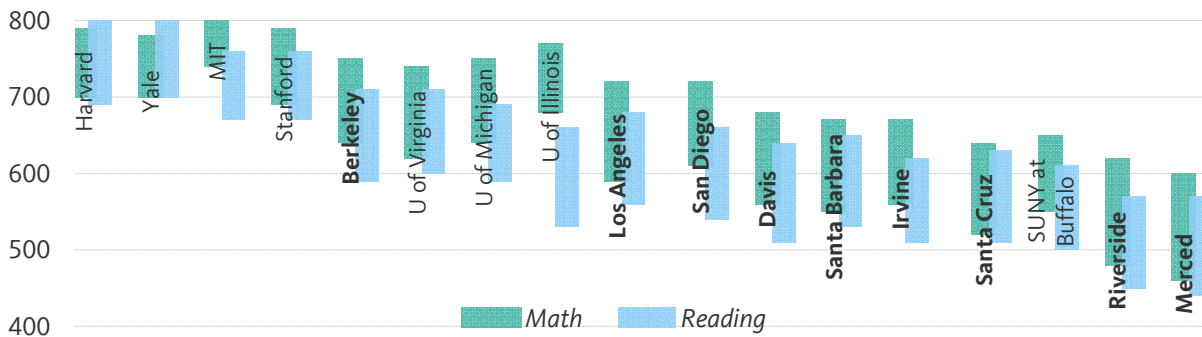
#### UC campuses



### 2.3.2 SAT Reading and Math scores, 25th to 75th percentile

#### UC campuses and comparison institutions

#### Fall 2010



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

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

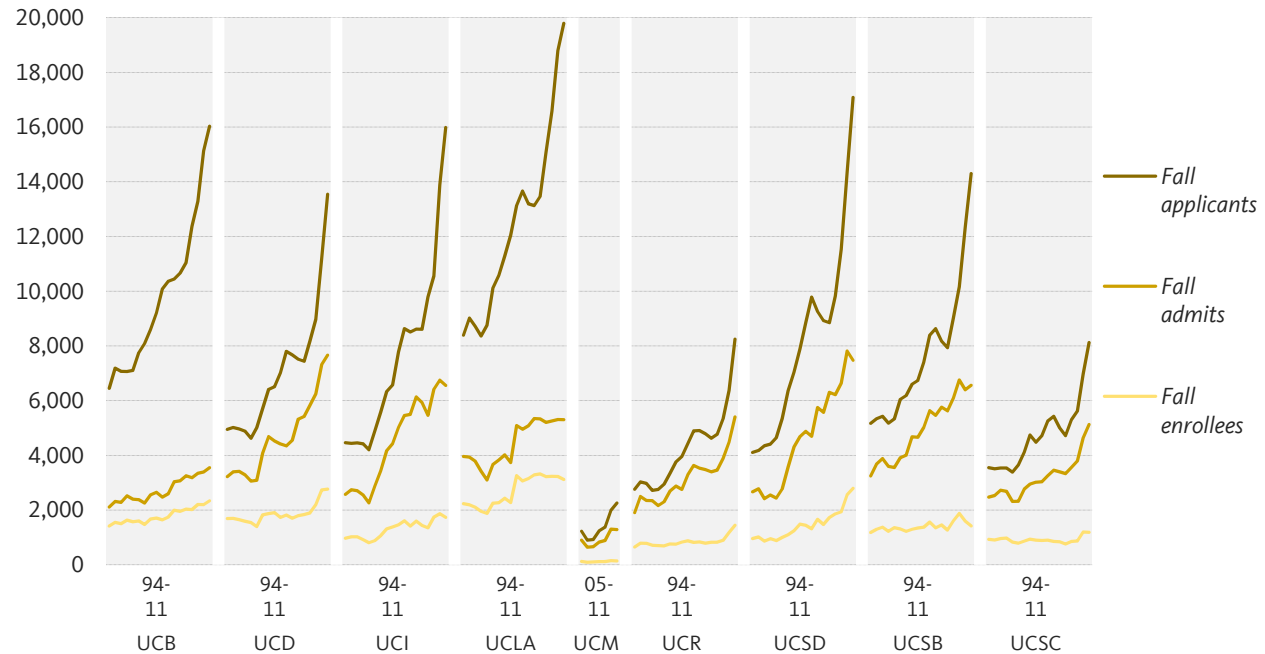
## 2.4 TRANSFER APPLICANTS, ADMITS AND ENROLLEES

Since fall 2004, when new UC enrollment dropped due to that year's budget crisis, new fall freshman enrollment has grown 23 percent while new fall transfer enrollment has grown 32 percent.

### 2.4.1 Transfer applicants, admits and enrollees

UC campuses

Fall 1994 to 2011



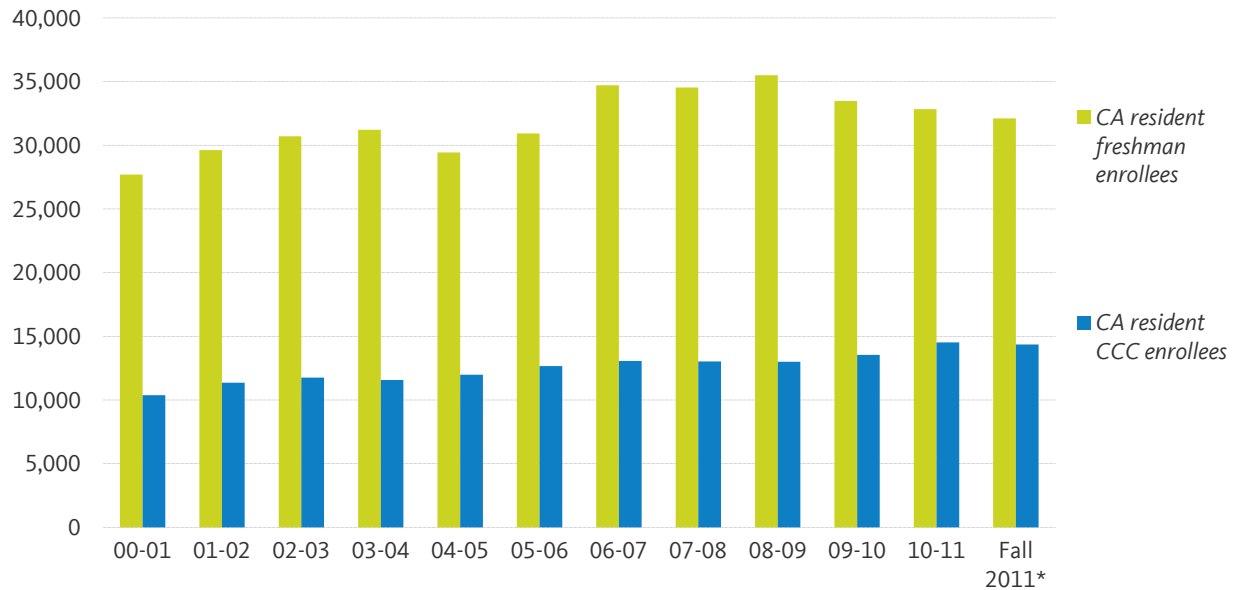
Source: UC Corporate Student System

UC prioritizes transfer enrollment. Since 1994, the fall enrollment of new California Community College (CCC) upper-division transfers has increased 83 percent (from 8,681 to 15,848) and is approaching UC's goal of enrolling one new transfer student for every two new freshmen.

## 2.4 TRANSFER APPLICANTS, ADMITS AND ENROLLEES

### 2.4.2. New freshmen and transfers

Universitywide  
2000-01 to 2011-12\*



Source: UC Corporate Student System

The Master Plan calls for UC to accommodate all eligible 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 spaces 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 transfer student for each two new freshmen, or 67 percent new resident freshmen to 33 percent new resident CCC transfer students.

	Percent resident freshmen	Percent resident CCC	New CA freshmen to new CA 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
Fall 2011*	69%	31%	2.24

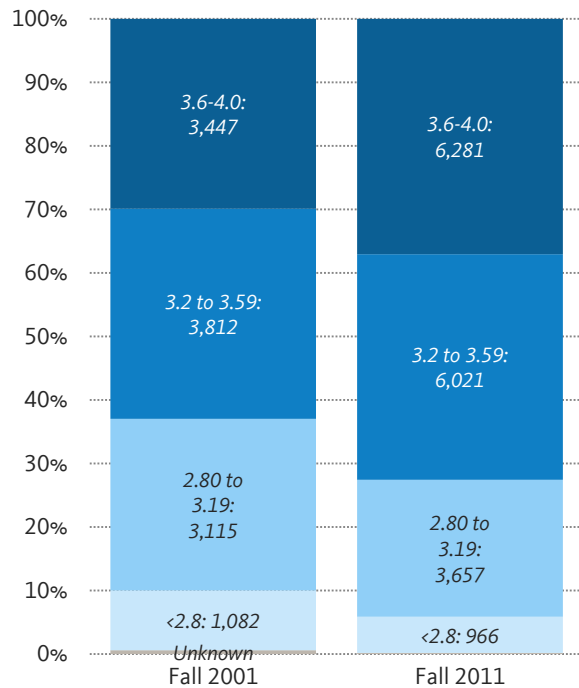
\*Only fall enrollment data are available for 2011-12. Other years include freshmen and transfer spring rollover enrollees and transfer winter/spring enrollees. This slightly understates the ratio of transfers to freshmen, because freshmen are more likely to enroll in the fall.

## 2.5 TRANSFER PREPARATION

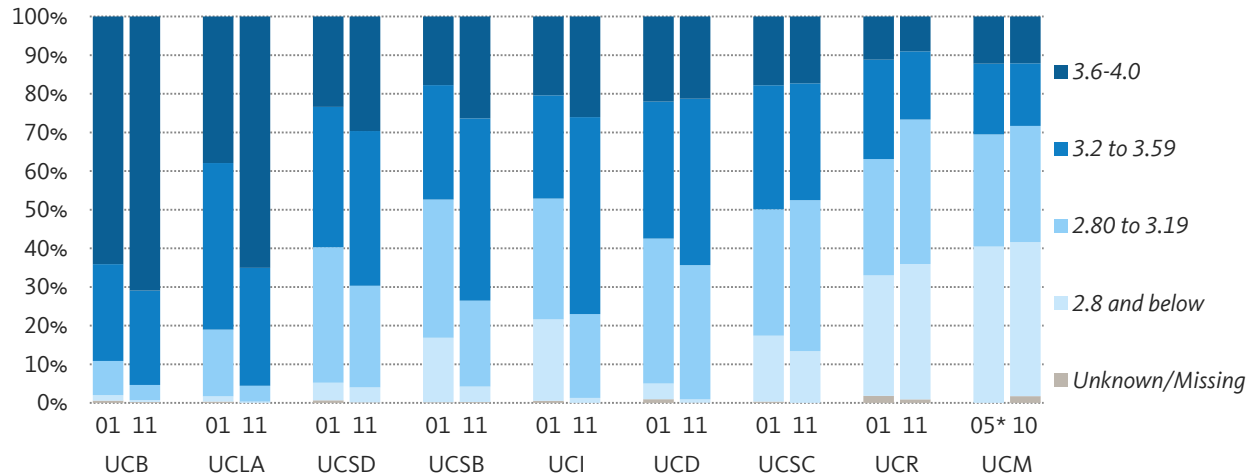
**Like freshmen, UC transfer students in fall 2011 were better prepared academically than their counterparts in earlier years, as measured by their grades.**

2.5 College grade point average (GPA)<sup>1</sup> of entering transfer students  
Fall 2001 and 2011

Universitywide



UC campuses



Source: UC Corporate Student System

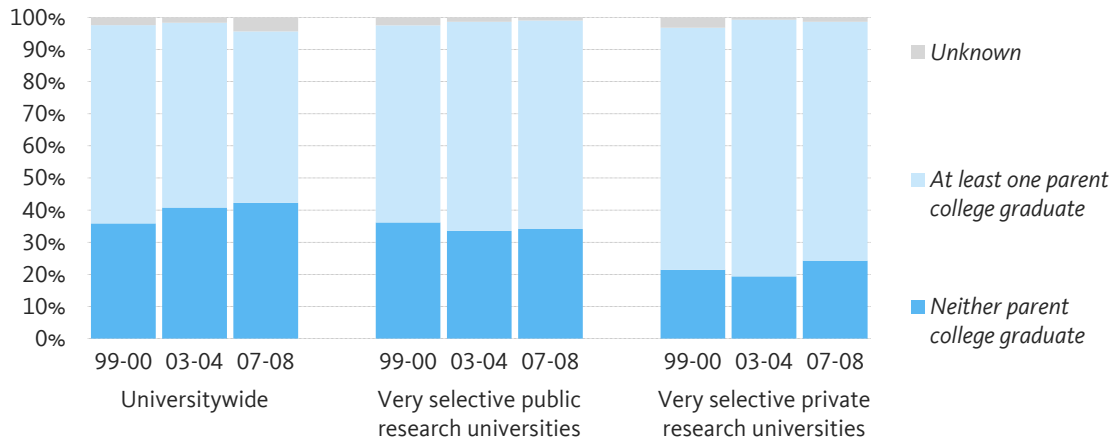
<sup>1</sup> The transfer GPA is based on grades for college-level academic courses from the college(s) where students were previously enrolled. \*Merced did not open until 2005.

## 2.6 DEMOGRAPHIC CHARACTERISTICS OF UC UNDERGRADUATES

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

#### 2.6.1 First-generation undergraduate students

Universitywide and very selective public and private research universities  
1999–2000, 2003–04 and 2007–08



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>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).

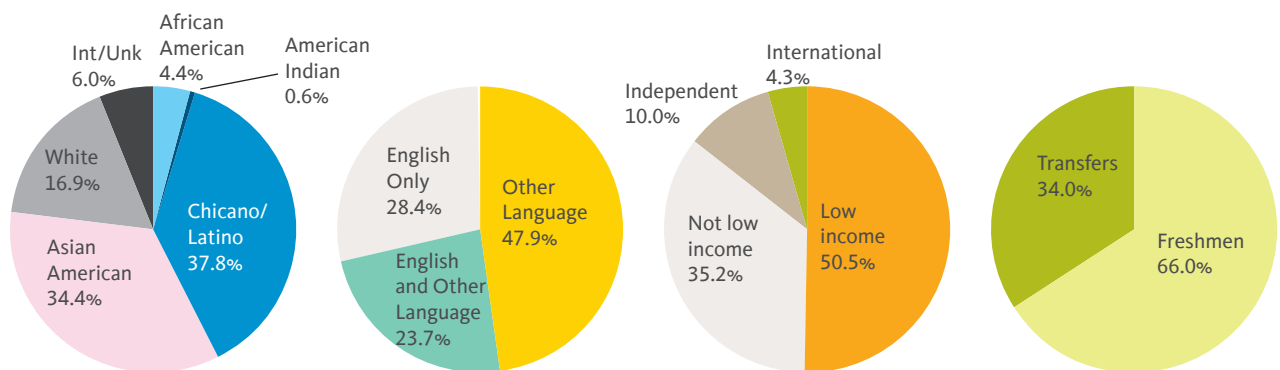
## 2.6 DEMOGRAPHIC CHARACTERISTICS OF UC UNDERGRADUATES

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

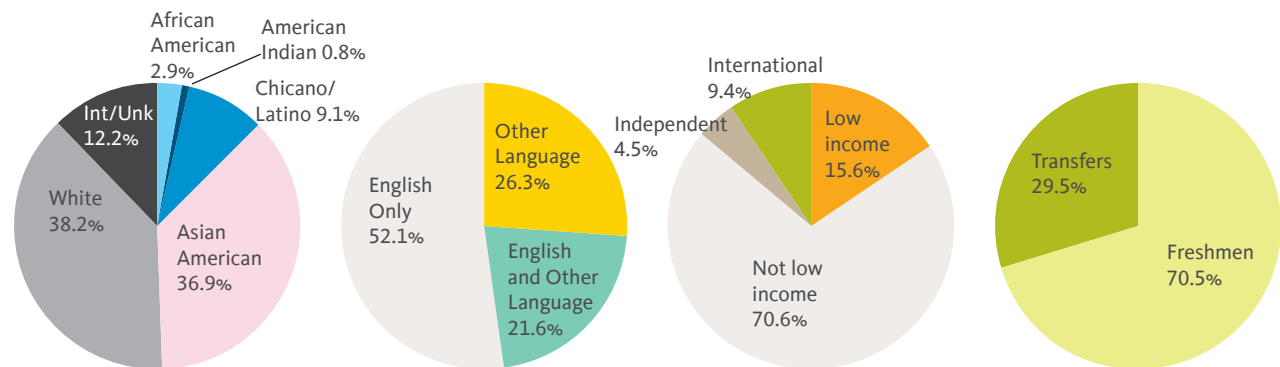
### 2.6.2 Entering students by first-generation status, race/ethnicity, first language spoken at home, income and entering level

Universitywide  
Fall 2011

#### Entering First-Generation Students



#### Entering Non-First-Generation Students



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 22,992 (43.1%); non-first-generation students total 29,083 (54.6%); and missing/unknown are 1,222 (2.3%).

## 2.6 DEMOGRAPHIC CHARACTERISTICS OF UC UNDERGRADUATES

**While the proportions of low-income freshmen and transfers are about the same, there are significant differences in the racial/ethnic/income profiles for students entering UC via these different paths.**

2.6.3 New domestic undergraduates by race/ethnicity, income and class level  
Universitywide  
Fall 2011

		<b>Freshmen</b>	<b>Transfers</b>	<b>All</b>
low income	URM	14.3%	7.4%	12.1%
	Asian	13.9%	10.7%	12.9%
	White	4.4%	7.6%	5.5%
<i>low income total *</i>		33.1%	26.3%	30.9%
non low income	URM	12.7%	8.6%	11.4%
	Asian	24.8%	13.1%	21.1%
	White	20.9%	20.0%	20.6%
<i>non low income total *</i>		59.8%	43.6%	54.6%
<i>Independent of parents</i>		1.1%	20.5%	7.3%
<i>International</i>		6.0%	9.6%	7.2%
<b>All</b>		<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

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.

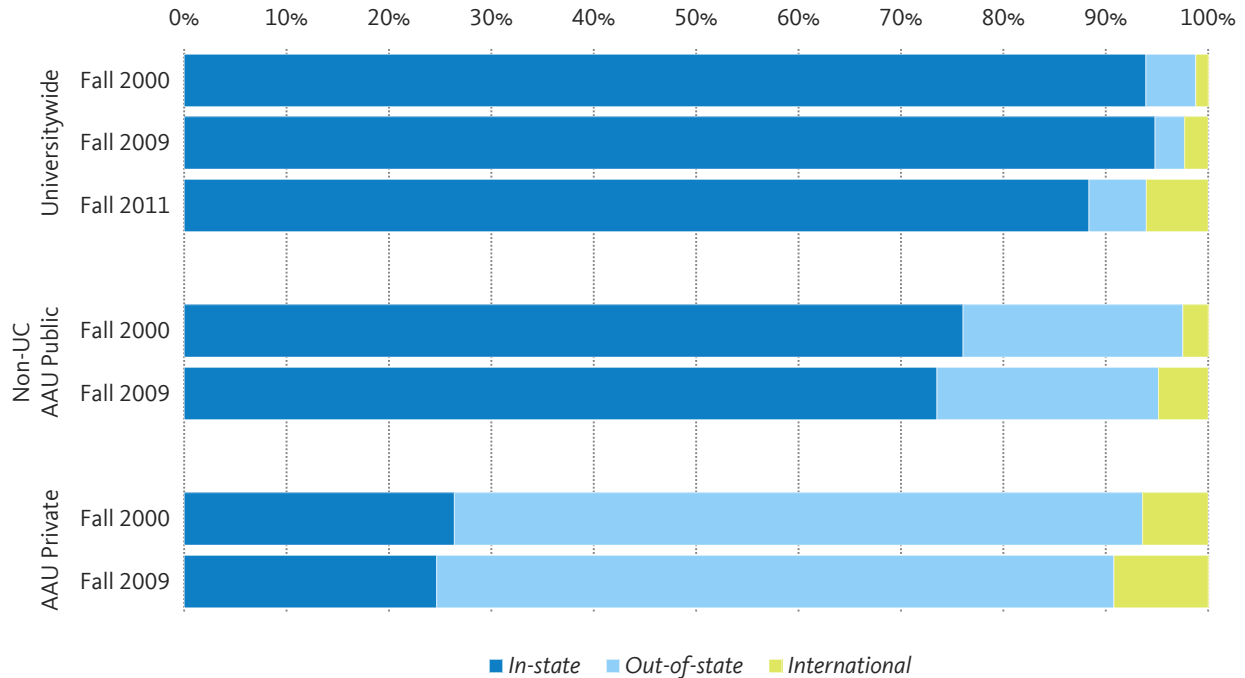
Although there are varying proportions of students in the entering freshman and transfer classes, the transfer route is being utilized by students of all racial/ethnic and income groups.

\* Totals include unknowns, not shown separately.

## 2.7 GEOGRAPHIC ORIGINS OF ENTERING UNDERGRADUATES

**UC has a substantially lower proportion of out-of-state undergraduates than other AAU universities. In fall 2011, nearly 6 percent of UC undergraduates were out-of-state or international, compared to 26 percent and 75 percent for AAU publics and AAU privates respectively.**

### 2.7.1 Geographic origin of entering freshmen Universitywide and comparison institutions Fall 2000, 2009 and 2011



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 2011–12, average tuition and fees for a UC nonresident undergraduate was \$36,059, compared to \$13,181 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.

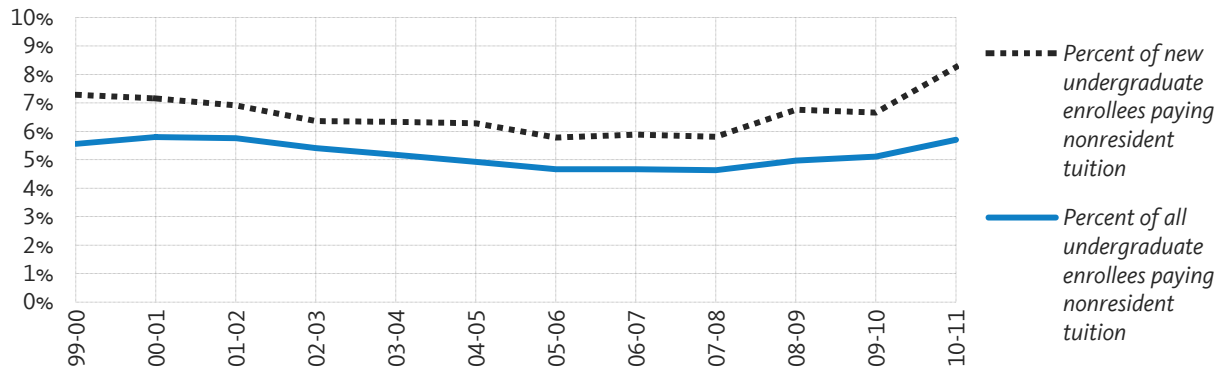
UC's priority is to enroll eligible California residents for whom the state has provided funding. Campuses enroll nonresident students based on available physical and instructional capacity and the campus's ability to attract qualified nonresident students.



## 2.7 GEOGRAPHIC ORIGINS OF ENTERING UNDERGRADUATES

### The proportion of undergraduate students paying nonresident tuition is rising, but is still below the Regents' cap of 10 percent.

2.7.2 Percentage of full-time-equivalent enrollment paying nonresident tuition  
Universitywide  
1999–2000 to 2010–11



Source: UC Corporate Student System

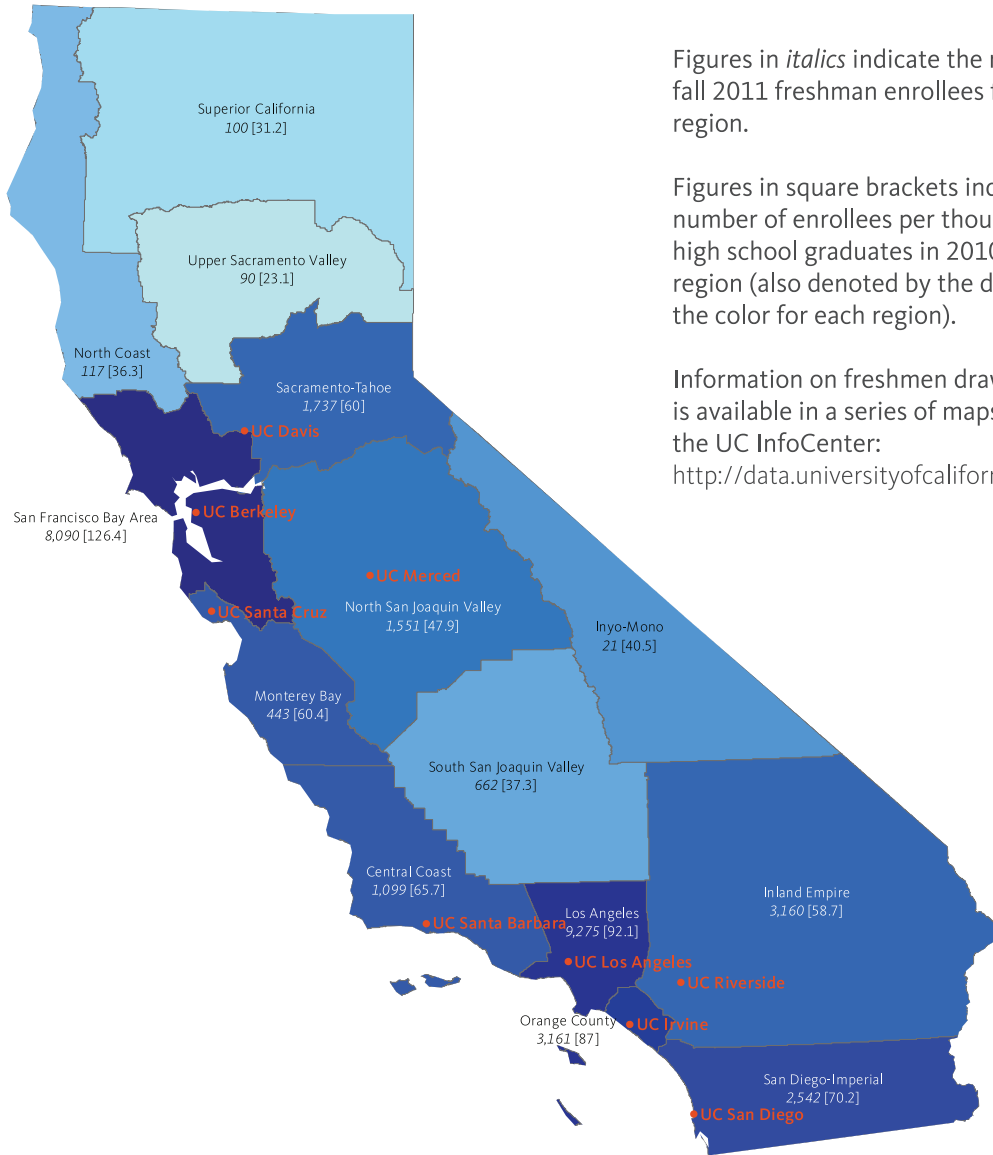
In 2011, the Regents raised the systemwide cap on nonresident students from 6 percent to 10 percent; the proportion at individual campuses can be higher or lower depending on a campus's capacity as well as its ability to attract nonresident students.<sup>1</sup>

<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.

## 2.7 GEOGRAPHIC ORIGINS OF ENTERING UNDERGRADUATES

### High school graduates from rural regions of the state are less likely to attend UC than those from urban regions.

2.7.3 Statewide enrollment of California resident freshmen by region of home location  
 Universitywide  
 Fall 2011



Figures in *italics* indicate the number of fall 2011 freshman enrollees from each region.

Figures in square brackets indicate the number of enrollees per thousand public high school graduates in 2010 in each region (also denoted by the darkness of the color for each region).

Information on freshmen draw by campus is available in a series of maps available at the UC InfoCenter:  
<http://data.universityofcalifornia.edu>

Source: UC Corporate Student System and California Department of Education<sup>1</sup>

<sup>1</sup> Enrollments are normalized by the number of high school graduates the year before enrolling at UC.

## 2.7 GEOGRAPHIC ORIGINS OF ENTERING UNDERGRADUATES

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

2.7.4 Statewide enrollment of California resident transfers by region of home location  
Universitywide  
Fall 2011



Source: UC Corporate Student System and California Department of Education<sup>1</sup>

<sup>1</sup> Enrollments are normalized by the number of high school graduates three years before transfer students enroll at UC.



# Chapter 3. Undergraduate Students — Affordability

## Goals

The goal of the University's undergraduate financial aid program is to ensure that financial considerations are not an obstacle to enrollment and that the University remains accessible to all eligible students.

Affordability is one of UC's highest priorities, and despite cutbacks in state funding, the University strives to ensure that college costs remain low and affordable. The University has a strong record of providing high quality education to students of families from all income levels, and it closely monitors the impact of its pricing decisions and financial aid program.

## 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 student financial aid, and the proportion of low-income students enrolled at UC has increased. In 2010–11, forty 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.

Financial aid plays a key role in enhancing the University's undergraduate diversity: African-American, Chicano/Latino and Asian-American students disproportionately come from low-income families. Collectively, these students receive 72 percent of all undergraduate gift assistance.

However, as the percentage of lower-income students has increased, the percentage of students from middle-income families has declined, from about 50 percent in 2000–01 to 40 percent in 2010–11. This partially reflects a decline in the proportion of middle-income families statewide due to the economic recession. The University is closely monitoring this trend. To help mitigate the

impact of tuition and fee increases on middle-income students, UC has increased the family income level that qualifies students for need-based aid.

## 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. Evidence of that commitment is the University's Blue and Gold Opportunity Plan, which ensures that needy students with household incomes below \$80,000 receive gift aid to cover their systemwide 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 fully cover the cost of that year's tuition increase for students with need from families earning incomes up to \$120,000. In 2012–13, the University is working to develop additional fund sources for student financial aid, including Project You Can, a fundraising initiative that has raised \$344 million and aims to raise \$1 billion in private support for student aid.

## For more information

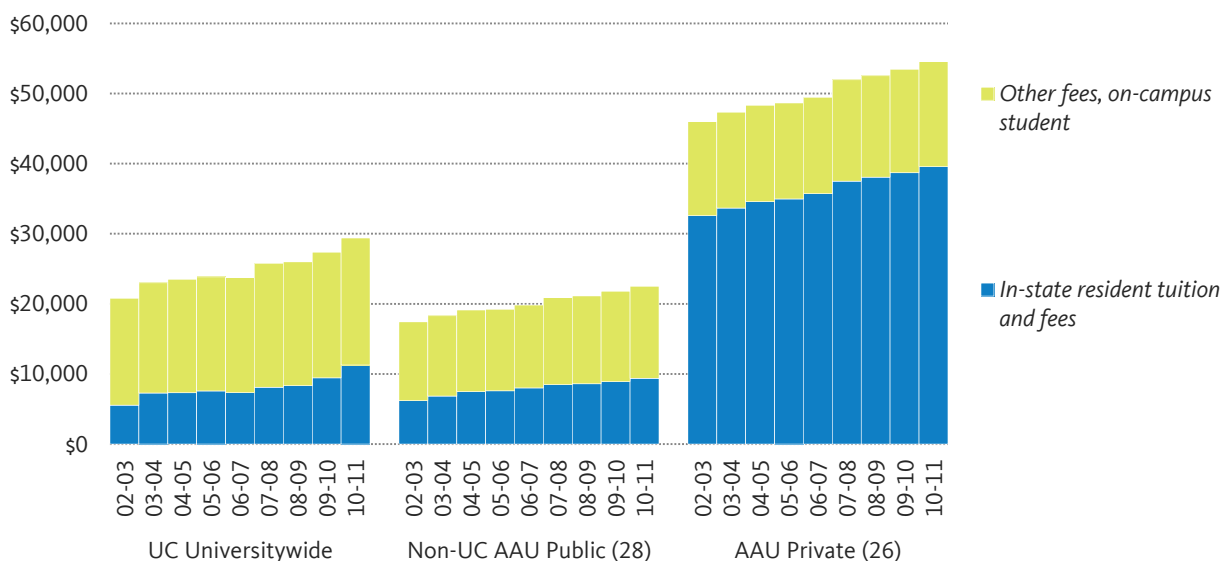
More information about UC costs and financial aid, including details about UC's Blue and Gold Opportunity Plan and links to financial aid estimators, is available at [www.universityofcalifornia.edu/admissions/paying.html](http://www.universityofcalifornia.edu/admissions/paying.html).

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 [www.ucop.edu/sas/sfs/reports\\_data.html](http://www.ucop.edu/sas/sfs/reports_data.html). Dashboards on access and affordability are at [www.ucop.edu/ir/ugstats/welcome.html](http://www.ucop.edu/ir/ugstats/welcome.html).

### 3.1 TOTAL COST OF ATTENDANCE

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

3.1 Total cost of attendance  
Universitywide and comparison institutions  
2002–03 to 2010–11

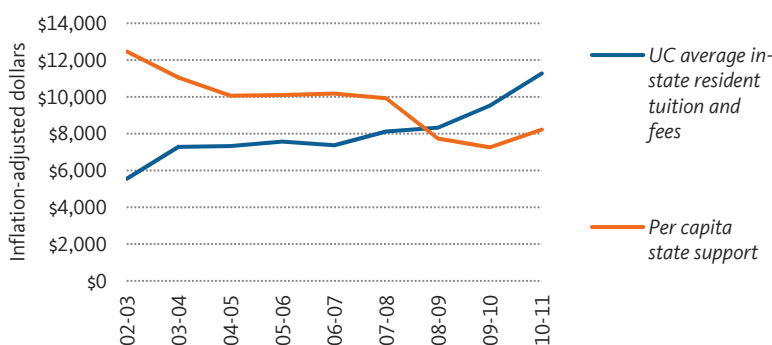


Source: IPEDS and UC Budget Office<sup>1</sup>

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 because of the relatively high cost of living in California.

In 2010–11, the University’s average total cost of attendance for California resident undergraduates was \$29,393. Tuition and fees comprised 38 percent of this amount.

UC tuition and fees have risen as state support has declined, but increases have not been sufficient to offset the losses completely.



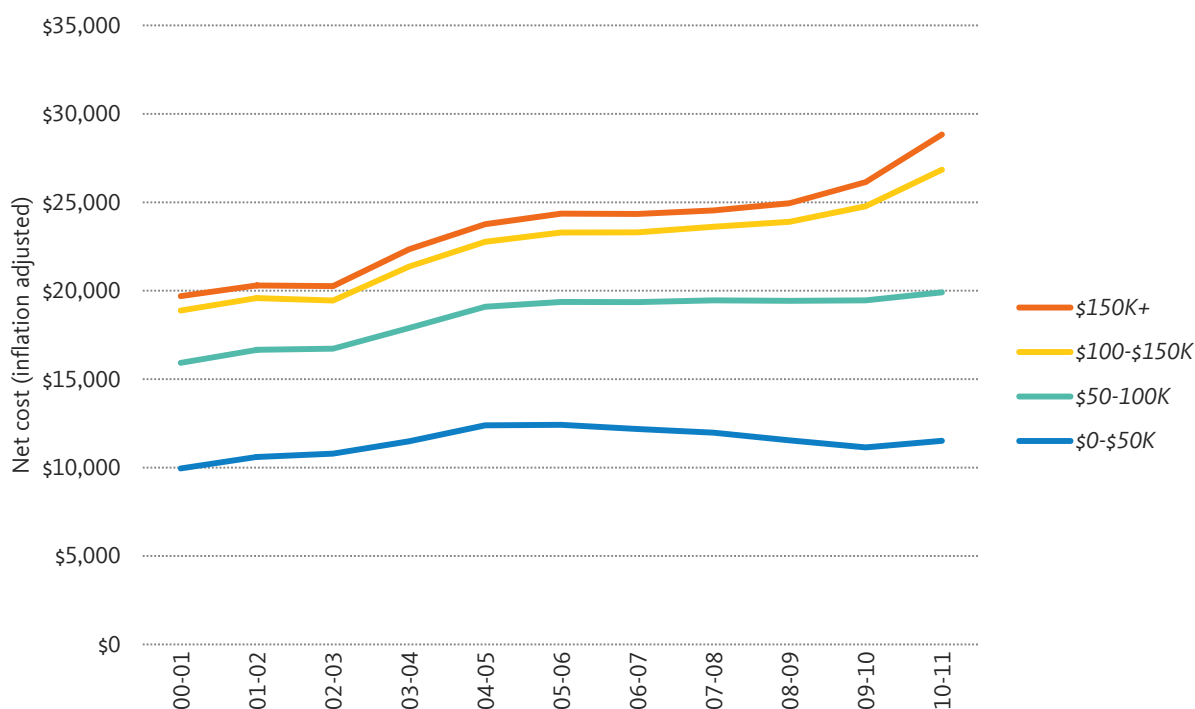
<sup>1</sup> A list of the 28 non-UC AAU public and 26 AAU private institutions in the comparison groups can be found in the appendix.



### 3.2 NET COST OF ATTENDANCE BY INCOME

**The net cost of attending UC has increased for many students since 2000–01, yet the net cost of attendance for students from families earning less than \$100,000 annually has remained fairly steady since 2004–05.**

3.2 Net cost of attendance by family income  
Universitywide  
2000–01 to 2010–11



Source: UC Corporate Student System. All figures 2009 constant dollars using CA CPI-W. Income ranges are approximate. Independent students are excluded.

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, grants, student financial aid and the Blue and Gold program has mitigated the impacts of cost increases on students from families earning below \$100,000.

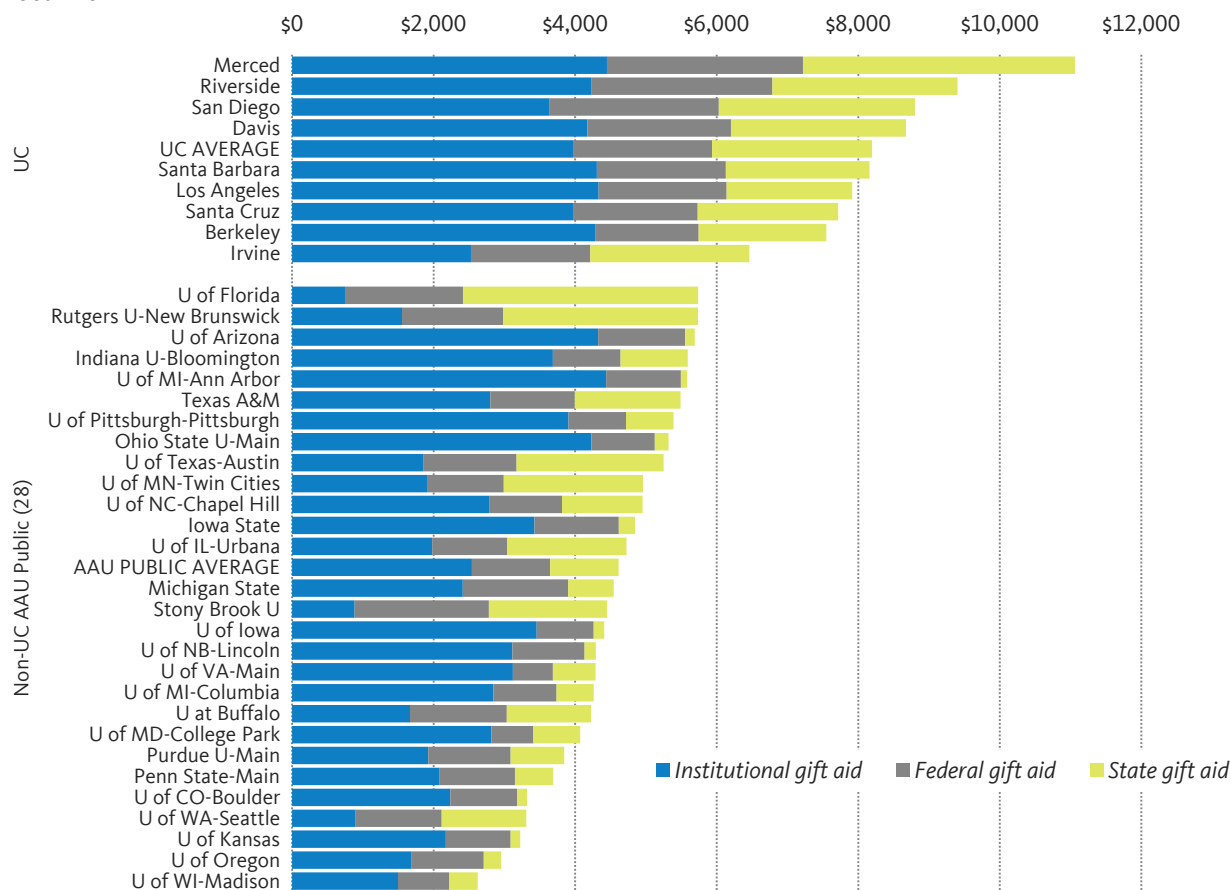
Between 2000–01 and 2010–11, the average increase in inflation-adjusted net cost for all UC undergraduate students, including independent students, was approximately \$4,000. Inflation-adjusted increases ranged from \$1,500 for low-income students to about \$9,000 for high-income students.



### 3.3 GIFT AID SOURCES FOR ALL NEW 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  
2009–10



Source: IPEDS<sup>1</sup>

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, not both.

Institutional gift aid accounts for the lion’s share of financial support available to UC students. 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.

Institutional gift aid also includes merit-based scholarships. One in four UC undergraduates receives a merit-based scholarship. In 2009–10, the average merit-based scholarship was about \$3,600. Funding for these scholarships comes from federal, state, external private and institutional sources.

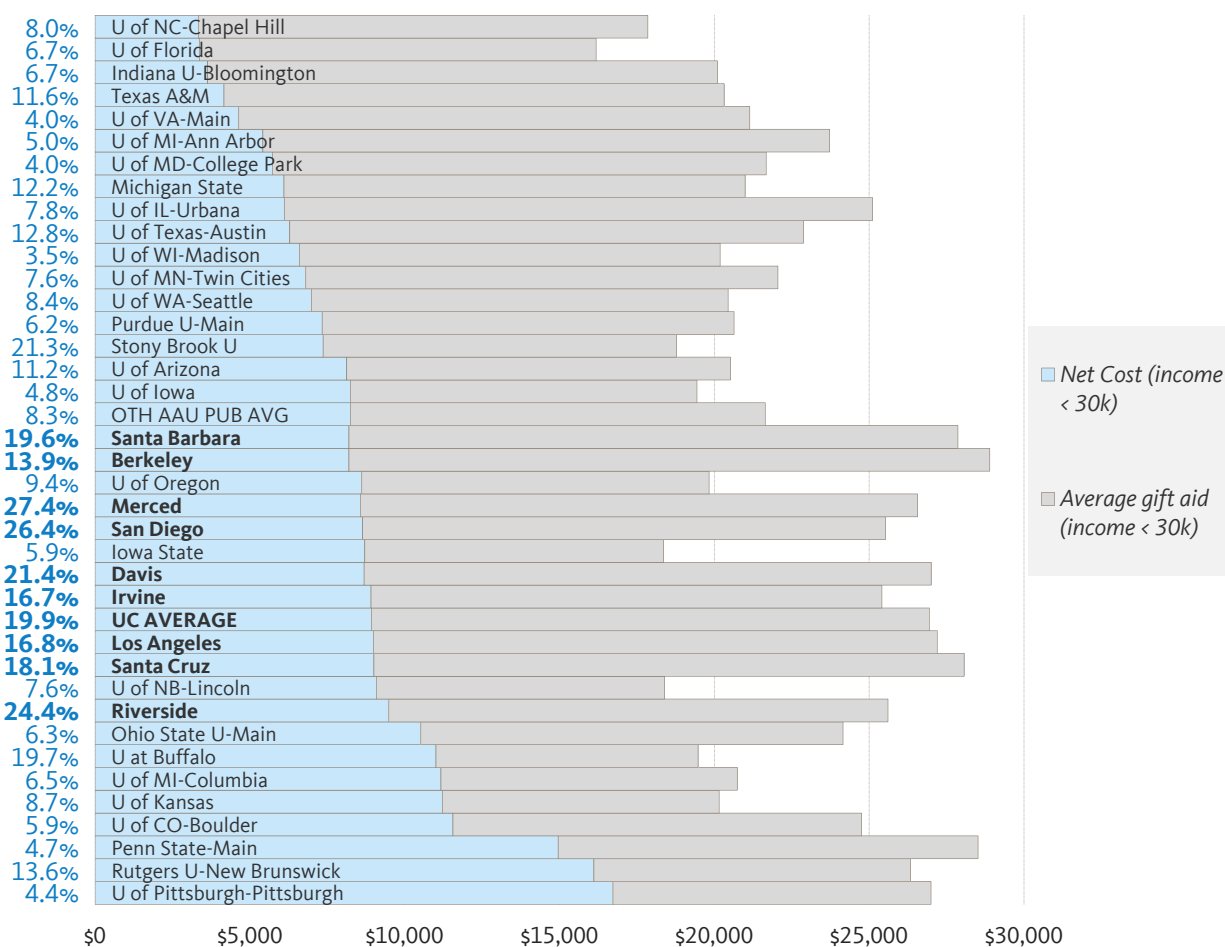
<sup>1</sup>Figures include gift aid given to all full-time first-time students, while the data in Indicator 3.4 shows gift aid all to very-low-income students. Pell grants are the main source of federal gift aid. For California students, Cal Grants are the main source of state gift aid.

### 3.4 COMPARATIVE NET COST FOR VERY-LOW-INCOME STUDENTS

**For very low-income students, the comparatively high costs of attendance at UC campuses is offset by higher than average amounts of gift aid received. 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  
2009–10

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



Source: IPEDS<sup>1</sup>

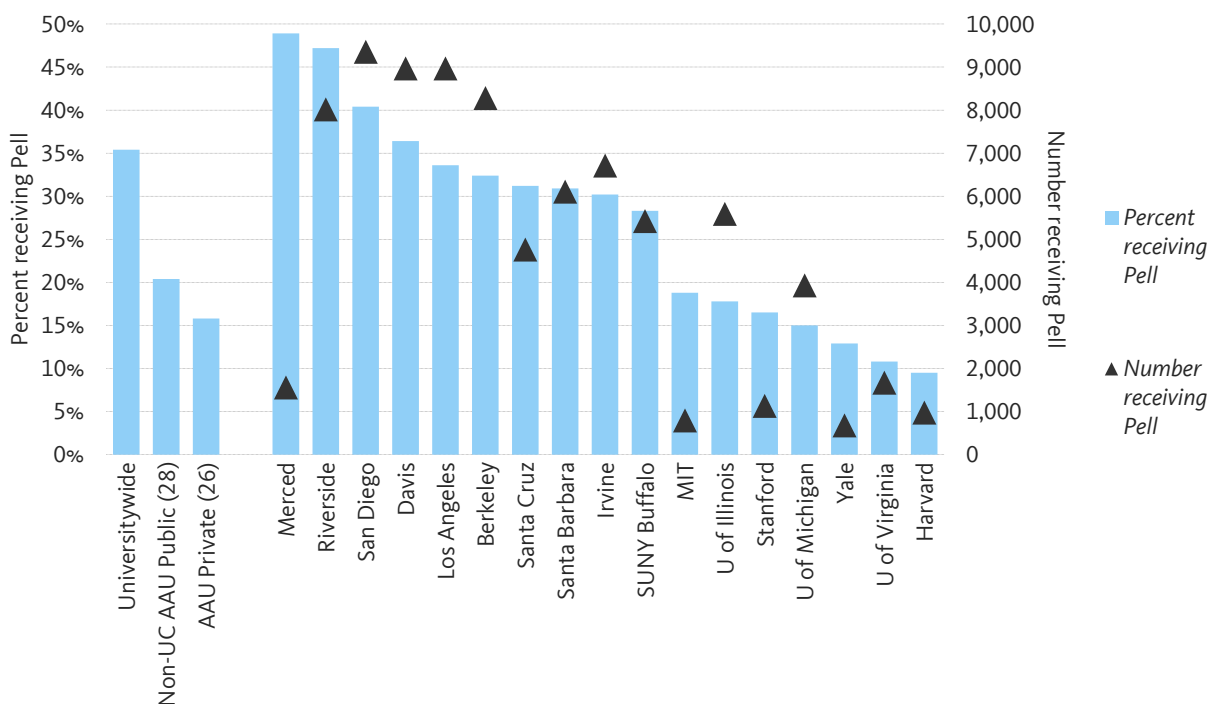
Despite a greater proportion of very low-income students and higher total costs at UC, the net cost of UC for these students is comparable to that of other AAU public institutions.

<sup>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.

### 3.5 INCOME PROFILE

## 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 2009–10



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 39 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>1</sup> Percentage reported is that of students who received Pell Grants at any time during the 2009–10 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 appendix.

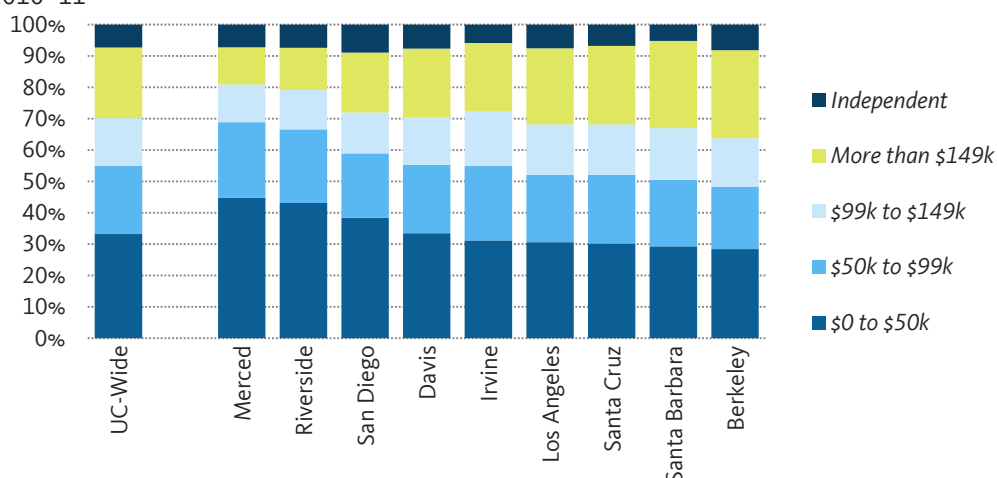
### 3.5 INCOME PROFILE

**A large proportion of UC students come from low-income families. The proportion of students from low- and high-income families has grown over the past decade, as tuition and fees have increased 32 percent (inflation adjusted).**

#### 3.5.2 Undergraduate income distribution

Universitywide and UC campuses

2010–11



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 dependent undergraduate students by family income

Universitywide

2000-01, 2005-06 and 2010-11

Family income (inflation adjusted)	2000–01	2005–06	2010–11	2000–01 distribution	2005–06 distribution	2010–11 distribution
\$0 to \$50k	34,386	43,106	57,606	28%	30%	36%
\$50k to \$99k	31,536	36,145	37,674	26%	25%	23%
\$99k to \$149k	29,121	30,979	26,465	24%	22%	16%
More than \$149k	27,124	32,915	39,206	22%	23%	24%

Source: UC Corporate Student System

All income bands grew in enrollment during this period with the exception of the \$99k to \$149K level. The fastest growing groups are students from the lowest and the highest income families. 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 by the combination of federal, state and institutional aid that is available to UC students.

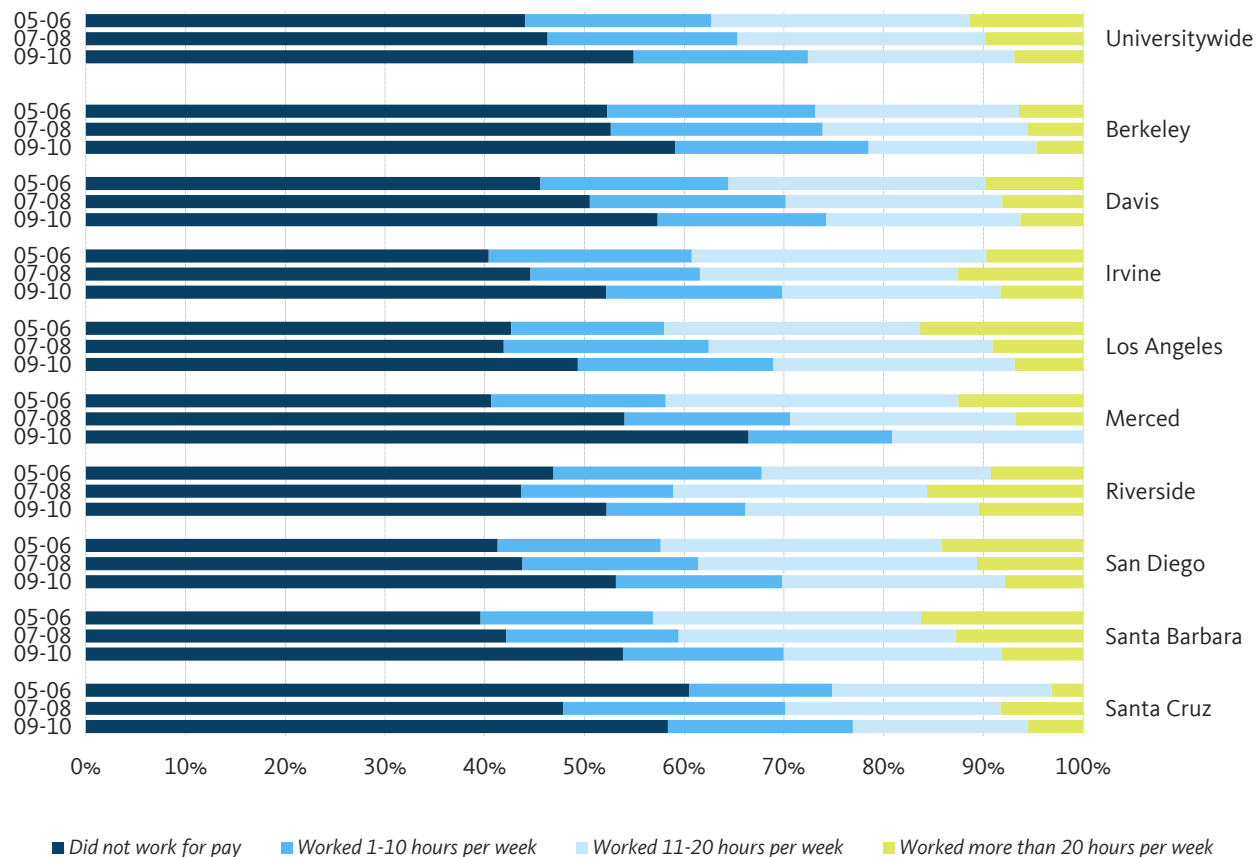
<sup>1</sup> Students with unknown incomes are not shown.

<sup>2</sup> [www.census.gov/prod/2011pubs/acs-16.pdf](http://www.census.gov/prod/2011pubs/acs-16.pdf)

### 3.6 UNDERGRADUATE STUDENT WORK

The proportion of students not working for pay increased from 2006 and 2010 on all but one campus. The proportion working more than 20 hours a week decreased from 2006 to 2010 on all but two campuses.

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



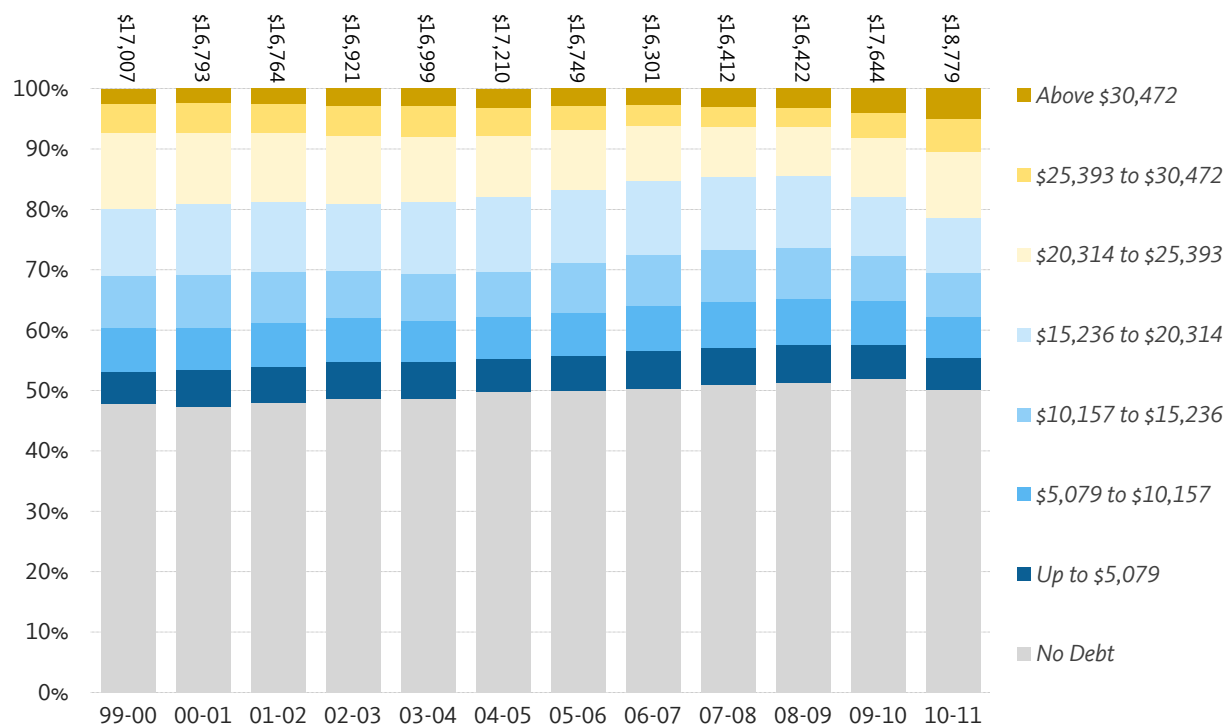
Source: UCUES

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.

### 3.7 DEBT

**While the proportion of students graduating with student loan debt has fallen slightly (from 52.7 percent in 2000–01 to 49.8 percent in 2010–11), the average inflation-adjusted debt at graduation of student borrowers has increased 10.4 percent (from \$17,007 to \$18,779).**

3.7 Student loan debt burden of graduating seniors (inflation-adjusted)  
Universitywide  
1999-2000 to 2010–11



Note: 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 2010–11 was about \$19,000. The monthly repayment for this amount is about \$208 for 10 years at the 6 percent average interest rate that typically applies to student loans. Lower payments are available with longer repayment periods.

Student borrowing decreased from 1999–00 through 2008–09 for students in nearly every income category. More recently, borrowing has increased slightly among middle- and upper-income students. 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>1</sup> Figures adjusted for inflation in 2010 dollars. 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.





# 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 substantially 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 2005 cohort; during the same time period six-year graduation rates went up from 76 percent to 83 percent.

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 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 socio-economically 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 that data in future accountability reports.

## For more information

The 2009 *Accountability Sub-Report on Student Success* provides an in-depth look at graduation rates by campus and student characteristics. That report can be found at [www.universityofcalifornia.edu/accountability/report.html#subreports](http://www.universityofcalifornia.edu/accountability/report.html#subreports).

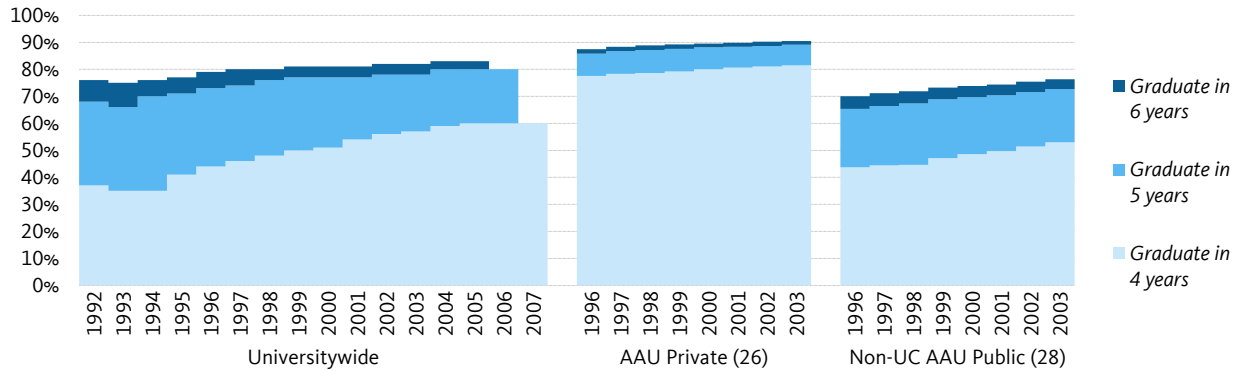
Dashboards on student success are available at [www.ucop.edu/ir/ugstats/success.html](http://www.ucop.edu/ir/ugstats/success.html).

## 4.1 FRESHMAN GRADUATION RATES

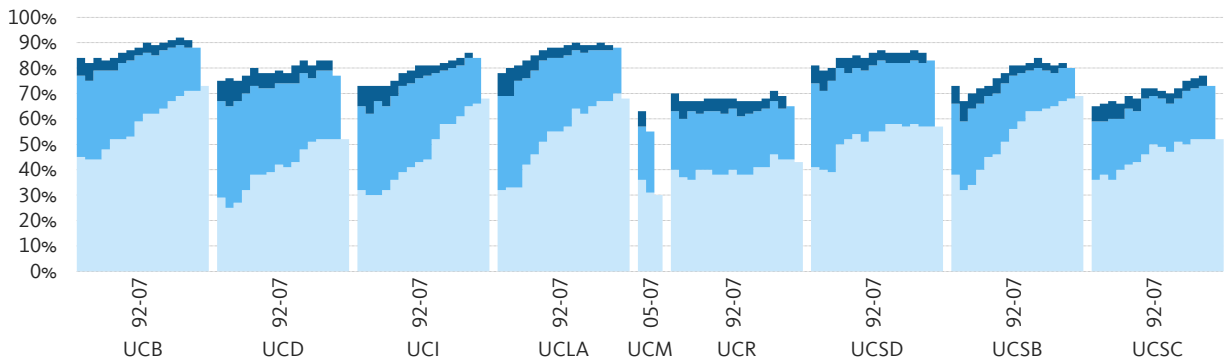
**Graduation rates for students who enter as freshmen have improved substantially since 1995. They are better than the average graduation rates of students at AAU public institutions and, at some campuses, approach the rates of AAU private institutions.**

4.1 Freshman graduation rates  
Cohorts entering fall 1992 to 2007

UC 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 2005 cohort, while six-year graduation rates increased from 76 percent to 83 percent during this same time period. An interactive dashboard of graduation rates is available at [www.ucop.edu/ir/ugstats/grad\\_rates.html](http://www.ucop.edu/ir/ugstats/grad_rates.html).

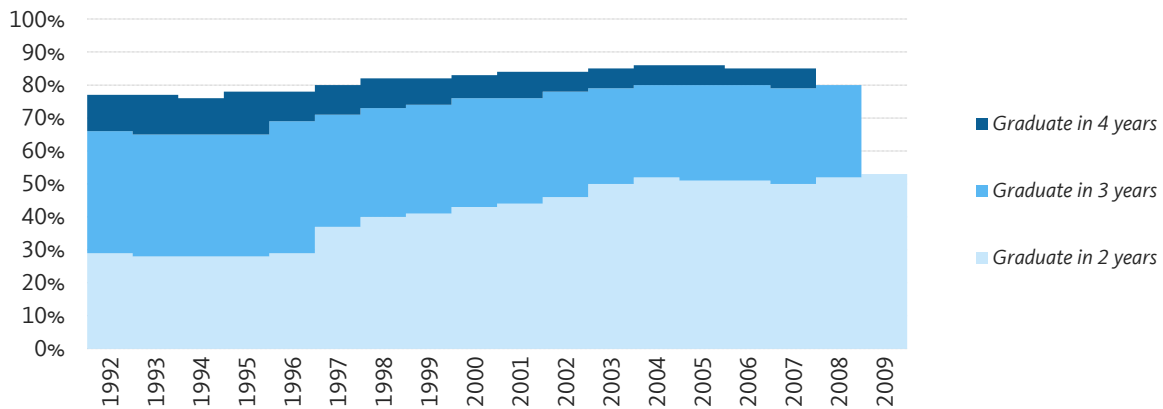
The steady improvement in graduation rates is likely due to many factors, including campus programs to encourage four-year completion, improvements in the academic preparation levels of incoming students and the rising costs of a UC education, which motivate students to complete their educations more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

<sup>1</sup> IPEDS data are only available for more limited years for comparison institutions. A list of institutions included in the AAU comparison groups can be found in the appendix.

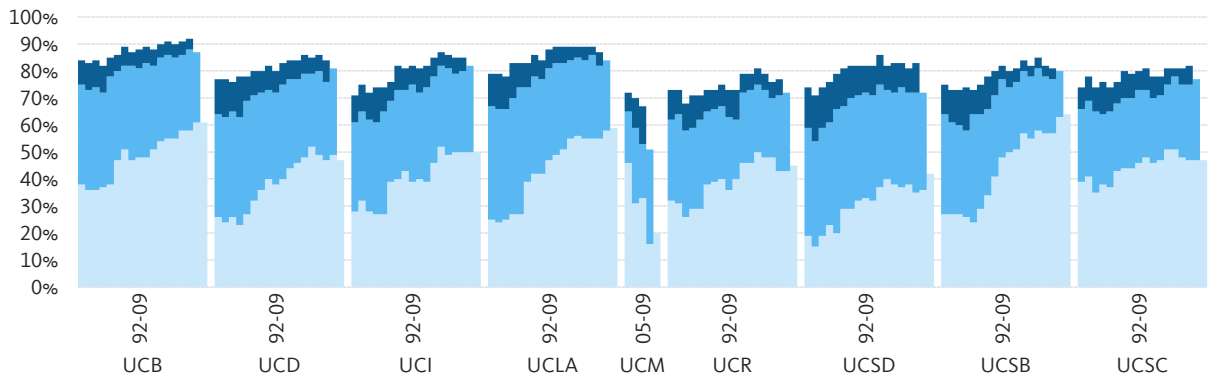
## 4.2 TRANSFER GRADUATION RATES

**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 2009



UC Campuses



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

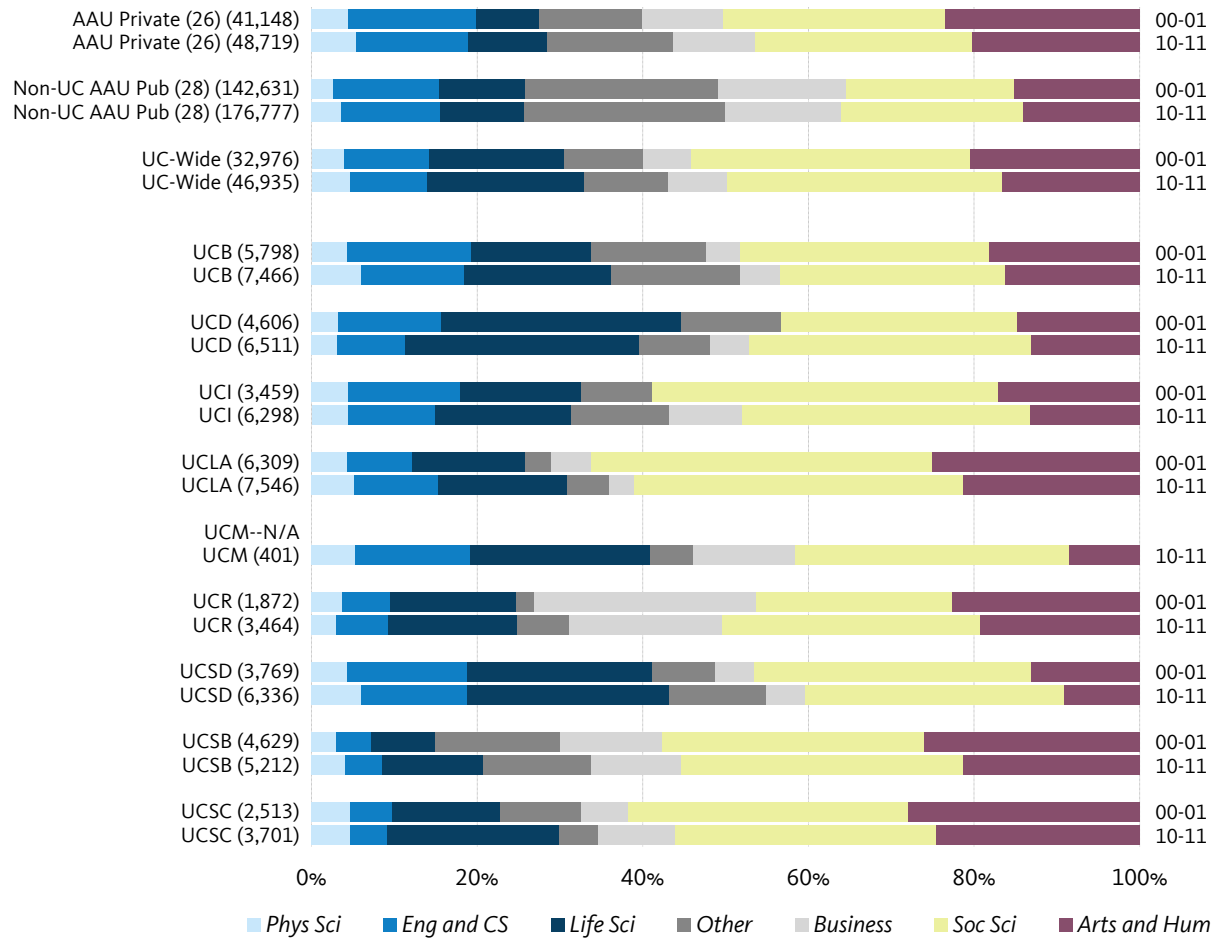
Transfer students entering UC since 2004 have a 50 to 53 percent two-year graduation rate and an 85 to 86 percent four-year graduation rate.

<sup>1</sup> National data on graduation rates for transfer students are not available.

### 4.3 DEGREES AWARDED

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

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



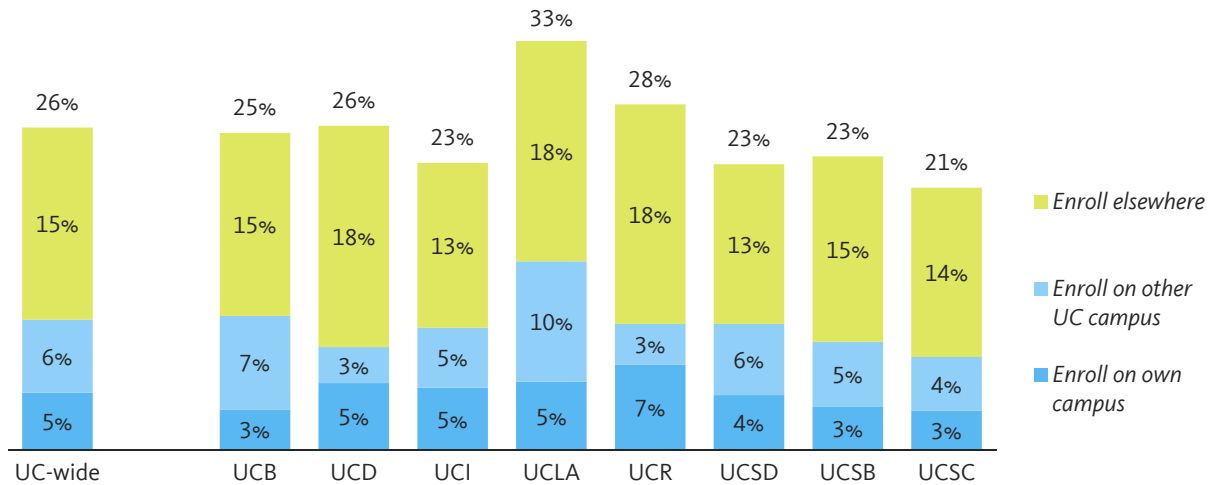
Source: IPEDS

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.

#### 4.4 GRADUATE SCHOOL ENROLLMENT

### 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>

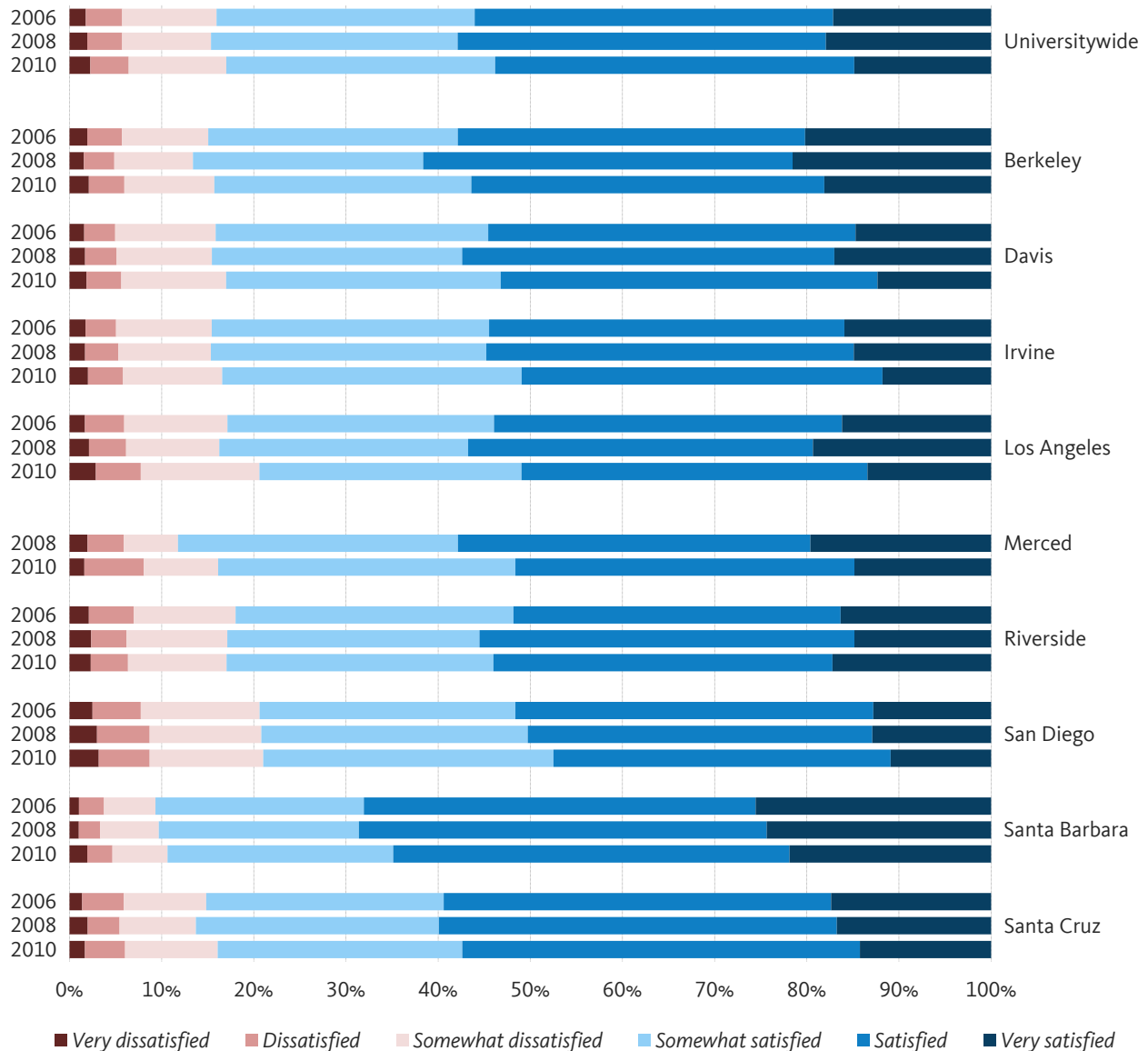
<sup>1</sup> Percentages represent the proportion of UC graduates who were enrolled at a four-year college or university for at least two terms on a half-time basis or more after earning their baccalaureate degrees. Presumably, these are students who have gone on to seek postgraduate degrees.

<sup>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' overall satisfaction with their campus is strong, has been fairly steady over time and is largely consistent across campuses.

4.5 Student satisfaction, graduating seniors  
Universitywide and UC campuses  
Spring 2006 to 2010



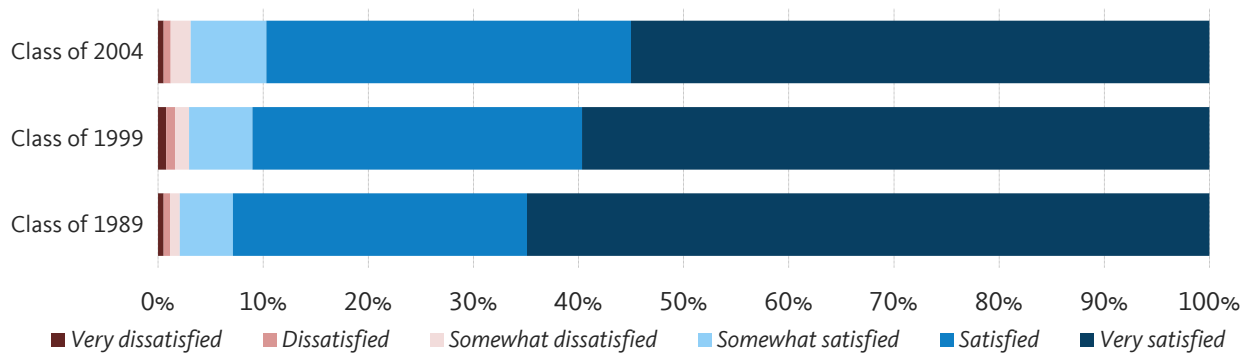
Source: UCUES<sup>1</sup>

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

## 4.6 ALUMNI SATISFACTION

### 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 for graduates. As a result, the proportion of graduate and professional degree students on the general campuses has decreased from about 30 percent in the 1960s to about 16 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. However, 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 tuition set by the Board of Regents. Since then, both the number of professional schools that charge professional degree supplemental tuition and the amount charged have increased steadily. In 2011–12, 49 professional schools charged supplemental tuition ranging from \$4,000 to \$35,148, leading to a corresponding rise in student debt.

Affordability, student debt and success measures are presented separately in this chapter for graduate academic and professional degree students. Diversity measures are in Chapter 8. Chapter 10 presents information on research and is also 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

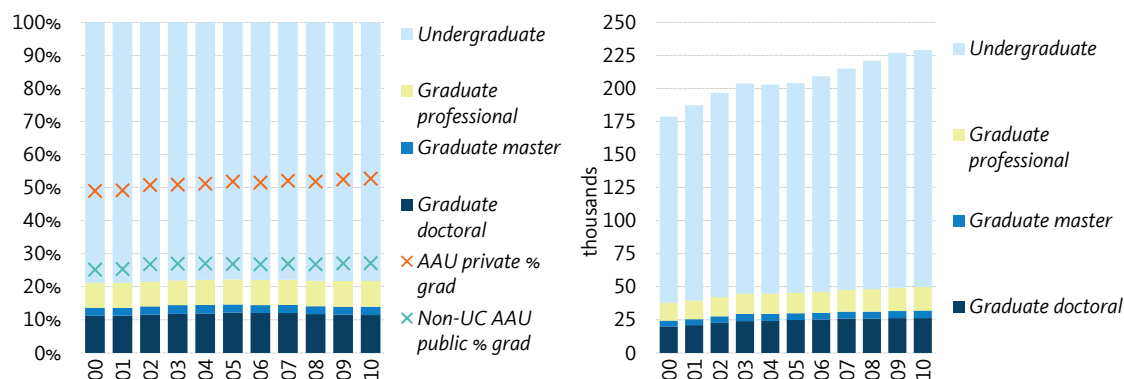
For additional information, see the September 2010 *Accountability Sub-Report on Graduate Academic and Professional Degree Students*:

[www.universityofcalifornia.edu/regents/regmeet/sept10/j2.pdf](http://www.universityofcalifornia.edu/regents/regmeet/sept10/j2.pdf), and the UCOP Office of Research and Graduate Studies: [www.ucop.edu/research/gS](http://www.ucop.edu/research/gS).

## 5.1 GRADUATE AND PROFESSIONAL DEGREE STUDENTS

### Graduate academic and professional degree enrollments at UC have been growing at faster rates than at other AAU public and private universities.

5.1.1 Graduate and professional enrollment compared to undergraduate enrollment UC and comparison institutions  
Fall 2000 to 2010



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

Graduate enrollment at UC has grown significantly since fall 2000 and at a faster rate than at the AAU comparison groups. However, this growth has been matched with undergraduate growth, leaving the relative proportion of graduate students at UC about the same (between 21 and 22 percent).

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

Growth at UC has been fairly evenly distributed across graduate masters, graduate doctoral and graduate professional programs, with increases for each of these subsets of graduate enrollment between 31 and 33 percent over the past decade.

<sup>1</sup> A list of the institutions in the AAU comparison groups can be found in the appendix. Enrollment data from other AAU institutions do not distinguish graduate academic and professional degree students.

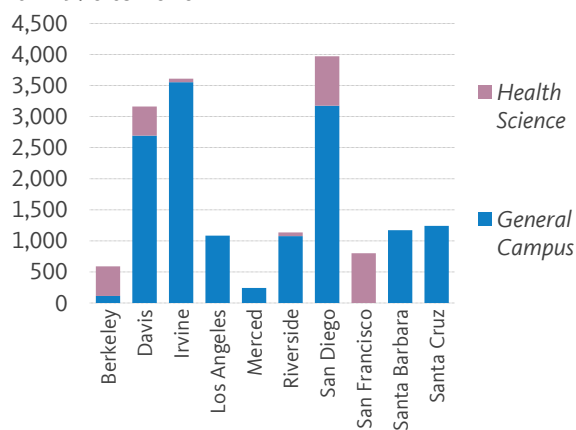
## 5.1 GRADUATE AND PROFESSIONAL DEGREE STUDENTS

**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

UC campuses

Fall 1970 to 2010



The increase in graduate students that UC has experienced 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 critically important to the University's operations because they make a direct contribution to its teaching and research functions. In 2010–11, 24,420 graduate students were employed as research assistants, teaching assistant, readers or tutors, 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-sciences campus, academic doctoral students made up 26 percent of fall 2010 enrollments.

#### Percent and number of fall 2010 students who are academic doctoral

Campus	Percent	Number
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
<b>Universitywide</b>	<b>11%</b>	<b>26,282</b>

Source: UC Corporate Student System

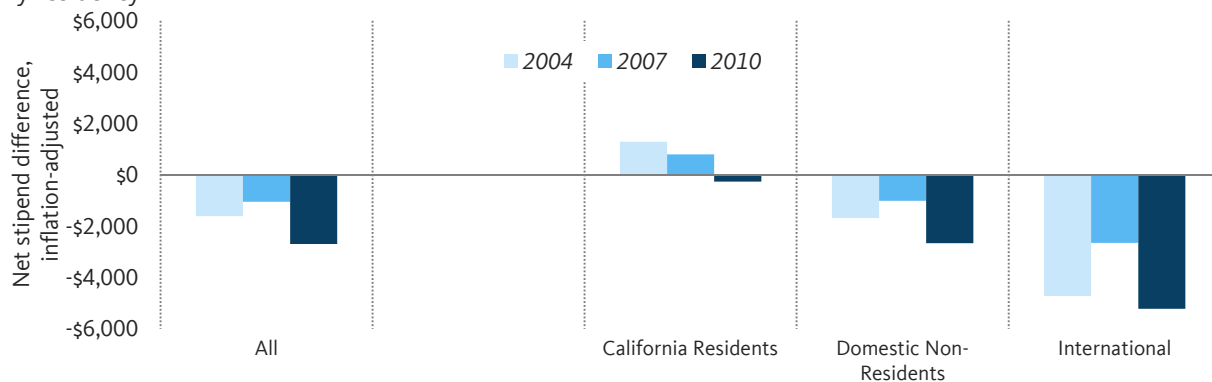
## 5.2 AFFORDABILITY — ACADEMIC DOCTORAL STUDENTS

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

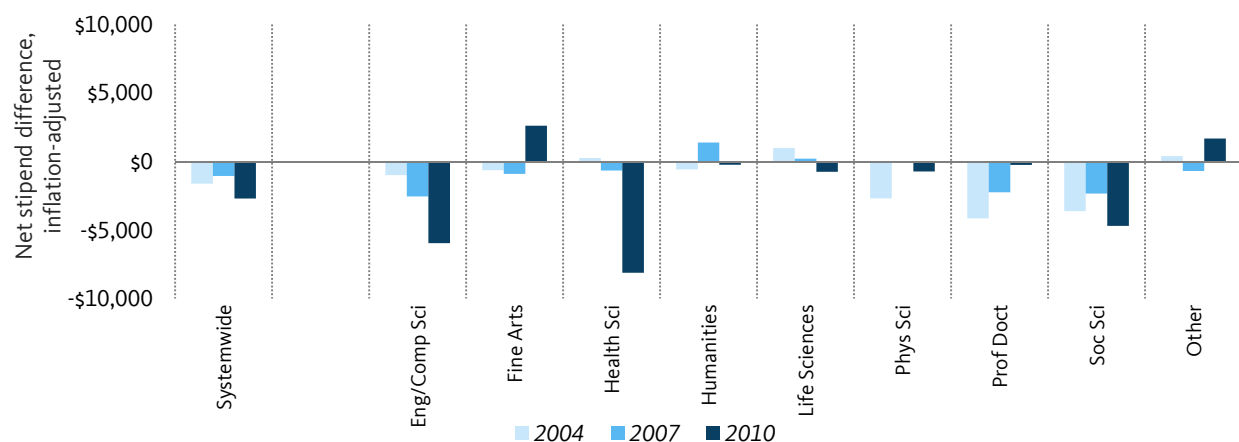
### 5.2.1 Average net stipend offered to graduate academic doctoral students admitted to UC compared to their first-choice non-UC schools

Universitywide  
2004, 2007 and 2010

By residency



By broad discipline



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.

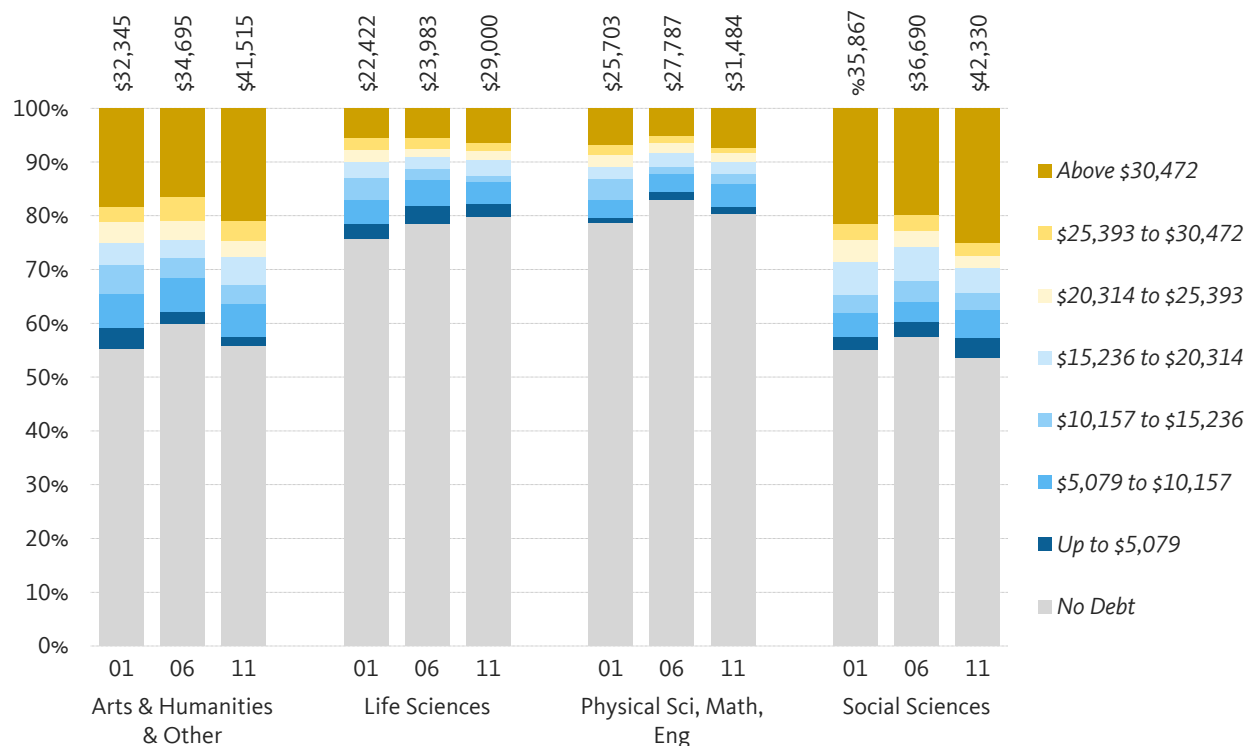
<sup>1</sup> 2004 and 2007 dollars adjusted to 2010 dollars based on changes in the Consumer Price Index. Figures for 2010 are not directly comparable to those from prior years because they are based on a somewhat different definition of broad discipline that relies on federal Classification of Instructional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



## 5.2 AFFORDABILITY — ACADEMIC DOCTORAL STUDENTS

**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, domestic students Universitywide  
 Graduating classes of 2001, 2006, and 2011 (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.

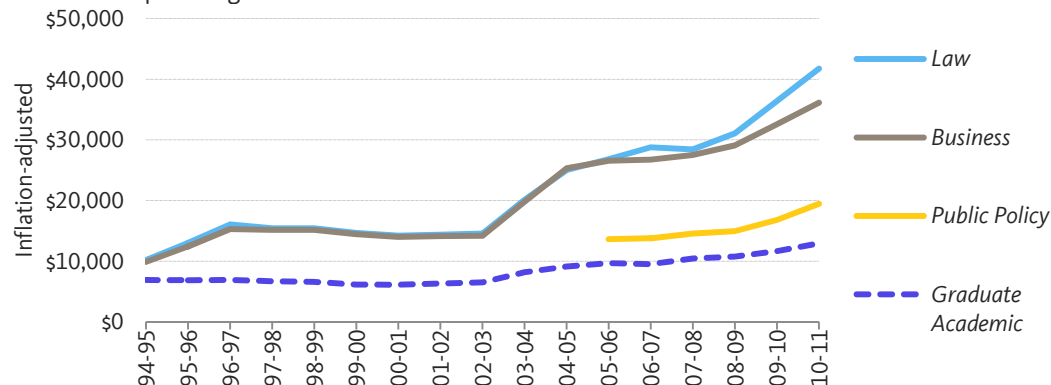
<sup>1</sup> Debt categories are inflation-adjusted in 2010 dollars.

### 5.3 AFFORDABILITY — PROFESSIONAL DEGREE STUDENTS

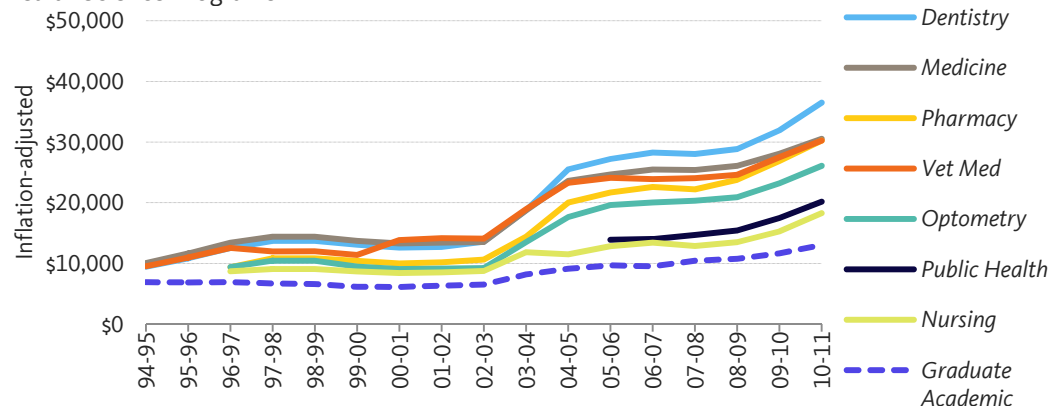
Since the University began charging supplemental fees for students participating in professional degree programs in 1994, both the fees and the number of programs that apply them have grown considerably.

#### 5.3.1 Professional degree average student charges Universitywide 1994–95 to 2010–11

##### General Campus Programs



##### Health Science Programs



Source: Regents Policy, UC Budget Office and UC Student Financial Support Annual Reports<sup>1</sup>

Professional degree supplemental tuition levels are approved by the Board of Regents for each program. The tuition rates consider 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](http://www.universityofcalifornia.edu/regents/policies/3103.html).

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

<sup>1</sup> Includes mandatory systemwide tuition, health insurance, campus-based fees and professional degree and supplemental tuition charges; excludes nonresident tuition. Only general campus programs at two more campuses in years in which a professional degree supplement was charged are shown. Social welfare, which began charging fees in 2010–11, is excluded. Averages are simple averages based on campus amounts; the number of students in each program is not taken into account.



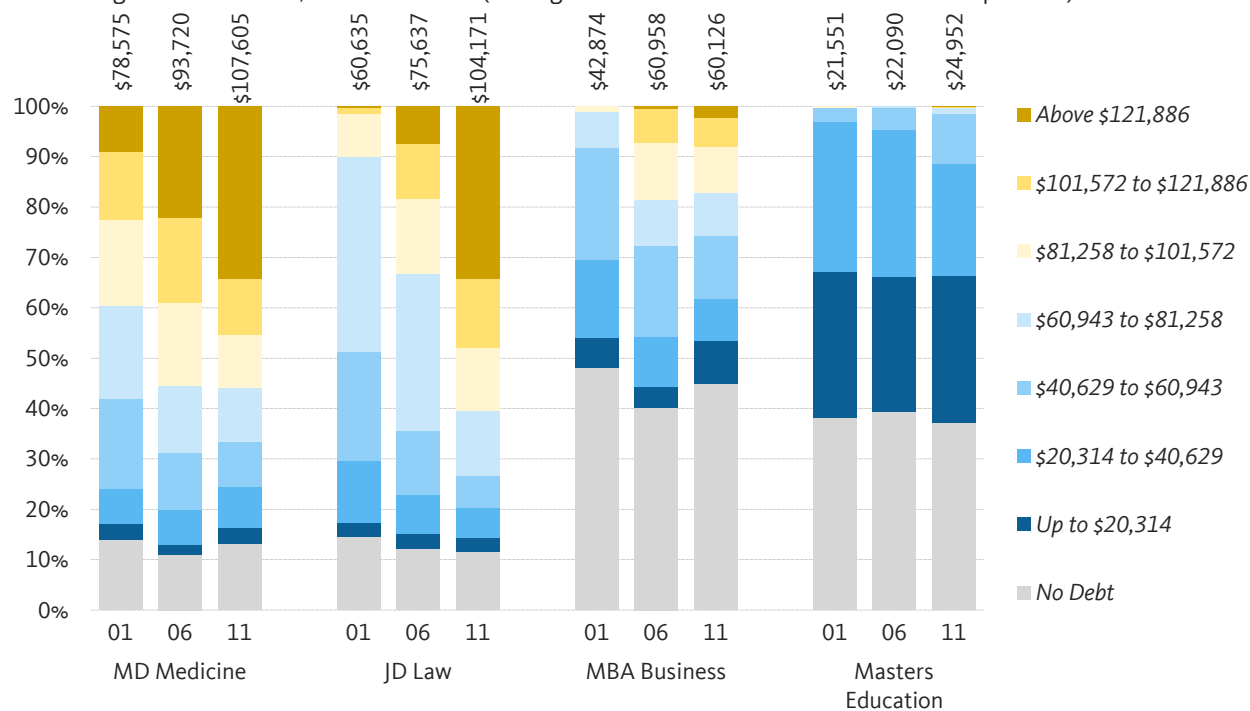
### 5.3 AFFORDABILITY — PROFESSIONAL DEGREE STUDENTS

**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

Universitywide

Graduating classes of 2001, 2006 and 2011 (average debt for those with debt shown at top of bar)



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

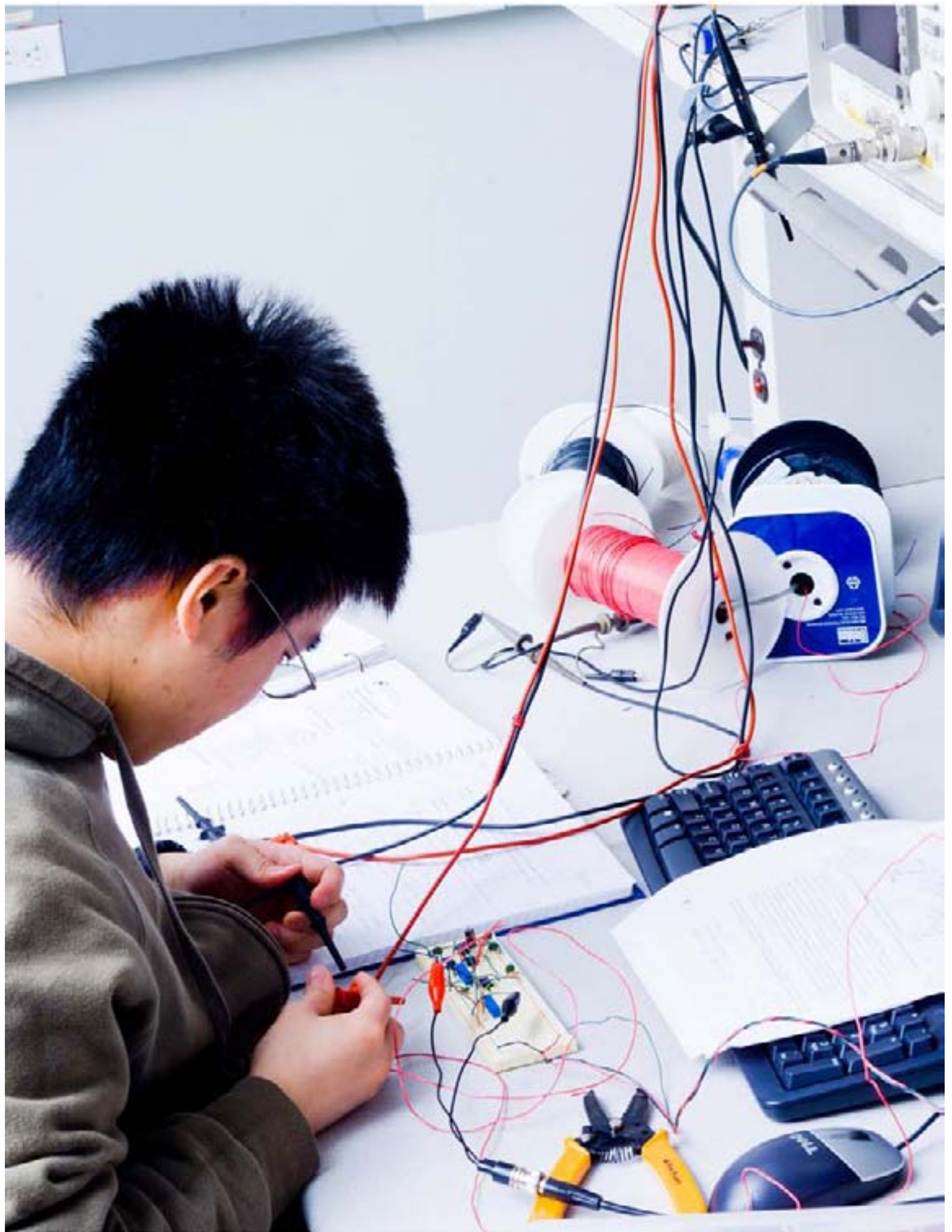
On average, about two-thirds of the aid awarded to professional degree students comes in the form of loans rather than as fellowships or grants. In 2010–11, more than 95 percent of graduate and professional degree student loan balances were for federal loans.

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 federal loans can vary significantly and

may affect their attractiveness to potential borrowers relative to other means that are not tracked here.

Most professional degree students finance part of their education by borrowing. The increases since 2000–01 in average inflation-adjusted debt levels of graduating professional degree students vary considerably—from \$3,000 in Education to \$40,000 in Medicine. Increases in graduate debt result from a combination of factors, including steady growth in the level of supplemental tuition and greater student reliance on federal student loan programs.

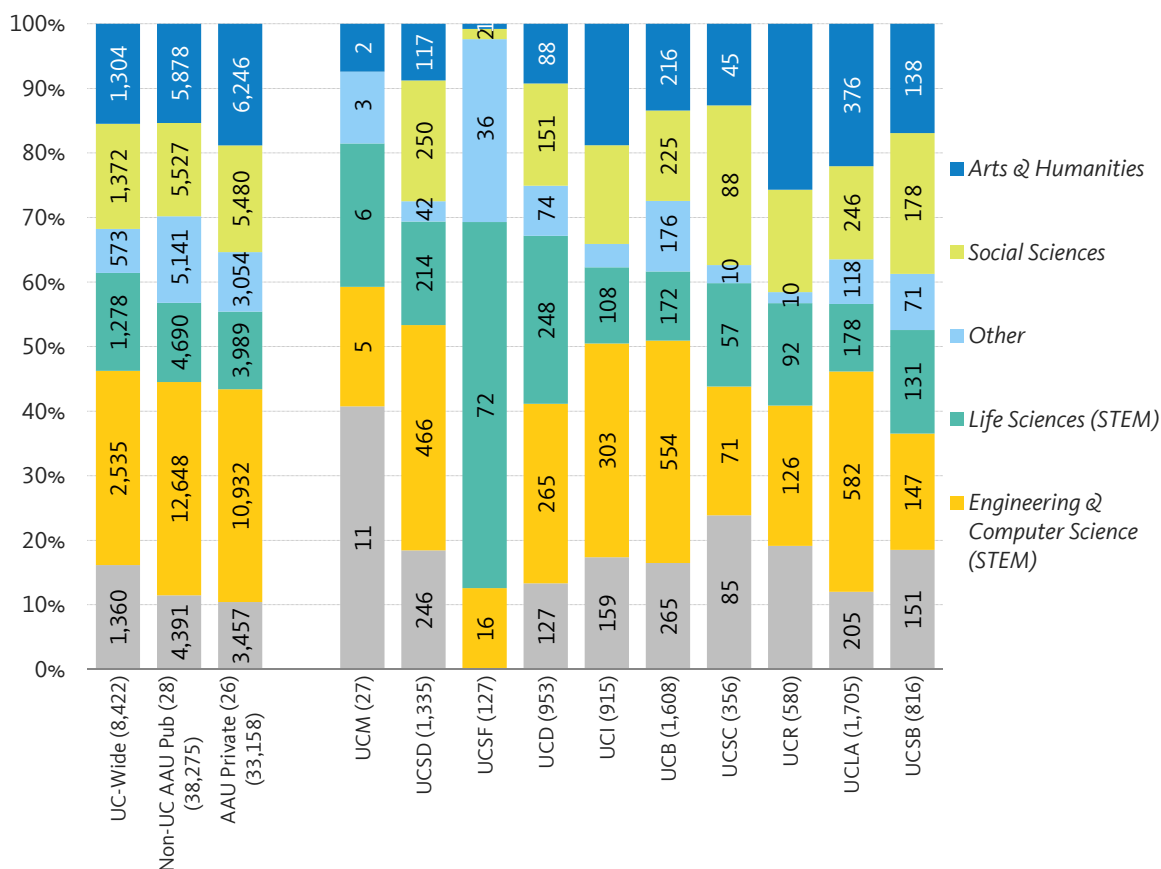
<sup>1</sup> Data are for domestic and international students. Average debt is for graduates with debt. Debt categories are inflation-adjusted in 2009 dollars.



## 5.4 OUTCOMES — GRADUATE ACADEMIC STUDENTS

**Like other AAU universities, UC awards a high proportion of Science, Technology, Engineering and Math (STEM) degrees, and this ratio 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.

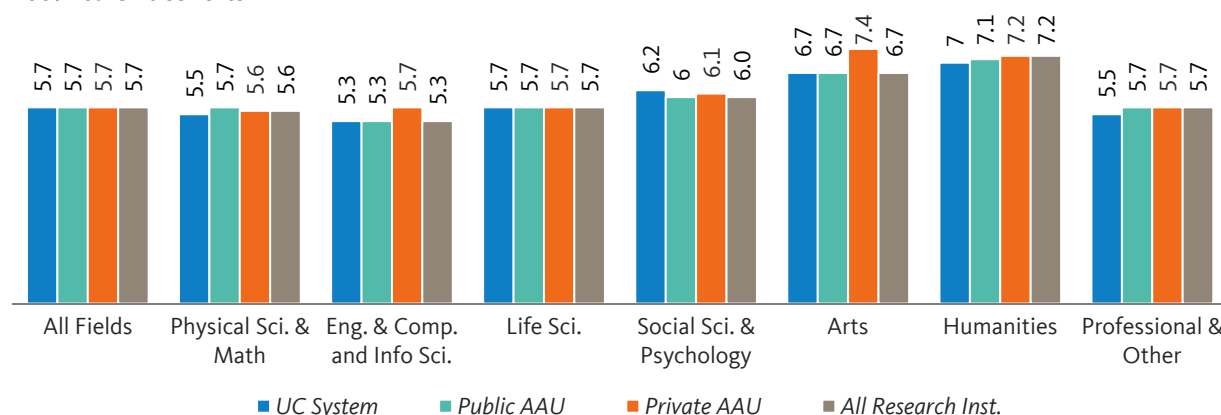
California’s colleges and universities depend on UC Ph.D.’s to teach their students; one out of five UC and California State University faculty members has a UC doctoral degree, and they have come from programs on every UC campus. At least 10 UC Ph.D.’s have been awarded Nobel Prizes in chemistry, economics and physics, recognizing achievements that have brought the greatest benefit to humanity.

<sup>1</sup> “Other” are interdisciplinary and others.

## 5.4 OUTCOMES — GRADUATE ACADEMIC STUDENTS

### 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/ir/documents/2011-uc-time-doctorate.pdf](http://www.ucop.edu/ir/documents/2011-uc-time-doctorate.pdf)

The *2011 UC Doctoral Completions Report* ([www.ucop.edu/ir/documents/uc-doctoral-completions.pdf](http://www.ucop.edu/ir/documents/uc-doctoral-completions.pdf)) presented information on persistence and completion rates for the 1988–90, 1992–94 and 1996–98 entry cohorts. Persistence rates have been stable among the cohorts. Overall, 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.

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

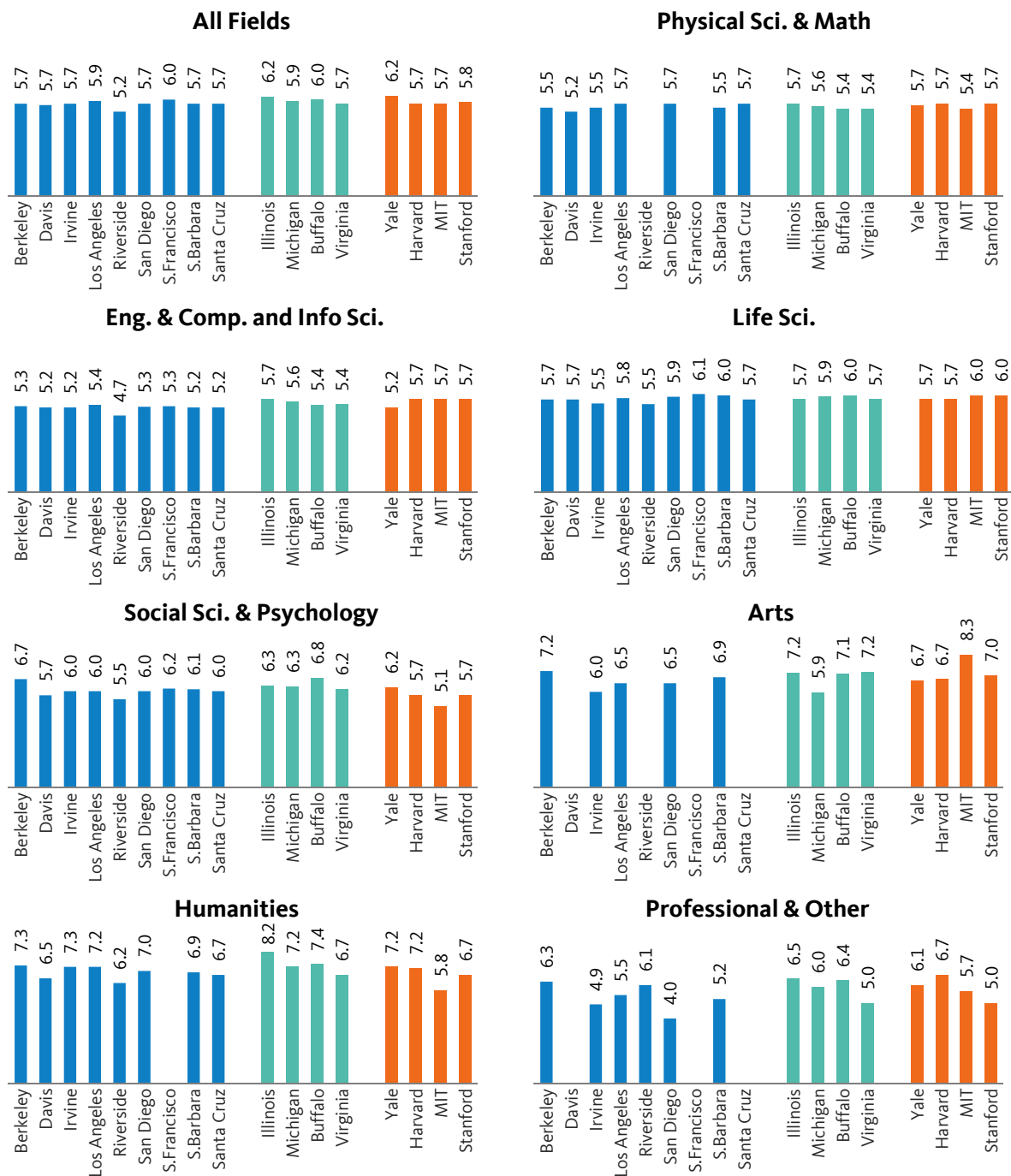
	2000–02	2004–06	2007–09
<b>All fields</b>	<b>6.0</b>	<b>5.8</b>	<b>6.0</b>
Physical Sciences	5.4	5.6	6.0
Eng. & Comp Sci.	5.4	5.2	5.5
Life Sciences	5.8	5.8	6.0
Social Sciences	7.0	6.4	6.3
Humanities	7.4	7.4	7.0
Arts	7.0	6.7	6.7
Prof Fields	5.8	5.8	5.7
Health Sciences	-	5.8	5.3

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.

## 5.4 OUTCOMES — GRADUATE ACADEMIC STUDENTS

### 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



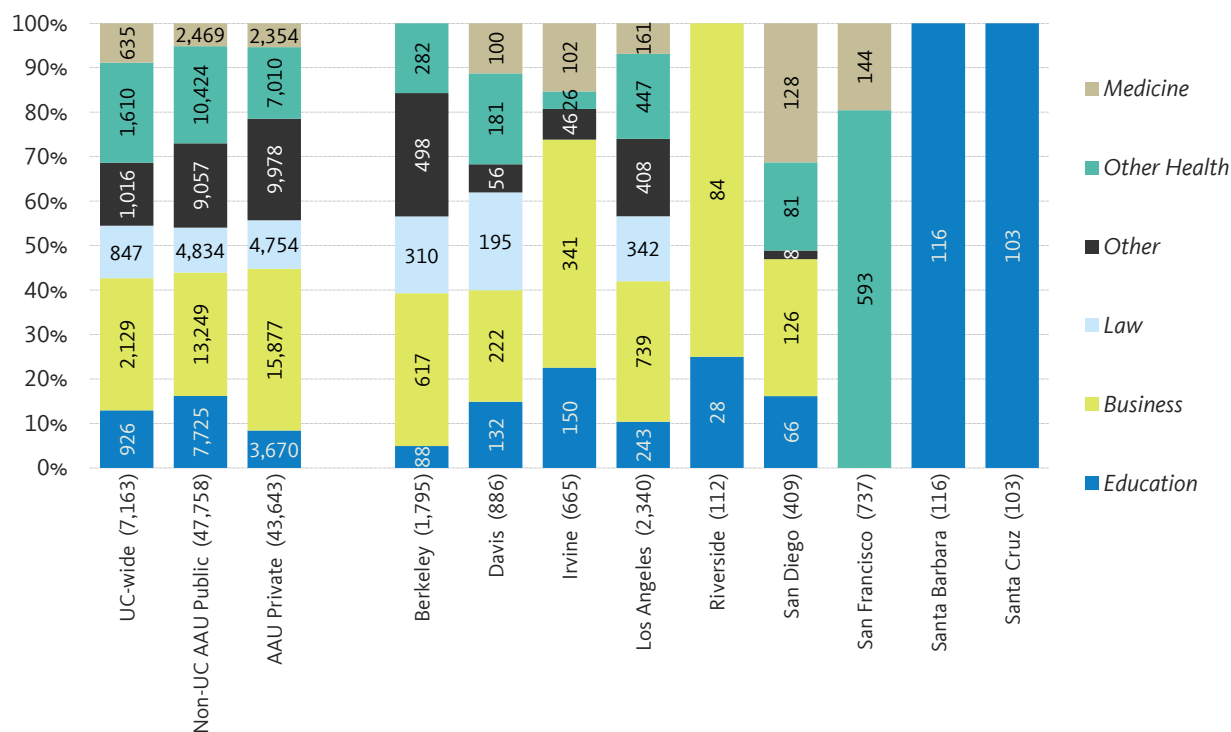
Source: UCOP Institutional Research and Survey of Earned Doctorates. Excludes UC Merced, which opened in 2005.



## 5.5 OUTCOMES — PROFESSIONAL DEGREE STUDENTS

**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: IPEDS<sup>1</sup>

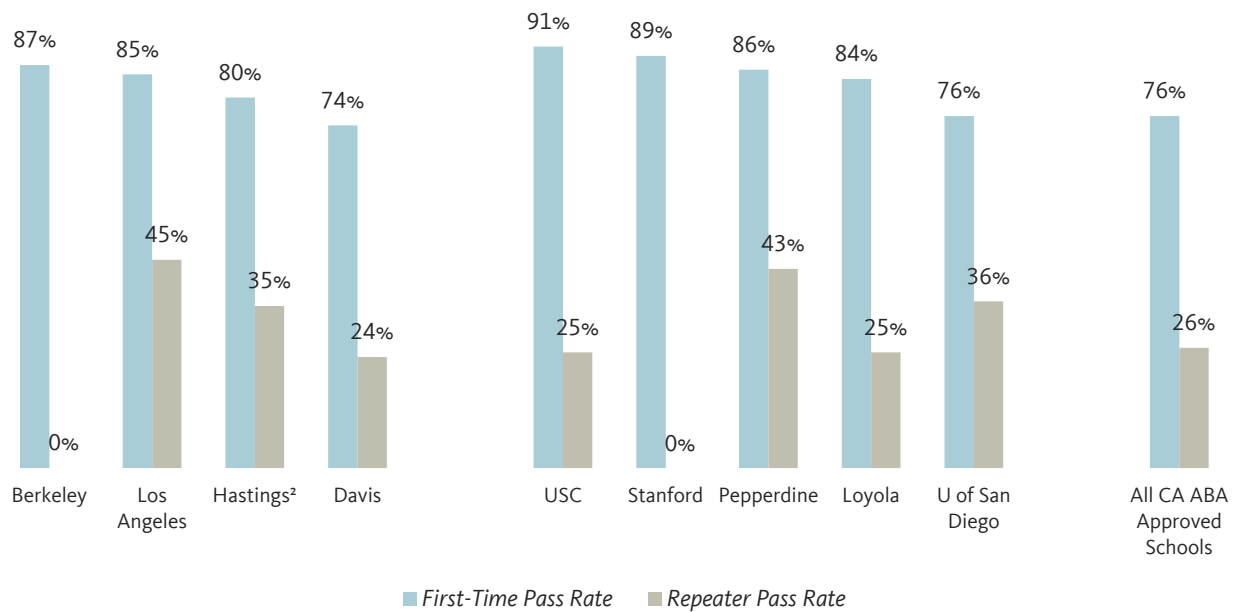
At UC, these proportions have remained fairly steady over time with one exception — business. UC campuses have met the increased demand for graduate business programs by expanding these programs over the past decade.

<sup>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 2011



Source: California State Bar Association<sup>1</sup>

<sup>1</sup> UC Irvine opened a new law school in 2009; their students have not yet graduated.

<sup>2</sup> 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. Faculty are the source of innovation and discovery, top-quality educational opportunities for students and service to the state. Accordingly, 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 slight reduction in the number of ladder-rank faculty over the past three years due to state budget cuts; a shifting age demographic; and challenges maintaining the competitiveness of faculty salaries vis-à-vis UC's comparison institutions. Measures of faculty diversity, teaching workload and research productivity are in Chapters 8, 9 and 10. Indicators of academic reputation are in Chapter 13.

Overall, UC employed almost 15,900 faculty FTE in 2011.<sup>1</sup> Of these, over half were ladder- and equivalent-rank faculty — the core faculty, who are nearly all members of the Academic Senate, have a complete range of teaching, research and service responsibilities, and have tenure or the potential for tenure. In contrast, non-ladder-rank faculty, such as lecturers and clinical faculty, have a narrower set of responsibilities, do not participate in shared governance and are not eligible for tenure.

With the growth in contract, grant and clinical funds, the number of non-ladder-rank clinical

<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.

faculty has increased rapidly over the past 14 years. While the number of ladder- and equivalent-rank faculty, who are paid primarily from state and UC general funds, has also grown, this has been at a much slower rate: 22 percent for ladder-rank faculty vs. 75 percent for clinical faculty. In fact, with cutbacks to UC's budget from the state, the number of ladder-rank faculty has declined slightly recently, from a high of 9,037 FTE in 2009 to 8,828 FTE in 2011.

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 2011, 42 percent of ladder-rank faculty were over 55 compared to 28 percent in 1990.

Lastly, faculty salaries are still behind comparison institutions. Historically UC and the state set a goal for UC salaries to be midway between the average salary at its four public and average at its four private comparison institutions; that gap widened between 1998–99 and 2010–11.

### Looking forward

At all levels, UC faces increasing competition in recruiting and retaining high-quality faculty as disparities in compensation with UC's competitors, especially elite private universities, increase. Less competitive salaries will make it harder to hire the new faculty UC needs.

### For more information

For additional information on faculty and academic policy issues, see the UC Academic Senate and UCOP's Academic Personnel unit websites [www.universityofcalifornia.edu/senate](http://www.universityofcalifornia.edu/senate) and [www.ucop.edu/acadpersonnel](http://www.ucop.edu/acadpersonnel). The January 2011 Accountability Sub-Report on Faculty Competitiveness is at: [www.universityofcalifornia.edu/accountability/report.html#subreports](http://www.universityofcalifornia.edu/accountability/report.html#subreports). Dashboards produced by the Institutional Research Unit are available at [www.ucop.edu/ir](http://www.ucop.edu/ir).



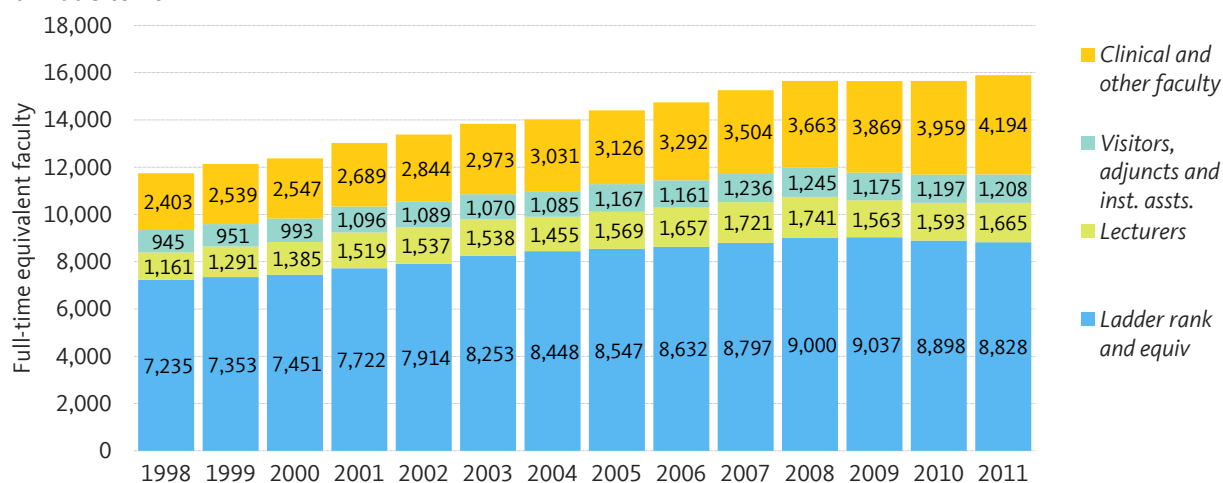
## 6.1 ACADEMIC WORKFORCE

### Ladder- and equivalent-rank faculty constituted 57 percent of the full-time-equivalent UC faculty appointments in fall 2010.

#### 6.1.1 Faculty workforce

Universitywide

Fall 1998 to 2011



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

Faculty are academic employees with student teaching functions. This includes general campus instruction as well as clinical instruction in the health sciences.

Ladder-rank and equivalent faculty are tenured (have permanent appointments) or tenure-track (eligible to be considered for permanent appointments). They are nearly all members of the Academic Senate. Since 1998, the ladder- and equivalent-rank faculty have grown from 7,235 to 8,828 in FTE (displayed above) but have declined in recent years as campuses limited hiring to address budget shortfalls.

Lecturer<sup>2</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 2008, but fell 10

percent during the past three years due to budgetary pressures.

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, clinical professors 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, as the medical centers have grown relatively faster than general campuses.

<sup>1</sup> Data shown are full-time-equivalent numbers; for example, two half-time employees equal one full-time-equivalent employee. Headcount figures are not presented in this Indicator because many academic employees do not have full-time positions. University Extension instructors are considered academic employees, not faculty.

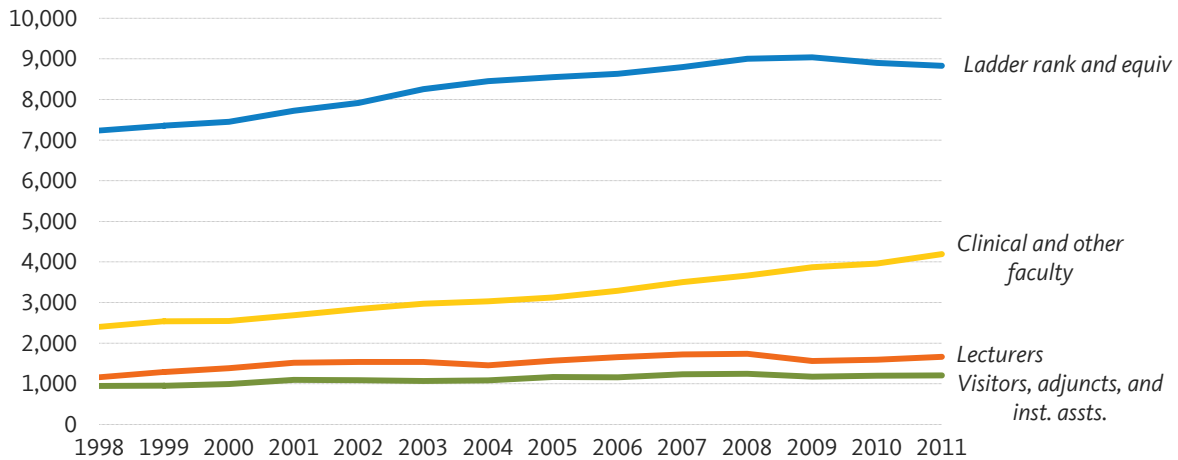
<sup>2</sup> Lecturers are also known as “Unit 18 Lecturers.” UC also employs “Lecturers with security of employment”; there are fewer than 200 of these systemwide, they are members of the Academic Senate and they are included in the “ladder- and equivalent-rank faculty” category throughout this report.

## 6.1 ACADEMIC WORKFORCE

The chart below displays the change over time in the different faculty groups presented in the chart on the previous page.

### 6.1.2 Faculty growth

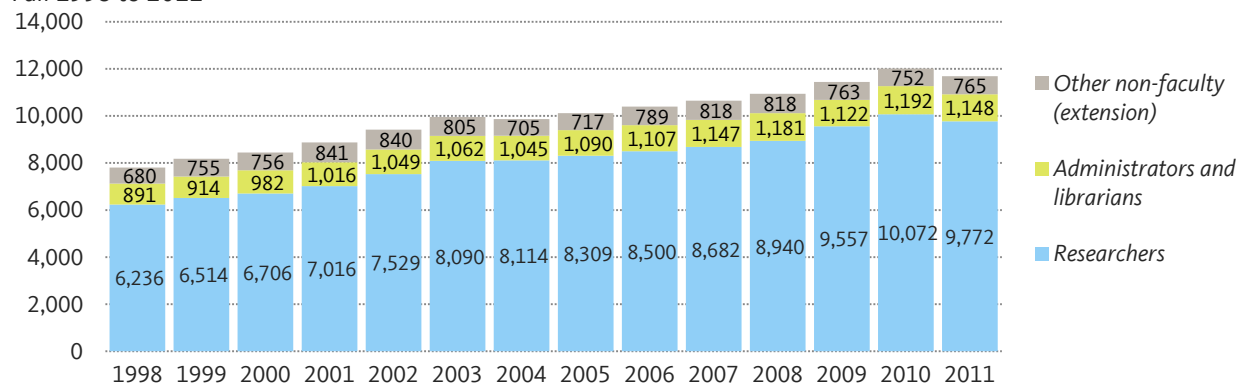
Universitywide  
Fall 1998 to 2011



Source: UC Corporate Personnel System

### 6.1.3 Other academics workforce

Universitywide  
Fall 1998 to 2011



Source: UC Corporate Personnel System

The increasing number of researchers at UC 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).

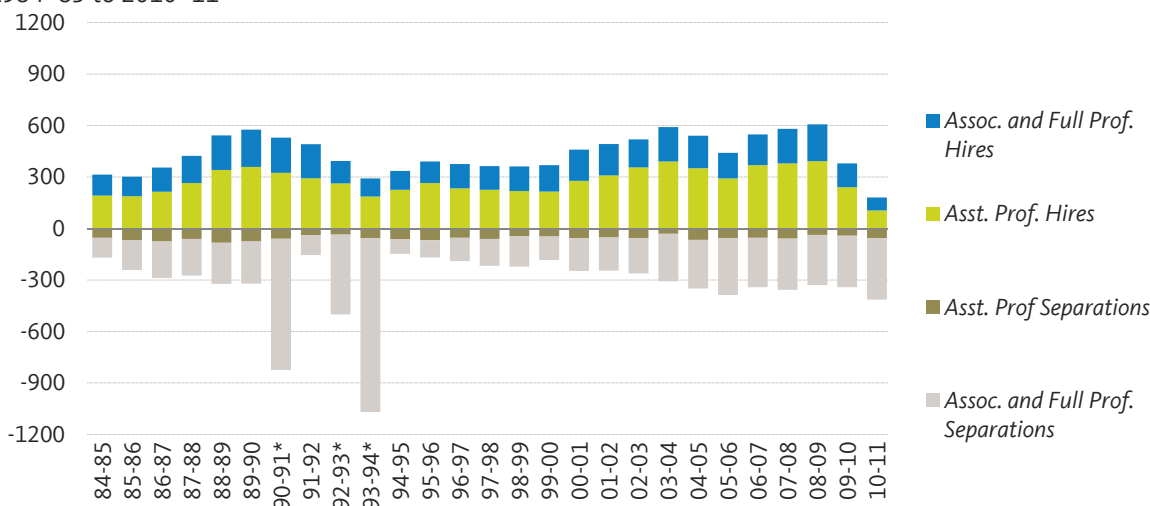
## 6.2 FACULTY RENEWAL

**Although faculty separations have remained relatively constant, hiring of new faculty has slowed and 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

1984–85 to 2010–11

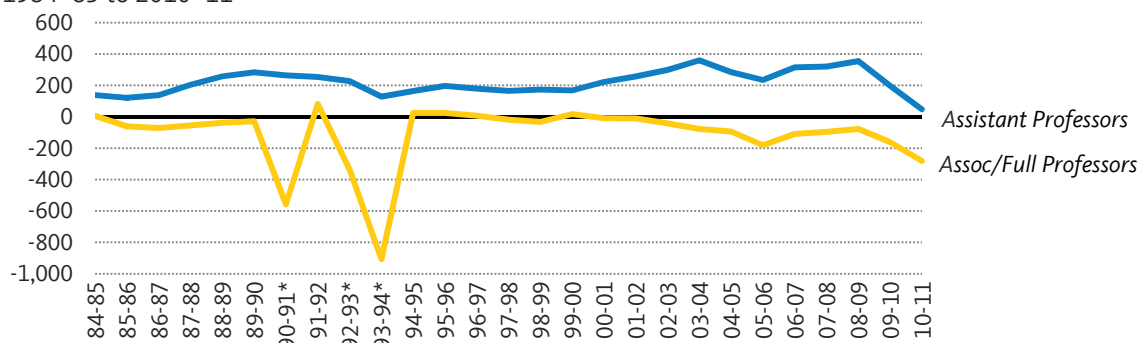


Source: UC Academic Personnel Department<sup>1</sup>

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

Universitywide

1984–85 to 2010–11



In 2009–10 and 2010–11, faculty hiring dipped in response to recent fiscal constraints. Since 2003–04, faculty separations have exceeded 300 per year.

Change in the number of assistant professors can result from separations but generally reflects promotion to a tenured title. Most faculty are hired

in at the assistant professor level, so annual increases reflect a robust hiring environment. Fluctuations in tenured faculty are due to a combination of departing faculty, faculty promoted into the tenured ranks from the non-tenured faculty and to a lesser extent, new hires.

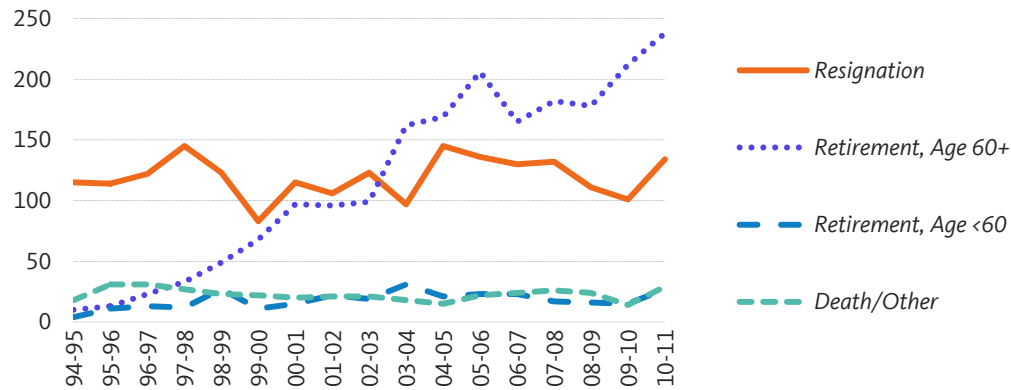
\*Years with Voluntary Early Retirement Incentive Program (VERIP).

<sup>1</sup>Associate and full professors shown here are tenured faculty; Assistant professors are nontenured tenure-track faculty.

## 6.2 FACULTY RENEWAL

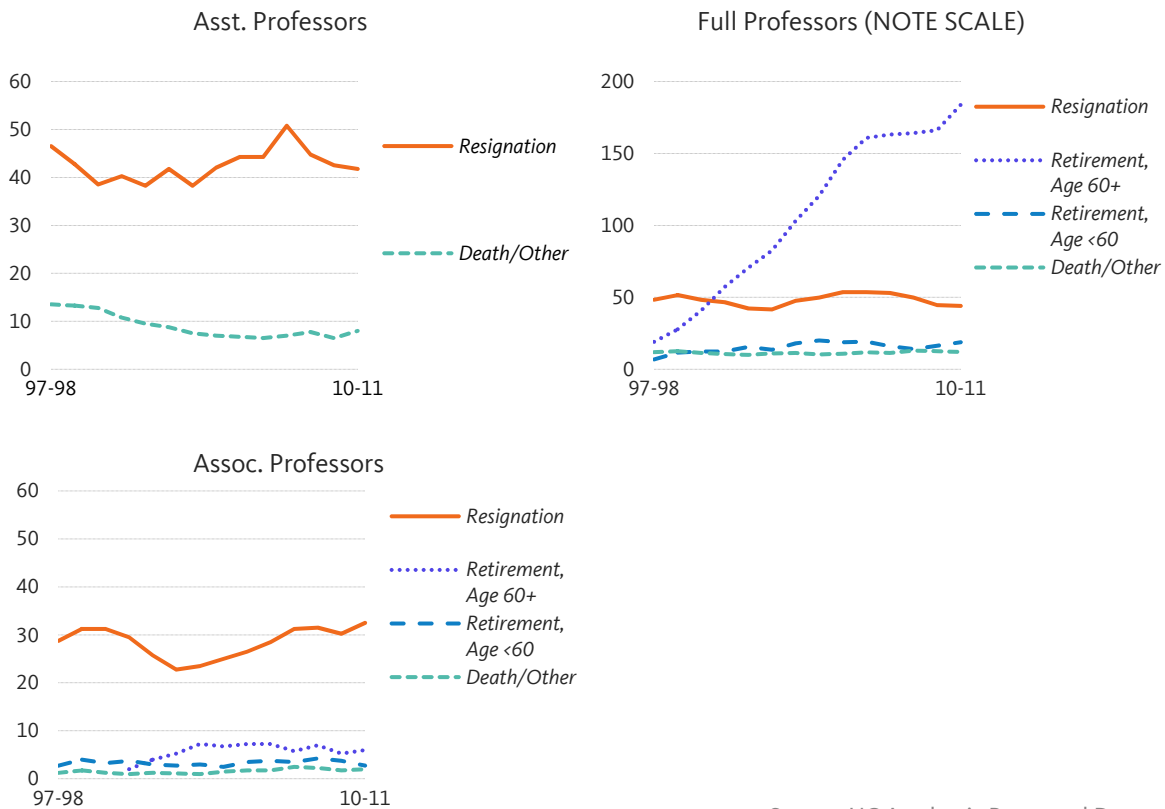
The number of faculty that have retired at age 60 or above has grown significantly in the past 15 years as the faculty age; departures for other reasons have remained fairly constant.

6.2.3 Departure reasons of faculty  
Universitywide, all Faculty  
1994–95 to 2010–11



Source: UC Academic Personnel Department

Departure reasons by rank  
Average of the last four years, 1997–98 to 2010–11



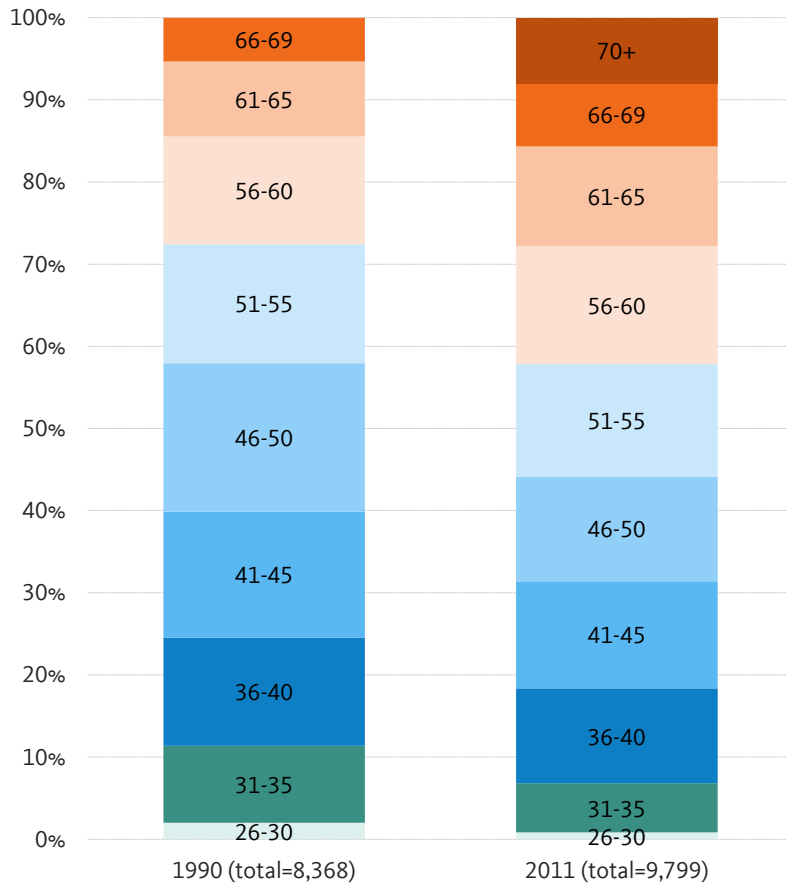
Source: UC Academic Personnel Department<sup>1</sup>

<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.

## 6.2 FACULTY RENEWAL

### The faculty workforce is significantly older in 2011 than it was in 1990.

6.2.4 Age distribution of ladder- and equivalent-rank faculty  
Universitywide  
Fall 1990 and 2011



Source: UC Corporate Personnel System

Before 1994, UC and many other colleges and universities mandated that tenured faculty retire at age 70. Starting in 1994, this was no longer permissible under federal age discrimination statutes. As a result, in 2011, 781, or about 8 percent, of UC's ladder- and equivalent-rank faculty were age 70 or above; 42 percent in 2011 were older than 55, compared to 28 percent in 1990.

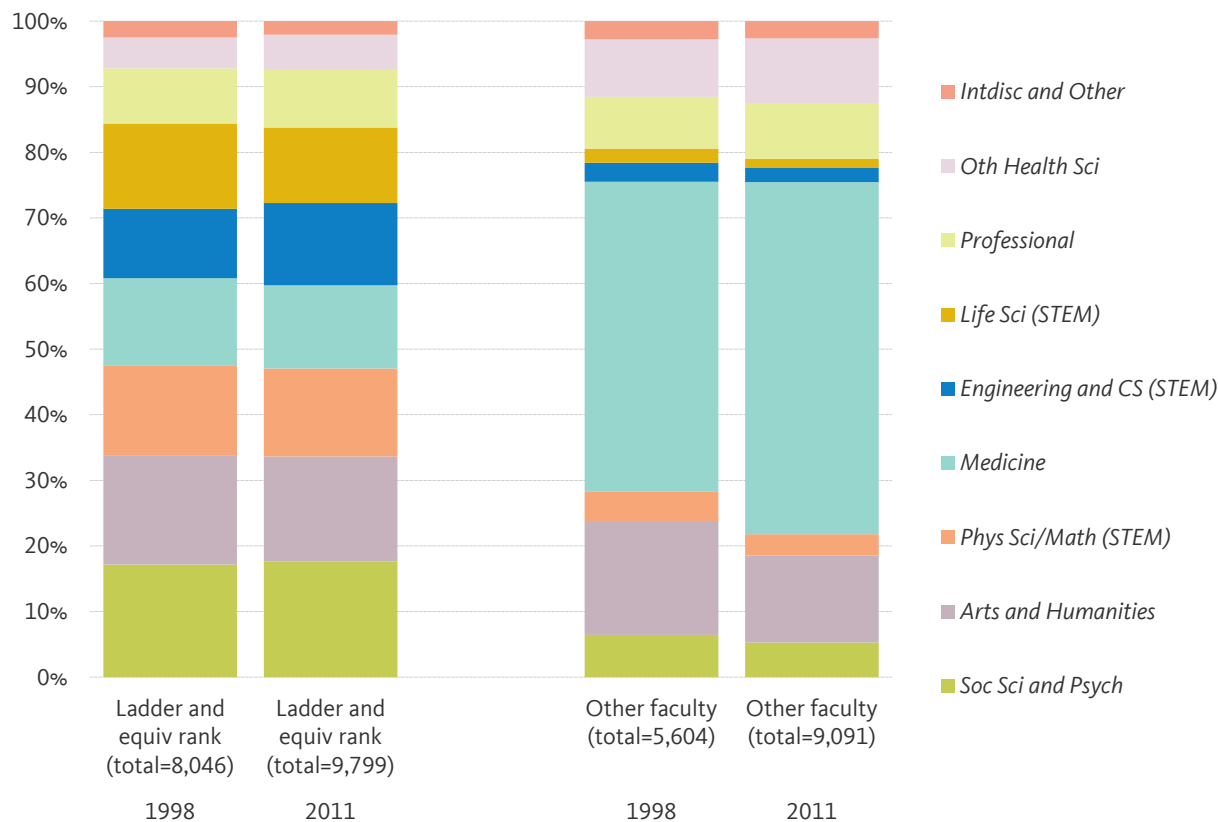
The age profile shows that separations can be expected to continue at a high level for some time to come. Within the next 5 years, over half of UC's ladder faculty will be eligible to retire.



### 6.3 FACULTY DISCIPLINE MIX

**More than half of ladder- and equivalent-rank faculty (55 percent) are in STEM (Science, Technology, Engineering and Mathematics) and health science disciplines. Non-ladder- and equivalent-rank faculty are found primarily in the health sciences.**

6.3 Faculty by discipline  
Universitywide  
Fall 1998 and fall 2011



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

Overall, about 40 percent of UC's faculty are in the health sciences (medicine, dentistry, nursing, pharmacy, optometry, public health and veterinary medicine). Health science faculty are more prevalent in the non-ladder-rank categories, representing about 56 percent of these faculty.

Health science faculty comprise about 18 percent of ladder-rank faculty. Engineering faculty have grown the fastest over this time period, responding to rapidly emerging and evolving disciplines, as well as to increased research support from federal and state agencies as well as private sponsors.

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

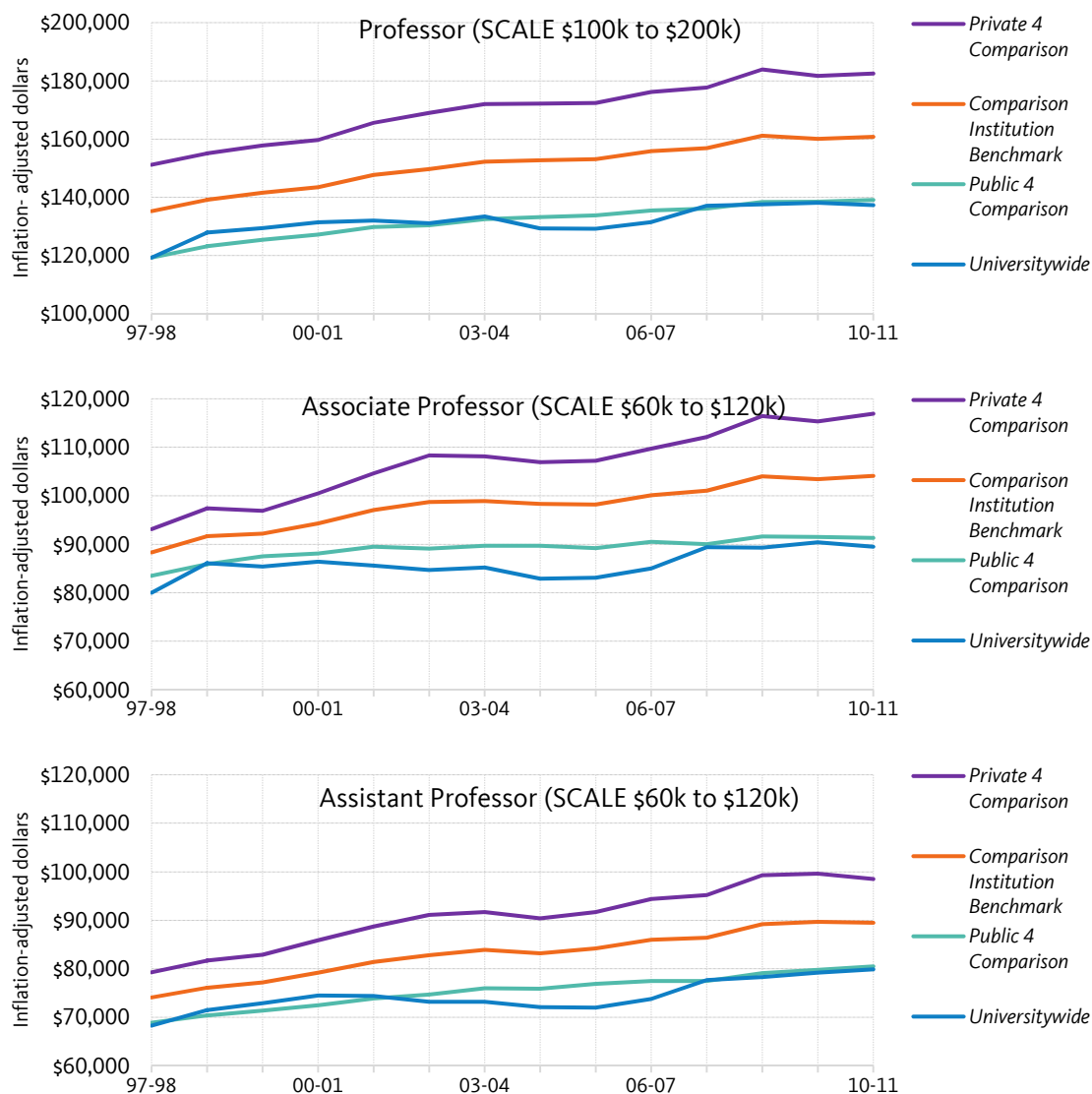
## 6.4 FACULTY SALARIES

**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.**

6.4 Average faculty salaries by rank  
UC and comparison institutions  
1997–98 to 2010–11

UC historically has used eight universities — four publics and four privates — against which to benchmark its faculty salaries. The four publics are Illinois, Michigan, SUNY Buffalo and Virginia; the four privates are Harvard, MIT, Stanford and Yale.

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



Source: UC Corporate Personnel System, AAUP

## 6.5 POSTDOCTORAL SCHOLARS

**Postdoctoral scholars (“postdocs”) are an integral part of the research function in many fields.**

6.5 Postdoctoral scholars by discipline  
UC Campuses  
Fall 2011

	UCSD (1,248)	UCSF (1,108)	UCB (1,067)	UCLA (1,039)	UCD (843)	UCI (380)	UCSB (259)	UCR (175)	UCSC (157)	UCM (33)
Medicine (2,255)	579	934		505	181	52		4		
Life Sci (1,204)	162		337	75	355	133	12	89	36	5
Phys Sci/Math (1,074)	268		233	158	75	107	90	53	73	17
Eng/CS (764)	128		191	113	118	34	118	17	37	8
Oth Health (465)	47	164	64	112	55	23				
Interdisc (249)		10	178	19	6	8	23	4		1
Soc Sci (192)	56		25	35	27	17	15	5	11	1
Professional (73)	7		23	13	26		1	3		
Arts & Hum (26)	1		12	7		6				

Source: UC Corporate Personnel System

Most, if not all, postdoctoral scholars are paid from research grants, which explains why they are more prominent in the fields with greater externally funded 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 instruction function in 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 salaries and benefits for all employees to market levels.

## 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 2011, UC employed 130,000 staff (or 97,000 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, constitute an increasingly large proportion of funding for 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 from 2005–06 to 2007–08 and merit increases in 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 high-performing staff at UC. These challenges could increase, particularly as the economy recovers, and other institutions are in a position to recruit away UC's top performers. The staff turnover rate (which, at 8.7 percent in 2009–10, was almost at its lowest level in a decade) is also expected to increase as the economic recession ends and employment opportunities in California increase. Additionally, almost one-quarter of UC staff are in their 50's 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/](http://www.ucop.edu/ucophome/uwnews/stat/)

*Staff Workforce Profile:*  
[http://atyourservice.ucop.edu/forms\\_pubs/misc/workforce\\_profile\\_2010.pdf](http://atyourservice.ucop.edu/forms_pubs/misc/workforce_profile_2010.pdf)

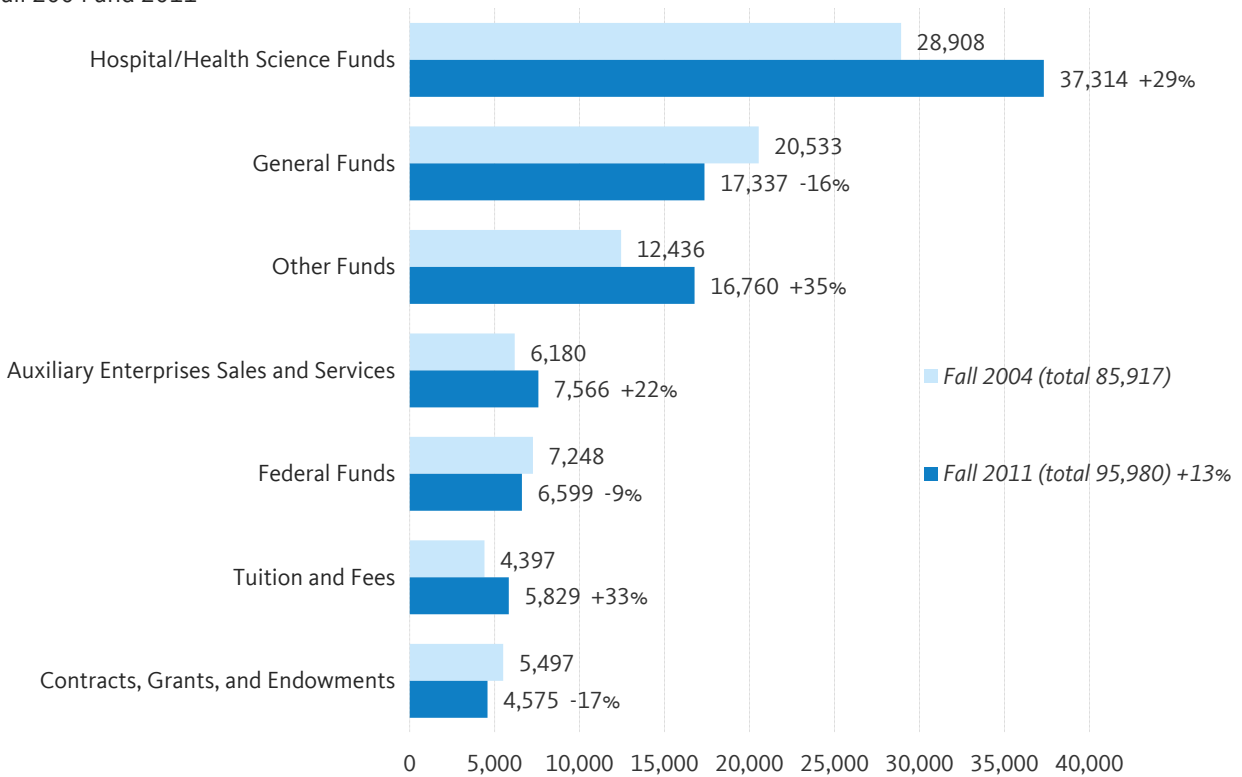
*Annual Accountability Sub-Report on Diversity:*  
[www.universityofcalifornia.edu/accountability/report.html#subreports](http://www.universityofcalifornia.edu/accountability/report.html#subreports)

*2011 Accountability Sub-Report on Staff:*  
[www.universityofcalifornia.edu/accountability/report.html#subreports](http://www.universityofcalifornia.edu/accountability/report.html#subreports)

## 7.1 STAFF WORKFORCE

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  
Universitywide  
Fall 2004 and 2011



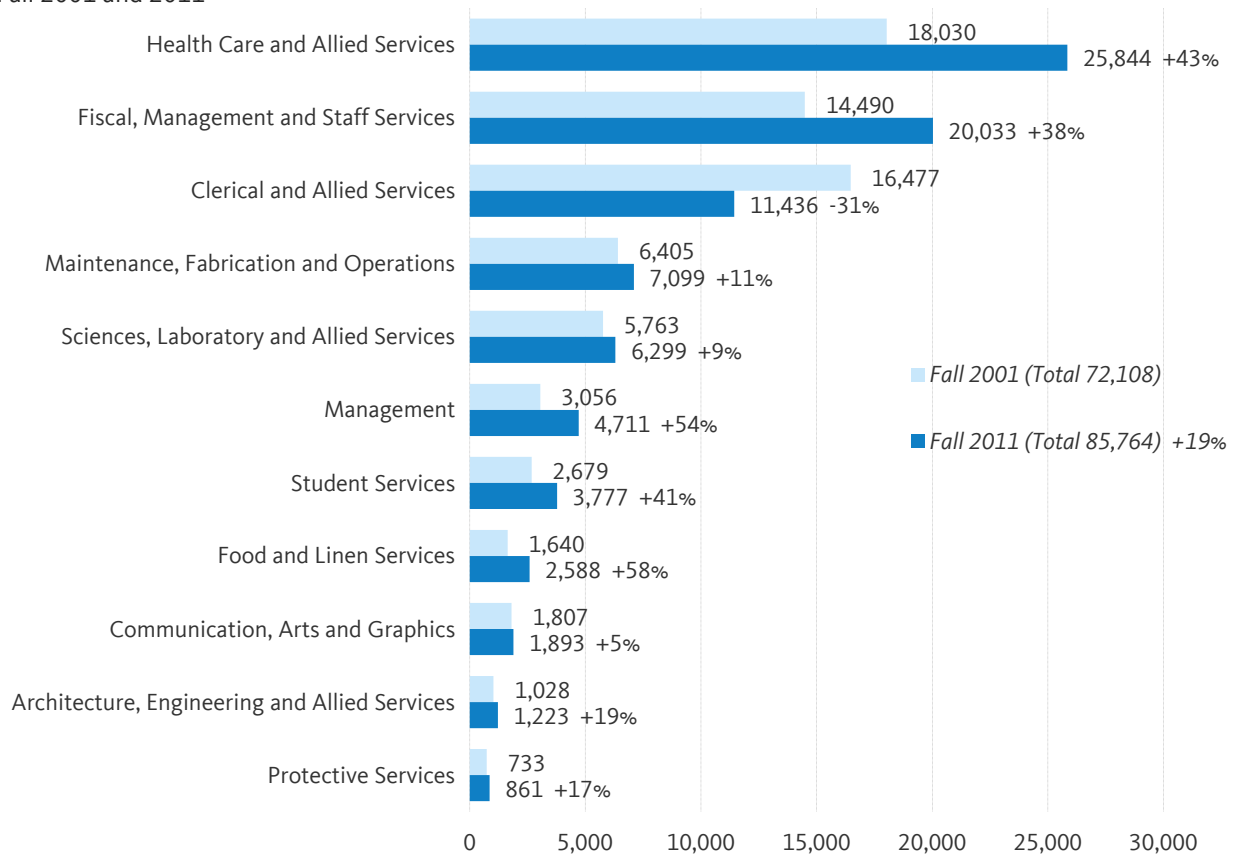
Source: UC Corporate Personnel System<sup>1</sup>

<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 equivalent 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.

## 7.1 STAFF WORKFORCE

Over the past ten years at UC, fiscal, management and staff services jobs have grown by 38 percent, while clerical jobs have shrunk by 31 percent. 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 2011



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

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

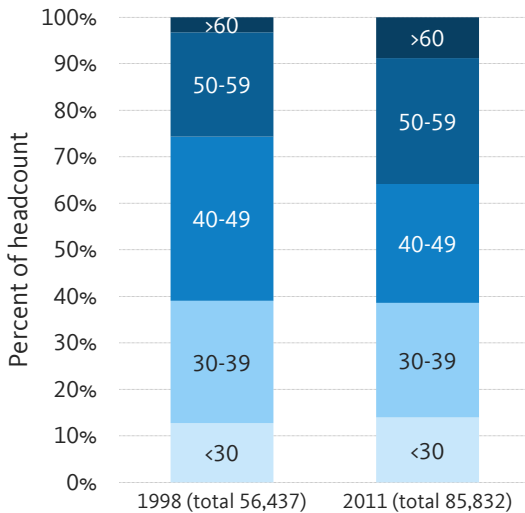
<sup>1</sup> Only career staff are included.



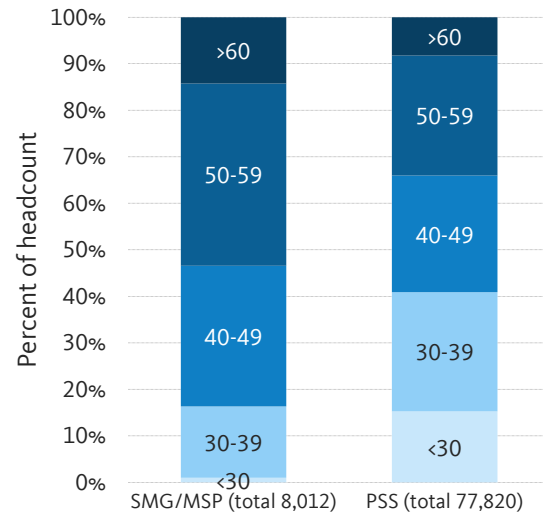
## 7.2 STAFF RENEWAL

**Overall, the UC staff career workforce was older in 2011 than in 1998. Twenty-six percent of career staff were age 50 or older in 1998, compared to 36 percent in 2011.**

7.2.1 Age distribution of career staff  
Universitywide  
Fall 1998 and 2011



7.2.2 Age distribution of career staff by personnel  
program  
Universitywide  
Fall 2011



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

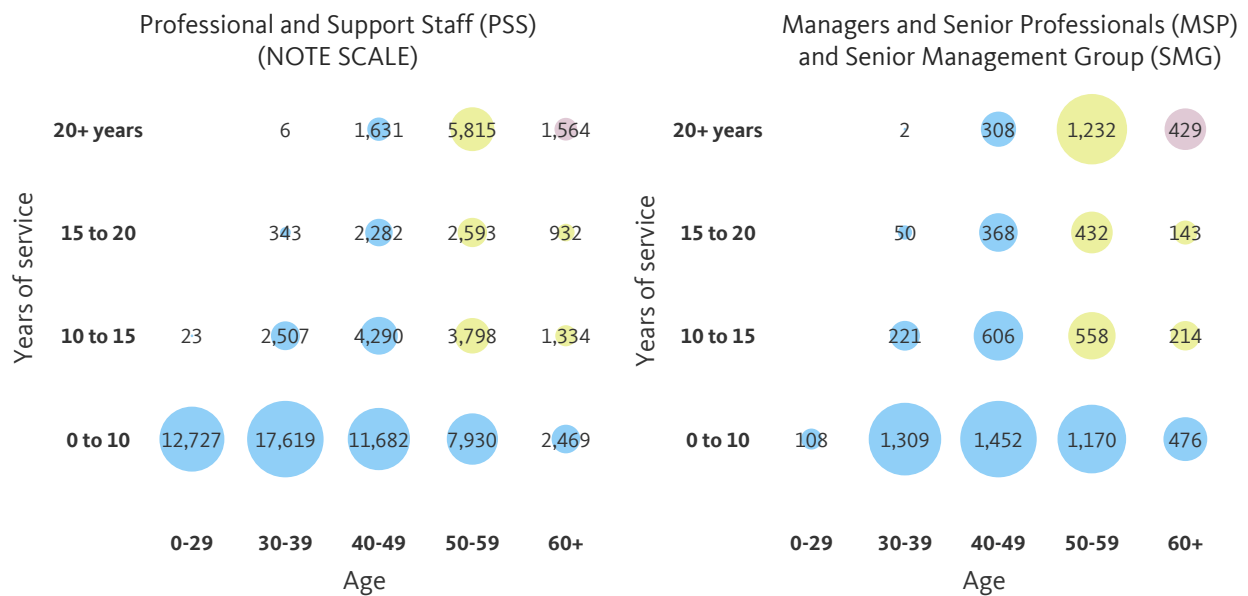
The Senior Management Group (SMG) and the Managers and Senior Professionals (MSP) personnel programs entail a higher level of experience and responsibility and have a higher proportion of older staff personnel than the Professional and Support Staff (PSS) program. Within the PSS program, there is no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

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

## 7.2 STAFF RENEWAL

### Fewer than 5 percent of staff are eligible to retire with maximum benefits; this proportion has been stable over the past seven years.

7.2.3 UC retirement program active career staff headcount by age and years of service (YOS)  
Universitywide (excludes Lawrence Berkeley National Laboratory)  
Fall 2011



Source: UC Retirement System

#### LEGEND

- BLUE** Not eligible to retire or not eligible to retire with health benefits (under age 50 and/or <10 YOS)
- GREEN** Eligible to retire with reduced benefit factors (age 50–59, 10–19 YOS)
- RED** Eligible to retire with maximum benefit factors (age 60+, 20+ YOS)

The UC Retirement Plan benefits are designed so that maximum benefit calculation factors occur at age 60 with 20 years of service. Actual benefits depend on the total years of service and highest average compensation.

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. As shown in the display above, 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,

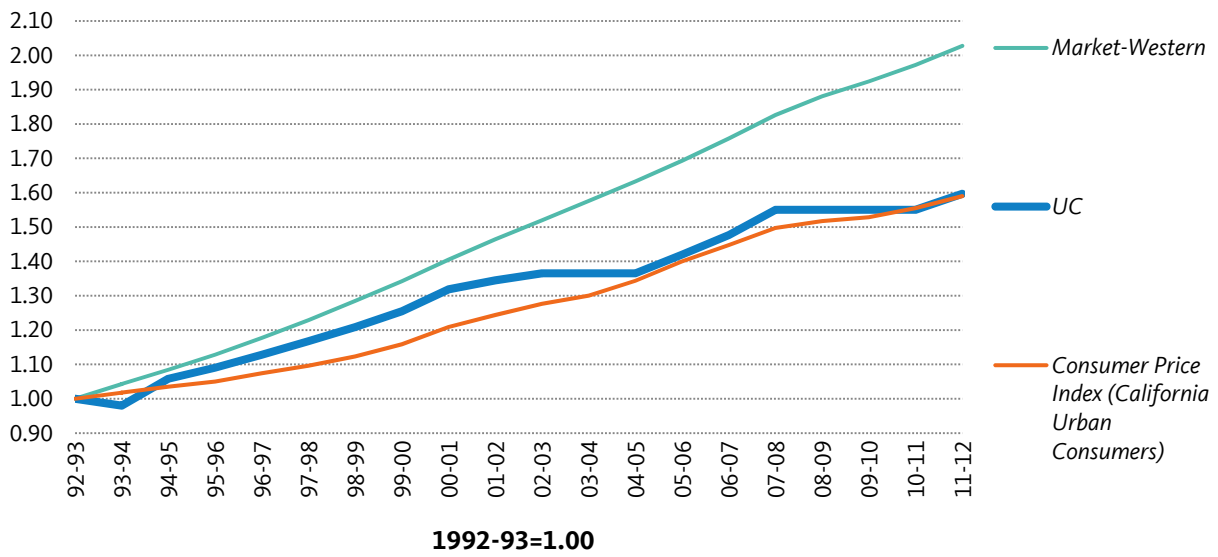
which means they can retire with the maximum benefit factors. While this is somewhat higher than the proportions seven years prior (2004, shown in appendix), it does not seem to indicate a large shift in employees who would be able to retire at any time.

Similarly, the proportion of staff who are eligible to retire but not with the maximum benefit factors has grown slightly since 2004 (see appendix). It does not appear that the recent recession has changed employee retirement behavior significantly.

### 7.3 STAFF SALARY GROWTH

## 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. Salary increases 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>1</sup>The UCOP Budget Office, along with 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.





# Chapter 8. Diversity

## Goals

UC is committed to achieving diversity in the classroom, research lab and the 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 will conduct a systemwide study to gather data related to institutional climate, inclusion and work-life 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 will be 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:

[www.universityofcalifornia.edu/diversity](http://www.universityofcalifornia.edu/diversity)

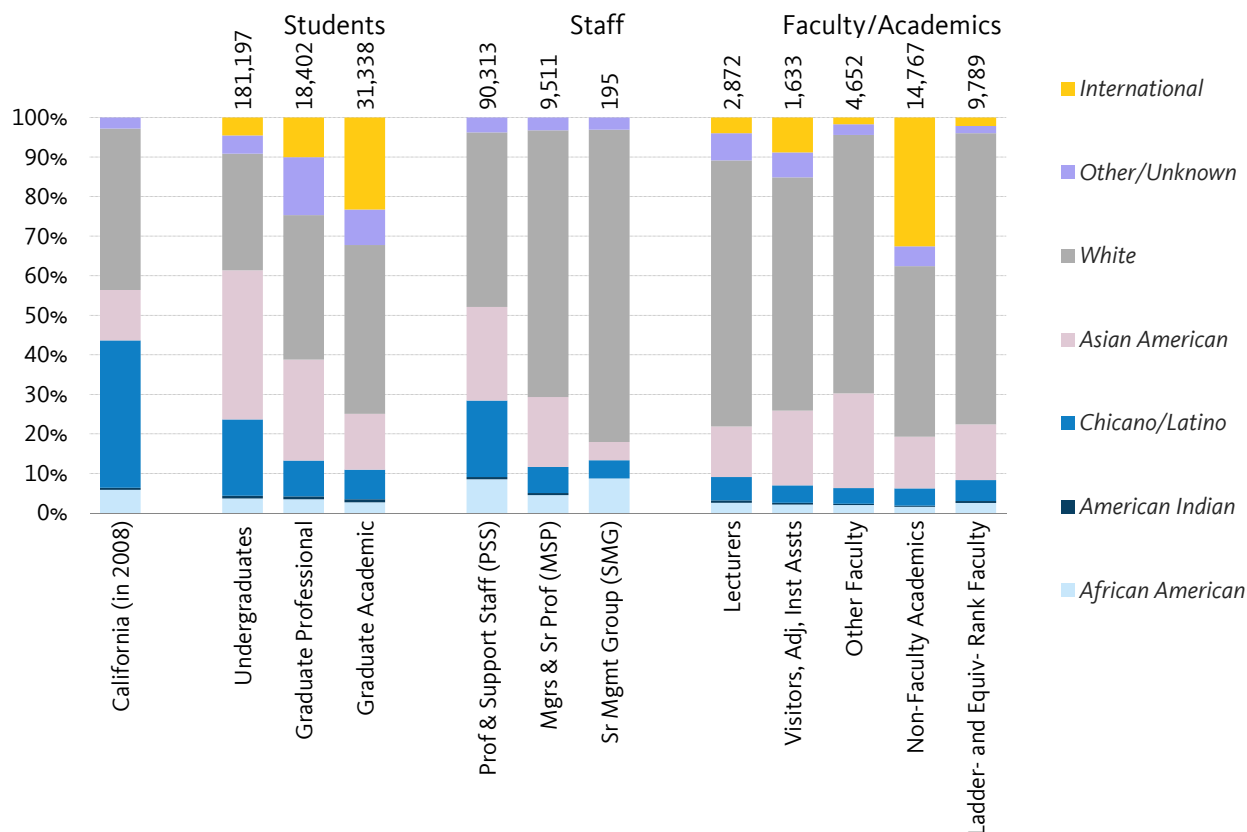
Also see the Sept. 2010 and Jan. 2012 *Accountability Sub-Reports on Diversity* at

[www.universityofcalifornia.edu/accountability/report.html#subreports](http://www.universityofcalifornia.edu/accountability/report.html#subreports).

## 8.1 DIVERSITY OF THE UNIVERSITY COMMUNITY

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

8.1.1 Racial/ethnic distribution of the University community  
Universitywide  
Fall 2011



Source: UC Corporate Student and Personnel Systems. California data from CA Department of Finance<sup>1</sup>

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.

<sup>1</sup>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. California data are shown for 2008, the last year that race/ethnicity data are available in a manner comparable to that collected by UC.



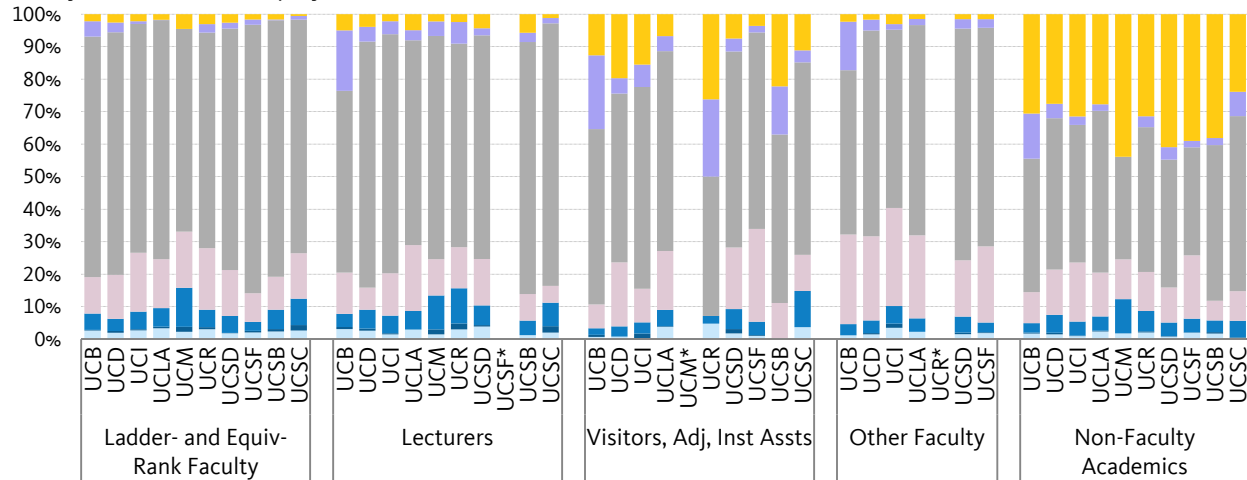
## 8.1 DIVERSITY OF THE UNIVERSITY COMMUNITY

Racial/ethnic distribution

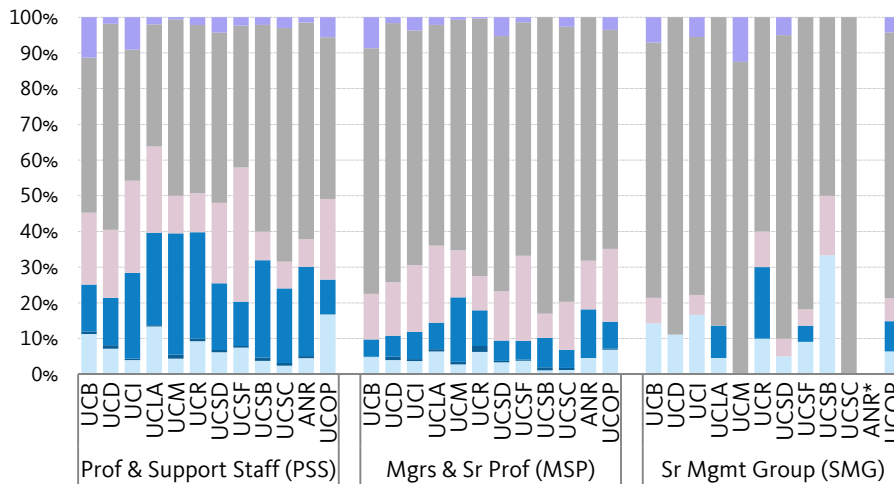
UC campuses

Fall 2011

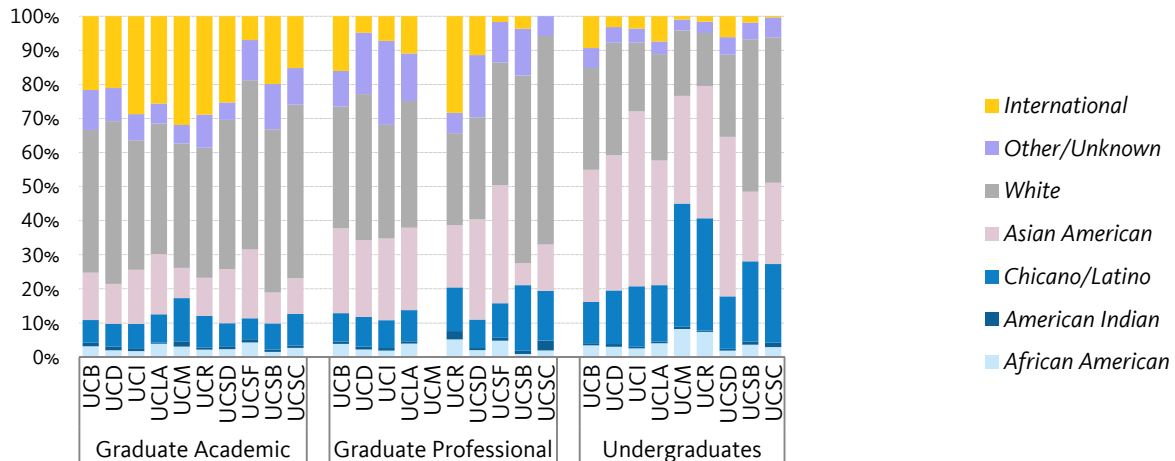
### Faculty and academic employees



### Non-student staff



### Students

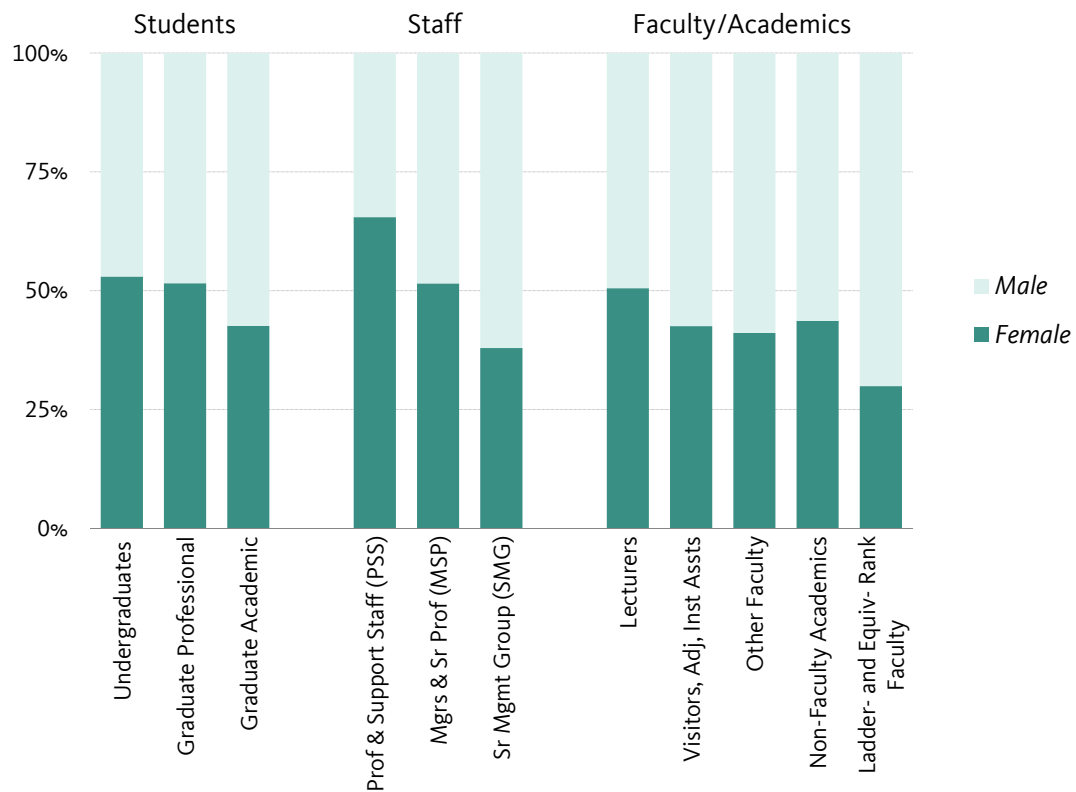


\*Not shown due to small numbers. UC Merced does not have any graduate professional programs at this time.

## 8.1 DIVERSITY OF THE UNIVERSITY COMMUNITY

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

8.1.2 Gender distribution of the University community  
Universitywide  
Fall 2011



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

Among students in 2010–11, 53 percent of undergraduates were women compared to 43 percent of graduate academic students and 52 percent of graduate professional degree students.

<sup>1</sup> See note on 8.1.1 for more details.

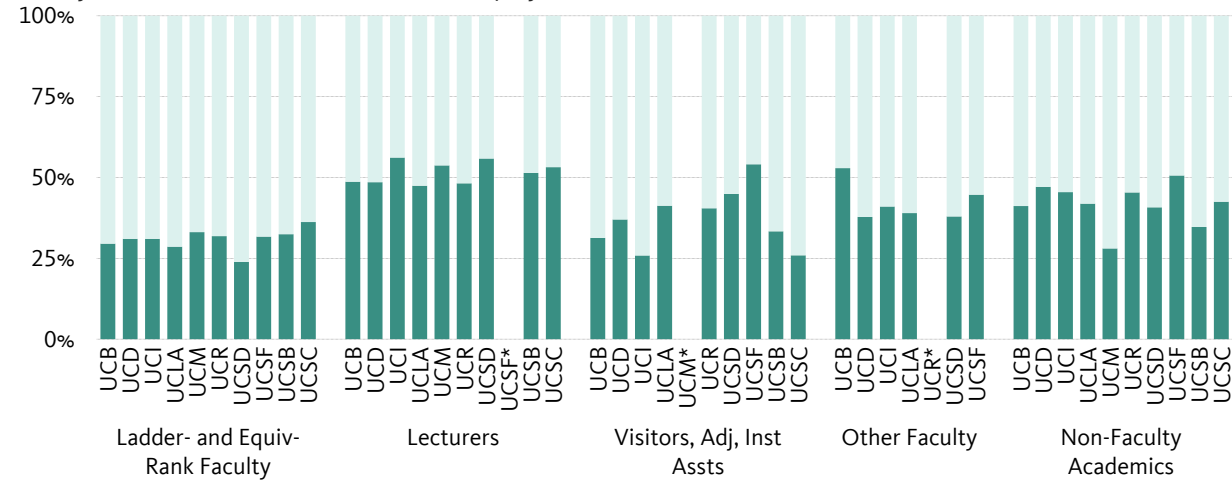
## 8.1 DIVERSITY OF THE UNIVERSITY COMMUNITY

Gender distribution

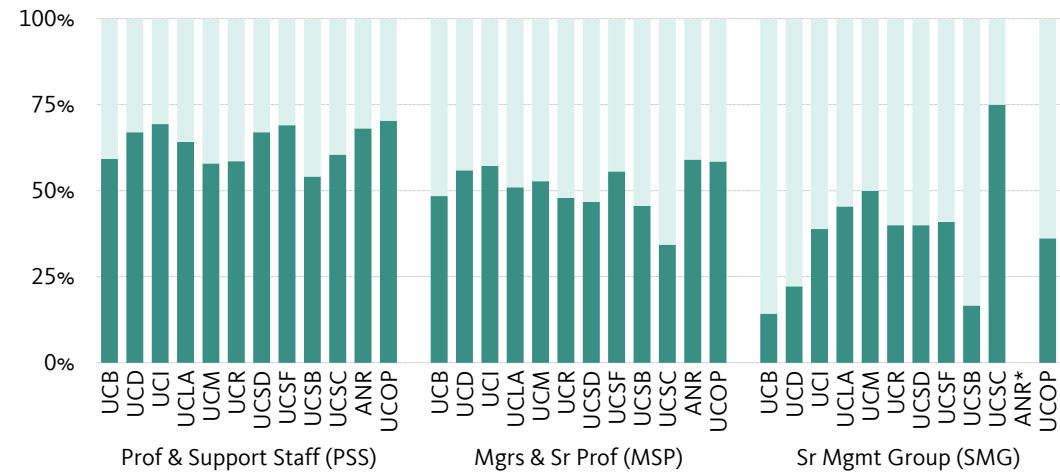
UC campuses

Fall 2011

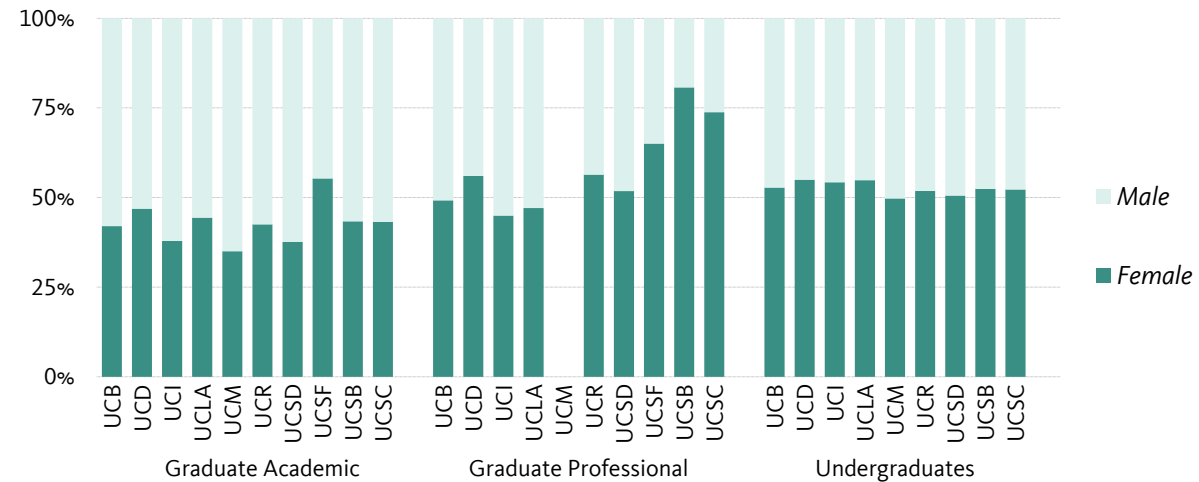
Faculty and other non-student academic employees



Non-student staff



Students



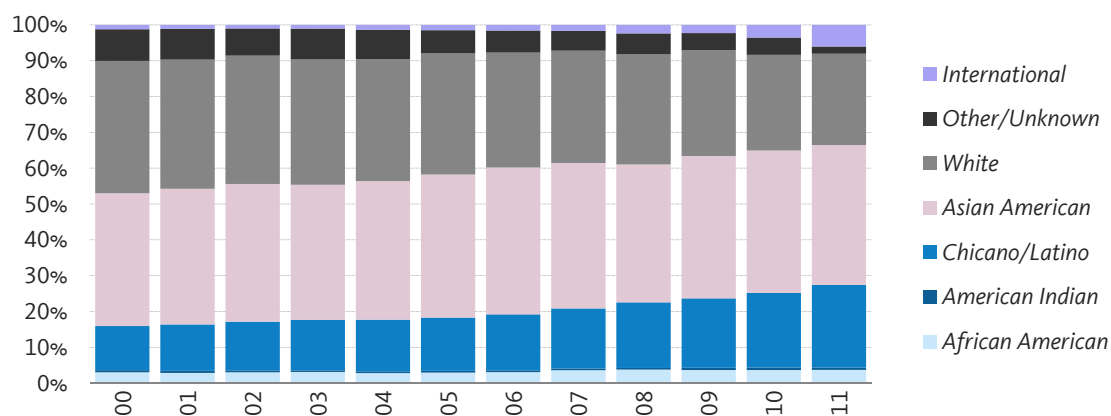
\*Not shown due to small numbers. UC Merced does not have graduate professional programs at this time. For some programs, small numbers may distort percentages.

## 8.2 UNDERGRADUATE DIVERSITY

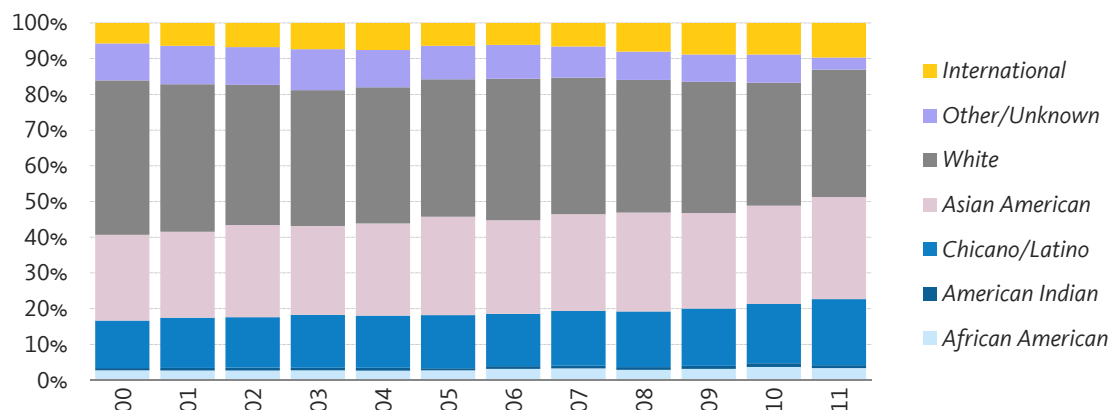
### Each year, UC enrolls a growing number of undergraduates from underrepresented groups; entering freshmen are slightly more diverse than new transfer students.

8.2 Racial/ethnic distribution of new undergraduates  
Universitywide  
Fall 2000 to 2011

#### 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 high-income families and to choose private and out-of-state colleges, while Asian American and Latino

students are more likely to choose UC. Underrepresented minority students enter community colleges in relatively large proportions, but they are less likely to complete a transfer curriculum that prepares them to transfer to a four-year institution (Indicator 8.4).

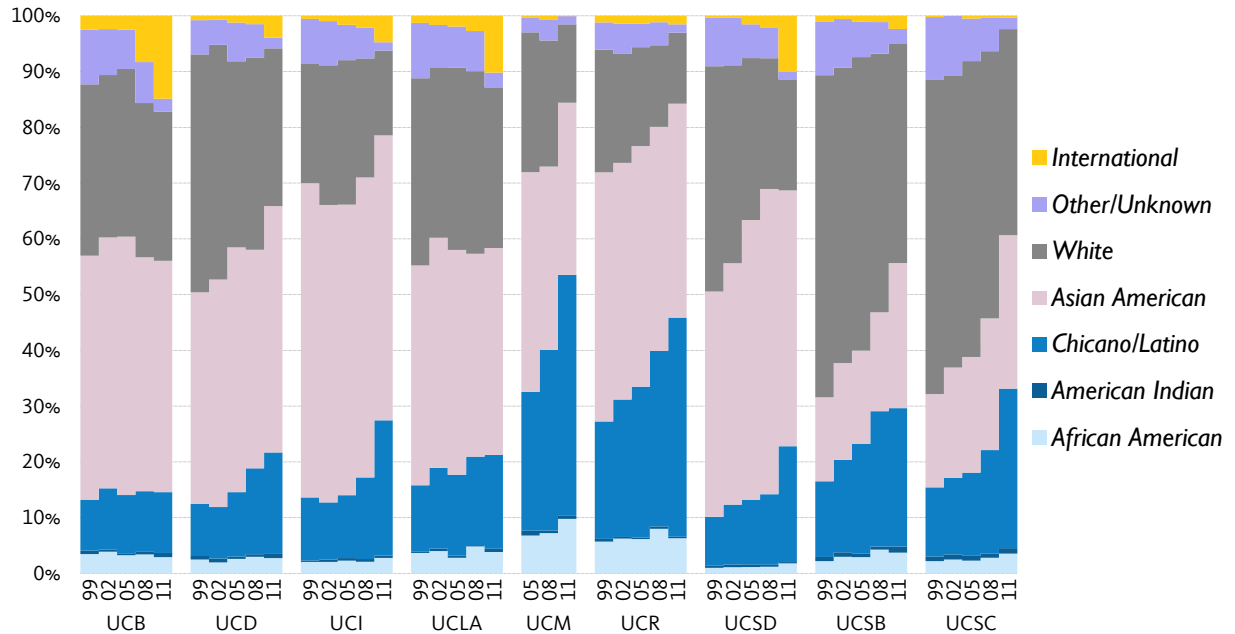
## 8.2 UNDERGRADUATE DIVERSITY

Racial/ethnic distribution of new undergraduates

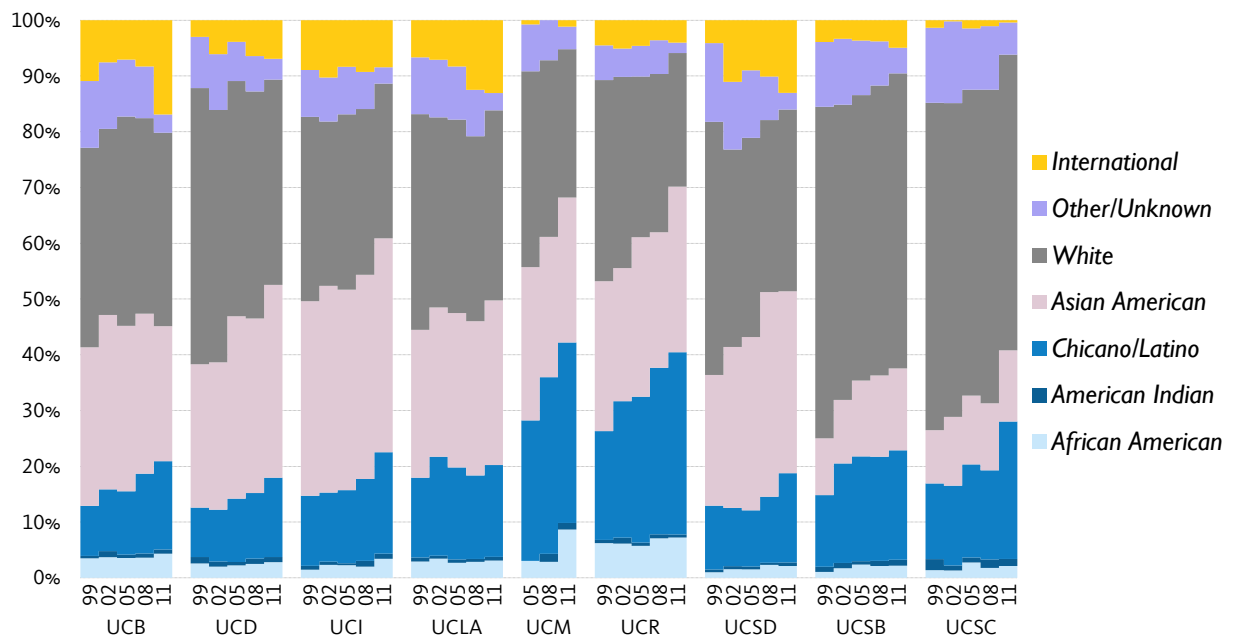
UC campuses

Fall 1999, 2002, 2005, 2008 and 2011

New freshmen



New transfers

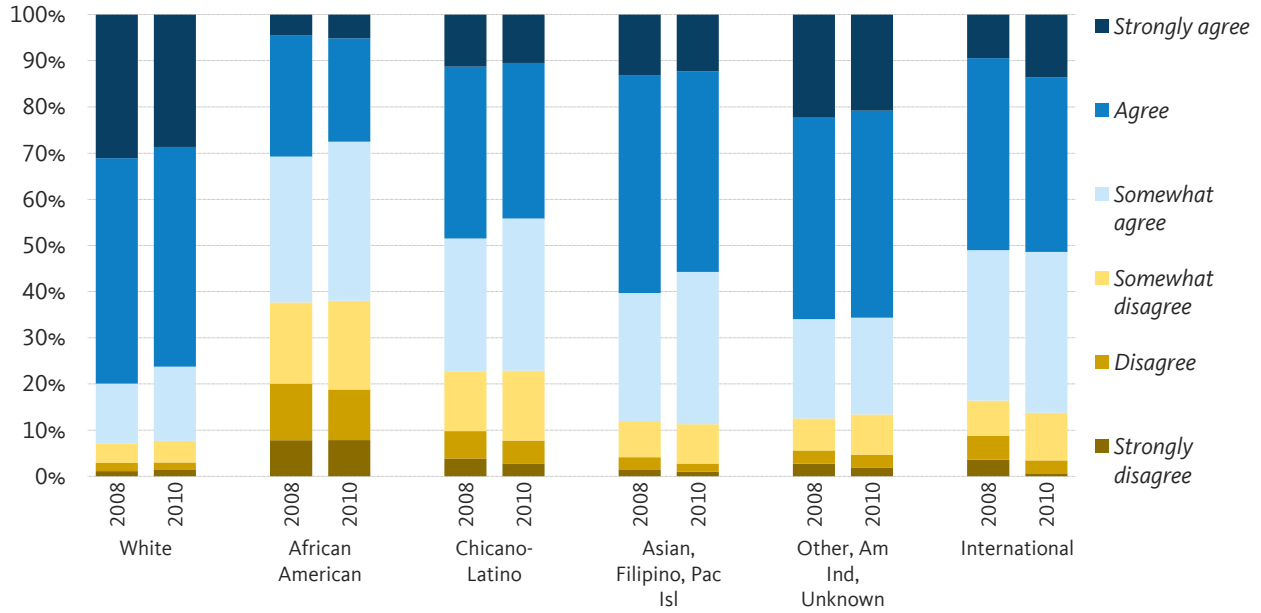


Source: UC Corporate Student System

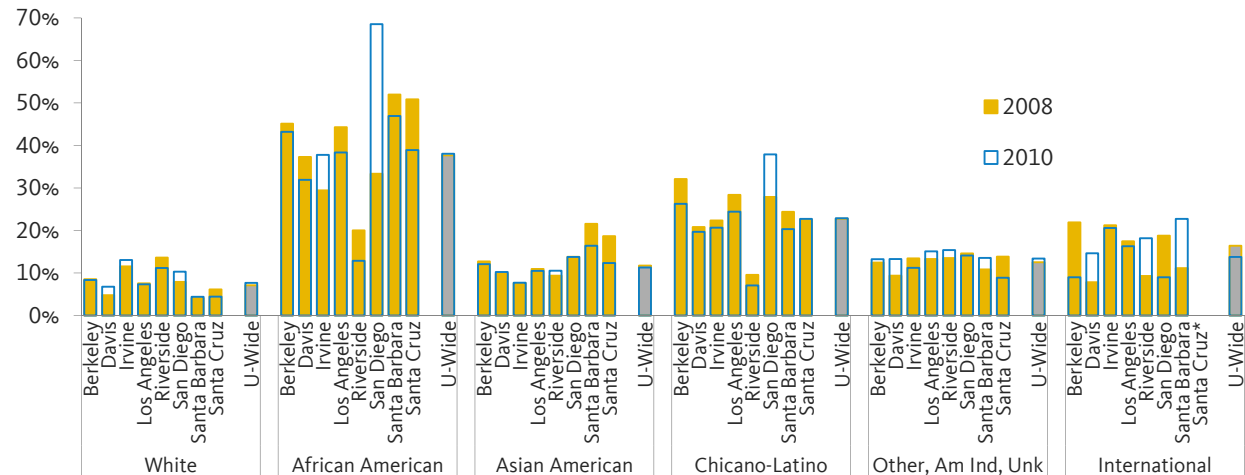
### 8.3 UNDERGRADUATE CAMPUS CLIMATE

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 2008 and 2010



#### Percentage that disagree or strongly disagree



Source: Spring 2008 and 2010 UCUES Survey

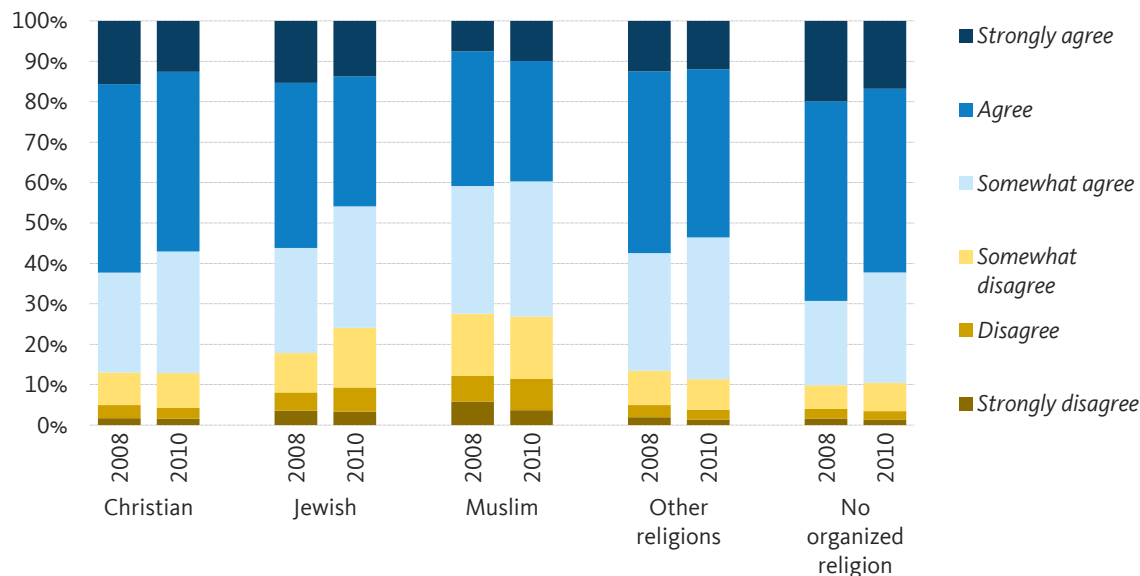
Results from the spring 2010 UC Undergraduate Experience Survey (UCUES) may have been influenced by a series of bias-related incidents that

occurred on several UC campuses in the spring of 2010.

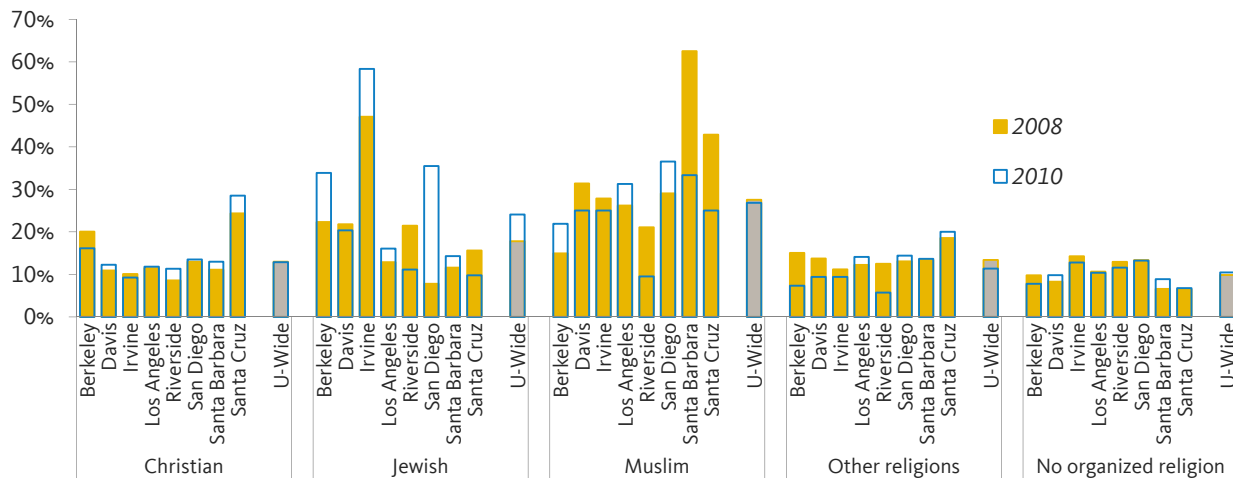
### 8.3 UNDERGRADUATE CAMPUS CLIMATE

## 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 and 2010



Percent that disagree or strongly disagree



Source: UCUES

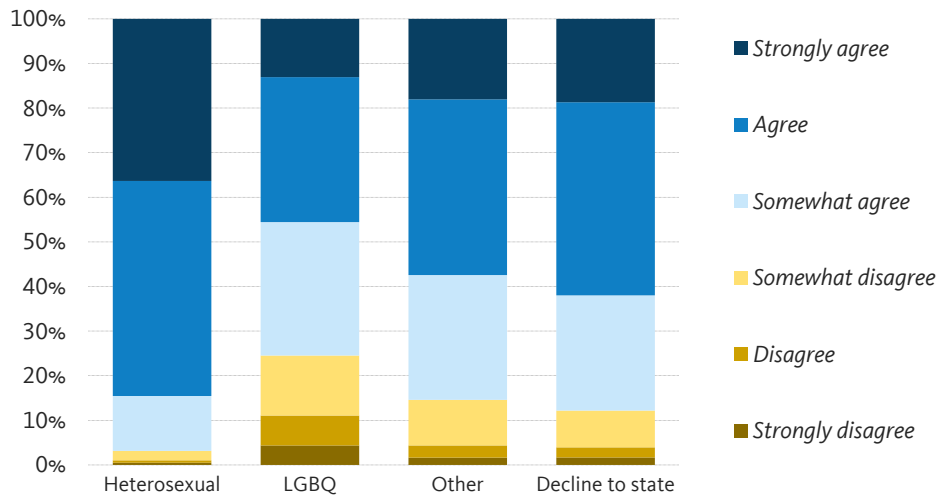
The University’s goal is to assure that all students are respected on campus, regardless of religious affiliation.



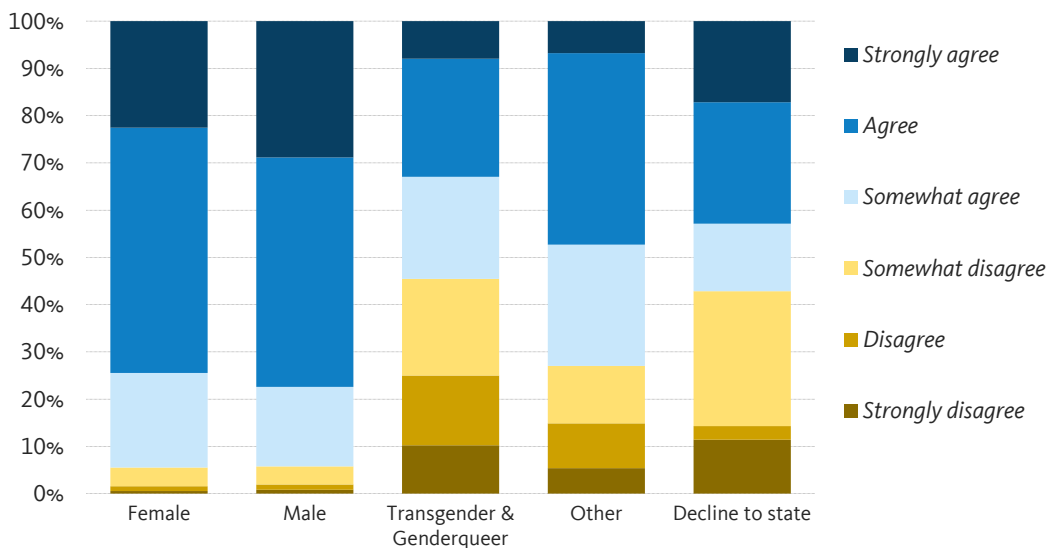
### 8.3 UNDERGRADUATE CAMPUS CLIMATE

**Undergraduates who identify as heterosexual in orientation, or as male or female in gender, 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 and 2010 combined



8.3.4 Response to “Students of my gender are respected on this campus”  
Universitywide  
2008 and 2010 combined



Source: UCUES<sup>1</sup>

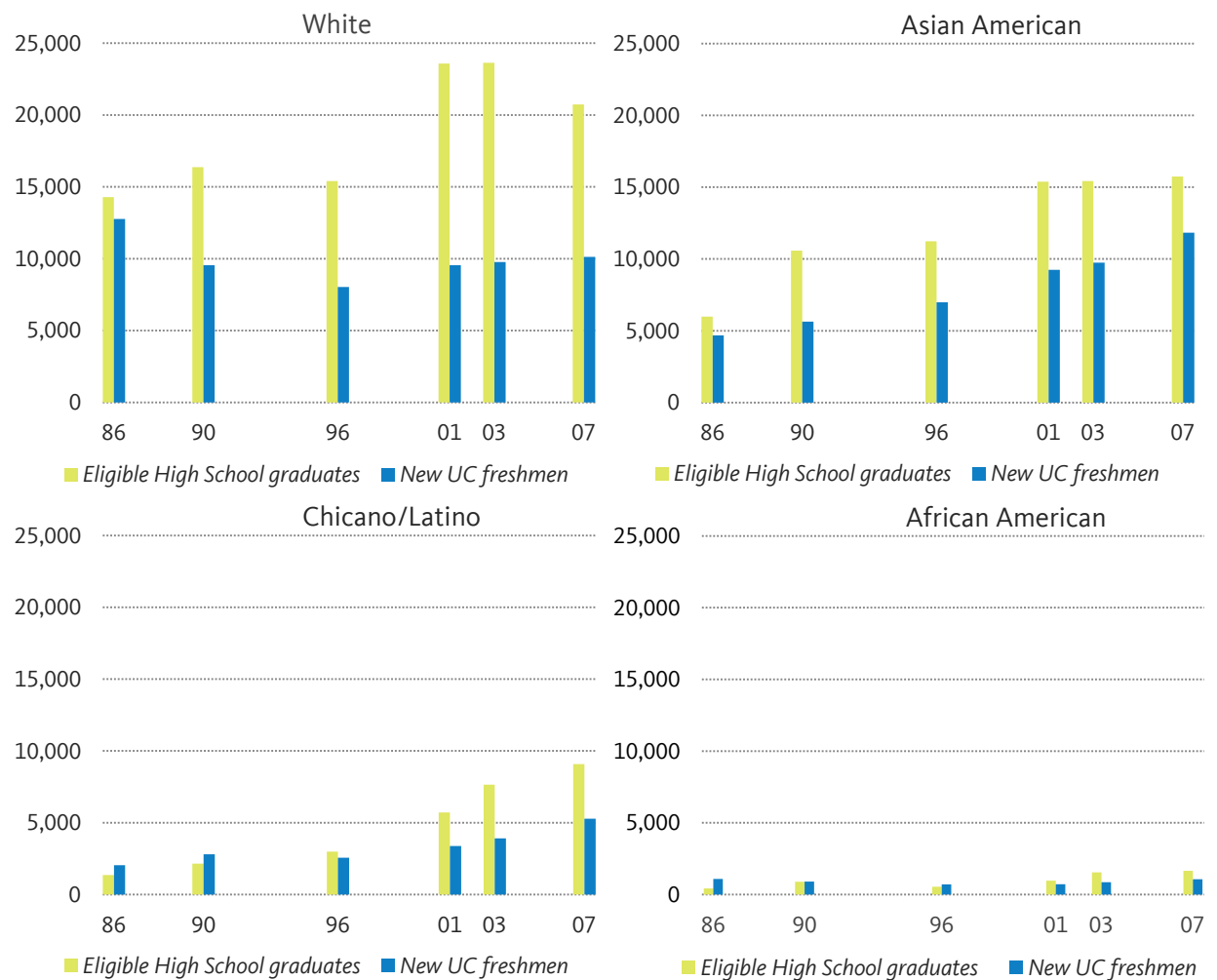
<sup>1</sup> The 2008 and 2010 data were combined because of the small number of respondents who chose some of the categories. The LGBQ category includes: Gay/lesbian, Bisexual, Self-identified Queer, and Questioning/Unsure. The Other category is its own category in UCUES; the data shown here do not include any other responses. Because the numbers for some of the groups are small, campus data are not reported separately. See the appendix for additional detail.



## 8.4 UNDERGRADUATE DIVERSITY PIPELINE

During the past decade, the number of Chicano/Latino high school graduates eligible for admission to UC has grown significantly. This reflects both growing numbers of California high school graduates who are Chicano/Latino and continued improvement in their academic performance in high school.

### 8.4.1 Eligible high school graduates and new UC freshmen by racial/ethnic group Universitywide Selected years

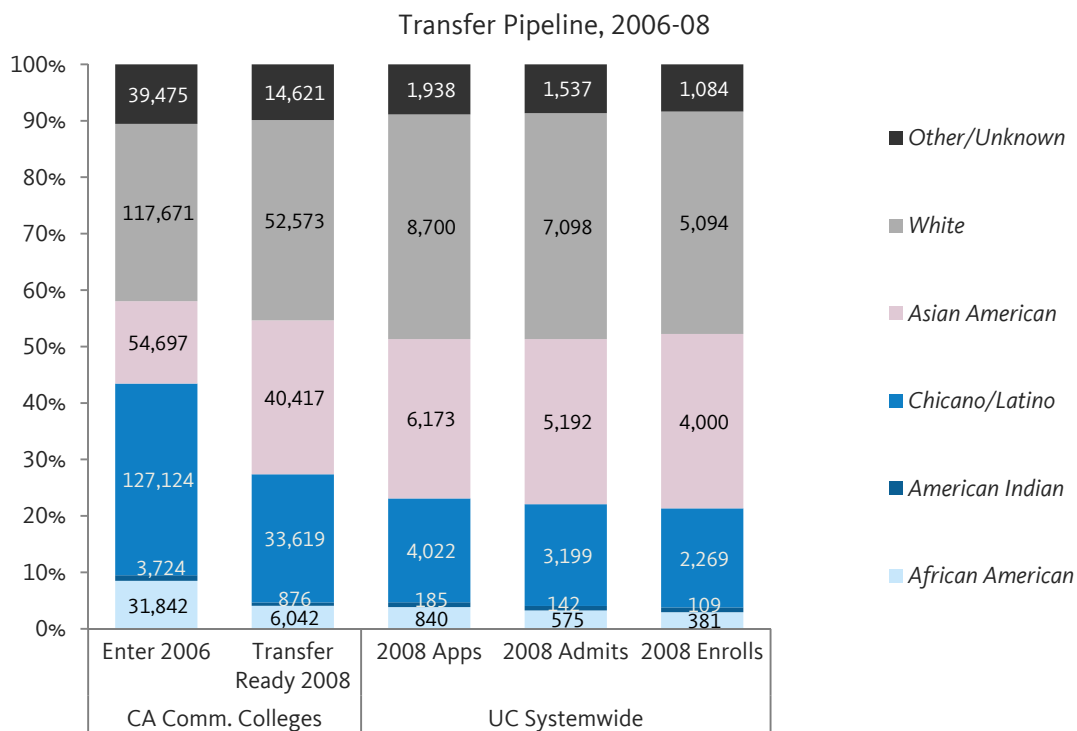


Source: California Postsecondary Education Commission

## 8.4 UNDERGRADUATE DIVERSITY PIPELINE

### The cohort of California community college students who were ready to transfer to a 4-year institution in 2008 was less diverse than the entering class two years prior.

8.4.2 Transfer pipeline to UC by racial/ethnic group  
 Universitywide  
 2008 entering class



Source: UC Corporate Student System

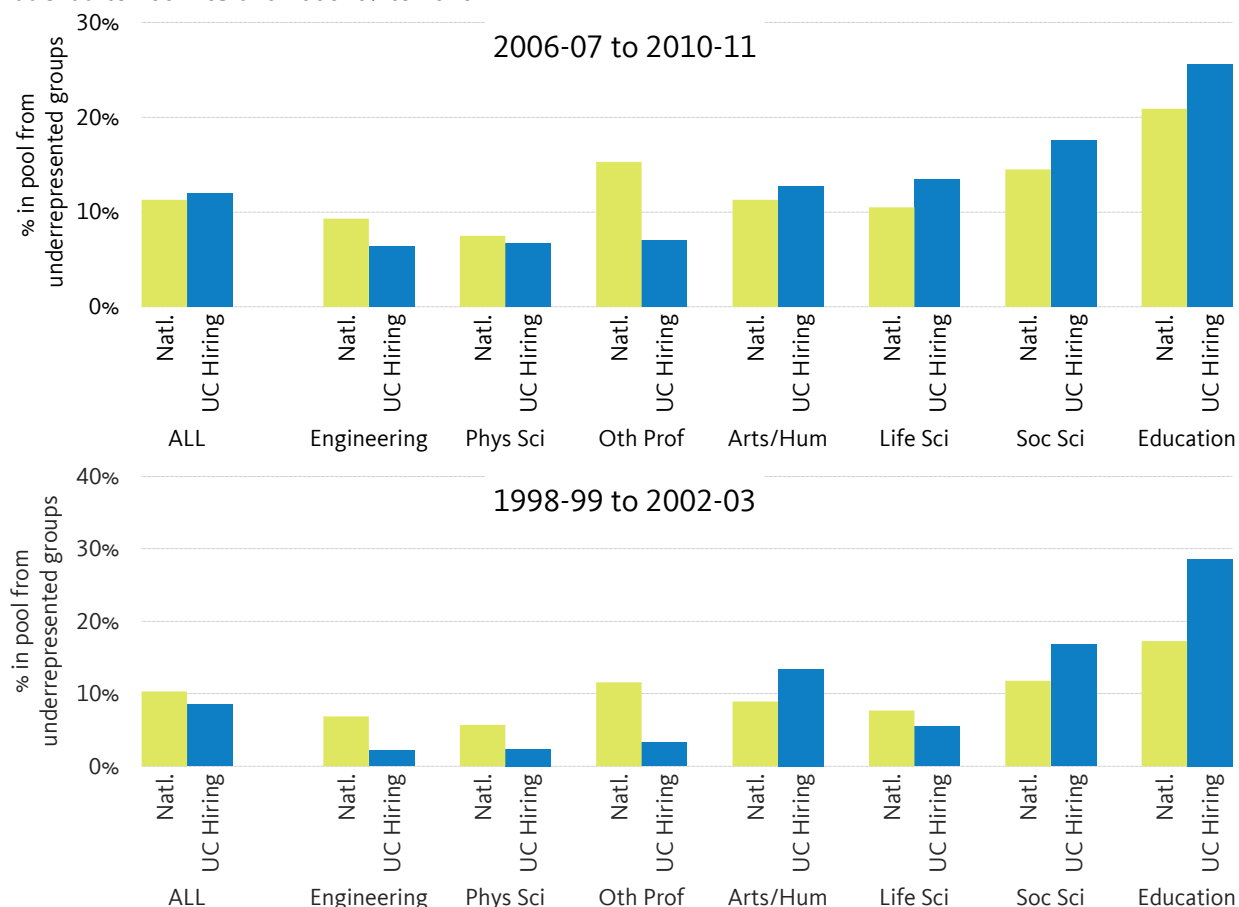
California Community Colleges use the term “transfer ready” to describe students who have completed two years of transferable English and math courses with a minimum GPA of 2.0.

Many students enter the CCC system with goals other than transferring to a four-year institution. Still, the large differences between entering CCC freshmen and the number of all CCC students who are “transfer ready” two years later points to a challenge for the CCCs as well as UC: how to help more CCC students from all racial/ethnic groups complete the requirements for transferring to a four-year college.

## 8.5 FACULTY DIVERSITY PIPELINE

### 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.

8.5.1 New assistant professors compared to national availability for underrepresented minorities by discipline Universitywide  
1998–99 to 2002–03 and 2006–07 to 2010–11



Source: UC Academic Personnel Department and Survey of Earned Doctorates

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

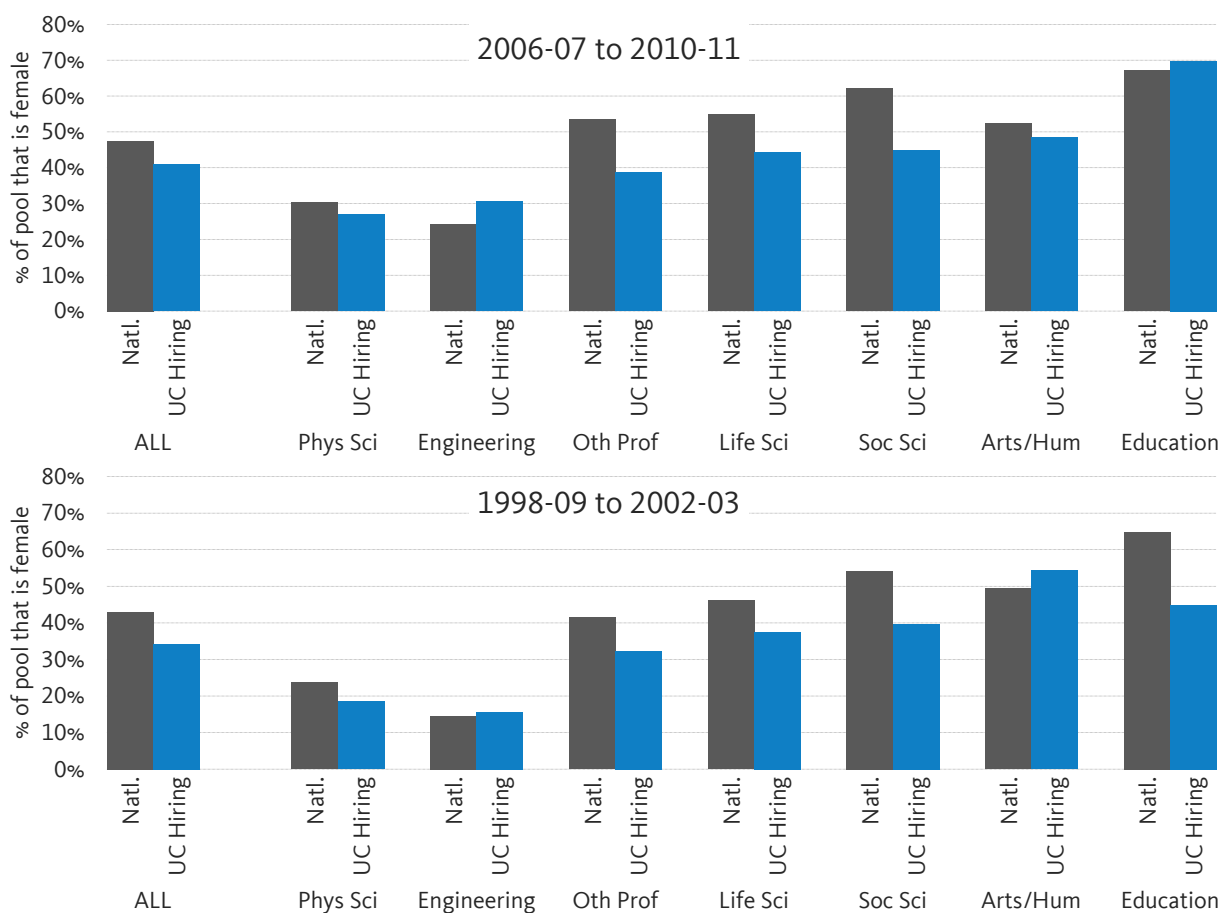
underrepresented minorities accounted for 11 percent of the pool of nationwide doctoral degree recipients between 2006–07 and 2010–11, and 12 percent of UC’s new assistant professors.

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.

## 8.5 FACULTY DIVERSITY PIPELINE

**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.**

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



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.

<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. See the appendix for additional details.

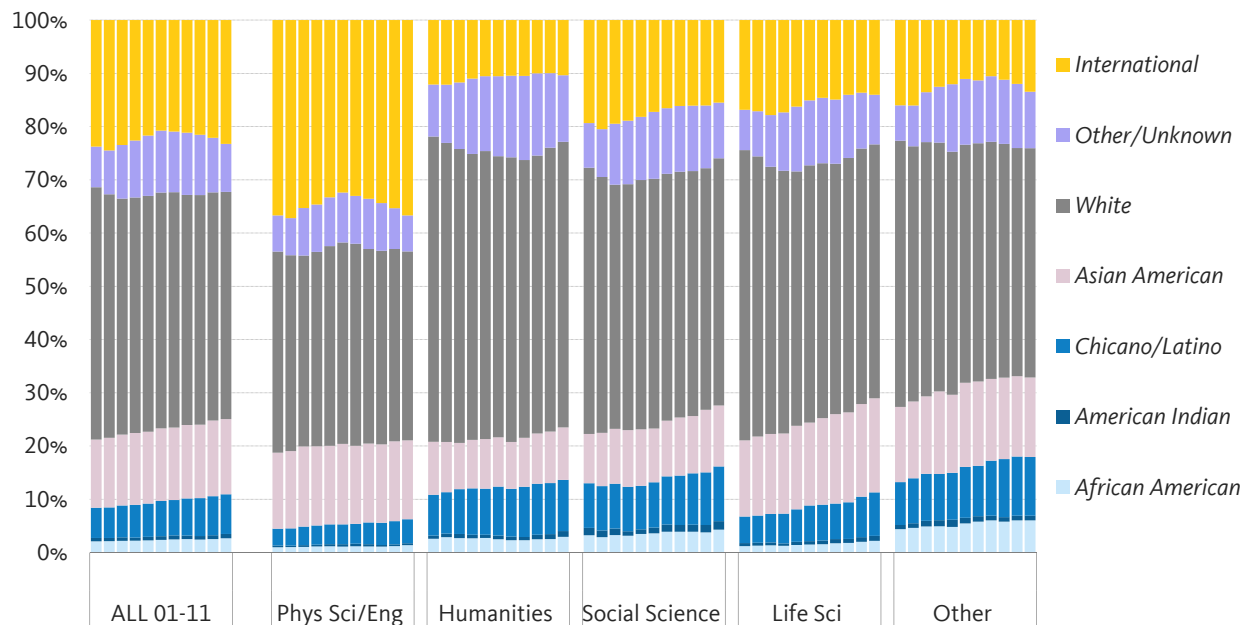
## 8.6 DIVERSITY OF GRADUATE ACADEMIC STUDENTS

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

#### 8.6.1 Racial/ethnic distribution of graduate academic students by discipline

Universitywide

Fall 2001 to 2011



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

The racial/ethnic diversity of UC graduate academic students is comparable with that for research and doctoral institutions nationally, according to data from the National Postsecondary Student Aid Study, 1999–2000 and 2007–08, conducted by the National Center for Education Statistics.

UC campuses have received funding from the National Science Foundation through its Alliance for Graduate Education and the Professorate (AGEP) grant program with the goal of increasing the number of students from underrepresented racial/ethnic groups who acquire doctoral degrees in STEM fields (Science, Technology, Engineering and Math).

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>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.



## 8.6 DIVERSITY OF GRADUATE ACADEMIC STUDENTS

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

### 8.6.2 Gender distribution of graduate academic students by discipline

Universitywide

Fall 2001 to 2011



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.

However, according to data from the National Postsecondary Student Aid Study (NPSAS) 1999–2000 and 2007–08, the proportion of women who are in graduate academic students programs at UC is comparable to that for research and doctoral institutions nationally.

<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.

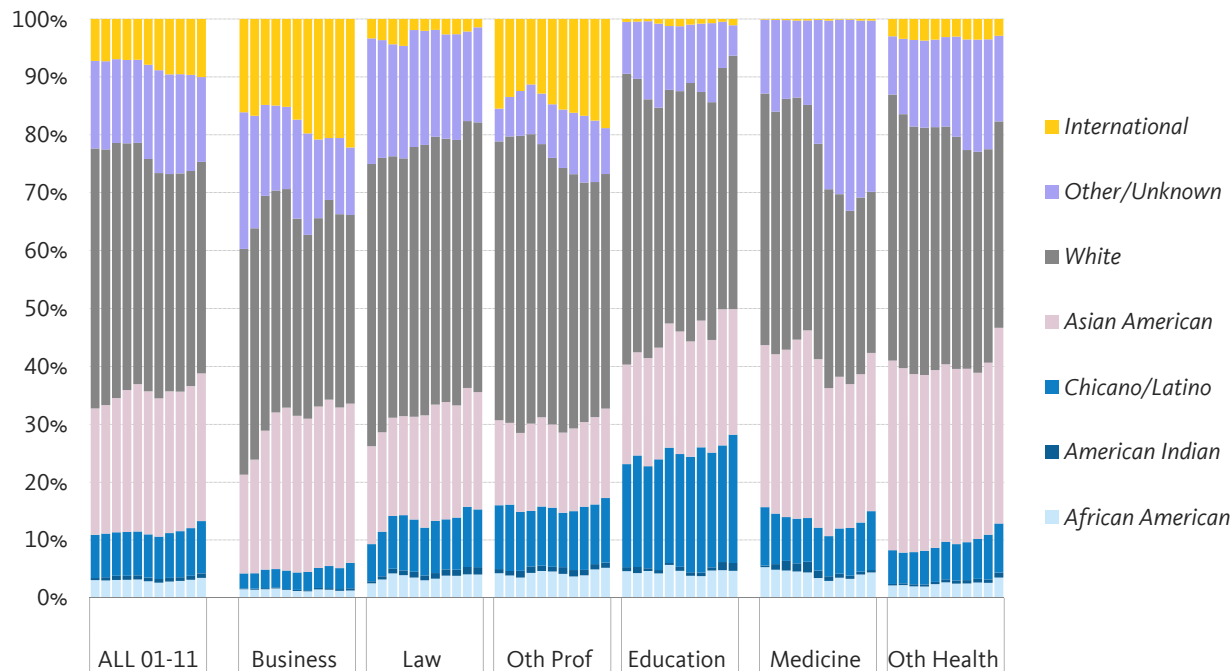
## 8.7 DIVERSITY OF GRADUATE PROFESSIONAL DEGREE STUDENTS

### The proportion of underrepresented minorities enrolled in UC’s professional degree programs varies widely — lowest in business and highest in education.

#### 8.7.1 Racial/ethnic distribution of graduate professional degree students by discipline

Universitywide

Fall 2001 to 2011



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

Overall, students from underrepresented groups constituted 13 percent of all professional degree students in 2010–11 compared to 11 percent in 2000–01.

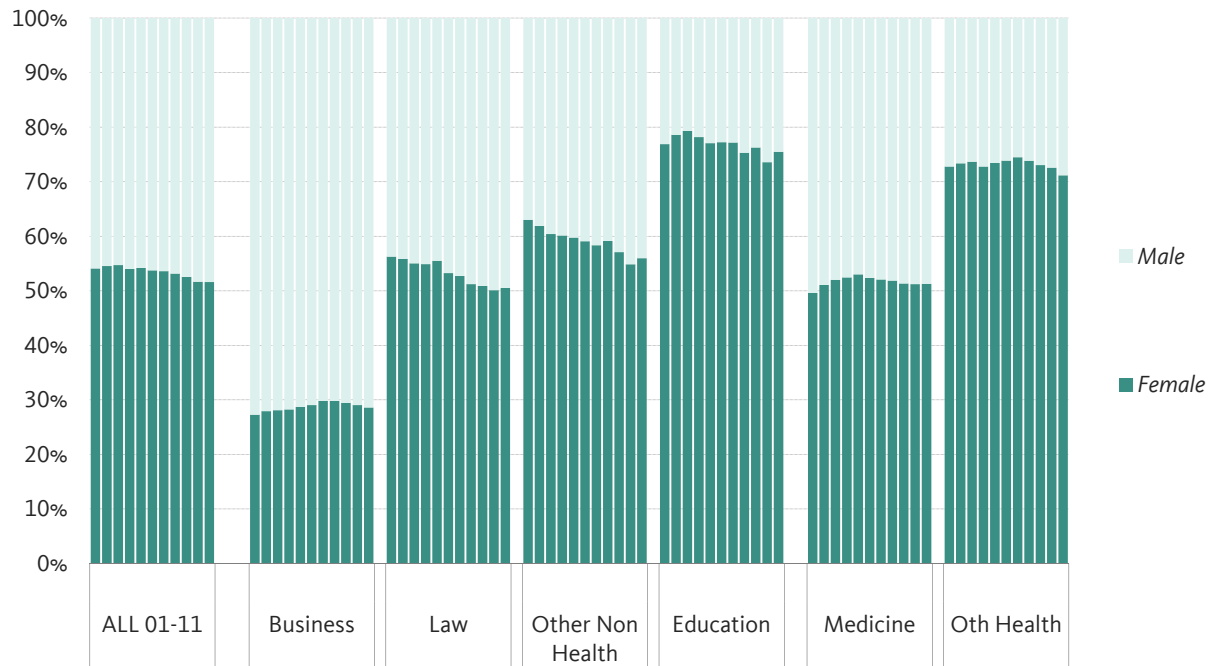
The picture is comparable at research and doctoral institutions nationally. However, according to the National Postsecondary Student Aid Study 2007–08, UC enrolled proportionately fewer underrepresented minorities in business than did comparable programs at research and doctoral institutions nationally (4.5 percent vs. 12.8 percent).

<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.

## 8.7 DIVERSITY OF GRADUATE PROFESSIONAL DEGREE STUDENTS

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

8.7.2 Gender distribution of graduate professional degree students by discipline  
Universitywide  
Fall 2001 to 2011



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 the National Postsecondary Student Aid Study (NPSAS) 2007–08, UC enrolled substantially fewer women in business than comparable programs at research and doctoral institutions nationally (29.8 percent vs. 48.6 percent).

<sup>1</sup> “Other Health” includes dentistry, nursing, optometry, pharmacy, public health and veterinary medicine; “Other Disciplines” includes 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 research. Using survey data, it reports students' reflections on their undergraduate education — the extent to which they have developed mastery in their chosen fields or 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

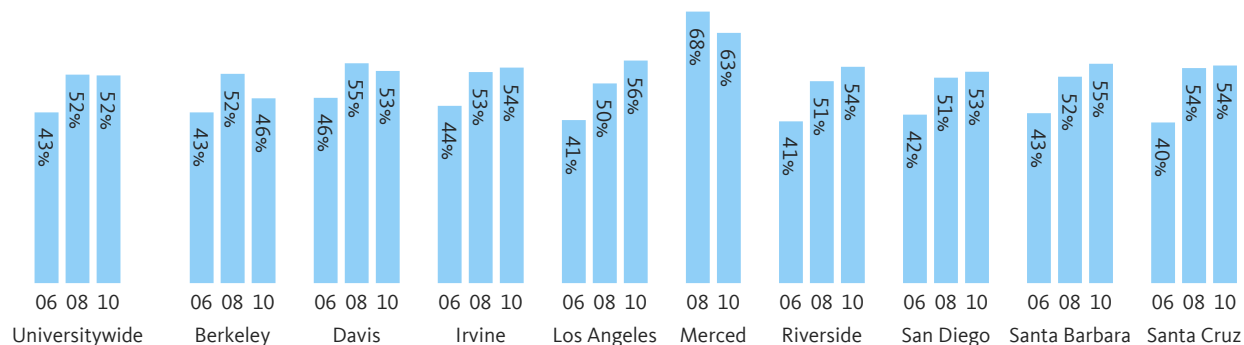
The University of California has undergone considerable and rapid changes in the last decade in its size and shape and in the level and source of funds available to support instruction. These changes have led to increases in tuition, growth in average class sizes, reductions in course availability, and 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.



## 9.1 THE UNDERGRADUATE RESEARCH EXPERIENCE

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 senior-year, small research seminar with a faculty member has remained stable.

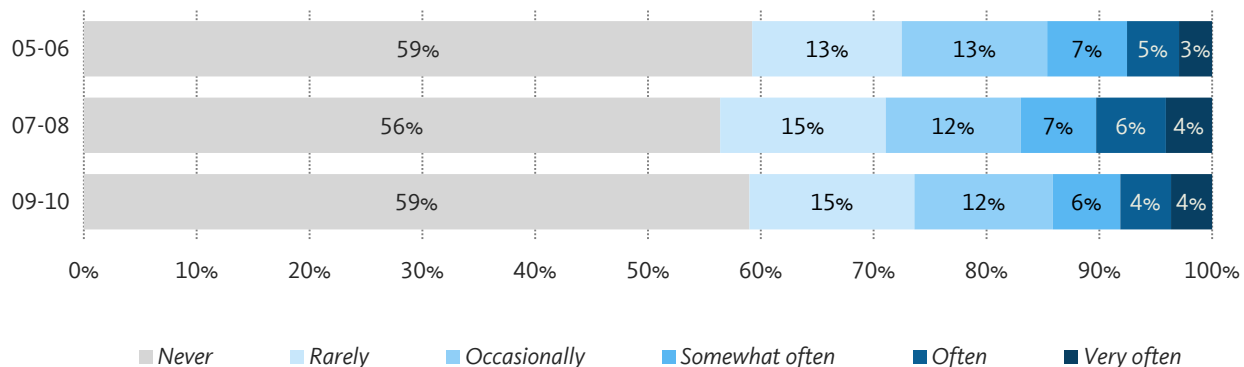
### 9.1.1 Seniors who assisted faculty in research or a creative project Universitywide and UC campuses 2005–06, 2007–08 and 2009–10



Source: UCUES<sup>1</sup>

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

#### Universitywide 2005–06, 2007–08 and 2009–10



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

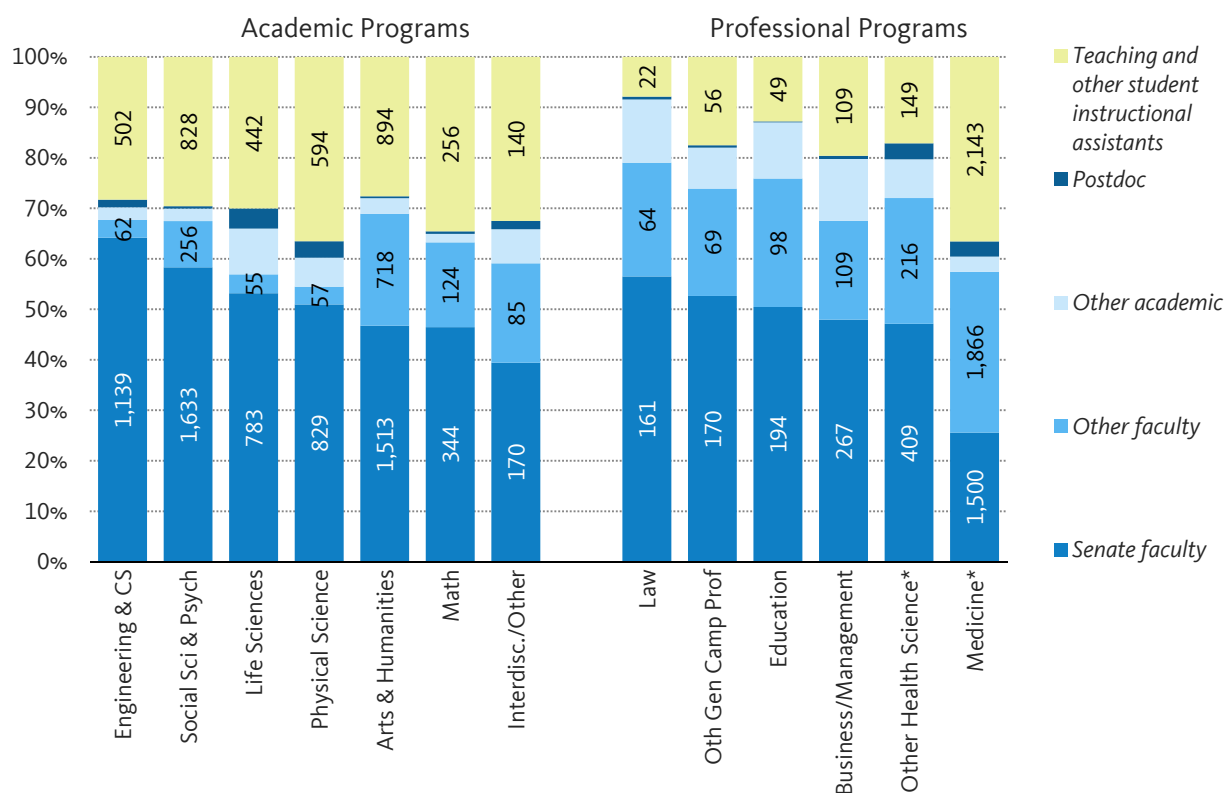
most recent UCUES survey was conducted in spring 2012; results will appear in the July 2013 Accountability Report.

<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."

## 9.2 THE INSTRUCTIONAL WORKFORCE

### 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 2010–11



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

In most disciplines, Senate faculty contribute more than half of the instructional workforce. There are two exceptions. Medicine relies more heavily for instruction on non-Senate faculty, who also have other clinical roles. 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 teach primarily non-credit lab and discussion sections that complement a lecture course.

<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.

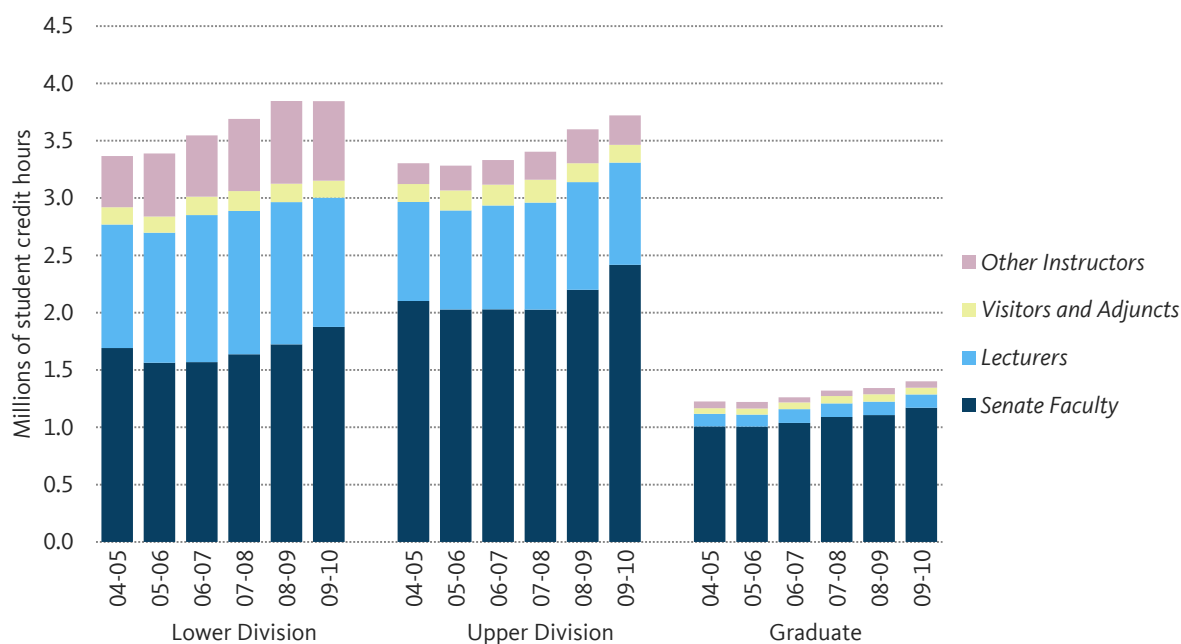


## 9.3 STUDENT CLASSROOM INSTRUCTORS

### 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 2009–10



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

Student credit hours (SCH) is one measure of faculty teaching workload, defined 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, and can serve as a proxy for the types of instructors students will come into contact with as they progress through their academic careers.

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

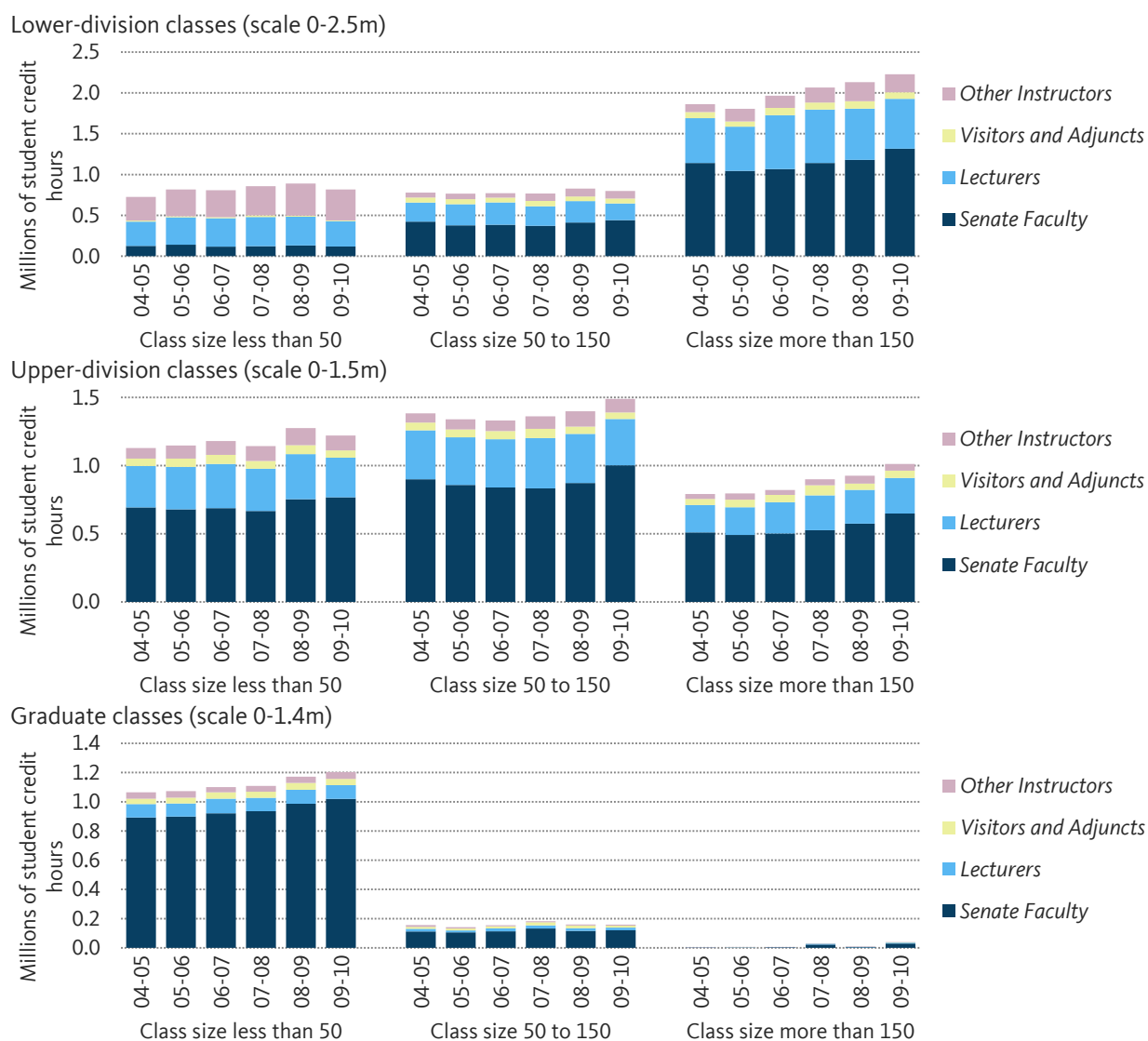
The increase in SCH provided by Senate faculty over the past few years reflects the impact of increasing enrollments and reductions in faculty numbers (see Indicators 6.1 and 6.2).

<sup>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. See the appendix for additional details.

### 9.3 STUDENT CLASSROOM INSTRUCTORS

**In 2009–10, 21 percent of lower-division credit hours were earned in courses with less than fifty students, compared to 33 percent of upper-division credit hours.**

9.3.2 Student credit hours by faculty appointment, class type and class size  
Universitywide  
2004–05 to 2009–10



Source: UC Faculty Instructional Activities dataset

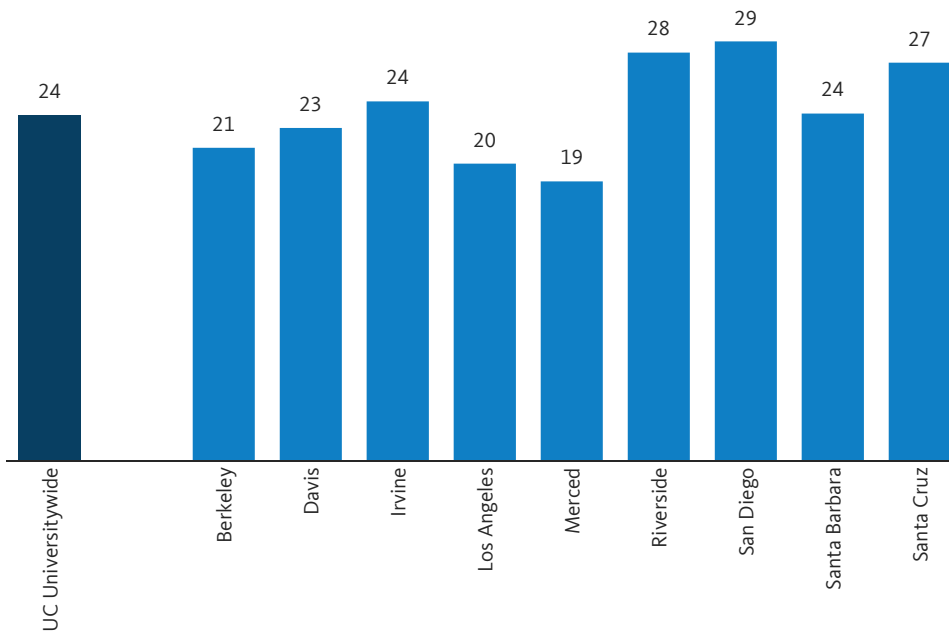
The distribution of student credit hours gives a sense of how students experience their courses and instructors. Lower-division students are often taught by Senate faculty in large lecture classes or by non-Senate faculty in small general education requirement classes. Upper-division students' contact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

## 9.4 STUDENT-FACULTY RATIO

**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.

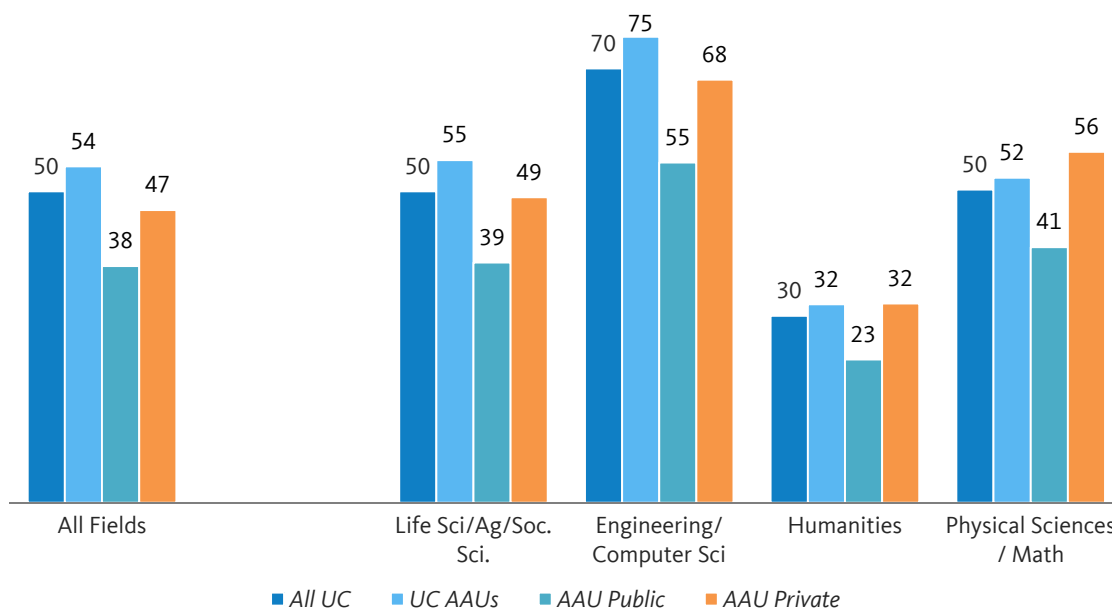
Student-faculty ratios are strongly influenced by an institution's financial resources and the size of its graduate programs. Graduate programs are influential because their small class sizes bring down (improve) an institution's student-faculty ratio.

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

## 9.5 DOCTORAL DEGREE PRODUCTION

**Overall, UC campuses confer more doctoral degrees per tenured and tenure-track faculty member than other 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 through 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 masters 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.

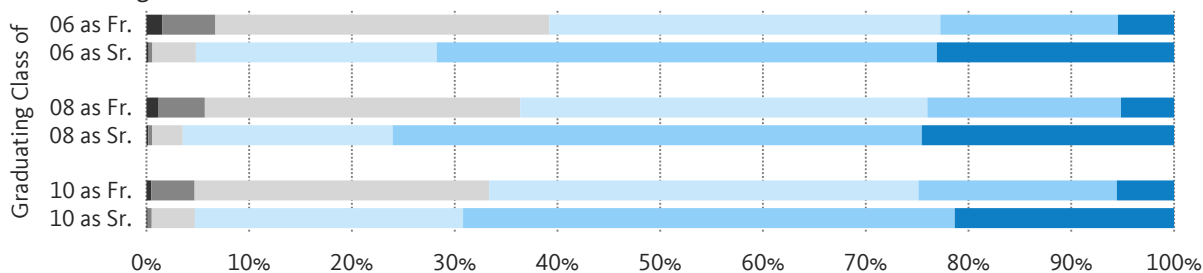
<sup>1</sup> UC Campus data excludes UC San Francisco, a Health Sciences campus.

## 9.6 UNDERGRADUATE LEARNING OUTCOMES

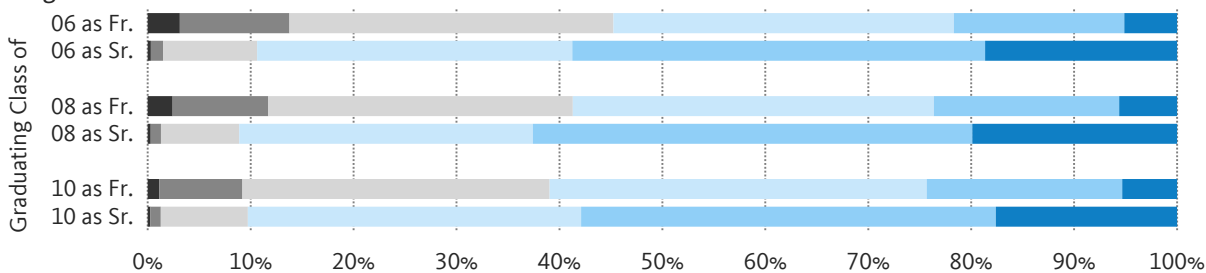
### UC students report experiencing significant gains between their freshman and senior years in their critical-thinking skills, writing skills and understanding of a specific field of study.

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

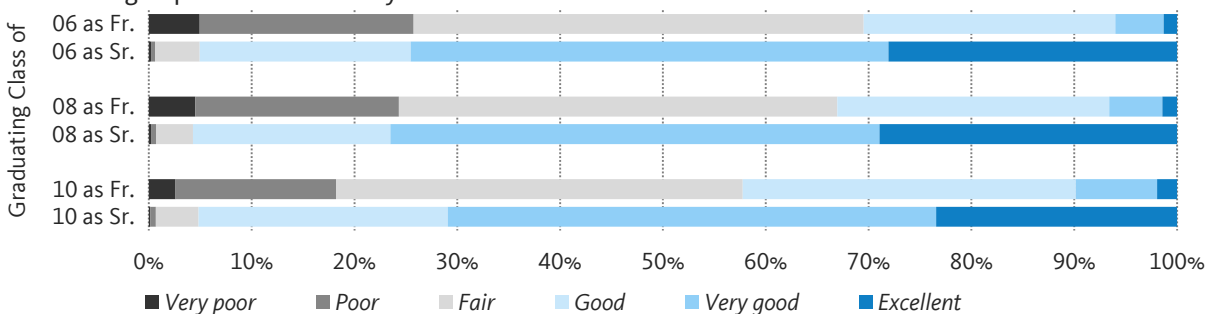
#### Critical-thinking skills



#### Writing skills



#### Understanding a specific field of study



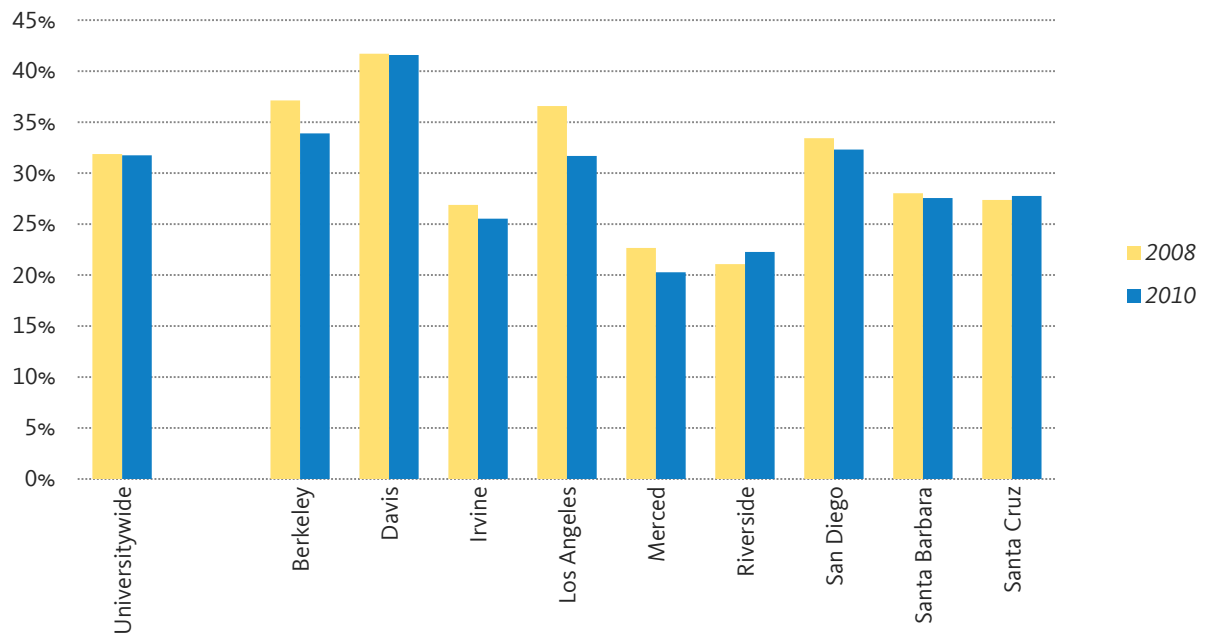
Source: UCUES

Data from the 2008 UCUES survey show that undergraduate students feel they have benefited greatly from their UC education. In the spring 2010 survey, however, the reported gains in learning outcomes were not quite as large. This will be monitored after the next administration of the survey in 2012 to determine if this lies within normal statistical variation or if it portends a trend that calls for action.

## 9.7 INTERNSHIPS

**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  
2008 and 2010



Source: UCUES

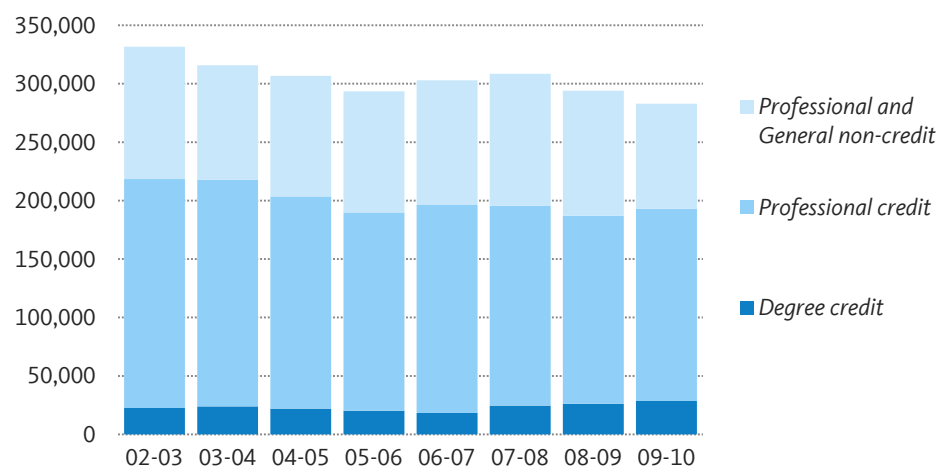
Types of internships vary from research-oriented positions with UC faculty members to clinical and cooperative learning assignments.

In 2010, about 14 percent of students had internships under the direction of a faculty member while 23 percent had another type of internship. Six percent of undergraduates reported having both types.

## 9.8 CONTINUING EDUCATION

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

9.8 Continuing education enrollments  
Universitywide  
2002–03 to 2009–10



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>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.







# Chapter 10. Research

## Goals

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 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. This emphasis on research finances

demonstrates the increasing importance of research at UC, which has easily kept pace with the growth of the University as a whole, and 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

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.

## For more information

Additional information on the academic quality of UC research can be found in the January 2010 *Accountability Sub-Report on the Research Enterprise*, at [www.universityofcalifornia.edu/accountability/report.html#subreports](http://www.universityofcalifornia.edu/accountability/report.html#subreports).

*UC's Budget for Current Operations 2012–13* contains information on the contributions and impacts of UC's research enterprise on the California economy. It can be found at <http://budget.ucop.edu/rbudget/201213/2012-13-budget.pdf>.

The Office of the President's Office of Research and Graduate Studies website, [www.ucop.edu/research](http://www.ucop.edu/research), contains a number of resources about UC's research enterprise.

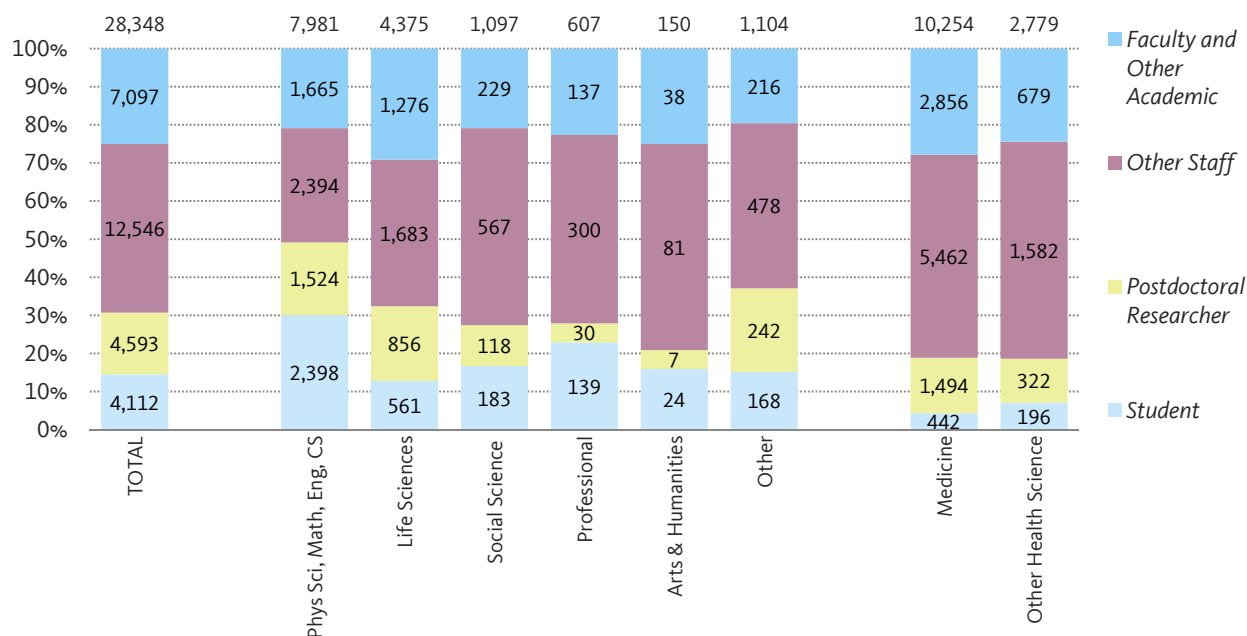
The UCOP Institutional Research Unit provides dashboards on key metrics at [www.ucop.edu/ir](http://www.ucop.edu/ir).



## 10.1 RESEARCH WORKFORCE

**In 2010–11, funded research projects provided employment for more than 28,000 full-time-equivalent personnel. This represents 29 percent<sup>1</sup> of the total UC full-time-equivalent workforce, including student employees.**

10.1 Research workforce by discipline  
Universitywide  
2010–11



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

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

The employment shown above includes only staff and students directly paid by UC or an externally funded research program. 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.

<sup>1</sup> UC has about 96,000 full-time-equivalent employees.

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

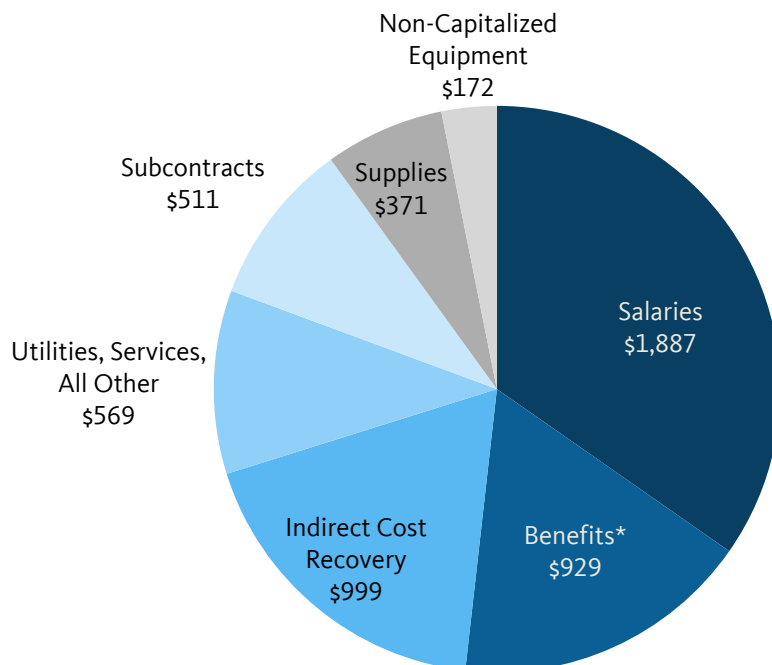


## 10.2 RESEARCH EXPENDITURES

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

10.2.1 Research expenditures by type  
Universitywide  
2010–11

Millions of Dollars, Total = \$5,438 Million



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

Research expenditures of \$5.4 billion in 2010–2011, which includes about \$1 billion in recovered indirect costs, represent nearly one-fourth of UC's total operating budget.

About 17.5 percent of the salaries paid to support research went to ladder-rank and other faculty. More than 22 percent went to post-doctoral researchers and students, primarily graduate students, providing a critical source of support.

#### Research Salary Distribution

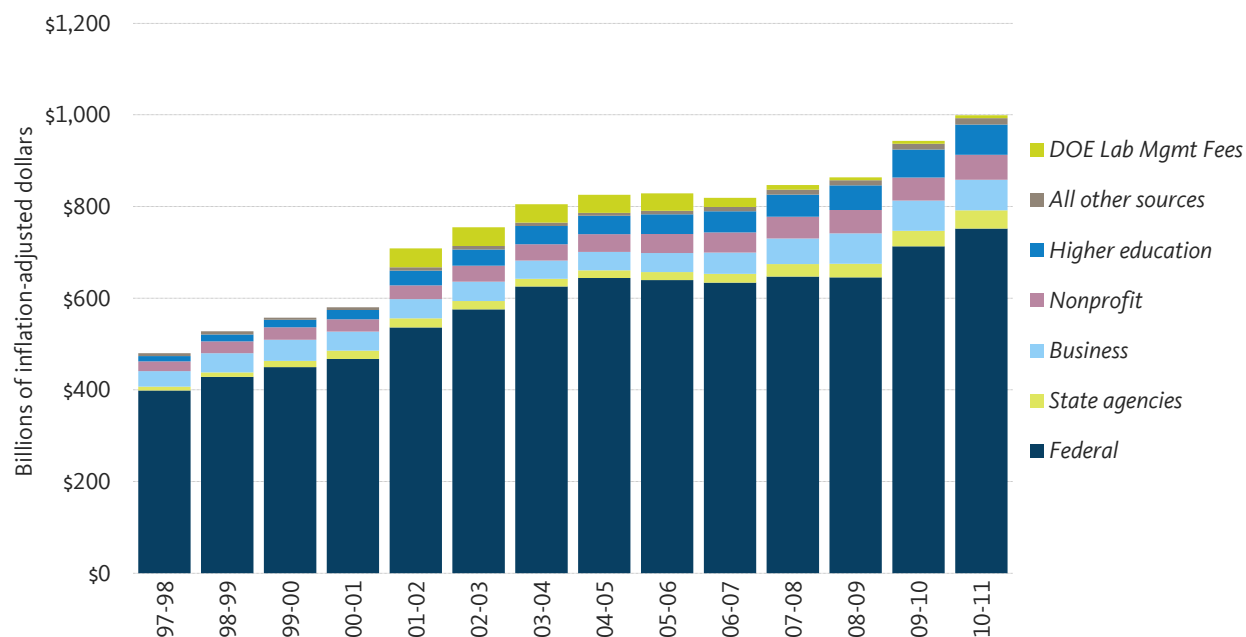
	(\$ millions)
Faculty	332
Academic Researchers	440
Research Support Staff	672
Post-Doctoral Researchers	223
Students	220
<b>Total</b>	<b>1,887</b>

## 10.2 RESEARCH EXPENDITURES

### 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 2010–11



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

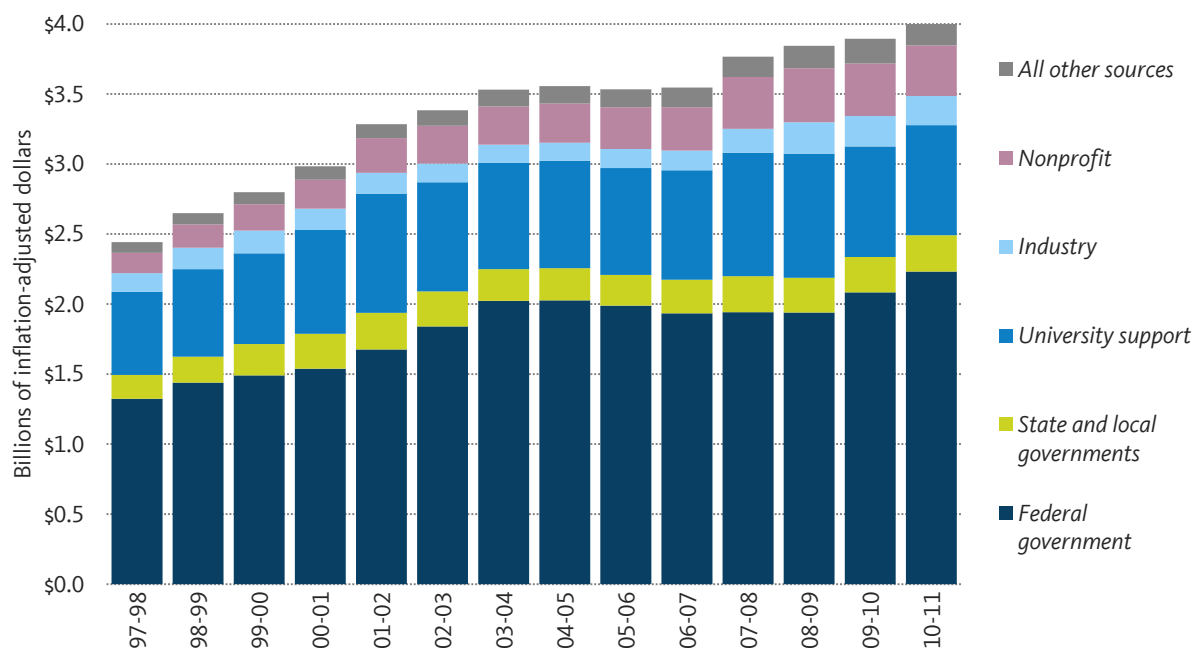
recovery rates vary widely among research sponsors. Rates negotiated with federal agencies are among the highest, but are nonetheless estimated to run between 5 and 18 percentage points below the true indirect costs of conducting research. Most non-federal research sponsors, including corporations, non-profit 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 are higher by about \$600 million annually than what it actually recovers, 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.



## 10.2 RESEARCH EXPENDITURES

### Federally funded research accounts for the majority of all research expenditures.<sup>1</sup>

10.2.3 Direct research expenditures by source  
Universitywide  
1997–98 to 2010–11



Source: UC Corporate Contracts and Grants System<sup>2</sup>

Fifty-five percent of UC’s research expenditures in 2010–11 came directly from federal sources. A further 8 percent of the expenditure total represents federal flow-through funds that came to UC as sub-awards from state and private sources.

More than 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 just over \$1 billion since the program’s inception in 2009.

University support, which accounted for 18 percent of all direct research expenditures in 2010–11, 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>1</sup> Details on total budget appear in the appendix tables for indicator 12.2.

<sup>2</sup> Amounts have been adjusted for inflation and do not include accrual funds for postemployment retirement benefits or indirect cost recovery funds.

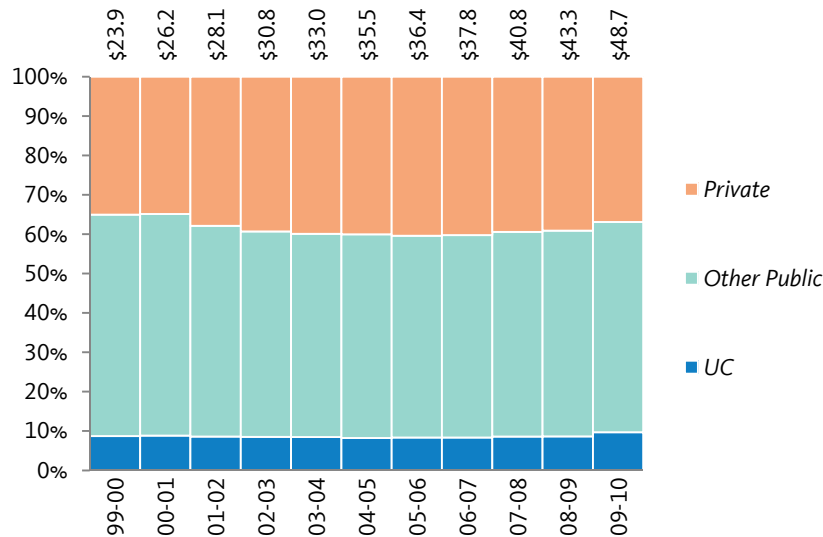
## 10.2 RESEARCH EXPENDITURES

### 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 2009–10

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



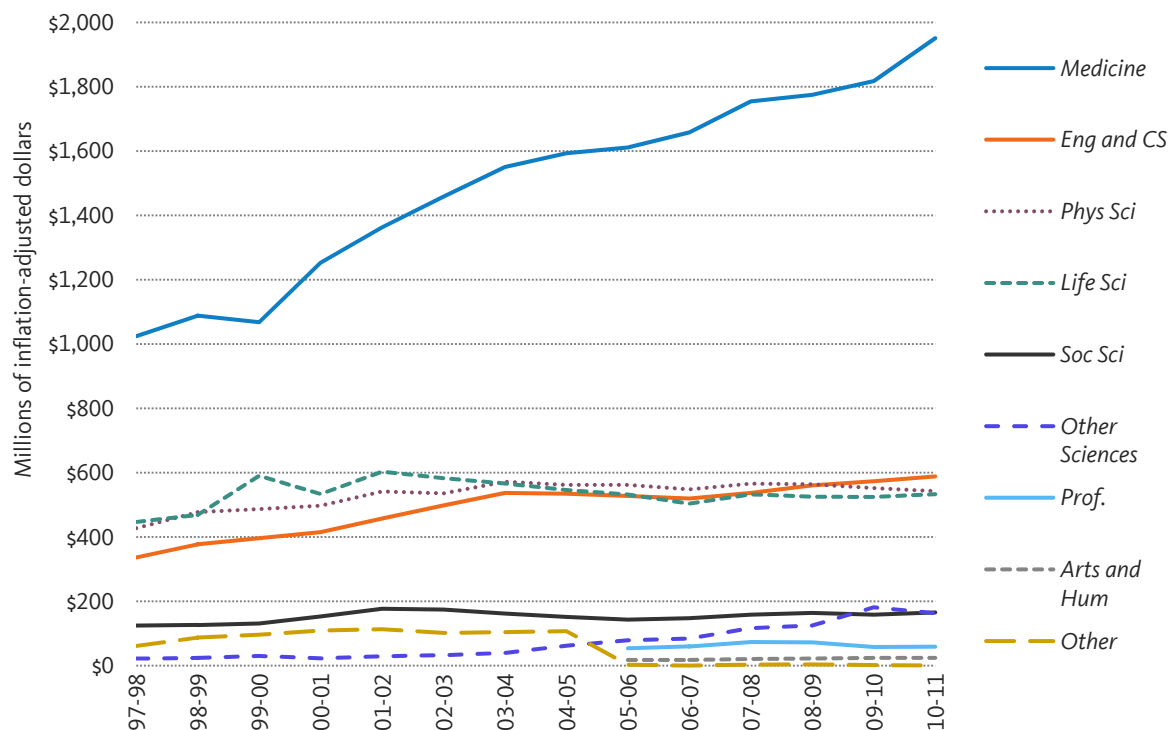
Source: IPEDS

UC's contribution to the university 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.

## 10.2 RESEARCH EXPENDITURES

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

10.2.5 Direct research expenditures by discipline  
Universitywide  
1997–98 to 2010–11



Source: UC Corporate Financial System

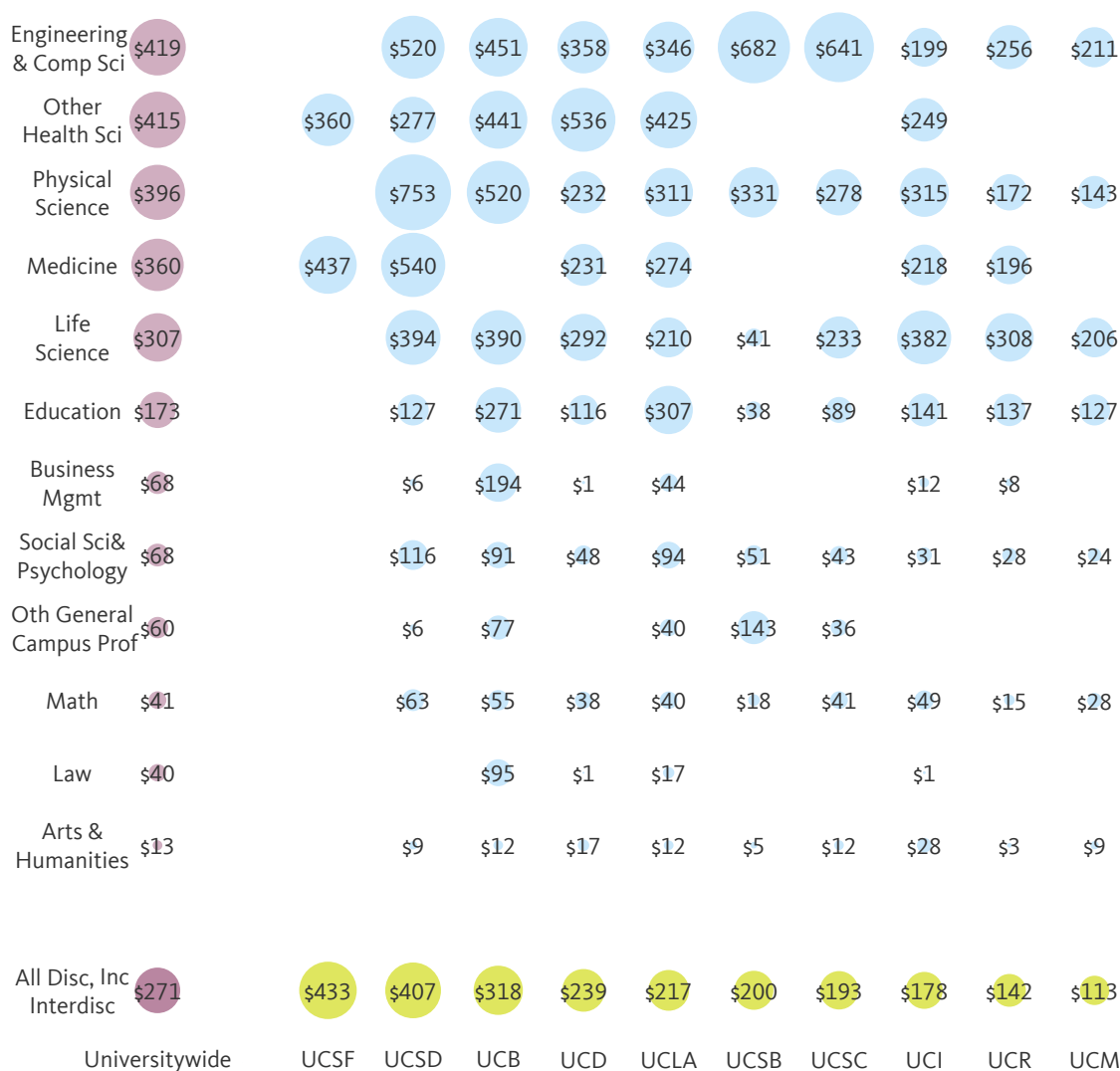
Research expenditures in all STEM (Science, Technology, Engineering and Mathematics) and medical fields represented about 93 percent of total research expenditures each year during the past decade.

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.

## 10.2 RESEARCH EXPENDITURES

### 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 investigator<sup>1</sup> by discipline, thousands of dollars Universitywide and UC campuses 2010–11



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

In 2010–11, UC’s research expenditures were about \$4 billion, and 14,592 individuals were eligible to be principal investigators, resulting in the

Universitywide average of \$271,000 per PI shown in the chart above.

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

<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 that were eligible to serve as principal investigators.

## 10.3 RESEARCH OUTPUT

### 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.

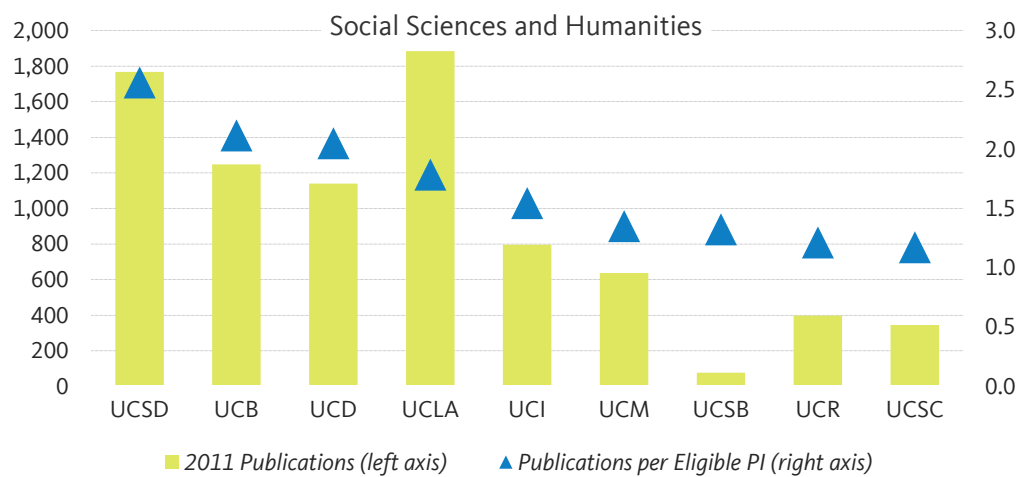
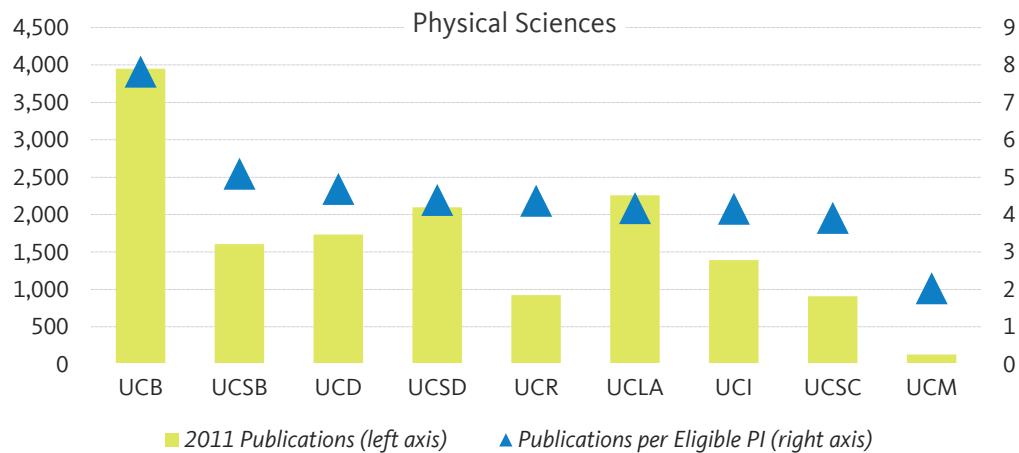
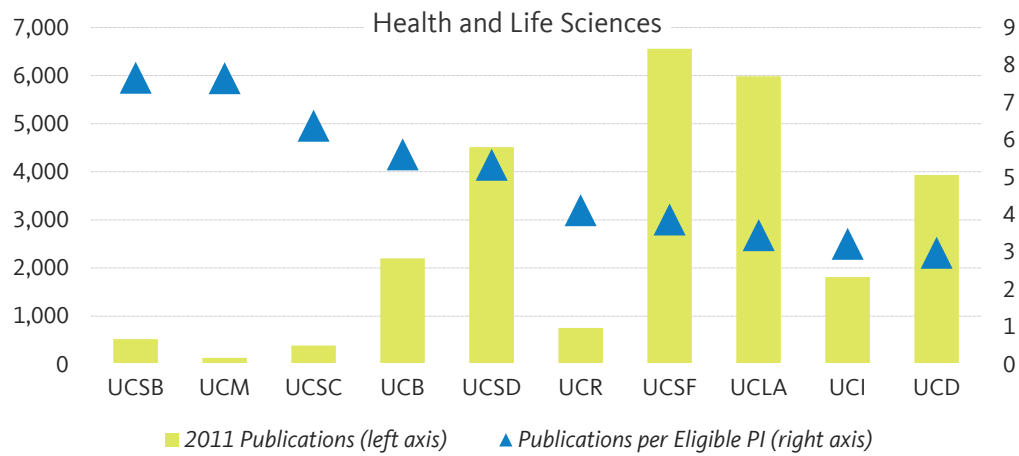
Published outputs cannot be used to compare faculty research productivity across disciplines. While all academic disciplines strive for excellence, different disciplines have different standards of merit and validation in terms of types, frequency and venues for the dissemination of research. Also, the 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 2011 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.

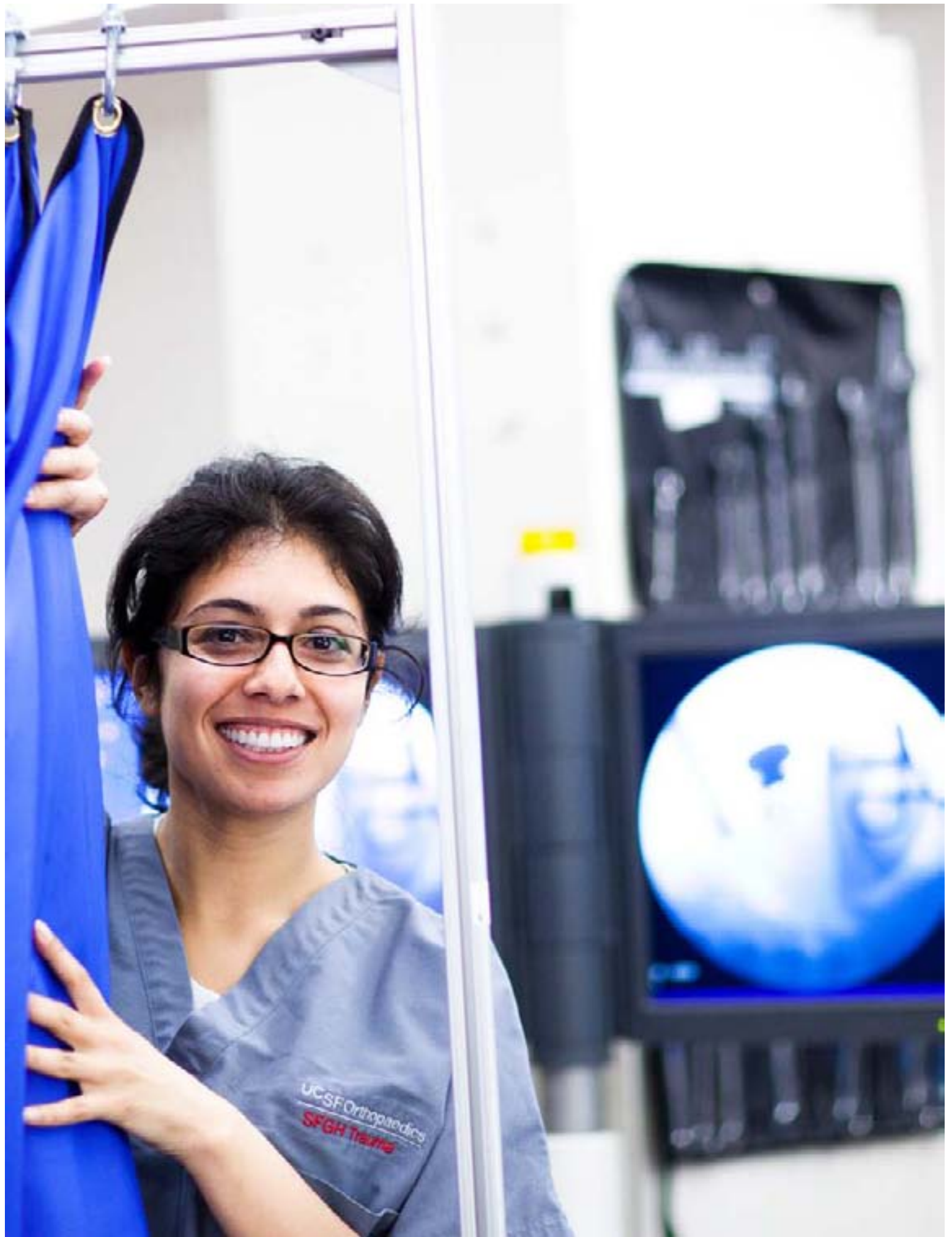
### 10.3 RESEARCH OUTPUT

10.3 Publications by broad discipline and per eligible principal investigator (PI)<sup>1</sup>  
UC campuses  
2011



Source: Web of Science and UC Corporate Personnel System

<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 16 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 program includes five schools of medicine and four smaller medical education programs (located in Berkeley, Fresno, Riverside 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. Active efforts are also underway to transform the medical education program that has operated as a joint effort between UC Riverside and UCLA for more than 30 years into a fully independent UC medical school.

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 850,000 inpatient visits and discharges, 274,000 emergency room visits and 3.8 million outpatient visits each year. Approximately 40 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 health-related 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).

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 15 percent from 2010 to 2025.<sup>1</sup> 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 shifting political environment of health care signals the possibility of changes that threaten this financial success and ability of the medical centers to help support the academic mission of UC Health. 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 new 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

ongoing efforts to open a new medical school at UC Riverside concentrating on the needs of California's Inland Empire. In addition, UC Health has contributed substantially to the development of the California Telehealth Network, a statewide initiative initially led by UC, together with funding from the state's Proposition 1D. This resource will provide needed infrastructure to expand access to specialty services through telemedicine. 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/uhealth](http://www.universityofcalifornia.edu/sites/uhealth), 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:

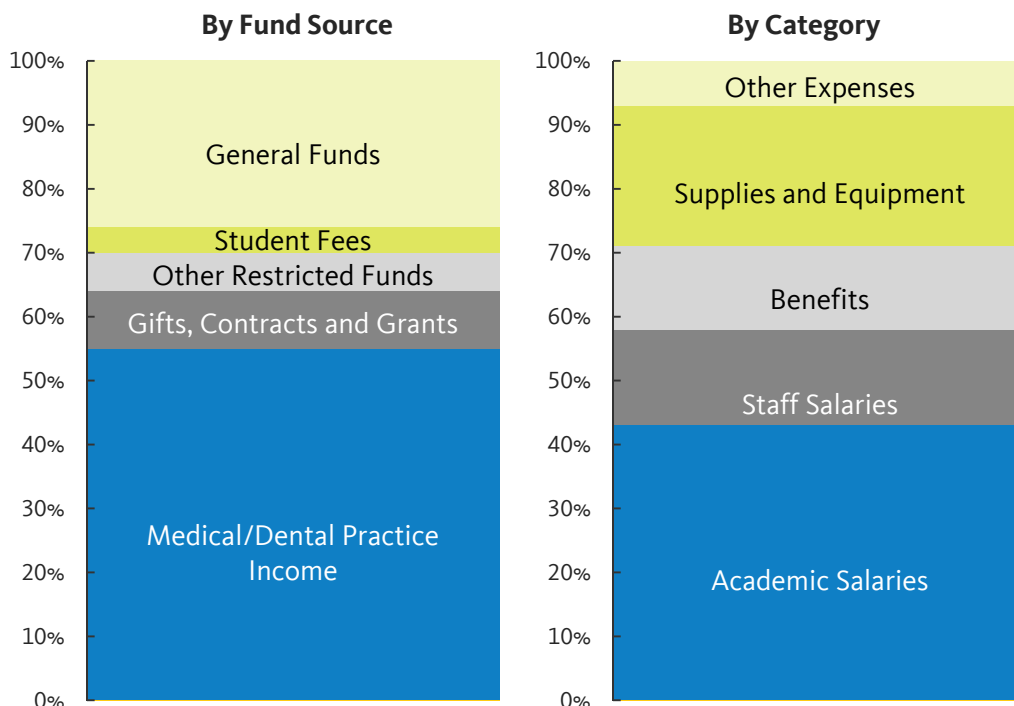
[www.universityofcalifornia.edu/accountability/report.html#subreports](http://www.universityofcalifornia.edu/accountability/report.html#subreports)

<sup>1</sup> CA Department of Finance:  
[www.dof.ca.gov/research/demographic/reports/projections/interim/view.php](http://www.dof.ca.gov/research/demographic/reports/projections/interim/view.php)

11.1 UC HEALTH EXPENDITURES

**Medical and dental practice income supported over half of the instructional expenditures in the health sciences in 2010–11.**

11.1.1 Health science instruction expenditures  
Universitywide  
2010–11



Source: UC 2011–12 Budget for Current Operations<sup>1</sup>

UC general funds provided about a quarter 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.

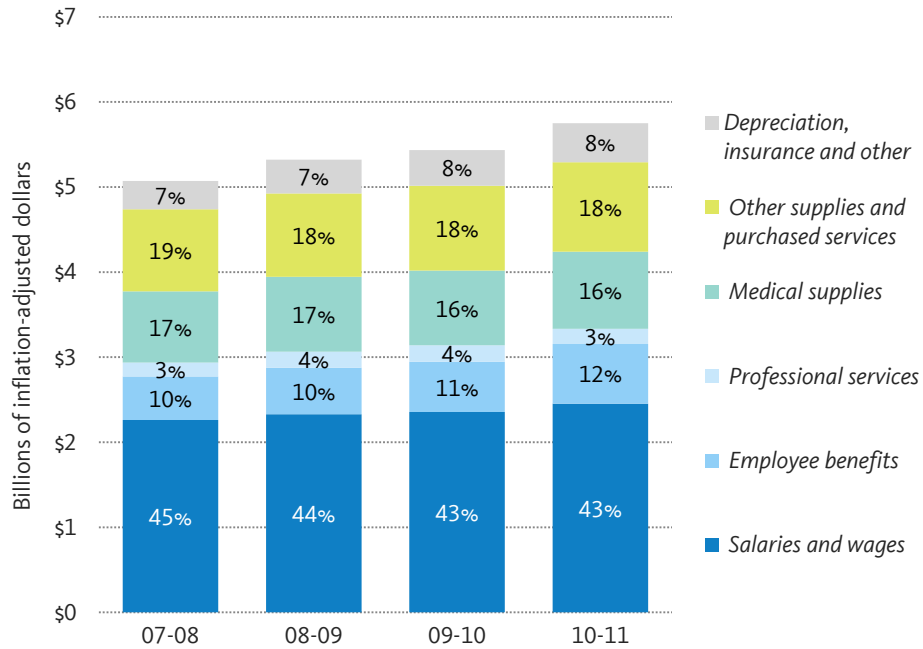
Academic and staff salaries and benefits constitute 70 percent of all health sciences instructional expenditures.

<sup>1</sup> For additional information, see: <http://budget.ucop.edu/rbudget/201112/2011-12-budget-detail.pdf>.

## 11.1 UC HEALTH EXPENDITURES

Reflecting growth in UC's health sciences clinical enterprise, inflation-adjusted medical center operating expenses have increased 13 percent over the past four years.

### 11.1.2 Medical center operating expenses Universitywide 2007-08 to 2010-11

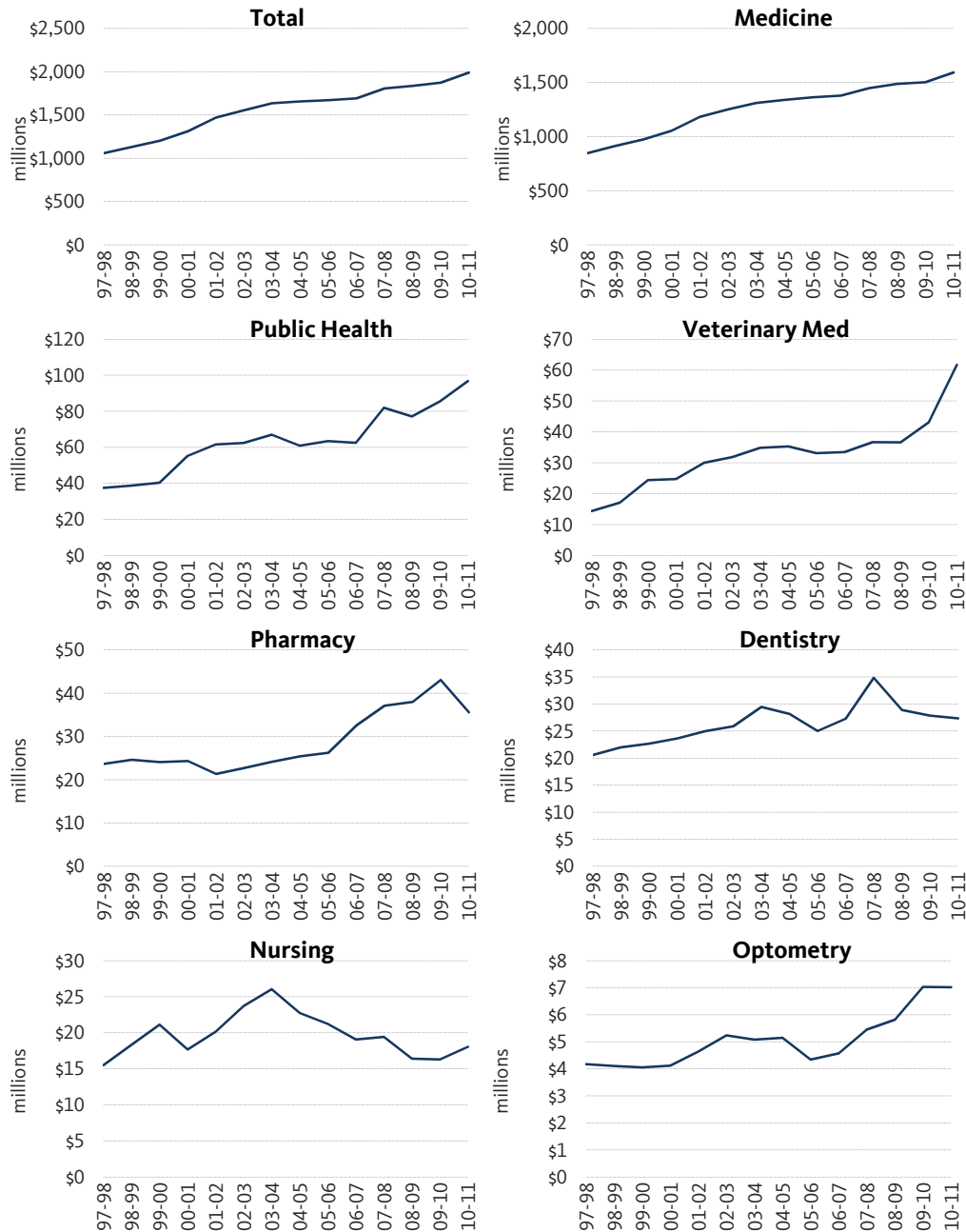


Source: UC Medical Centers Audited Financial Statements

## 11.1 UC HEALTH EXPENDITURES

**Research expenditures in the health sciences made up 49 percent of all UC research expenditures in 2010–11 compared to 43 percent in 1997–98.**

### 11.1.3 Research expenditures by health science discipline Universitywide 1997–98 to 2010–11

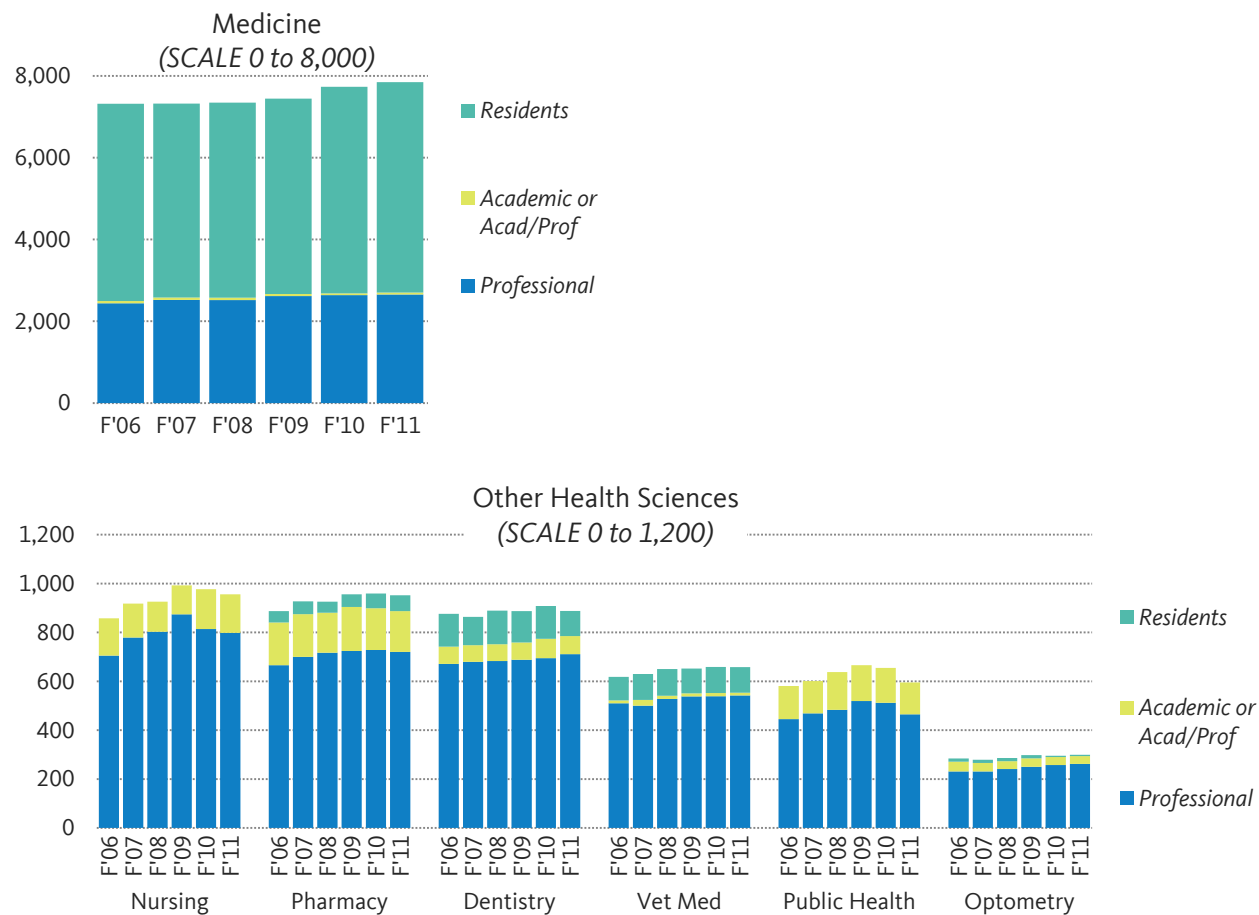


Source: UC Corporate Financial System, adjusted for inflation

## 11.2 UC HEALTH STUDENTS

**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 students.**

### 11.2.1 State-supported graduate health science students by discipline Universitywide Fall 2006 to 2011



Source: UC Corporate Student System

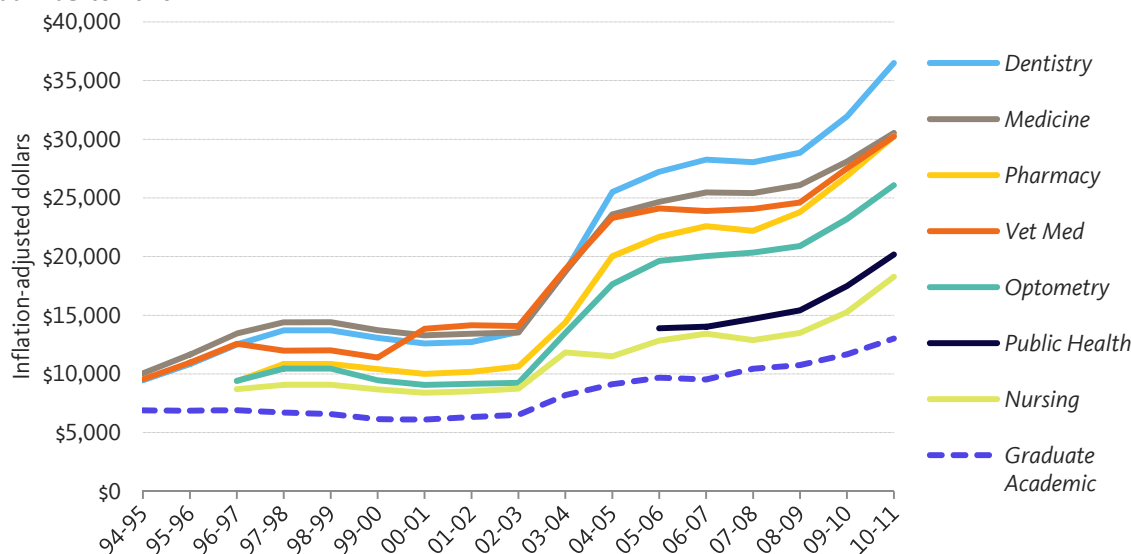
Health science students are in one of three program categories: professional degree programs, academic programs or residency programs. Professional degree programs lead to degrees such as the MD, DDS, or DVM. Academic programs lead to the Ph.D. Residents are professional school graduates (i.e., dental,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

In addition to the approximately 12,000 students and residents described above, there are approximately 2,000 UC Health students in health-related, life-science disciplines such as biomedical science, bioengineering, neuroscience and epidemiology.

## 11.2 UC HEALTH STUDENTS

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

11.2.2 Systemwide total charges (median<sup>1</sup>) for UC Health professional degree students Universitywide 1994–95 to 2010–11



Source: UC Budget Office

Student charges include tuition and fees assessed systemwide to all graduate students, along with professional degree supplemental tuition, campus-based 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 and 2011, total charges for UC medical schools increased from approximately \$13,000 to \$34,000 for California residents — a jump of 162 percent. Total charges now exceed those of comparison public institutions and are moving quickly toward the average for comparison private institutions.

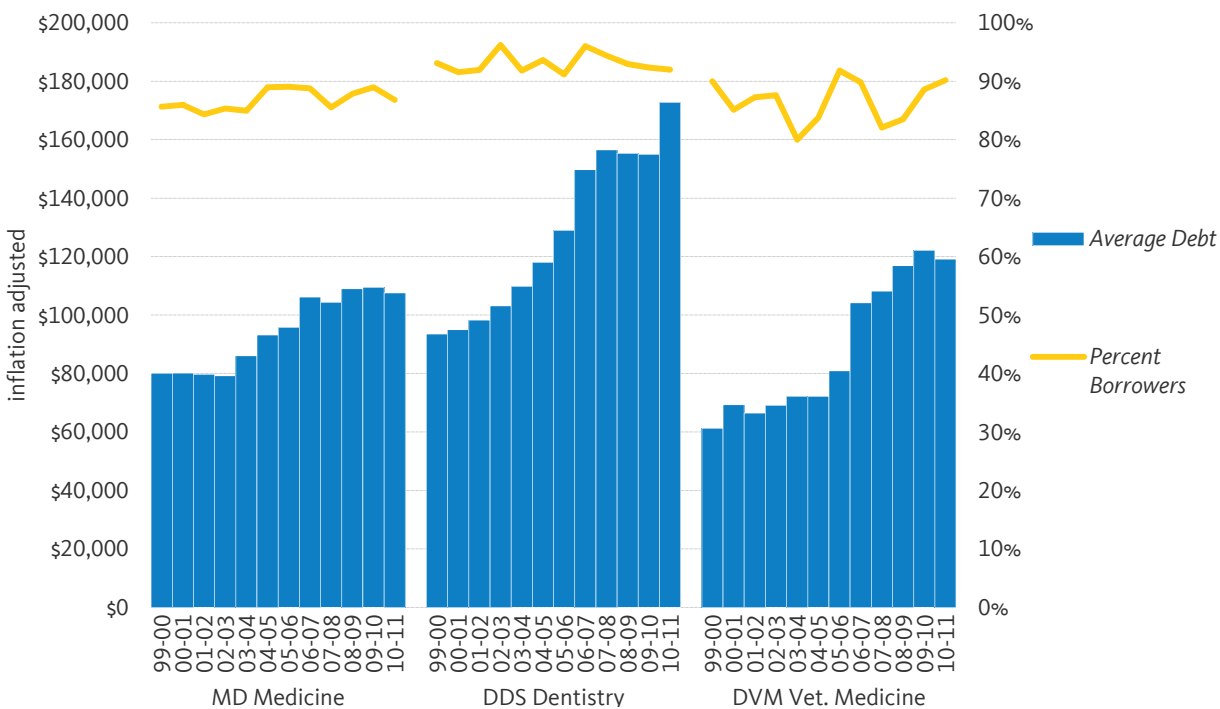
<sup>1</sup> Calculated as the median of total California resident charges at each campus. Includes mandatory tuition and fees (educational and student services), professional degree supplemental tuition, health insurance, campus-based fees, and other fees where applicable. Averages are simple averages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



## 11.2 UC HEALTH STUDENTS

### 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 2010–11



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 \$56,000 in tuition and fees over four years when adjusted for inflation. A medical student graduating in 2011 would have paid approximately \$110,000 (inflation-adjusted). 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 future practice in a medically underserved community or health professions shortage area.

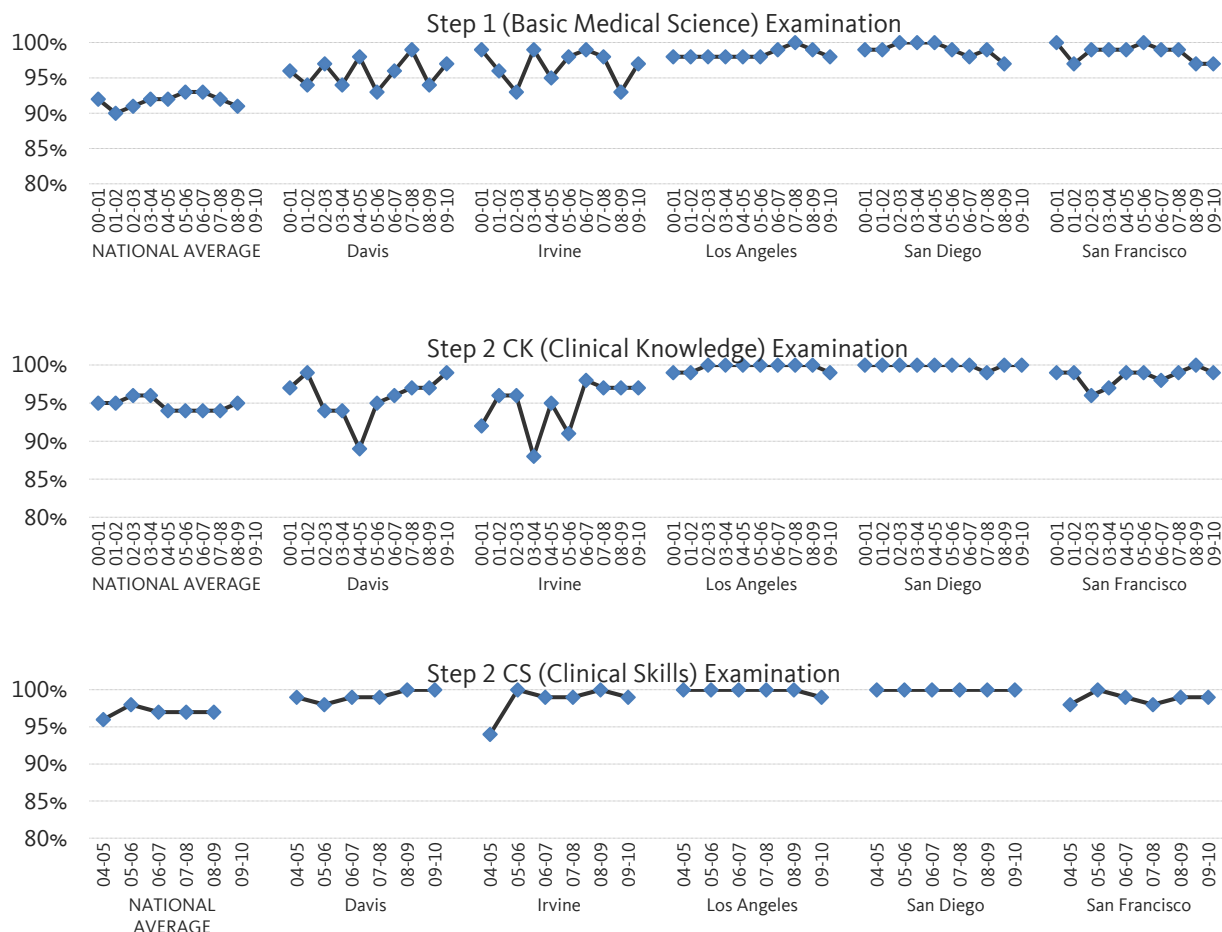
<sup>1</sup> Average debt is for those with debt.

## 11.2 UC HEALTH STUDENTS

### 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  
2000–01 to 2009–10



Source: UC Medical Schools<sup>1</sup>

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.

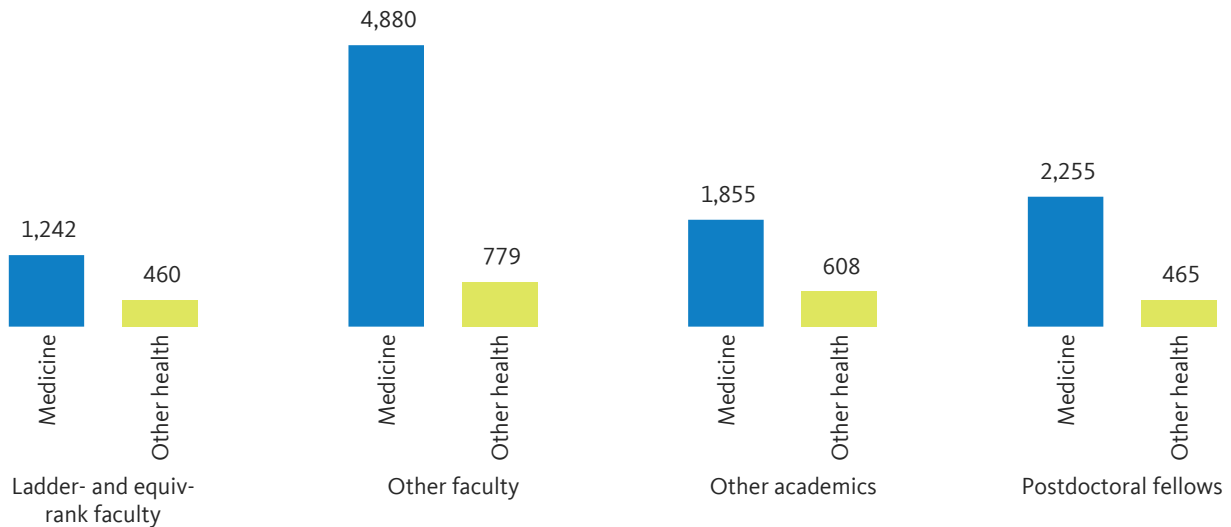
Step 2 assesses whether a student can apply medical knowledge, skills and understanding of clinical science, including emphasis on health promotion and disease prevention. Step 2 has two components: Clinical Knowledge (CK) and Clinical Skills (CS).

<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 includes the United States and Canada. San Diego 09–10 Step 1 pass rates were not available at the time of publication and are expected to be between 96 and 99 percent.

### 11.3 UC HEALTH WORKFORCE

**In fall 2011, about 40 percent of all UC faculty worked in health science disciplines. These faculty made up a fourth of all ladder rank faculty and more than half of all other faculty across the UC system.<sup>1</sup>**

11.3.1 Health science academic workforce by discipline  
Universitywide  
Fall 2011



Source: UC Corporate Personnel System and Decision Support System

Other faculty are primarily clinical faculty; other academics are primarily researchers. In fall 2011, 43 percent of postdoctoral fellows were in health science disciplines.

<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.

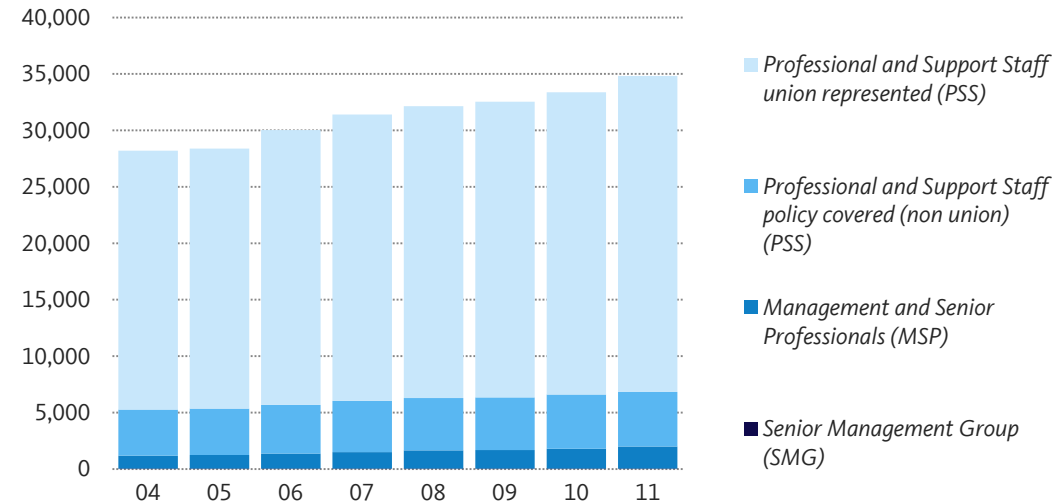
### 11.3 UC HEALTH WORKFORCE

## 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 2011



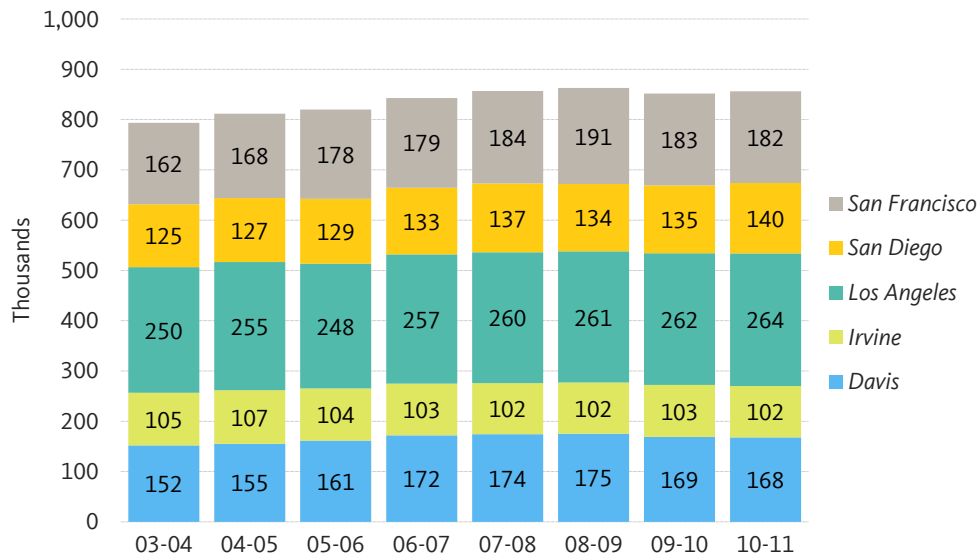
Source: UC Corporate Personnel System

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.

## 11.4 UC HEALTH PATIENT CARE

### UC hospitals provide over 800,000 inpatient days a year and serve a significant number of patients statewide.

11.4.1 Hospital inpatient days  
UC medical centers  
2003–04 to 2010–11



Source: UC Medical Centers' Audited Financial Statements

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.

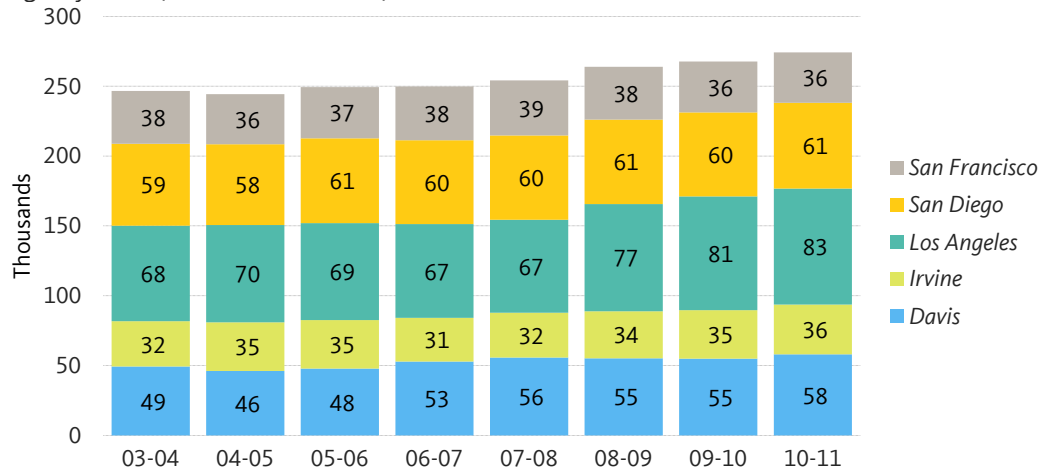
"Inpatient days" represents the total number of days that all patients spend in a hospital bed. The graphs presented here display the total number of inpatient days at the five UC medical centers.

## 11.4 UC HEALTH PATIENT CARE

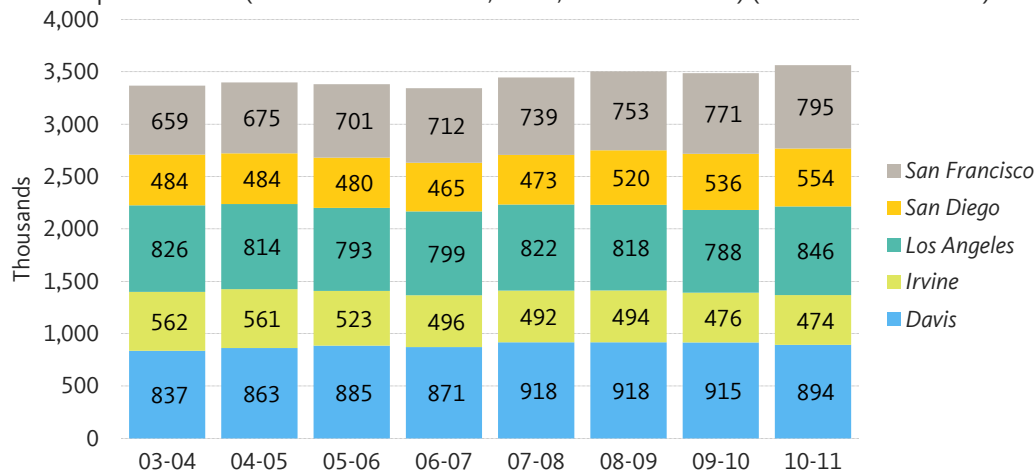
### UC medical centers handle almost 4 million outpatient visits per year.

11.4.2 Outpatient visits  
UC medical centers  
2003–04 to 2010–11

Emergency visits (SCALE 0 to 300,000)



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



Source: UC Medical Centers Audited Financial Statements

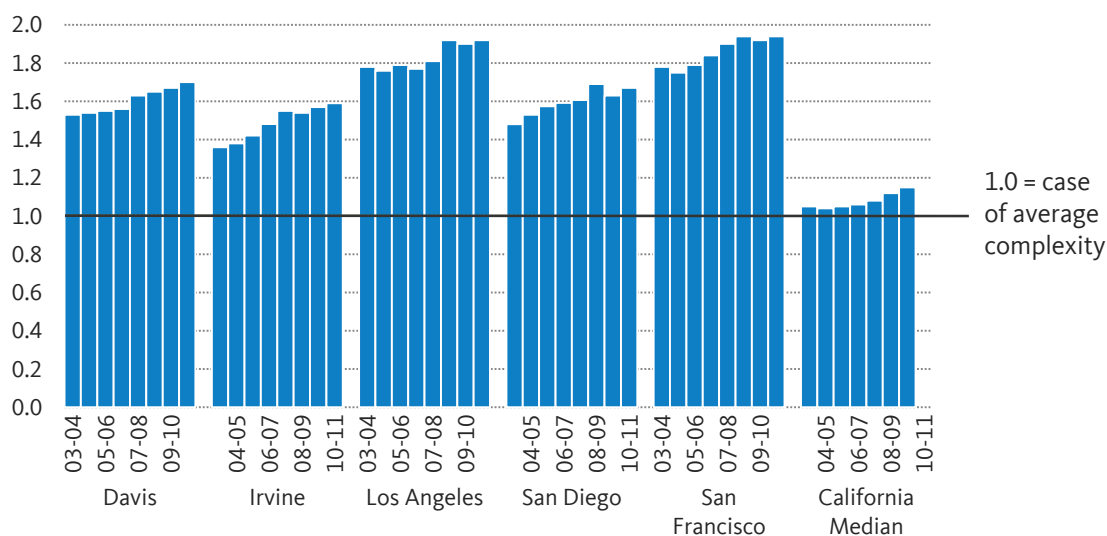
Outpatient visits are defined as visits during which patients see either a physician or a nurse practitioner in a clinic. Visits to other units, such as radiology, laboratory and physical therapy, are not counted as outpatient visits.

The medical centers provide a full range of health care services and are sites for testing the application of new knowledge and the development of new diagnostic and therapeutic techniques.

## 11.4 UC HEALTH PATIENT CARE

**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.**

### 11.4.3 Patient complexity UC medical centers and California median 2003–04 to 2010–11



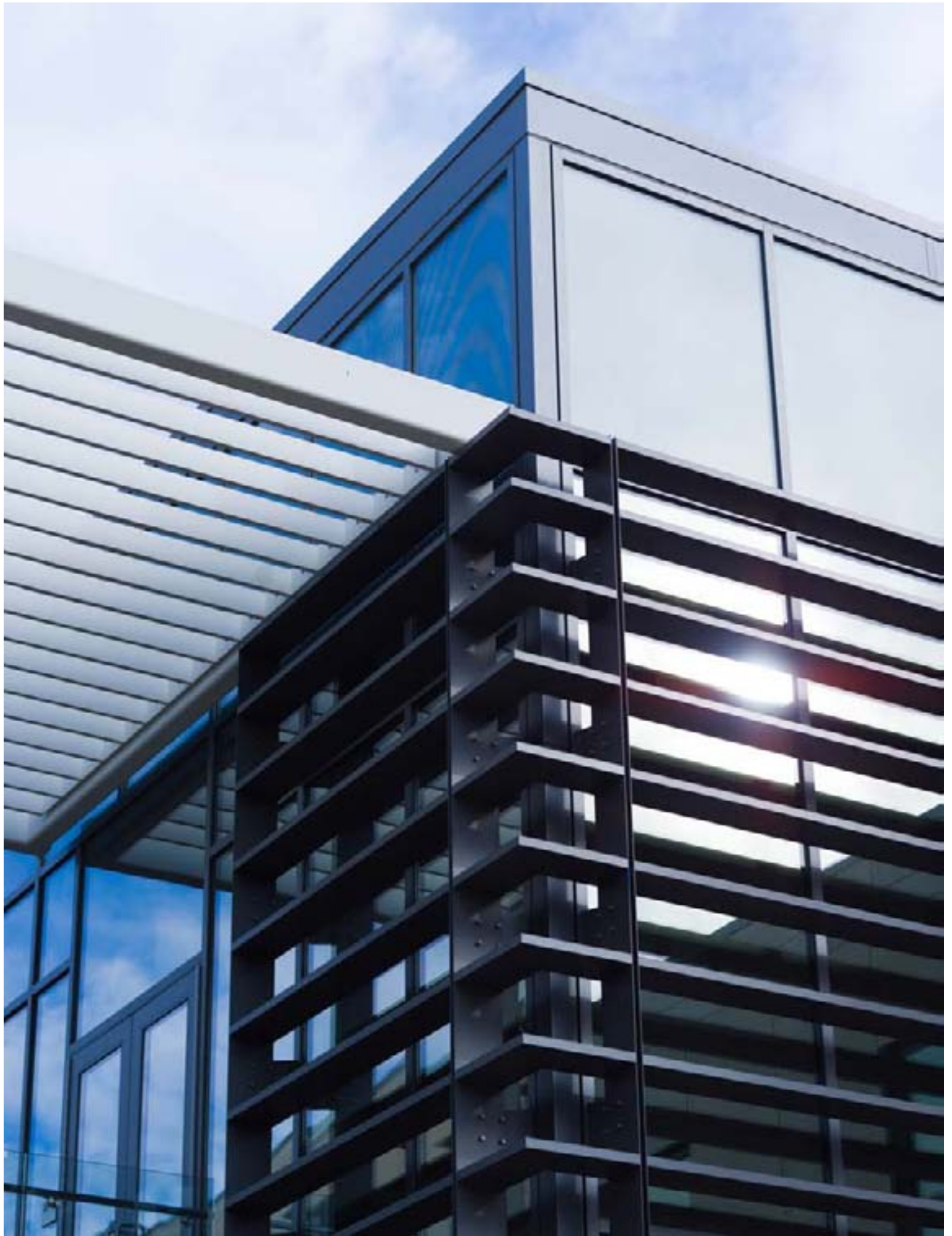
Source: UC Medical Centers' Audited Financial Statements and the CA Office of Statewide Health Planning and Development

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.







# Chapter 12. University Budgets 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 \$22.5 billion in 2010–11, the University's operating budget funds 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.

State funding has been, until this year, the largest single source of support for the education function at the University. However, over the past ten years state educational appropriations have fallen over \$1 billion in inflation-adjusted dollars. As a consequence, state educational appropriations constituted only 12 percent of UC's operating budget in 2010–11 compared to 23 percent in 2001–02. In 2011–12, the state cut UC's budget an additional \$750 million.

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 through its energy efficiency program. Yet even under the most optimistic assumptions, efficiency improvements and alternative revenue generation are sufficient to address 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 2010–11 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 long-term downward trend in state funding has seriously challenged the University's ability to meet its budgetary and financial objectives. In addition to reducing operating costs and identifying alternative sources of revenues, 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, beginning in 2011–12 all campus-generated funds — tuition and fees, research indirect cost recovery, and patent and investment income — will be retained by or returned to the source campus. In order 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 its Funding Streams Initiative — will simplify University financial activity, improve transparency and motivate campuses to maximize revenue.

## For more information

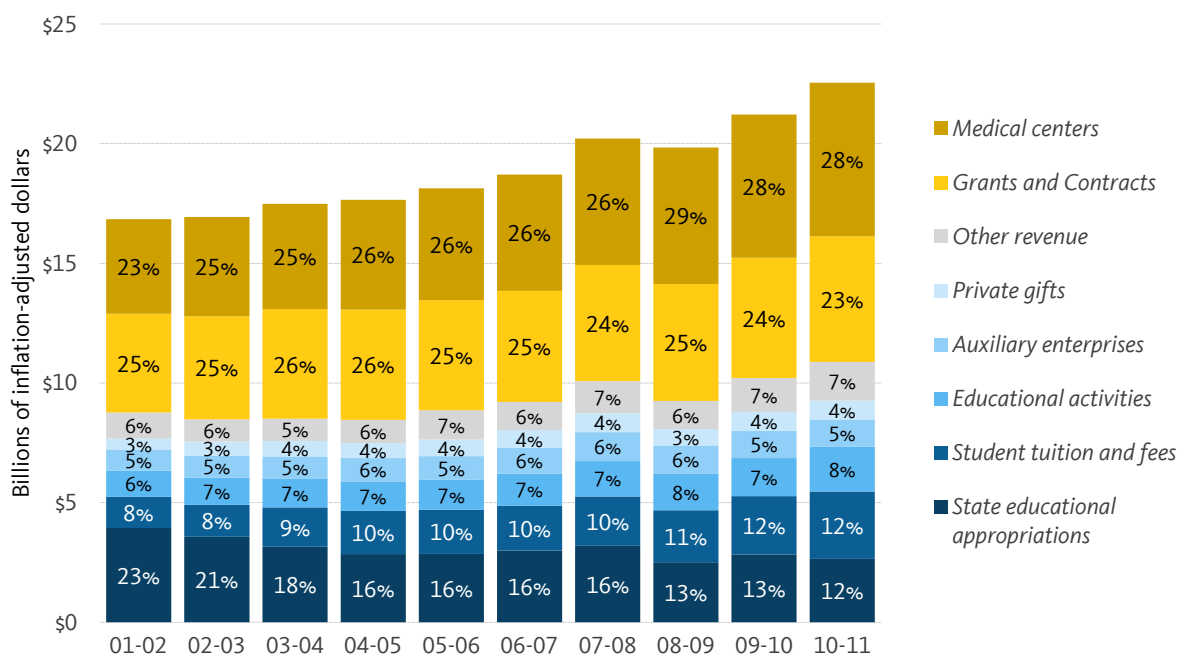
For more information on UC's budget, refer to [www.ucop.edu/budget/pubs.html](http://www.ucop.edu/budget/pubs.html).

More information about private support is available in the *Annual Reports on University Private Support*, at [www.ucop.edu/instdv/reports.html](http://www.ucop.edu/instdv/reports.html).

## 12.1 REVENUE

**Between 2001-02 and 2010-11, state educational appropriations decreased from 23 percent of UC revenues to 12 percent.**

12.1 Operating revenue by source  
Universitywide  
2001-02 to 2010-11

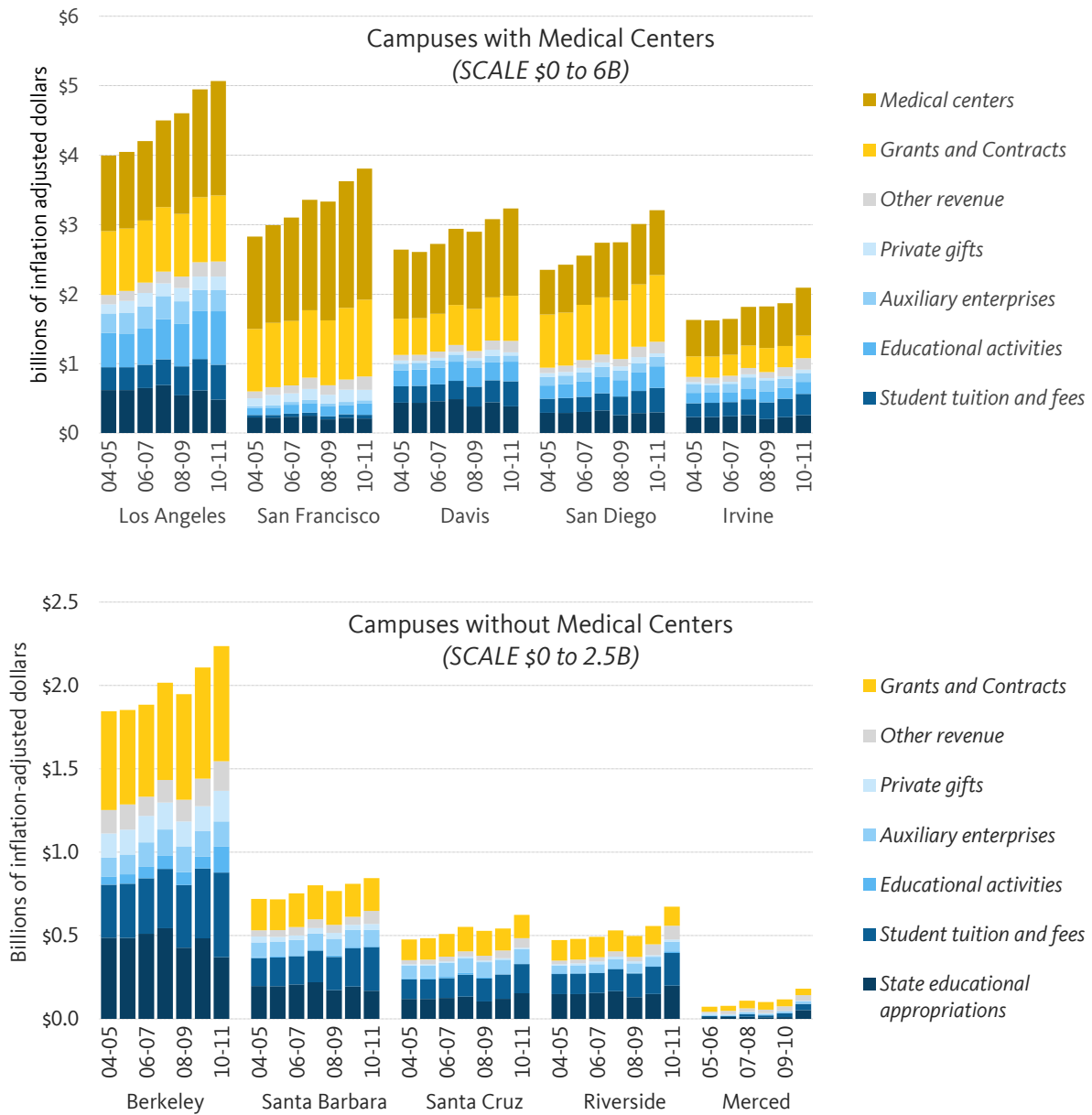


Source: UC Audited Financial Statements (see footnote on following page)

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: 1) a long-term decline in state support from \$3.9 billion to \$2.8 billion in inflation-adjusted dollars, and 2) an increase in revenues from other sources, such as medical centers, contracts and grants, and student tuition and fees.

## 12.1 REVENUE

Operating revenue by source  
UC campuses  
2004-05 to 2010-11



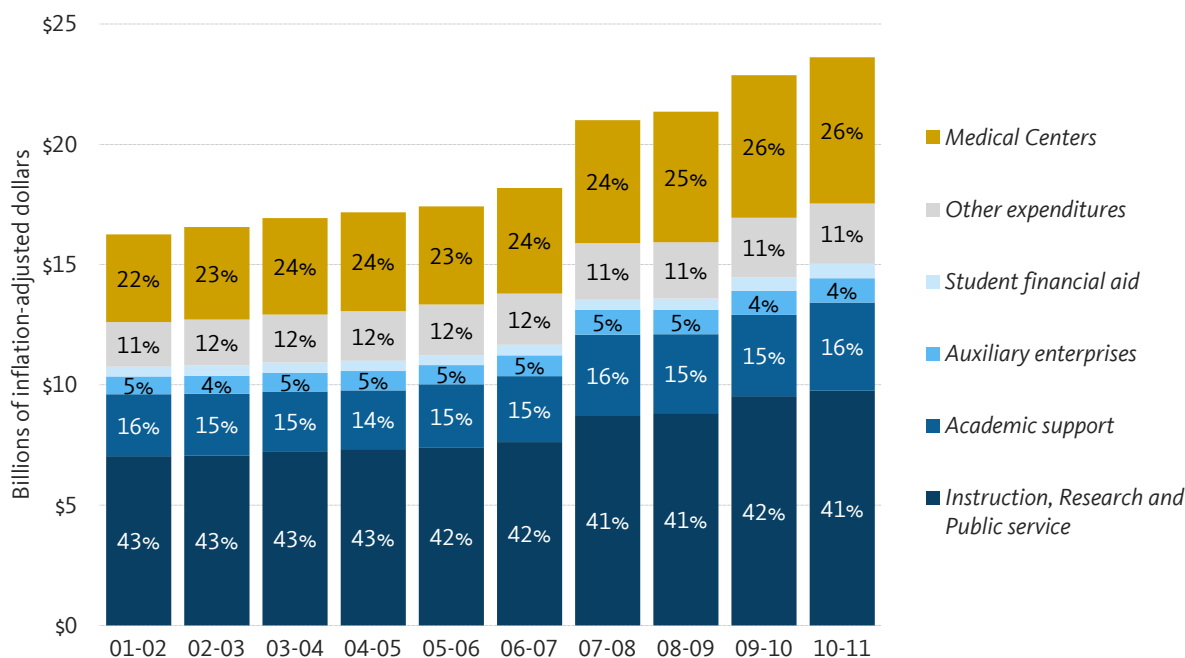
Source: UC Audited Financial Statements<sup>1</sup>

<sup>1</sup> Figures are in billions of inflation-adjusted 2010-11 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. Private gift funding does not include gifts to UC foundations (\$844 million in 2010-11) that are reported in the foundations' audited financial statements, not the UC-wide statements.

## 12.2 EXPENDITURES

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

12.2 Operating expenditures by function  
2001–02 to 2010–11  
Universitywide



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

Teaching, research and public service accounted for more than 40 percent of total expenditures during 2010–11.

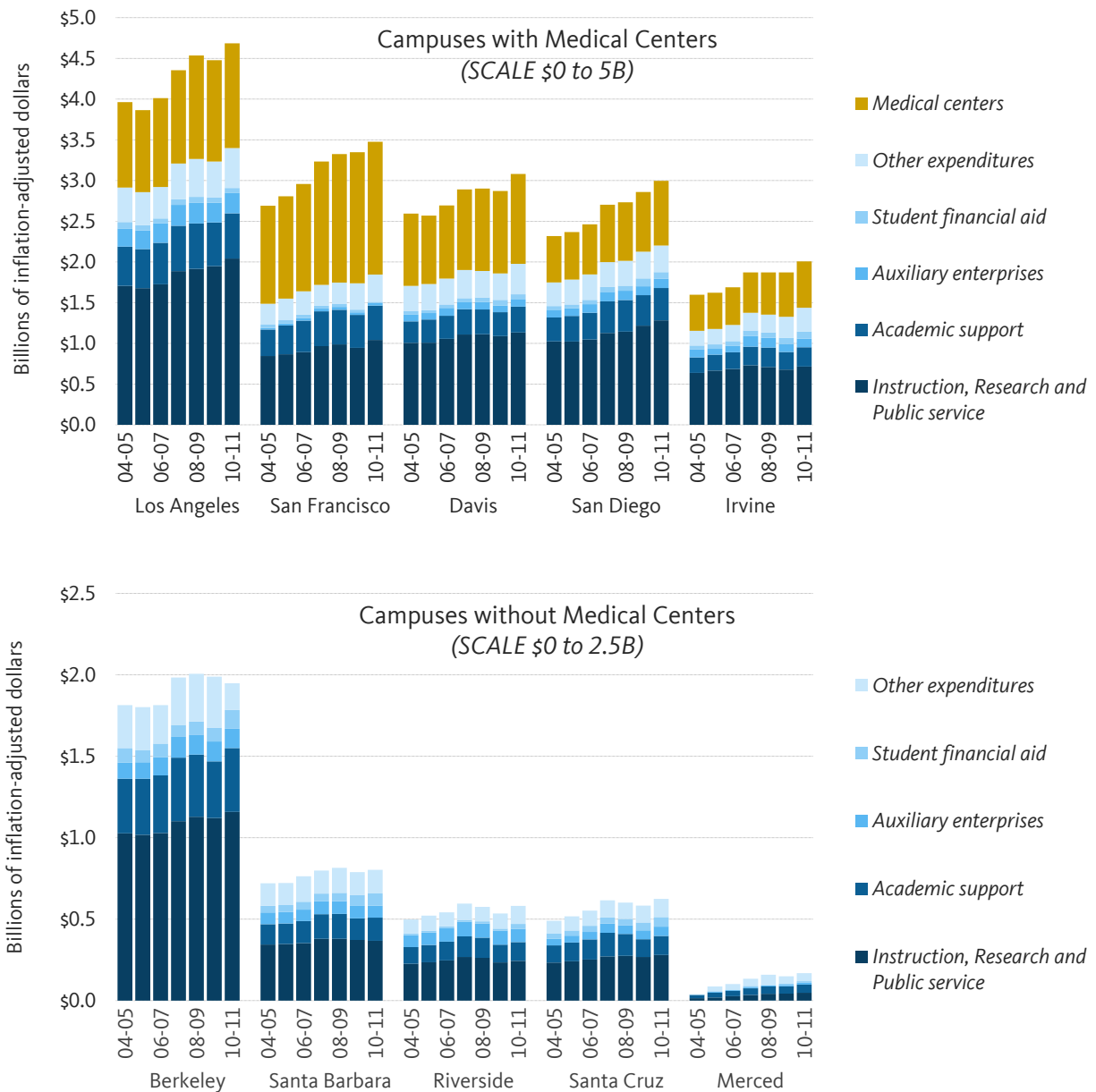
Medical centers and auxiliary enterprises, such as housing and dining services, accounted for 30 percent of operating expenditures in 2010–11.

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 16 percent of total expenditures.

<sup>1</sup> Figures are in billions of inflation-adjusted 2010–11 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/finreports/index.php?file=10-11/pdf/fullreport\\_1011.pdf](http://www.universityofcalifornia.edu/finreports/index.php?file=10-11/pdf/fullreport_1011.pdf).

## 12.2 EXPENDITURES

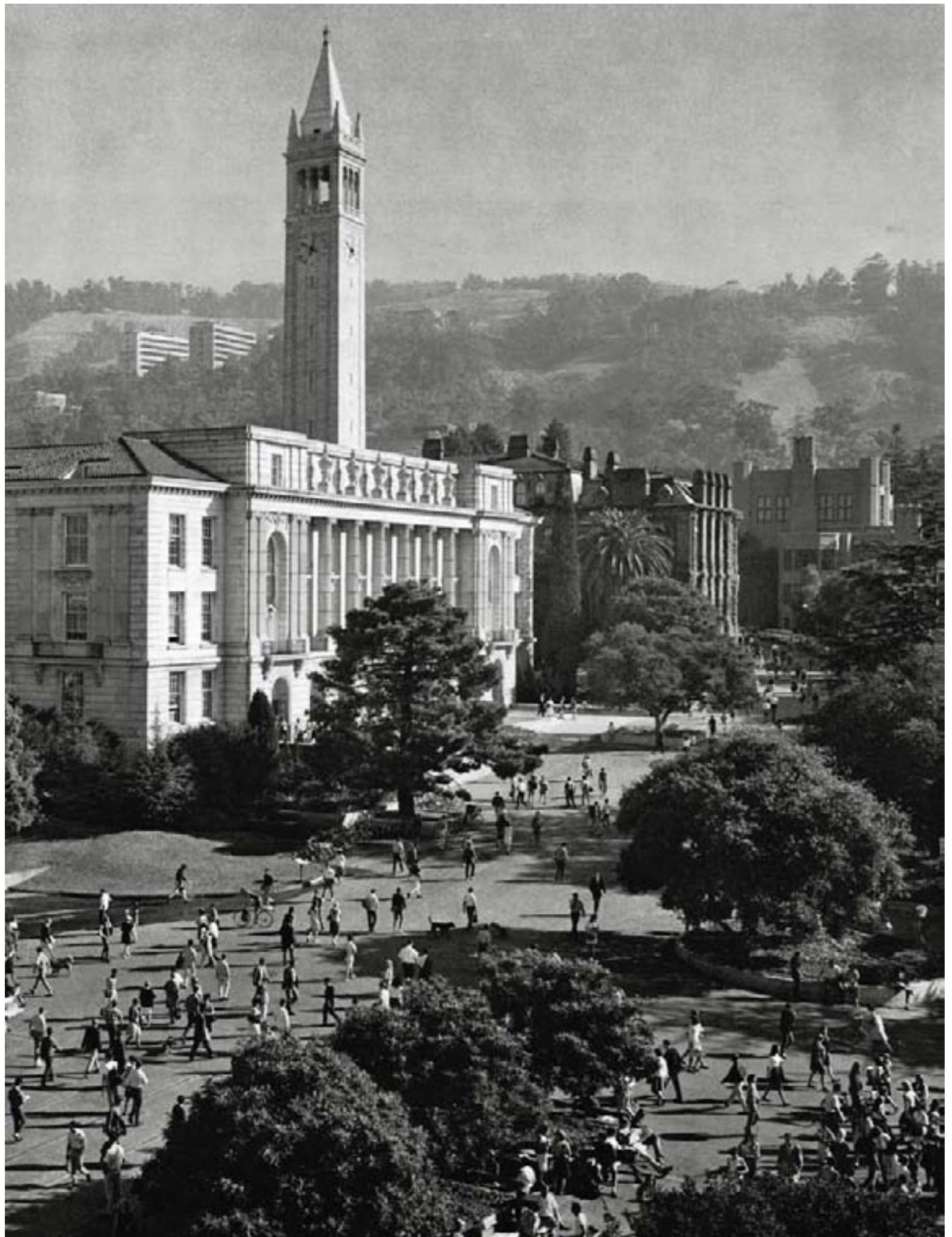
Operating expenditures by function  
UC campuses  
2004-05 to 2010-11



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

<sup>1</sup> Figures in billions of inflation-adjusted 2010-11 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.





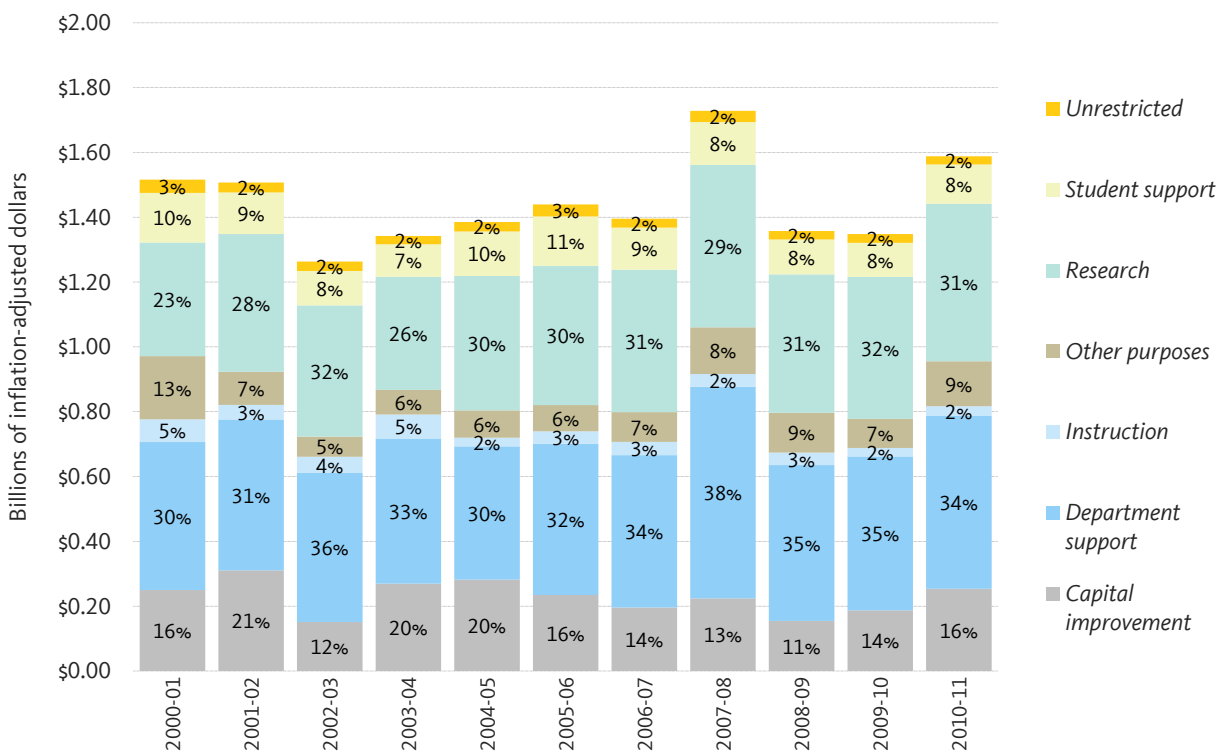
## 12.3 DEVELOPMENT

### 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 2010–11



Source: UC Institutional Advancement, figures are adjusted for inflation

In 2010–11, new gifts to the University totaled nearly \$1.6 billion, an increase of almost 20 percent over 2009–10, and near the record high achieved in 2007–08. Virtually all of these funds are restricted for specific purposes and are not available to support general operating costs. In addition, approximately \$400 million was designated for endowment, so only the income/payout would be 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.

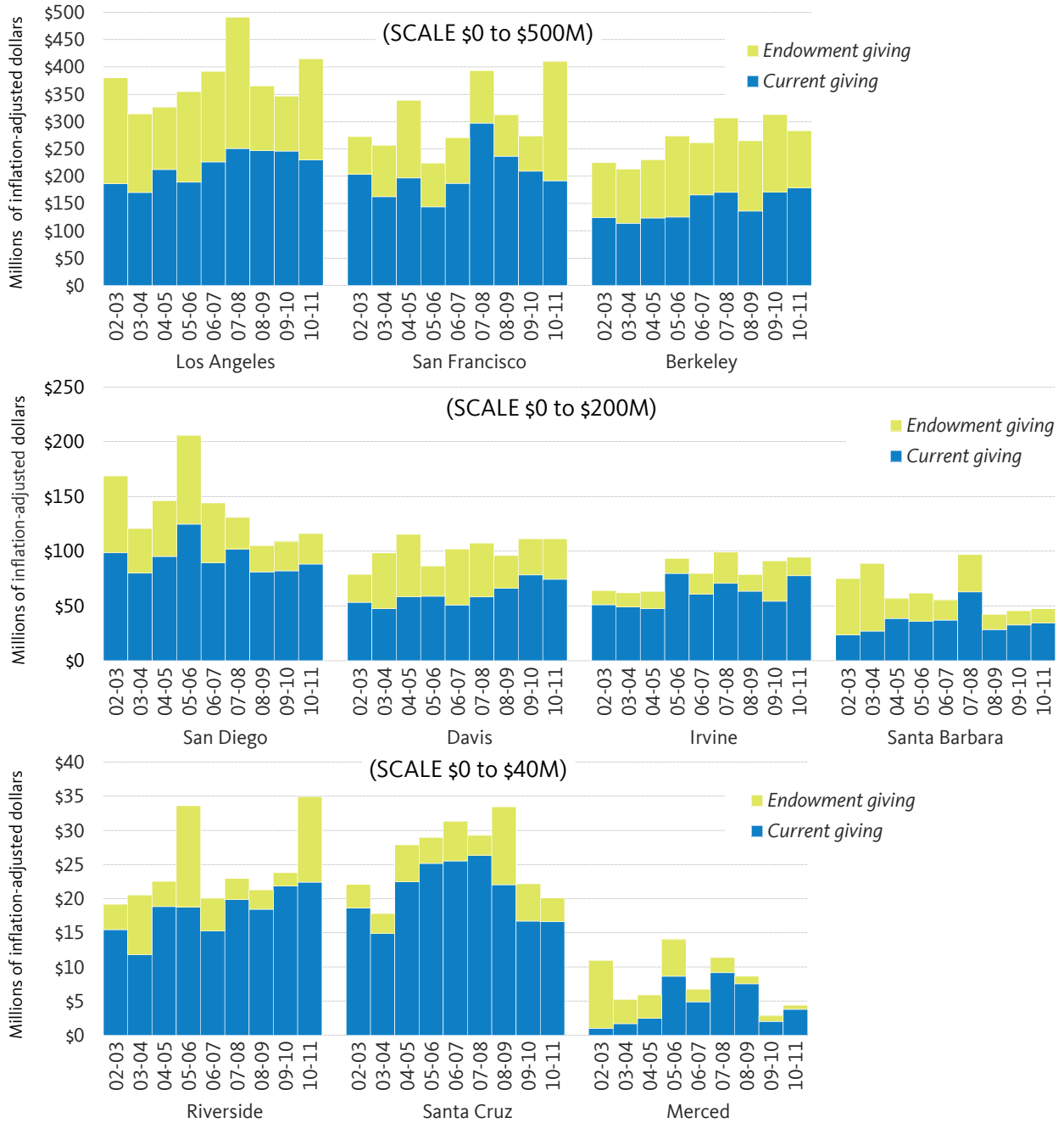
## 12.3 DEVELOPMENT

**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.**

### 12.3.2 Total giving by type

UC campuses

2002-03 to 2010-11

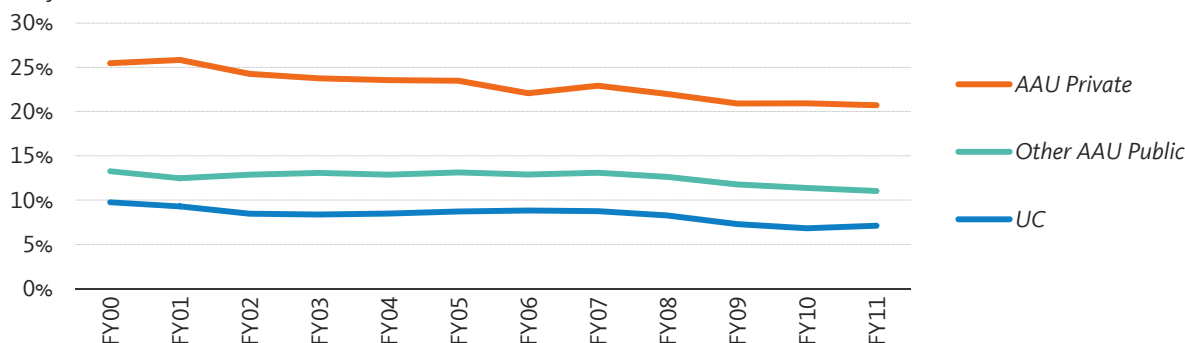


Source: Council on Aid to Education (CAE)

## 12.3 DEVELOPMENT

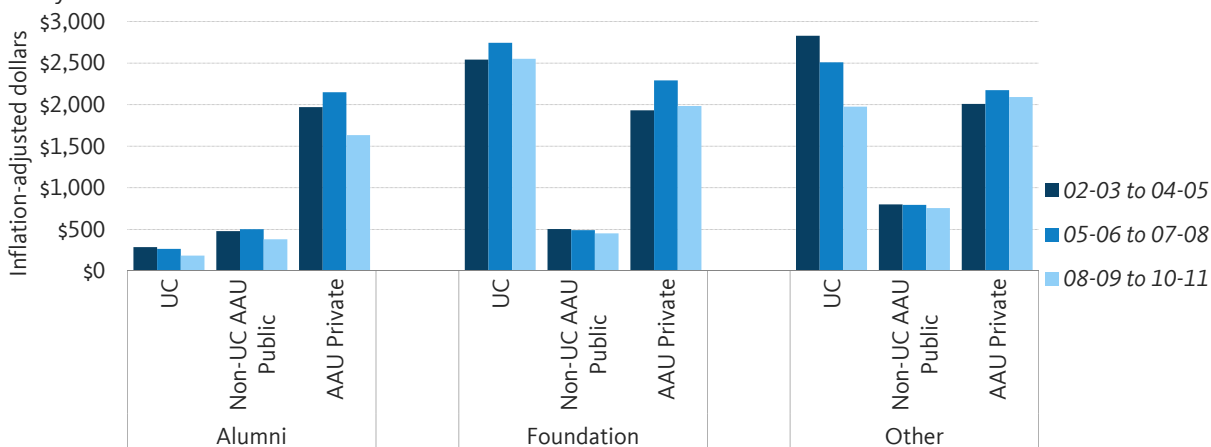
**Over the last decade, the percent of alumni who donate to their alma mater has declined at both public and private institutions.**

12.3.3 Percent of alumni who donate  
Universitywide and comparison institutions  
Fiscal years 1999–2000 to 2010–11



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  
Fiscal years 2002–03 to 2010–11



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.

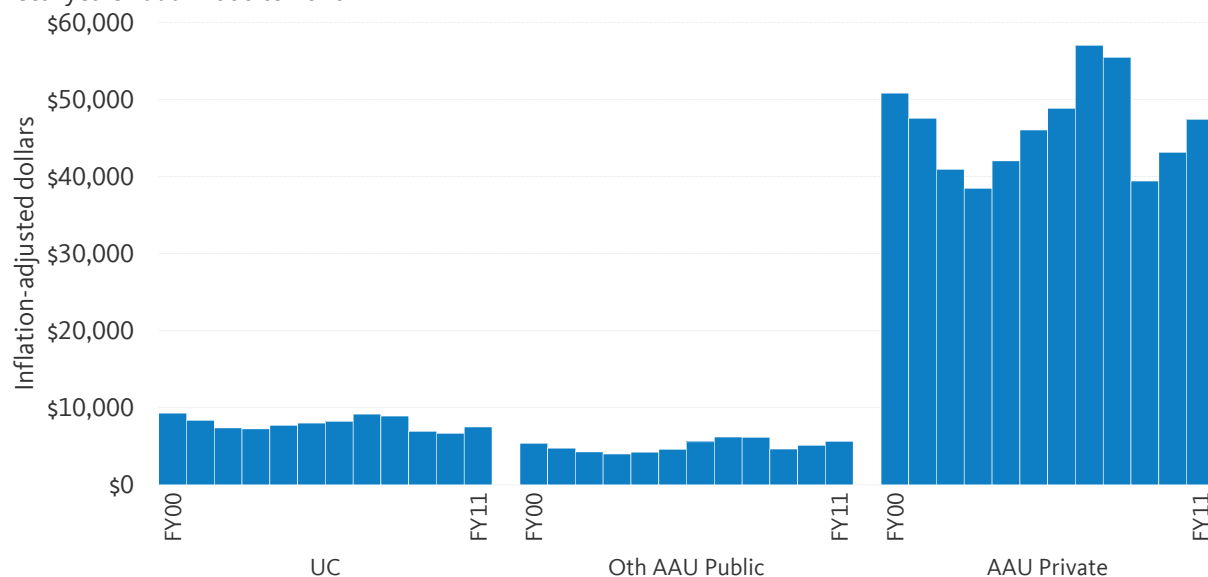
**Foundations:** UC's preeminence in numerous academic areas results in considerable support from private foundations, especially in the areas of medical and scientific research.

**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.

## 12.3 DEVELOPMENT

**On average, UC has slightly more endowment per alumni than the AAU publics and significantly less than the AAU privates.**

12.3.5 Endowment per alumni of record  
Universitywide and comparison institutions  
Fiscal years 1999–2000 to 2010–11



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 2011 was \$10.6 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 faculty salaries (e.g. in endowed professorships), student financial aid and research. In 2010–11, 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 \$10.6 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 would also have to be eliminated.

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 educational 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. 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, see: *Major Capital Projects Implementation Reports*: [http://budget.ucop.edu/maj\\_cap\\_rprts.html](http://budget.ucop.edu/maj_cap_rprts.html).

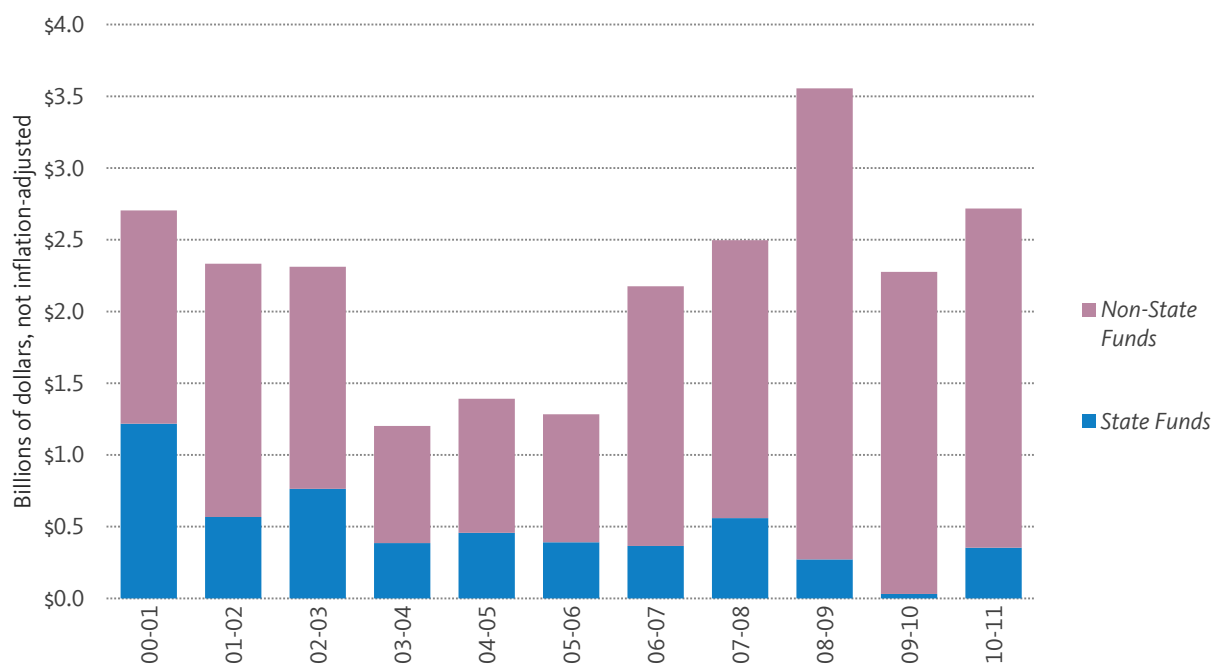
*Consolidated State and Non-State Capital Financial Plan*: <http://budget.ucop.edu/capital/201121/2011-21ConsolidatedState&Non-StateCapitalFinancialPlan.pdf>.

For information about UC's sustainability programs, see UC's sustainability website: [www.universityofcalifornia.edu/sustainability/](http://www.universityofcalifornia.edu/sustainability/) and UC's *2011 Annual Sustainability Report*: [www.universityofcalifornia.edu/regents/regmeet/jan12/gb1attach.pdf](http://www.universityofcalifornia.edu/regents/regmeet/jan12/gb1attach.pdf).

## 13.1 CAPITAL PROJECTS

### 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 2010–11



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.

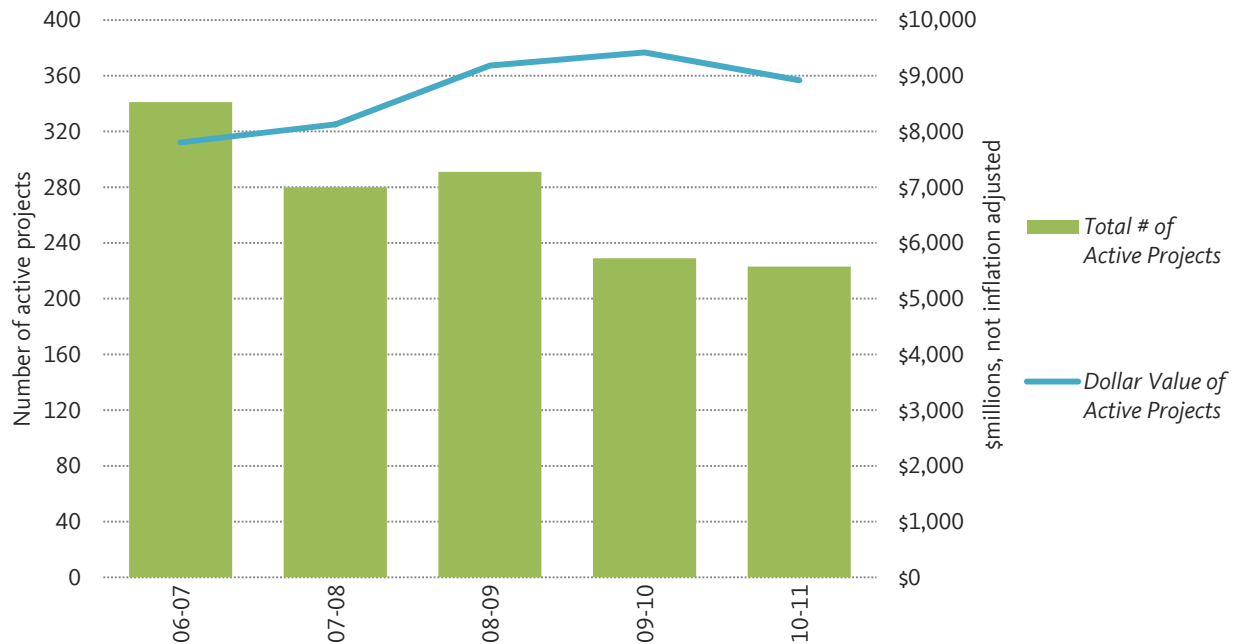
State funding for capital projects has been unpredictable and has diminished significantly in the last few years.

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.

## 13.1 CAPITAL PROJECTS

Despite difficulties in raising capital, the University has managed a relatively steady stream of capital projects since 2006–07.

### 13.1.2 Active Projects Universitywide 2006–07 to 2010–11



Source: UC Capital Resources

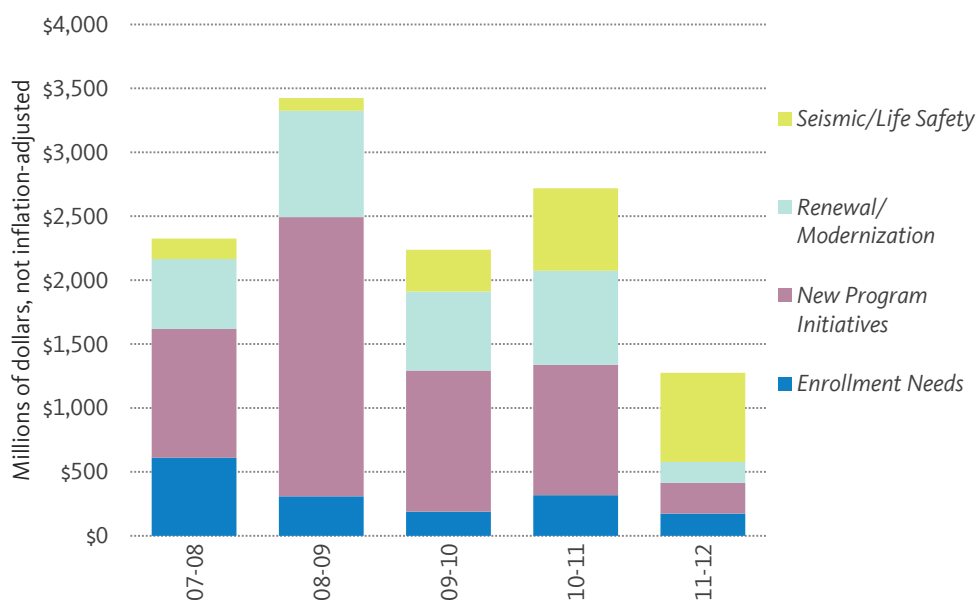
Active projects are those with approved budgets and that are under design or construction as of the last day of the fiscal year. Since capital projects typically take from three to five years to design and construct, the data for any single year represent a snapshot of a cumulative process going on over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

Since 2006–07 the number of projects has dropped but the value/cost has grown, reflecting the complex type of projects that UC increasingly requires. One recent example is the Medical Center at the UCSF Mission Bay campus, with an approved budget of \$1.52 billion.

## 13.1 CAPITAL PROJECTS

The majority of capital funds spent between 2007–08 and 2011–12 were for projects addressing core academic needs arising from enrollment growth and academic programs.

### 13.1.3 Types of capital projects Universitywide 2007–08 to 2011–12



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 2007–08 to 2011–12, the University devoted \$1.9 billion to seismic and life safety corrections to buildings. As of September 2011, 87 percent of necessary seismic improvements had 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>1</sup> All non-state funds for 2011–12 are proposed, not yet approved. Figures include both state-supported and non-state-supported capital projects.

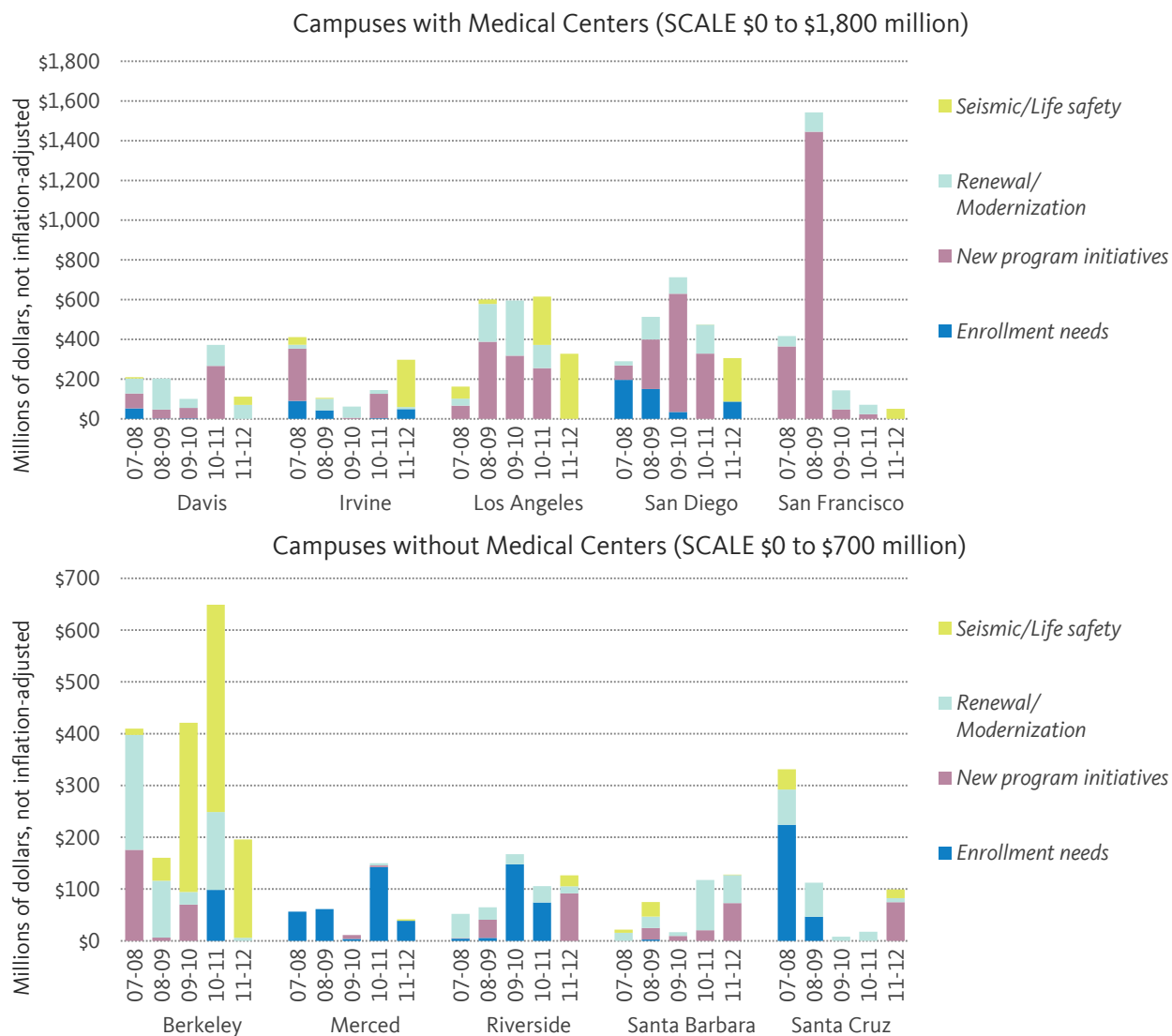
<sup>2</sup> <http://www.universityofcalifornia.edu/regents/regmeet/jan12/gb3.pdf>

## 13.1 CAPITAL PROJECTS

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

### 13.1.4 Types of capital projects

UC campuses  
2007–08 to 2011–12



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. Los Angeles spent all of its 2011–12 funds on seismic upgrades.

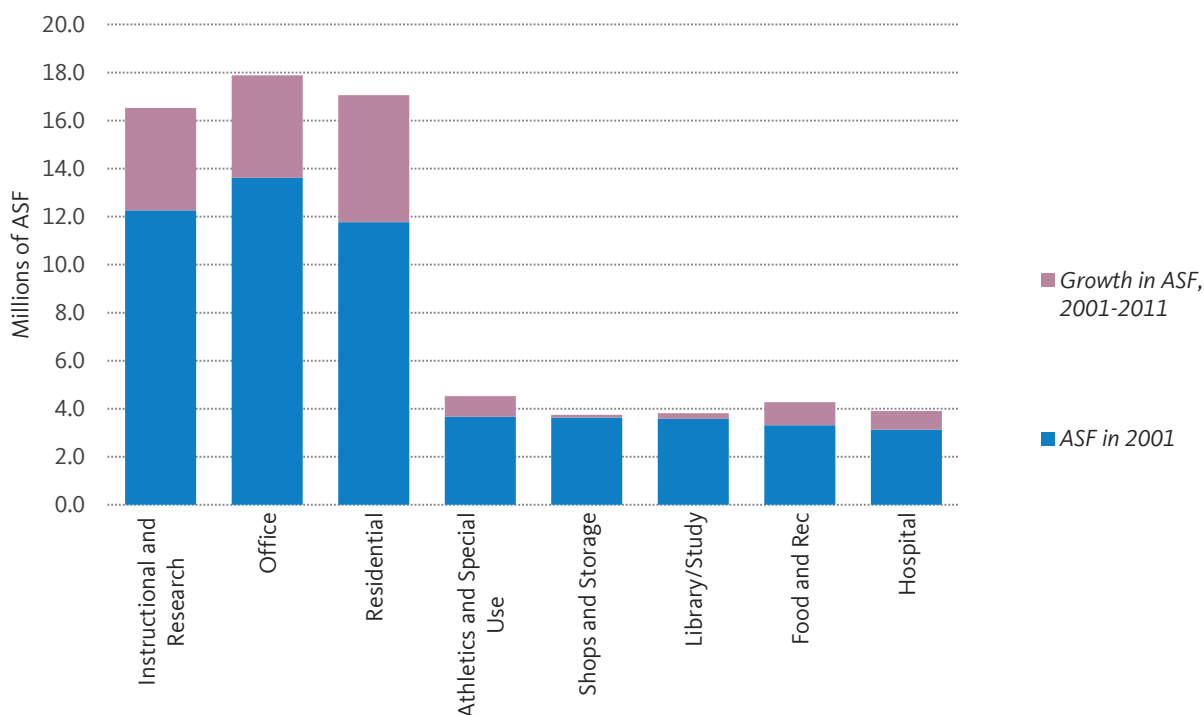
Campuses with medical centers tended to spend the majority of their capital funds on new program initiatives, which include research and patient care facilities.

<sup>1</sup> All non-state funds for 2011–12 are proposed, not yet approved. Figures include both state-supported and non-state-supported capital projects.

## 13.1 CAPITAL PROJECTS

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

#### 13.1.5 Assignable Square Footage (ASF)<sup>1</sup> Universitywide 2001 to 2011



Source: UC Capital Resources

Total assignable square feet (ASF) of space has increased 17.5 million ASF Universitywide since 2001; 7.7 million of that was in state-supportable space.

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 housing, recreational and food service space.

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

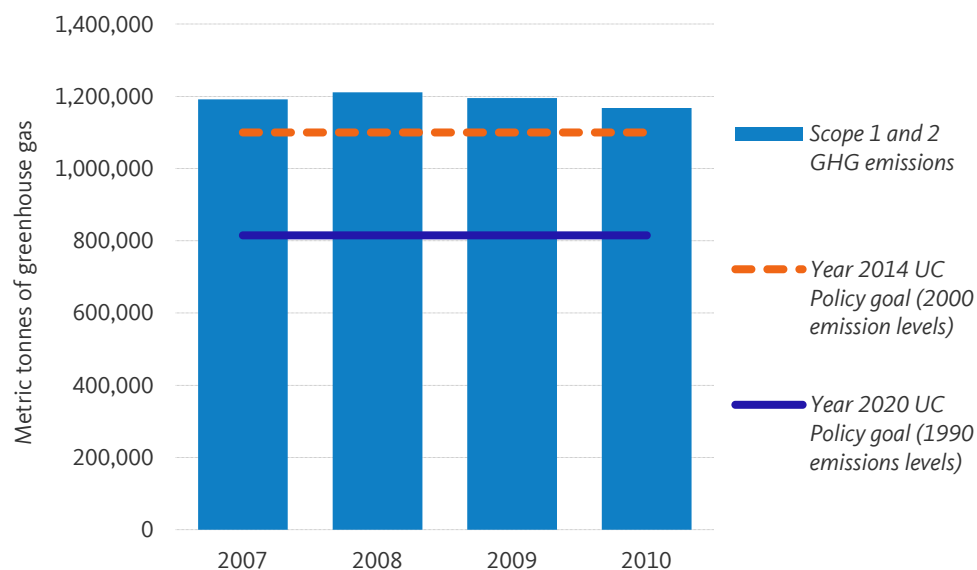
## 13.2 SUSTAINABILITY

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

#### 13.2.1 Greenhouse gas emissions

Universitywide

2007 to 2010



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 gasses.

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 shown 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.

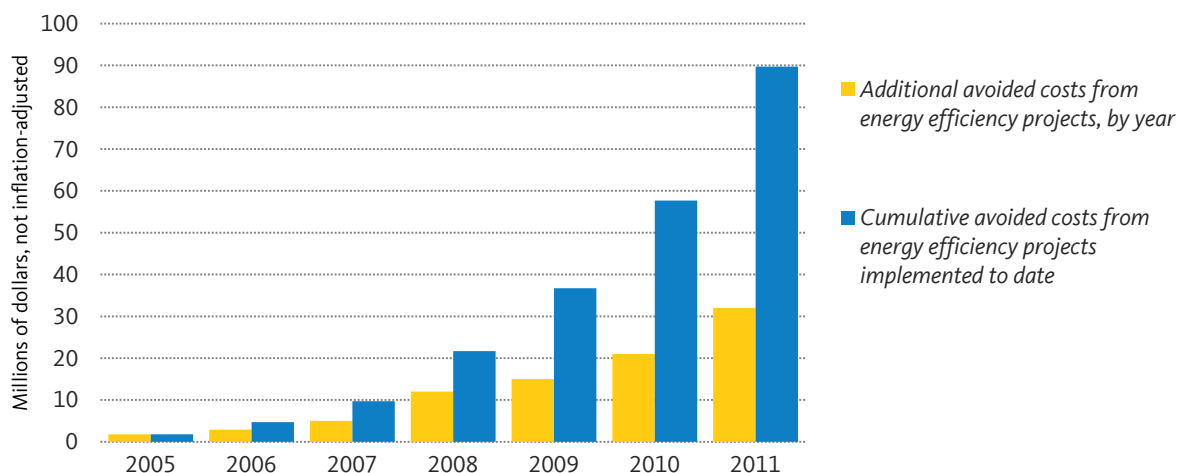
<sup>1</sup> [www.theclimateregistry.org/public-reports/](http://www.theclimateregistry.org/public-reports/)



## 13.2 SUSTAINABILITY

**Since 2004, the University has invested \$250 million of its own funds and \$50 million of incentive funding from the state's utility companies in energy efficiency upgrades to campus buildings.**

### 13.2.2 Energy efficiency cost avoidance Universitywide 2005 to 2011



Source: UC Capital Resources

The \$300 million invested in energy efficiency projects since 2004 has significantly reduced the University's energy consumption, operating costs and annual greenhouse gas emissions.

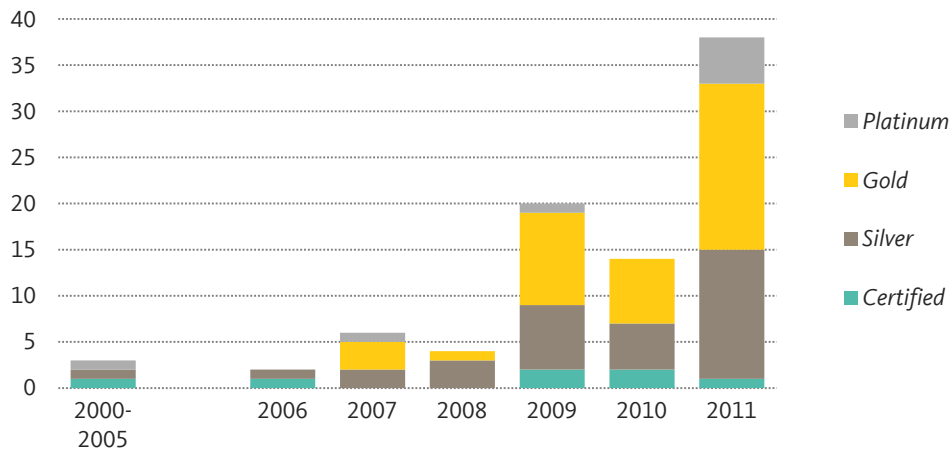
The University continues to seek future funding from the state's utility companies to maintain its program of energy efficiency projects.

One source of savings is reducing laboratory heating, cooling and ventilation costs by using high-tech 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 are based on 2008 prices and 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.

## 13.2 SUSTAINABILITY

**By the end of 2011, UC had achieved 87 Leadership in Energy and Environmental Design (LEED) certifications, more than any other university in the country.**

13.2.3 LEED certifications  
Universitywide  
2000 to 2011



Source: UC Capital Resources

Leadership in Energy and Environmental Design (LEED) standards were developed by the nonprofit U.S. 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 15 LEED-EBOM-certified projects.



## 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 rankings 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*

## 14.1 U.S. NEWS AMERICA'S TOP UNIVERSITIES

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 2012<sup>1</sup>

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

### 14.1.2 U.S. News: America's Top National Public Universities 2007 to 2012

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

<sup>1</sup> *U.S. News* labels its undergraduate rankings for the prospective year; the 2012 rankings were published August 2011. 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 Corp).

### 14.2 *Washington Monthly*: National University Rankings 2005 to 2011

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

<sup>1</sup> *Washington Monthly* did not publish rankings for 2008.

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

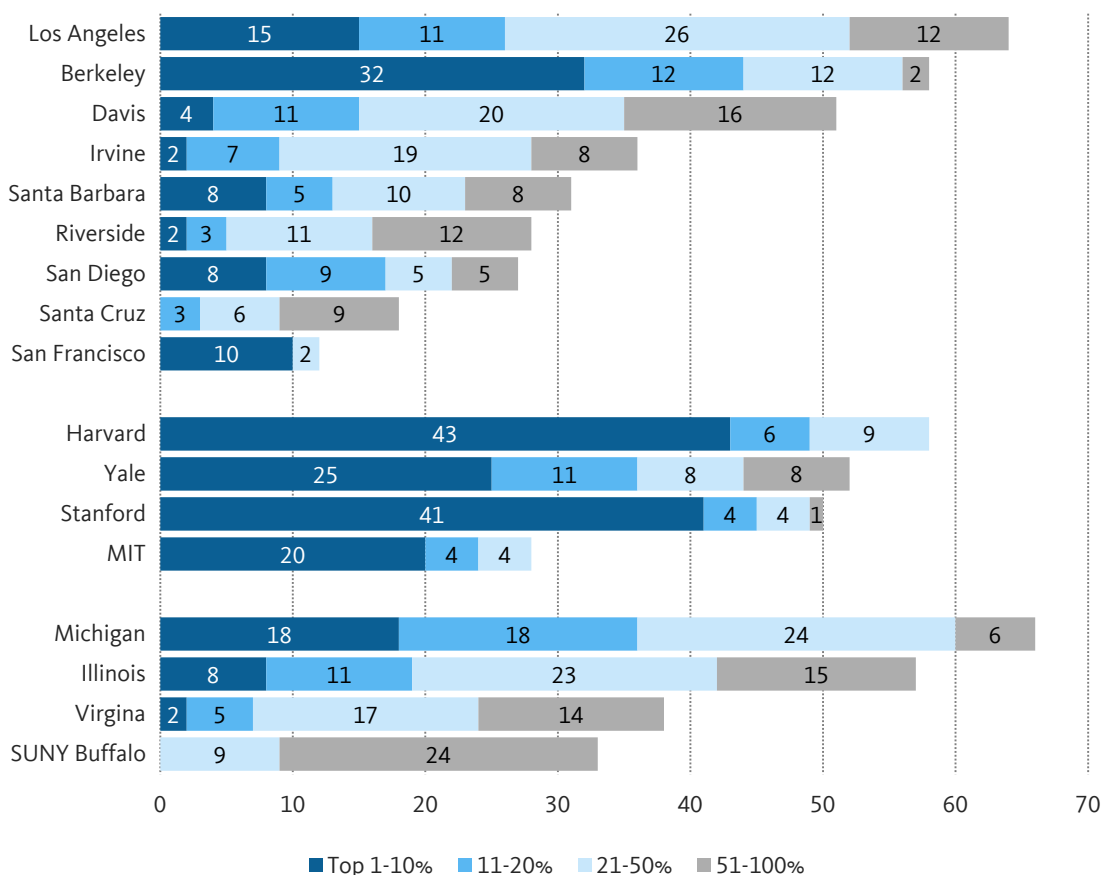
The National Research Council’s (NRC) assessments are the most comprehensive evaluations of Ph.D. programs in the United States. The most recent rankings, published in 2010 and revised in 2011, used data from the 2005–06 academic year to evaluate 4,838 doctoral programs at 212 universities.

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>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/pgar/resdoc/index.htm>. These rankings use the updated dataset released on April 21, 2011. Details for each ranked campus program appear in the appendix.



## 14.4 U.S. NEWS: GRADUATE PROGRAM RANKINGS

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. Not every institution has graduate programs in every field that is ranked,

thus the absence of an 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.

### 14.4 U.S. News: Graduate Program Rankings 2007 to 2012

	Campus	07	08	09	10	11	12
Business	Stanford	2	1	2	1	1	1
	Harvard	1	1	1	1	2	1
	MIT	4	4	4	3	3	4
	<b>Berkeley</b>	8	7	7	7	7	7
	Yale	14	13	10	11	10	10
	U of Virginia	12	14	15	13	13	13
	U of Michigan	11	12	13	12	14	13
	<b>Los Angeles</b>	16	11	14	15	14	15
	<b>Davis</b>	44	40	42	42	28	36
	U of Illinois	38	38	42	42	37	37
	<b>Irvine</b>	44	nr	36	36	40	49
	SUNY at Buffalo	nr	nr	nr	nr	75	89
	<b>Riverside</b>	nr	nr	nr	nr	nr	97
Education	Harvard	1	3	6	6	3	2
	Stanford	4	2	1	2	5	4
	<b>Los Angeles</b>	2	5	3	5	6	6
	U of Michigan	9	6	9	14	14	9
	<b>Berkeley</b>	6	8	7	7	10	12
	U of Illinois	25	25	48	25	25	23
	U of Virginia	24	31	24	21	21	22
	<b>Irvine</b>	nr	nr	nr	nr	nr	48
	<b>Davis</b>	nr	nr	nr	nr	nr	58
	<b>Santa Barbara</b>	49	nr	nr	nr	nr	58
	<b>Riverside</b>	nr	nr	nr	nr	nr	66
	<b>Santa Cruz</b>	nr	nr	nr	nr	nr	58
	MIT	1	1	1	1	1	1
Stanford	2	2	2	2	2	2	
<b>Berkeley</b>	3	3	3	3	3	3	
U of Illinois	5	5	5	5	5	5	
U of Michigan	6	9	9	9	8	9	
<b>San Diego</b>	11	13	11	12	13	14	
<b>Los Angeles</b>	15	16	13	14	15	14	
Harvard	21	23	22	18	19	18	
<b>Santa Barbara</b>	21	19	19	18	19	21	
<b>Davis</b>	34	32	33	32	32	31	
Yale	37	39	40	39	39	35	
<b>Irvine</b>	37	37	35	36	36	39	
U of Virginia	37	38	37	39	39	39	
SUNY at Buffalo	nr	nr	nr	nr	nr	52	
<b>Riverside</b>	nr	nr	nr	nr	nr	66	
<b>Santa Cruz</b>	nr	nr	nr	nr	nr	78	
Yale	1	1	1	1	1	1	
Harvard	3	2	2	2	2	2	
Stanford	2	2	3	3	3	3	
<b>Berkeley</b>	8	8	6	6	7	9	
U of Virginia	8	10	9	10	10	9	
U of Michigan	8	8	9	9	9	7	
<b>Los Angeles</b>	15	15	16	15	15	16	
<b>Davis</b>	34	44	35	28	28	23	
U of Illinois	27	25	27	23	21	23	
Hastings	36	38	39	42	42	42	
SUNY at Buffalo	77	100	85	3rd tier	3rd tier	84	

	Campus	07	08	09	10	11	12
Medicine: Primary Care	<b>San Francisco</b>	8	6	5	5	4	3
	U of Michigan	45	17	7	14	20	8
	<b>Los Angeles</b>	18	12	10	14	16	10
	Harvard	13	7	15	17	15	15
	U of Virginia	38	35	29	39	20	19
	<b>Davis</b>	26	35	20	20	41	24
	<b>San Diego</b>	35	26	28	28	33	27
	Yale	nr	nr	nr	nr	67	74
	<b>Irvine</b>	nr	nr	nr	nr	nr	86
	SUNY at Buffalo	nr	nr	nr	nr	86	nr
	Harvard	1	1	1	1	1	1
	Stanford	7	8	6	11	5	4
	<b>San Francisco</b>	5	5	5	4	5	5
Yale	8	9	6	6	5	7	
U of Michigan	10	11	11	6	10	10	
<b>Los Angeles</b>	13	9	11	11	13	13	
<b>San Diego</b>	14	14	15	16	15	16	
<b>Davis</b>	48	48	47	47	42	42	
<b>Irvine</b>	43	45	47	47	42	44	
SUNY at Buffalo	nr	nr	nr	nr	55	57	
<b>San Francisco</b>	--	--	--	--	4	--	
U of Michigan	--	--	--	--	6	--	
Yale	--	--	--	--	7	--	
<b>Los Angeles</b>	--	--	--	--	21	--	
<b>Irvine</b>	--	--	--	--	NR	--	
Nursing	<b>San Francisco</b>	1	--	--	--	--	1
	U of Michigan	5	--	--	--	--	7
	SUNY at Buffalo	21	--	--	--	--	14
Pharm	<b>San Diego</b>	32	--	--	--	--	23
	Harvard	--	--	--	--	3	--
	U of Michigan	--	--	--	--	4	--
Public Health	<b>Berkeley</b>	--	--	--	--	8	--
	<b>Los Angeles</b>	--	--	--	--	10	--
	Yale	--	--	--	--	13	--
U of Virginia	--	--	--	--	36	--	
Vet Med	<b>Davis</b>	--	--	--	--	2	--
	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 "ranked in" year. This is one year before the "edition" year. For example, the "ranked in 2012" rankings were published in the 2013 edition.

## 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 expenditure) 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 2010

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

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

## 14.7 TIMES HIGHER EDUCATION: WORLD UNIVERSITY RANKINGS

The British-based *Times Higher Education* (THE) released their most recent global university rankings in October 2011. This is their second annual ranking developed in collaboration with Thomson Reuters. The *Times Higher* significantly revised its educational rankings between 2010 and 2011; thus, institutional scores are not comparable from one year to the next.

The 2011 rankings are based on five “headline” categories: teaching, research, citations, industry income and international outlook.

14.7 *Times Higher Education*: World University Rankings 2010 and 2011

	<b>2010 Overall Ranking</b>	<b>2010 Reputational Ranking</b>	<b>2011 Overall Ranking</b>	<b>2011 Reputational Ranking</b>
<b>Berkeley</b>	8	4	10	5
<b>Davis</b>	54	38	38	44
<b>Irvine</b>	49	nr	86	
<b>Los Angeles</b>	11	12	13	9
<b>Riverside</b>	117	nr	143	nr
<b>San Diego</b>	32	30	33	36
<b>San Francisco</b>	nr	34	nr	31
<b>Santa Barbara</b>	29	51–60	35	51–60
<b>Santa Cruz</b>	68	nr	110	nr
	33	21	31	nr
Illinois				
Michigan	15	13	18	23
SUNY Buffalo	nr	nr	nr	12
Virginia	72	nr	135	nr
	1	1	2	nr
Harvard				
MIT	3	2	7	nr
Stanford	4	5	2	1
Yale	10	9	11	2

nr denotes not ranked

PART III

## Technical Appendix:

Available at [www.universityofcalifornia.edu/accountability](http://www.universityofcalifornia.edu/accountability)

